NEW HAMPSHIRE SITE EVALUATION COMMITTEE

SEABROOK CAPACITOR BANKS PROJECT

APPLICATION FOR A CERTIFICATE OF SITE AND FACILITY

DOCKET NO. 2021-05

Submitted by:

NEW HAMPSHIRE

New Hampshire Transmission, LLC 700 Universe Boulevard Juno Beach, FL 33408

Prepared by:

TRC 249 Western Avenue Augusta, ME 04330

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List of Acronyms

AC	alternating current
AOT	Alteration of Terrain
APE	area of potential effects
AUR	Activity and Use Restriction
BMPs	best management practices
Certificate	o
	Certificate of Site and Facility Curve Number
dBA	decibel A-weighted
DC	direct current
EMMIT	enhanced mapping and management information tool
EPC	Engineering Procurement and Construction
ESA	Endangered Species Act
ESC	erosion and sediment control
FPL	Florida Power and Light Company
FTE	full-time equivalent
GPS	Global Positioning Systems
ISO-NE	Independent System Operator – New England
kV	kilovolt
LCA	Life Cycle Assessment
LLC	limited liability company
MOU	Memorandum of Understanding
MW	megawatt
National Grid	National Grid plc
National Register	National Register of Historic Places
NEC	National Electrical Code
NEECH	NextEra Energy Capital Holdings, Inc.
NEER	NextEra Energy Resources, LLC
NEET	NextEra Energy Transmission, Inc.
NESC	National Electrical Safety Code
NHT	New Hampshire Transmission, LLC
NH	New Hampshire
NHDES	New Hampshire Department of Environmental Services
NHDHR	New Hampshire Division of Historical Resources
NHDOS	New Hampshire Department of Safety
NHEC	New Hampshire Electric Cooperative
NHF&G	New Hampshire Fish and Game Department
NHNHB	New Hampshire Natural Heritage Bureau
NHSEC	New Hampshire Site Evaluation Committee
NextEra	NextEra Energy, Inc.
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration

PILOT Project ROW	Payment in Lieu of Taxes Seabrook Capacitor Banks Project right-of-way
SEC	Site Evaluation Committee
SPCC Plan	Spill Prevention, Control, and Countermeasures Plan
S-ROI	Sustainable Return on Investment
SWRPC	Southwest Region Planning Commission
U.S.	United States
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USFWS Guidelines	Range-wide Indiana Bat Summer Survey Guidelines
VAR	volt-amps-reactive
VIA	Visual Impact Assessment

EXECUTIVE SUMMARY

New Hampshire Transmission, LLC (NHT or the Applicant) respectfully submits this Application to the New Hampshire Site Evaluation Committee (SEC), while at the same time requesting an exemption from the requirement for a Certificate of Site and Facility (Certificate) to construct and operate the Seabrook Capacitor Banks (Project or Facility) in the Town of Seabrook, Rockingham County, New Hampshire (Seabrook), a determination that this does not constitute a "sizeable addition" under RSA 162-H:5,I, or expedited treatment of this Application. Provided below is a summary of the contents of the Application and appendices, including information about the Applicant, the site, the proposed facility, and potential social and environmental effects. This Application is the product of study, outreach, and engineering development work.

Applicant Information

New Hampshire Transmission, LLC (NHT) is a Delaware limited liability company (LLC) formed as a special purpose entity to own and operate the transmission substation in Seabrook. In 2004, the New Hampshire Public Utilities Commission (NHPUC) authorized NHT's predecessor, Florida Power & Light Company – New England Division (FPL-NED), as a public utility in the state of New Hampshire for the limited purpose of owning and operating the transmission substation. NHT is applying to the NHPUC for an expansion of NHT's authority as a public utility to include the construction, ownership and operation of this Facility. NHT is a direct, wholly-owned subsidiary of NextEra Energy Transmission, LLC (NEET). NHT operates from the offices of NEET located in Juno Beach, Florida.

NEET is an industry-leading transmission planning, engineering, procurement, construction, and operations company that has been involved in the electric transmission industry for over 30 years. NEET has in-house transmission planning, development, engineering, environmental, procurement, and regulatory personnel and operates one of the most reliable electric utility networks in the country with 99.98 percent reliability. The company has constructed \$66 billion worth of major projects since 2003 corporate-wide. This extensive experience in transmission ownership, construction, operation, and management demonstrates that NEET and its subsidiary NHT have the financial, managerial, and technical capabilities needed for the successful construction and operation of the Project. NEET is a subsidiary of NextEra Energy, Inc. (NEE) one of the leading energy companies in the United States (U.S.), with consolidated revenues of approximately \$17 billion as of December 31, 2021. NEE has planned infrastructure investments in the U.S. of over \$28 billion through 2022.

Regulatory Framework

As noted above, the Project team brings many capabilities along with local, New England, and New Hampshire-based regulatory and natural resources expertise to support the development of this Project within the regulatory framework set by the SEC. This Application meets or exceeds the regulatory requirements set forth by the SEC, as well as the New Hampshire Department of Environmental Services (NHDES). NHT has also made a concerted effort to ensure the Project is compatible with Seabrook zoning, and as noted in more detail below, is seeking any local permits that may be required.

Project Site

Seabrook Station is located in Seabrook, on the western shore of Hampton Harbor, two miles west of the Atlantic Ocean. Seabrook Station is approximately two miles north of the Massachusetts state line, 15 miles south of the Maine state line, and 10 miles south of Portsmouth, New Hampshire (see Figure C.1).

Proposed Project – Capacitor Banks

The Project was selected by ISO-NE as part of the preferred solution to the reliability criteria violations identified by ISO-NE in its 2029 New Hampshire Solution Study posted as final on May 27, 2021. Project components include capacitor banks, circuit breakers, busswork, aboveground electric lines, control house, protection, control, communication, and other appurtenant infrastructure (e.g., security fencing, etc.). The capacitor banks will need to be interconnected to the adjacent 345 kV transmission line via transmission tap conductors (lines) and structures that will be built and owned by Eversource as part of the Project which is the subject of this docket. Capacitor banks are specifically used to improve operating efficiency of the electric power grid and help with transmission voltage stability during disturbances and/or high load conditions.

Construction of the Project will begin after all required approvals and permits have been obtained and all commercial agreements are finalized. Construction is currently anticipated to commence in Spring of 2023, though the start of construction will ultimately depend on when all approvals are obtained. The expected Commercial Operation Date for the Project is October of 2023. These dates have been established as the earliest date by which NHT believed it could complete the Project in order to address ISO-NE's desired timeline.¹

Alternatives Analysis

NHT considered several site-specific design configurations throughout the Project development process. These design alternatives examined potential Project impacts on existing site infrastructure, natural resources and other environmental constraints, existing utility and railroad easements, Activity and Use Restriction (AUR) areas from former disposal areas, and overall efficiency of Project construction and operation. In order to minimize and avoid the aforementioned constraints to the maximum extent practicable, the capacitor banks were reconfigured over the course of several design iterations. The design work also minimizes land disturbance to previously undisturbed land by situating the final design within an existing paved parking area on the Seabrook Station site.

¹ ISO-NE's desired timeline refers to the need-by-date documented in the NH 2029 Solutions Study which states at Section 1.3, "For the identified peak load needs, time-sensitivity testing was performed and demonstrated that all voltage violations are time-sensitive needs. The need-by date for the peak load time-sensitive needs is set to June 1, 2022 based on the methodology documented in Section 4.1.4 of the Transmission Planning technical guide.

Potential Social and Environmental Effects

Aesthetics

The Visual Impact Assessment (VIA) that was performed for the Project concluded that Project visibility would be extremely minimal, with no significant visibility within 3 miles of the Project. Other than visibility from the adjacent salt marsh and open water, only isolated views were identified throughout the remainder of the study area, and the analysis determined the Project would not result in unreasonable adverse impacts to the aesthetics of these areas.

Archaeological and Historic Sites

A literature review for the Project to determine the potential for historic and cultural resources on the site consisted of a review of New Hampshire Division of Historical Resources (NHDHR) site files within 5 km of the Project boundary. The review of NHDHR site files using enhanced mapping and management information tool (EMMIT) was completed on October 29, 2021. NHT submitted a Request for Project Review to the NHDHR and NHDHR provided a response that no historic properties would be affected by the Project.

Environment

Air Quality

The Project is not expected to have an adverse impact on local air quality, however the Project has the potential to generate emissions which may be subject to federal and state permitting and/or reporting. The potential emissions sources include the sulfur hexafluoride (SF6) gas used to insulate the electrical equipment and a back-up generator for station service. Rule applicability is based on multiple factors and will be evaluated following the final selection of equipment vendor(s). The Project will secure all necessary permits prior to the construction of the Project.

Water Quality

The Project will not have an impact on regional water quality. Potential sources of water quality impacts include erosion and sedimentation during Project construction. The Project has been designed to minimize the likelihood of erosion and subsequent sedimentation. The Project is designed to meet the standards set forth in the NHDES Alteration of Terrain (AoT) permit application.

Natural Environment

NHT consulted with the New Hampshire Natural Heritage Bureau (NHNHB) and United States Fish and Wildlife Service (USFWS) to identify any documented significant wildlife species in the vicinity of the Project. Based on consultation with the NHNHB in November 2021 there are no records of listed or rare wildlife that have been documented in the Project vicinity. There are records of exemplary natural communities and rare plant species that occur within the vicinity of the Project. These habitats and plants are all associated with the extensive marsh areas that are found in the area. The Project is sited entirely within previously developed area and will not impact any of the marsh or rare plants associated with the marsh. The Project has been designed to avoid direct wetland and stream impacts. Wetland and waterbody surveys were conducted for the Project in October 2021. This effort identified wetlands and waterbodies within the survey area but not within the Project site.

Public Health and Safety

Project Access, Security, and Safety

The Project is located within an existing paved parking lot, within an industrial setting, on private land. To protect public safety, there will be no public access to the Project during construction or operations. Access to the Project will be limited to trained staff and maintenance personnel only. The capacitor bank station will be surrounded by a security fence per requirements of the National Electrical Safety Code (NESC).

<u>Sound</u>

A screening-level analysis for the Project was conducted and the results of the acoustic study were compared to New Hampshire Site Evaluation Committee (NHSEC) Chapter Site 300 Certificates of Site and Facility, Part 301.08(d) sound limit, which allows for a 10-dBA above background (L90) sound increase. The predicted change in sound levels from the operation of the Project equipment would range from 1 to 4 dBA above the estimated baseline ambient L90 daytime and nighttime sound levels. Therefore, the Project will comply with the NHSEC sound limit.

Decommissioning

NHT has provided a decommissioning plan consistent with the application requirements for a Certificate found in NH Administrative Rules Site 301.08(d)(2). NHT has addressed all necessary decommissioning activities in the plan and will provide any required decommissioning funding assurance prior to commencement of construction.

Emergency Response and Fire Response

The Project will be incorporated into the existing plans and emergency response training and protocols for the Seabrook Station.

Orderly Development

Land Use

Impacts on local land use during construction and operation of the Project are expected to be minimal. NHT has obtained an easement from the current property owners, to obtain the legal right to own and operate the Project at the proposed site. Additionally, the Project is sited within the previously developed Seabrook Station.

Economy of the Region

NHT anticipated that the Project will not have a significant economic impact on the local communities. Because of this lack of impact, NHT filed a motion to waive the economic and employment assessments requirement contained in the SEC rules. Further information about the minimal economic impacts is contained in the pre-filed testimony of Richard Allen.

Employment in the Region

NHT anticipates the potential need for one or two full time positions to inspect and maintain the new equipment associated with the Project.

<u>Summary</u>

Issuance of an exemption or a Certificate for the Project will serve the objectives of RSA 162-H and be consistent with the findings which the SEC is required to make under RSA 162-H:4, IV before issuing an exemption or certificate. As presented more fully in this Application, the Project is optimally sited to ensure there will be no unreasonable adverse environmental effects. Furthermore, the Project will provide real and quantifiable benefits to the public on both a local and regional level as a project identified by ISO-NE as needed for the reliability of the transmission grid. As noted above, the Project supports critical legislative and public policy objectives by contributing to the safe and reliable operation of the New England electric transmission grid.

The Project will provide a new source of local property tax revenue for Seabrook. The public will also enjoy some economic benefits from job creation as a result of the Project, and the Project will generate some added economic value to the New Hampshire economy as a result of jobs supported by the Project during construction. Furthermore, the proposed Project site is suitable for energy development due to its current use as an energy generation site, proximity to existing electrical infrastructure, appropriate site conditions, the avoidance of sensitive environmental resources, minimal visibility, and overall site accessibility. In summary, this Project is an excellent opportunity for New Hampshire to gain many significant energy and reliability, as well as some economic benefits through the construction of a well-sited electric facility.

A. SIGNATURE OF APPLICANT

Certification by Executive Officer of New Hampshire Transmission, LLC (NHT)

In accordance with RSA 162-H:8, I, Richard W. Allen, President of New Hampshire Transmission, LLC, do hereby swear and affirm that the information contained in this application is true and accurate to the best of my knowledge and belief.

I also certify that, as an Applicant to the New Hampshire Site Evaluation Committee, New Hampshire Transmission, LLC (NHT), agrees to provide such information as the Committee shall require to carry out the purposes of RSA 162-H.

New Hampshire Transmission, LLC

Name: Richard W. Allen Title: President

Date: 3/7/22

State of New York

County of Scherectedy

On this day ______ of ______, personally appeared before me the above-name Richard W. Allen, President of New Hampshire Transmission, LLC, and swore and affirmed that the information contained in this application is true and accurate to the best of his knowledge and belief.

Notary Public/Justice of the Peace My Commission expires: <u>Nov. 8, 2025</u>

PAULA A MADIA Notary Public - State of New York NO. 01MA6424871 Qualified in Schenectady County My Commission Expires Nov 8, 2025

B. APPLICANT INFORMATION

B.1. Name of the Applicant

New Hampshire Transmission, LLC (NHT)

B.2. Applicant's mailing address, telephone and fax numbers, and e-mail address

New Hampshire Transmission, LLC c/o Richard W. Allen 700 Universe Boulevard Juno Beach, Florida 33408 Telephone: (518) 522-3449 Fax: (518) 930-7901 Email: <u>Richard.Allen2@nexteraenergy.com</u>

B.3. Name and address of the Applicant's parent company, association or corporation if the applicant is a subsidiary

New Hampshire Transmission, LLC (NHT) is a Delaware limited liability company (LLC) formed as a special purpose entity to own and operate the transmission substation at Seabrook. NHT is a direct, wholly-owned subsidiary of NextEra Energy Transmission, LLC (NEET). NHT operates from the offices of NEET at the address listed below.

NextEra Energy Transmission, LLC 700 Universe Boulevard Juno Beach, Florida 33408 Telephone: (518) 369-9516 Fax: (518) 930-7901 Email: <u>Richard.Allen2@nexteraenergy.com</u> Website: https://www.nexteraenergytransmission.com/

B.4. If the Applicant is a corporation

The Applicant is not a corporation.

B.5. The state of incorporation

Not applicable.

B.5.a. The corporation's principal place of business

Not applicable.

B.5.b. The names and addresses of its directors, officers and stockholders

Not applicable.

B.6. If the Applicant is a limited liability company

The Applicant is a limited liability company.

B.6.a. The state of the company's organization

Delaware

B.6.b. The company's principal place of business

See Application Section B.3.

B.6.c. The names and addresses of the company's members, managers, and officers

NHT Officers:	Richard W. Allen	President
	Kathy A. Beilhart	Vice President and Treasurer
	Mitchell S. Ross	Vice President
	Vincent J. Scrima	Vice President
	Amanda M. Finnis	Assistant Vice President
	Melissa A. Plotsky	Secretary
	Jason B. Pear	Assistant Secretary
	Scott W. Seely	Assistant Secretary

The address for all officers is 700 Universe Boulevard, Juno Beach, Florida 33408.

B.7. If the Applicant is an association, the names and addresses of the residences of the members of the association

New Hampshire Transmission, LLC is not an association.

B.8. Whether the Applicant is the owner or lessee of the site or facility or has some legal or business relationship to it

New Hampshire Transmission, LLC, has obtained an easement from joint owners² for the Project site and will be the operator of the facilities.

² Joint owners include NextEra Energy Seabrook, LLC, Massachusetts Municipal Wholesale Electric Company (MMWEC), Taunton Municipal Lighting Plant (TMLP), and Hudson Light & Power Department (Hudson Light).

C. SITE INFORMATION

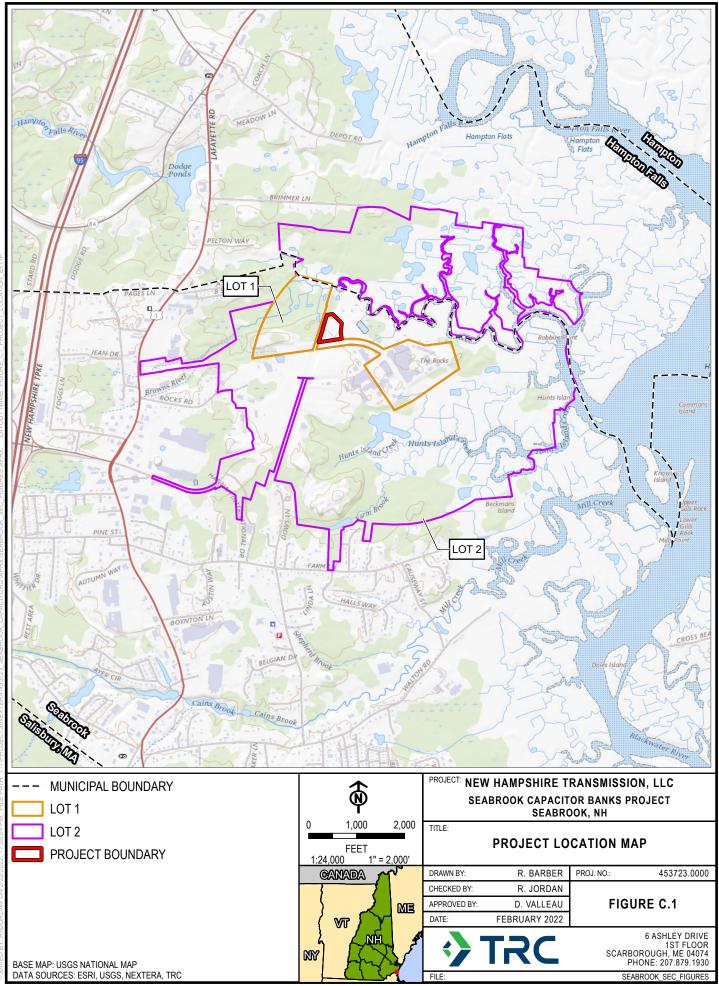
C.1. Location and address of the site of the proposed facility

Seabrook Station is located at 626 Lafayette Road in the Town of Seabrook, Rockingham County, New Hampshire, on the western shore of Hampton Harbor, two miles west of the Atlantic Ocean. The Station is approximately two miles north of the Massachusetts state line, 15 miles south of the Maine state line, and 10 miles south of Portsmouth, New Hampshire (*see* Figure C.1).

The proposed Project will be operated by NHT on an approximately 2.06 acre site located north of the existing North Access Road on the Seabrook Station property, which is currently being used as a parking lot for Seabrook Station. The site is bordered to the south by an approximately 245 foot wide Eversource easement, to the west by an existing abandoned Boston & Maine railroad right of way, to the north by emergency response infrastructure, and to the east of an approximately 70-foot wide Unitil easement. The Project access road is located off US Route 1 at the following coordinates: N 42.898669 ° and W 70.870526°.

The Seabrook Station site, which contains the 2.06 acre Project Site, consists of an 889 acre property, divided into two lots. Lot 1, owned by the Seabrook Station joint owners, is approximately 109 acres, is mostly developed and holds most of the operating facilities. Lot 2, which is owned by NextEra Energy Seabrook, LLC is approximately 780 acres and consists mainly of undeveloped natural areas located on the perimeter of the facility. The natural areas are characterized by broad open areas of level tidal marsh veined with man-made linear drainage ditches and tidal creeks. Wooded islands and peninsulas rise from the marsh to elevations of 20 to 30 feet above sea level. The Seabrook Station site is located on a peninsula of land which is bordered on the north by the Browns River and on the south by Hunts Island Creek. Estuarine marshlands bound the site to the east. It is estimated that approximately 300 acres of the site are upland and 600 acres are marsh/wetland areas (NextEra Energy, 2010).

A map of the Project location within the Seabrook Station is provided in Figure C.1.



C.2. Site acreage, shown on an attached property map and located by scale on a U.S. Geological Survey or GIS map

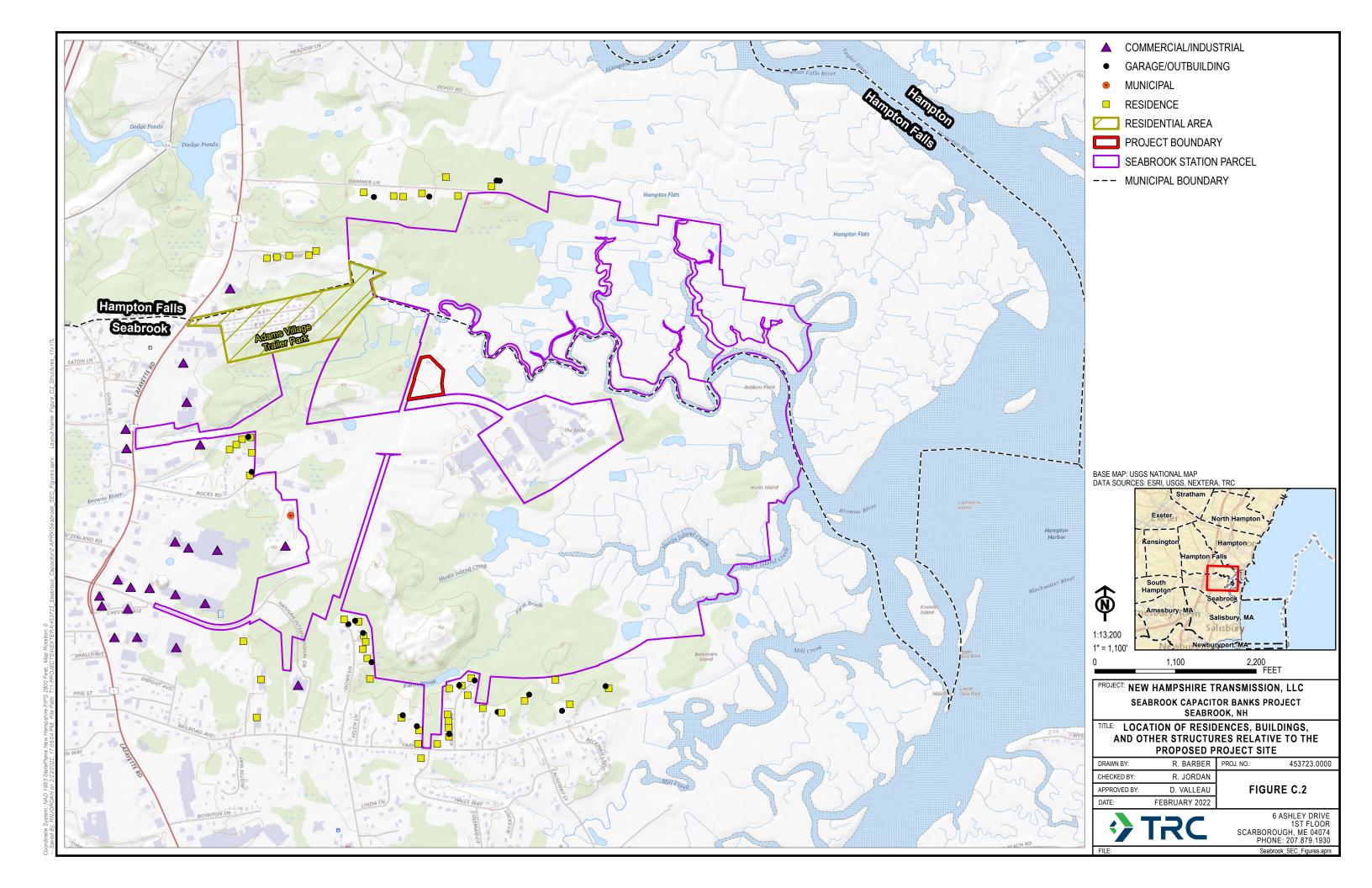
The Project will be owned and operated by NHT on an approximately 2.06 acre site located within the existing Seabrook Station property in Seabrook. The Project site is depicted on Figure C.1 and is described in Section C.1 above.

The Project location is within a previously developed paved parking area and is directly adjacent to associated industrial buildings that are part of the existing Seabrook Station and in close proximity to the existing transmission substation.

The area that will house Project facilities (e.g. capacitor bank structures and transmission tap) during operations will be approximately 2.06 acres (89,585 square feet). The total limit of disturbance required to construct the Project will be approximately 2.26 acres (98,430 square feet). The total construction workspace, which includes area within existing paved areas is approximately 4.36 acres (189,902 square feet). The Project is expected to impact less than 0.4% of the total Seabrook Station acreage and 3.6% of the total Seabrook Station developed acreage.

The nearest residence is located approximately 1,320 feet northwest of the Project site.

The locations of structures relative to the proposed Project are illustrated on Figure C.2.



C.3. Identification of wetlands and surface waters of the state

As part of natural resource surveys to support Project development, wetlands, waterbodies, and the extent of tidal wetlands were field delineated by a New Hampshire Certified Wetland Scientist. In accordance with the New Hampshire Code of Administrative Rules for the Delineation and Classification of Wetlands (Env-Wt 301), wetland delineations were conducted according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, v2* (USACE, 2012). Surface waters were identified using the State of New Hampshire Code of Administrative Rules Chapter Env-Wt 101 definitions, and vernal pools were identified using the State of New Hampshire Code of Administrative Rules Chapter Env-Wt 1000. Definitions.

Field delineations identified a total of 6 acres of wetlands and no streams within the 37.9 acre survey area. Wetland and waterbody resources specific to the Project area are further described in Section J.3. of this Application, and a complete wetland and waterbody survey report is provided in Appendix 1.

There will be no direct impacts to wetlands or waterbodies as result of the Project.

C.4. Identification of natural, historic, cultural, and other resources at or within or adjacent to the site

General Setting

Seabrook, New Hampshire is comprised of three distinct areas that are divided by roughly northsouth boundaries. The community fronts on the Atlantic Ocean, a beach, and estuary area form the eastern most portion of Seabrook. This area has a seasonal residential population and is separated from the rest of the town by a large tidal marsh area to the west. The US Route 1 area is the middle portion of the town, is largely suburban, and houses most of the population, civic functions, and commercial enterprises. West of I-95 is largely suburban and rural, but also contains most of the Town's industrial activity. The Project site is located east of US Route 1 at the western edge of the tidal marsh. The tidal marsh and beach front areas are designated conservation zones in the Town Master Plan (Town of Seabrook, 2011) and proposed zoning map (Town of Seabrook, 2015). There are few large tracts of woodland or forest in Seabrook.

The Project will be constructed entirely within an existing parking lot on the Seabrook Station.

Wildlife Resources

Although Seabrook includes a large tidal marsh, due to prior development pressures, there are no large tracts of undeveloped land and a limited diversity of natural resources.

NHT consulted with the NHNHB and USFWS to identify any documented significant wildlife species or critical habitats in the vicinity of the Project. The NHNHB records did not identify any species of listed or rare wildlife in the vicinity of the Project. The Project will not impact any wildlife habitat as part of this current proposal. Additional detail is provided in Section J.3.

The USFWS records identified the potential presence of northern long-eared bat (*Myotis septentrionalis*), a federally threatened species, red knot (*Calidris canuta rufa*), a federally threatened species, and monarch butterfly (*Danaus plexippus*), a federal candidate species, in the vicinity of the Project. As recommended by USFWS guidance, if NHT were to identify the need for tree clearing activities associated with the Project, clearing would need to occur between November 1 and March 31 to avoid potential impacts to bats. Further detail is contained in Section J.3.

The Project will require a small amount of clearing of naturalized herbaceous and woody vegetation that is within the station fence line on historic fill, but no mature tree removal.

Conservation Lands

The majority of the 450.6 acres of conservation lands found in Seabrook include the Seabrook Beach and associated dunes. The remaining area is a parcel west of I-95 that is associated with the protection of Seabrook's groundwater resources (Town of Seabrook, 2011). The Project is not located on or adjacent to conservation lands nor will it result in an unreasonable adverse effect on the aesthetics of the surrounding area.

Historic and Cultural Resources

A literature review for the Project to determine the potential for historic and cultural resources on the site consisted of a review of NHDHR site files within 5 km of the Project boundary. The review of NHDHR site files using EMMIT was completed on October 29, 2021.

No Precontact period archaeological sites or Postcontact period archaeological sites are located within the Project area. However, 25 Precontact period archaeological sites are located within 5 km of the Project area. These sites provide evidence of Native American use of the area from the Middle Archaic period through the Late Woodland period. An additional seven (7) Postcontact (Historic) period sites also are located within 5 km of the Project area. The earliest Postcontact period site dates to the mid-1600s.

No previously inventoried Historic structures are located within the Project area. However, 35 inventoried Historic structures are located within the 5 km of the Project area. The closest previously inventoried structure was Mildy's Antiques ("Judge Chase's Courthouse"); this structure is no longer standing. No information is available on the date of construction of this structure. It was located approximately 1.7 km west of the Project area on the east side of Lafayette Road. The location of the structure is currently occupied by a Dollar Tree store.

Two previously identified Historic areas are located within 5 km of the Project area: the RR Eastern Railroad Linear District/B&M Eastern Division (ZMT-ERLD) and Hampton Beach Cottages Historic District (HAM-HBHD). Both are eligible for listing on the National Register of Historic Places (NRHP).

The RR Eastern Railroad Linear District/B&M Eastern Division (ZMT-ERLD) lies adjacent to the western edge of the Project area, and the Project area overlaps a small paved area of the portion of the historic district that is located within the area controlled by Seabrook. This paved area is

currently part of the existing parking lot in the Project area (see site plan). This district was determined eligible for listing on the NRHP in March of 2002 under Criteria A and C (events and design/style). It was the second rail line built in the state and linked the city of Portsmouth to Boston, coastal Maine and Portland. It was economically significant to the region for its ability to move goods to market and later to transport summer tourists to the area. Although passenger service along the rail line ended in the mid-20th century, the portion of the railroad that lies adjacent to, and partially overlapped by, the Project area appears to have been used to transport construction materials during construction of the Seabrook Power Plant during the 1980s (taken from DOE form). Currently, the rail line in this area has been removed and it is increasingly overgrown with reverting vegetation along the rail corridor in this location, consisting of trees and shrubs. The portion of the district that overlaps the project area consists of an existing paved area that is currently part of the parking lot in which the Project will be constructed. This paved area will be used as workspace for and access around the new Project components during construction, but the paying will remain in place, there will be no tree or shrub cutting in this area, and no subsurface soil disturbance or alteration of the existing paved surface will occur. Therefore, despite use of this small portion of the historic district during construction of the Project, there will be no new physical impacts to the small portion of the historic district that is located within the Project area.

The second Historic area, Hampton Beach Cottages Historic District (HAM-HBHD), is located 4.4 km east of the Project along Hampton Beach. It consists of an intact neighborhood of seasonal cottages constructed during the early-mid 20th century for summer tourists. This district was determined eligible for listing on the NRHP in March of 2019 under Criteria A and C (events and design/style). Given its distance from the Project area, the Project is not expected to have any physical or visual impacts on this historic district.

Three Historic Project areas are located within 5 km of the Project area; their NRHP eligibility is undetermined or not eligible. The Seabrook-Hampton Project Area (ZMT-SHPA), which was surveyed in 2017 and 2018 and whose NRHP eligibility is undetermined, overlaps the Project area. The Seabrook-Hampton Project Area is focused primarily on Ocean Boulevard and adjacent streets but includes a 3,080-acre area consisting of coastal salt marshes, low-lying coastline areas and barrier spits. The Seabrook Station is located in the coastal sea marsh area, but was not included in the survey due to security concerns. The coastline areas contain properties dating from the 18th century to the present; barrier spits have been chiefly built upon beginning in the late 19th century and continuing to the present. The area evolved from a fishing and agricultural community to recreational area during the 19th and 20th centuries. The closest point of the Routes 101/51 Project Area (ZMT-R101), which was surveyed in January 1991 and whose NRHP eligibility is undetermined, is located approximately 3.6 km north of the Project. The closest point of the Hampton, Hampton Beach Project Area (HAM-00HB), which was surveyed in February 2010 and determined not eligible for the NRHP, is located 3.6 km east of the Project. Given the distance of the built portions of the Seabrook-Hampton Project Area (ZMT-SHPA) and the closest points for the Routes 101/51 Project Area (ZMT-R101) and the Hampton Beach Project Area (HAM-00HB) from the Project area, the Project is not expected to have any adverse physical or visual impacts on these Historic Project areas.

Construction of Seabrook Station was completed in 1986 and it began commercial operation in 1990. The proposed Project will be generally consistent in form and function with other built features of the Seabrook Station. An existing storage building is located within the Project area. A review of historic aerials suggests the building was constructed between 1978 and 1990. The current plan is to remove this functionally utilitarian and architecturally undistinguished building from the Project area.

C.5. Evidence that the applicant has a current right, an option, or other legal basis to acquire the right to construct, operate, and maintain the facility on, over, or under the site

The Project will be owned and operated by New Hampshire Transmission, LLC (NHT), the Applicant, a Delaware limited liability company (LLC) formed as a special purpose entity to own and operate the transmission substation. NHT, the Applicant, has obtained an easement from the joint owners of the site, which includes NextEra Energy Seabrook, LLC, Massachusetts Municipal Wholesale Electric Company (MMWEC), Taunton Municipal Lighting Plant (TMLP), and Hudson Light & Power Department (Hudson Light), to obtain the legal right to own and operate the Project at the proposed site. Additionally, NHT will need to seek temporary access to adjacent utility and railroad easements during construction. Due to a small encroachment necessary for construction of the Project west of the Project site in a railroad easement, owned by New Hampshire Department of Transportation (NHDOT), a Temporary Use Agreement will be filed with NHDOT. NHT will work with the utilities for a temporary easement during construction, which is done from time to time. Documentation providing evidence of the Applicant's legal right to construct and operate the Project on the site are contained in Appendix 2.

C.6. Evidence that the applicant has a current or conditional right of access to private property within the boundaries of the proposed energy facility site sufficient to accommodate a site visit by the committee

NHT currently has rights to access the property within the Project boundary and will accommodate a site visit by the SEC. Documentation providing evidence of the Applicant's legal right to access the site of the Project are contained in Appendix 2.

D. OTHER REQUIRED APPLICATIONS AND PERMITS

- D.1. Identification of all other federal and state government agencies having jurisdiction, under state or federal law, to regulate any aspect of the construction or operation of the proposed facility
 - NHDES, Water Division, Land Resources Management Shoreland Program (authority under state law to excavate, fill, construct new structures, or remove structures within protected shoreland areas);
 - NHDES, Water Division, Land Resources Management Shoreland Program, Permit by Notification (PBN) for geotechnical investigations (authority under state law to excavate, fill, construct new structures, or remove structures within protected shoreland areas);
 - NHDES, Water Division, Alteration of Terrain (AoT) Bureau (authority under state and federal law over alteration of terrain and pollutant discharge);
 - New Hampshire Division of Historical Resources (NHDHR) (consultation to determine applicability with Section 106 requirements of the National Historic Preservation Act);
 - New Hampshire Department of Transportation (determination of applicability for permit for oversize/overweight vehicles);
 - NHDOS, Division of Fire Safety, Office of the State Fire Marshal (authority to enforce applicable fire codes); and
 - United States Environmental Protection Agency (USEPA) National Pollutant Discharge Elimination System (NPDES) Construction General Permit.

The Project has been designed to avoid impacts to wetlands and waterbodies; therefore, no permits will be required from the NHDES Wetlands Bureau, the NHDES Water Management Bureau, or the United States Army Corps of Engineers (USACE). The applicant has requested a letter confirming no USACE jurisdiction for the proposed Project from USACE (Appendix 3). There is also no requirement for consultation with the United States Fish and Wildlife Service (USFWS).

D.2. Documentation that demonstrates compliance with the application requirements of such agencies

Information satisfying the application requirements, if applicable, of the agencies listed above in D.1 has been included within the agency application forms. Copies of these forms are included in the Appendices to this application, as referenced in Section D.3, below.

D.3. A copy of the completed application form for each such agency

A copy of the completed NHDES Shoreland permit application and the NHDES Alteration of Terrain permit applications are provided in Appendix 4 of this Application. The NHDES Shoreland Permit by Notification application required for geotechnical investigations will be submitted under a separate cover as a stand-alone application. Geotechnical borings are typically done as part of refining project design for construction, are temporary in nature, are proposed for within the project area being permitted for disturbance under the other DES permit applications, and can be done following the standards required under the PBN rules as outlined in Env-Wq 1406.05.

D.4. Identification of any requests for waivers from the information requirements of any state agency or department whether represented on the committee or not

NHT is not requesting any waiver from information requirements of any state agency or department. NHT is, however, requesting in a separate motion to the SEC that it not be required to submit a full economic assessment given the limited size and the location of the Project. NHT is also requesting that the SEC waive the requirement to submit an original and 15 copies of the Application and accompanying materials to the SEC.

E. ENERGY FACILITY INFORMATION FOR NON-ELECTRIC GENERATING FACILITIES

The requirements contained in NH Administrative Rule Site 301.03€ state that if the application is for an energy facility, including an energy transmission pipeline, that is not an electric generating facility or an electric transmission line, the application shall include the items listed below. Given that the proposed Project is an electric transmission facility, the requirements outlined in NH Administrative Rule Site 301.03€(1-8) are not applicable.

E.1. Type of facility being proposed

Not applicable.

E.2. Description of the process to extract, produce, manufacture, transport or refine the source of energy

Not applicable.

E.3. Facility's size and configuration

Not applicable.

E.4. Ability to increase the capacity of the facility in the future

Not applicable.

E.5. Raw materials used

Not applicable.

E.6. Production information

Not applicable.

E.7. Map showing the entire energy facility

Not applicable.

E.8. Construction and operation details for a high pressure gas pipeline

Not applicable.

F. ELECTRIC GENERATING FACILITY INFORMATION

The requirements contained in NH Administrative Rule Site 301.03(f) state that if the application is for an electric generating facility, the application shall include the items listed below. Given that the proposed Project is an electric transmission facility, not an electric generating facility, the requirements outlined in NH Administrative Rule Site 301.03(f)(1-7) are not applicable.

F.1. Make, model and manufacturer of the unit

Not applicable.

F.2. Capacity in megawatts, as designed and as intended for operation

Not applicable.

F.3. Type of unit

Not applicable.

F.3.a. Fuel utilized

Not applicable.

F.3.b. Method of cooling condenser discharge

Not applicable.

F.3.c. Unit efficiency

Not applicable.

F.4. Any associated new substations and transmission lines

Not applicable.

F.5. Copy of system impact study report for interconnection of the facility as prepared by ISO New England, Inc. or the interconnecting facility

Not applicable.

F.6. Construction schedule, including start date and scheduled completion date

Not applicable.

F.6.a. Construction process

Not applicable.

F.7. Anticipated mode and frequency of facility operation

Not applicable.

G. ELECTRICAL INTERCONNECTION LINE INFORMATION

The Project will interconnect to the existing 345 kV Eversource Line 363 electric transmission line via transmission tap. The transmission tap conductors (lines) and structures will be built and owned by Eversource as part of the Project, subject to finalization of an interconnection agreement. The nominal line rating of the transmission lines is 345 kV and the distance will be approximately 300 feet, which meets the definition of "energy facility" under RSA 162-H:2, VII €, which has no minimum distance requirement.

Capacitor bank station design drawings are included in Appendix 5 and include the location of the proposed interconnection.

G.1. Location shown on U.S. Geological Survey map

The location of the proposed Project is described in detail in Sections C.1 and C.2 of this Application, and the location of the interconnection is included in Figure C3.

G.2. Map showing the entire electric transmission line

Because there are no new extensive electric transmission lines necessary for the Project, aside from the transmission tap and the short, overhead conductors required to connect the capacitor bank to the existing transmission line, a map of the electric transmission line is not applicable. In lieu of such a map, the Applicant recommends reviewing Figures C.1 - C.3.

G.3. Corridor width

G.3.a. New route

Corridor width for a new transmission route is not applicable because the Project will only require very short new transmission tap lines within existing developed area which includes an existing transmission corridor.

G.3.b. Widening along existing route

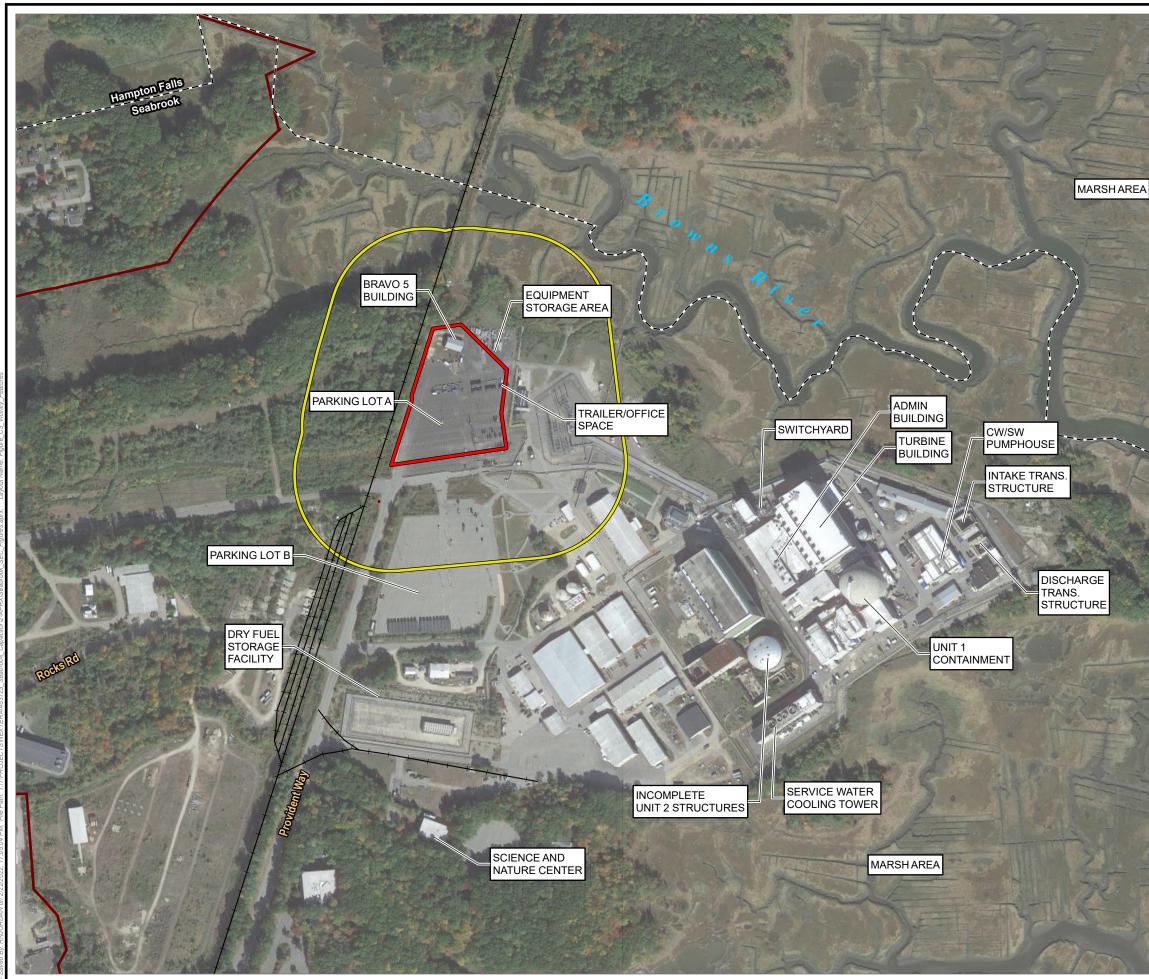
The Project will not require new transmission line corridor development.

G.4. Length of line

A short overhead transmission tap will connect the capacitor bank to the existing Eversource Line 363 345 kV electric transmission line. The transmission tap will be approximately 300 feet long, though the exact length will depend on the final capacitor bank station design and exact interconnection location.

G.5. Distance along new route

The Project will not require development of a new transmission route.





G.6. Distance along existing route

The Project will not require development of a new transmission line along an existing transmission route, only the tap lines described above.

G.7. Voltage (design rating)

As described in Section F.4 above, the Project will interconnect to Eversource's Line 363 345 kV line between Seabrook Station Switchyard, owned by NHT and Scobie Pond Substation owned by Eversource. The capacitor bank will be designed and constructed consistent with applicable industry standards, NHT requirements, applicable local, state, and federal codes, and standard utility practices.

G.8. Any associated new electric generating unit or units

There are no new associated electric generating units.

G.9. Type of construction (described in detail)

The transmission tap construction will consist of site preparation to support the building of a buss in the capacitor bank station. The capacitor bank station will include all structural components, electrical equipment and systems required to provide for the connection to the existing transmission line. The capacitor bank station will be surrounded by a security fence per NESC requirements. The foundations for the various equipment will consist of concrete slabs, mats, and piles. Conventional construction equipment such as cranes will be used to erect and/or place steel structures and electrical equipment on the foundations. Electrical cable, conductors, and busswork will connect the various pieces of electrical equipment. Relay vaults, which will house protection and control relay equipment, plant control equipment and communication equipment, will be prefabricated and set on a foundation. A grounding grid will be installed within the pad and will be connected to all equipment and structures.

G.10. Construction schedule, including start date and scheduled completion date

The capacitor bank station construction is expected to commence following receipt of all necessary regulatory approvals. Construction is anticipated to commence in Spring 2023 but will ultimately depend on when all approvals are obtained. The anticipated Project construction schedule is outlined below.

Table G-1. Project Schedule			
Site Section	Start Date	End Date	
Permitting Approvals	February 2022	October 2022	
Engineering	June 2021	January 2023	
Civil Construction	March 2023	June 2023	
Electrical Construction	May 2023	October 2023	
Commercial Energization	October 2023	October 2023	

G.11. Copy of any proposed plan application or other system study request documentation required to be submitted to ISO New England, Inc.

N/A

G.12. Copy of system impact study report for the proposed electric transmission facility as prepared by or on behalf of ISO New England, Inc. or the interconnecting utility

The System Impact Study report was submitted to ISO-NE in January 2022. As required by NH Administrative Rule Site 301.03(g)(12), the System Impact Study report for the Project has been provided in redacted form in Appendix 6.

H. ADDITIONAL INFORMATION

H.1. Detailed description of the type and size of each major part of the proposed facility

The Project will consist of a fenced 345,000-volt (345 kV) station containing two (2) 50MVAR (voltamps-reactive) capacitor banks, reactors, three (3) circuit breakers to provide switching and isolation of the capacitor banks and/or station as necessary, aluminum open-air busswork, a 40 foot by 28 foot control house, and an aboveground electric transmission connection. Other necessary infrastructure is shown on the civil design drawings in Appendix 7. Electric service to the control house will be provided from the existing Unitil electric line. Backup power to the control house will be provided by an emergency generator, also sited adjacent to the control house. As described in Section F of this Application, there will be a short transmission tap 300 ft in length to connect the Project to the grid via the existing 345 kV Eversource Line 363 transmission line. It is expected that the total direct impact of the Project facilities, including pilings associated with the capacitor bank, circuit breakers, equipment pads, grid connection, and other appurtenant facilities will be approximately 2.06 acres. Each element of the Project is described in more detail below.

Capacitor Banks

Two (2) capacitor bank systems will be installed in parallel at a rating of 50MVAR (volt-ampsreactive) each. When both capacitor banks are switched in at the same time, the units will be able to provide 100MVAR of reactive power. These capacitor banks are specifically used to improve operating efficiency of the electric power grid and help with transmission voltage stability during disturbances and/or high load conditions.

Reactors

Reactors will provide protection to the capacitor banks from excessive current flow events and help to provide stable voltage in the system. A reactor will be connected to each of the three (3) phases of the two (2) capacitor banks for the Project.

Circuit Breakers

Three (3) 345 kV circuit breakers will be installed in the new capacitor bank station to provide switching and isolation of the capacitor banks to the 345 kV Eversource Line 363. These circuit breakers will either be controlled locally at the capacitor bank station or the Eversource Dispatch Center.

Electric Transmission Connection

Two 345 kV three-phase conductors (lines) (6 conductors total) will be installed from the capacitor bank busswork to dead end structures and will have a transmission tap from each line to each phase of the existing 345 kV Eversource Line 363 electric transmission line. Two new transmission structures will be installed in the existing transmission line right of way (ROW) to direct the transmission tap in and out of the new station. All conductors will be designed and constructed consistent with applicable industry standards, NHT and Eversource requirements, applicable local, state, and federal codes, and standard utility practices. The tap conductor and

structures will be built and owned by Eversource, subject to finalization of an interconnection agreement. A signed authorization form from Eversource, authorizing NHT to obtain all necessary approvals, is included as Appendix 8.

Access Roads

The Project will not require construction of a new access road. Access to the Project site will be from the existing main site access roads to the Seabrook Station. The existing main site access roads are located off U.S. Route 1.

Laydown Areas

A laydown area will be required during construction for contractor offices and for storage of materials and equipment. The laydown area will be located within the existing parking lot and will be approximately 2.10 acres in size.

Temporary erosion control measures will be implemented at the laydown area, as necessary, to prevent erosion and sedimentation. After construction is complete, gravel, unused construction materials, and equipment will be removed from the laydown area.

Perimeter Fencing

A security perimeter fence will be installed around the station. Perimeter fencing at the Project is a safety requirement per the NESC. Gates will be installed in the fencing at three (3) locations to allow access for maintenance and emergency personnel as described in Section J.4.d.

H.2. Identification of the applicant's preferred location and any other options for the site of each major part of the proposed facility

ISO-NE selected the addition of capacitor banks near Seabrook Station as part of the preferred solution to the reliability criteria violations identified by ISO-NE in its 2029 New Hampshire Solution Study posted as final on May 27, 2021. Following this selection of the location by ISO-NE, NHT performed environmental surveys and other due diligence review to select the most suitable Project location on the Seabrook Station site for the capacitor banks. Natural and cultural resource surveys, visual assessments, and other studies needed for engineering purposes helped inform the Project design. Natural and cultural resources and aesthetics are discussed in Section J of this Application.

NHT evaluated suitable Project locations on the Seabrook Station site for environmental appropriateness (uplands), topography and aspect, grid-interconnection, and visibility. Alternative nearby sites were considered, however these alternatives were determined to be less desirable due to land restrictions, discussed further in Section H.2.a, and a lack of nearby transmission resources. After review, the Project site was determined to be the least environmentally damaging and most practicable alternative, and thus a suitable site for the Project.

Environmental

The Project was sited and designed to avoid and minimize impacts to sensitive and protected environmental resources by being sited on an existing parking lot within Seabrook Station site. The Project is compatible with existing land uses and will not unreasonably impact the environment or unique wildlife habitats. Potential effects on local and regional wildlife and vegetation, as well as the potential for impact to surrounding scenic and recreational resources were considered.

The proposed Project site is also suitable from an environmental perspective because there are no conservation restrictions on the site that would limit the development of the Project. Additionally, there are no critical habitats present on the Project site. Wetlands and vernal pools were avoided. Further detail describing the various studies that have been conducted to demonstrate the environmental appropriateness of the site is provided in Section J.

Compatibility with Existing Land Uses

The Project was sited to achieve compatibility with existing land uses to the greatest extent possible. Land within the Project area is currently a developed part of the Seabrook Station site and contains a building and an existing parking lot. Photographs from the site and a figure depicting the corresponding photo locations are contained in Appendix 9.

The Project is consistent with local and regional energy initiatives, as well as the Seabrook Master Plan.

The Project represents a low impact, non-residential type of development that does not require water use, does not generate wastewater, or increased local vehicular traffic once the Project is operational. Furthermore, Project visibility will be extremely minimal, with no significant visibility within 3 miles of the Project. Other than visibility from the adjacent salt marsh and open water, only isolated views were identified throughout the remainder of the study area, and the analysis determined the Project would not result in unreasonable adverse impacts to the aesthetics of these areas as the location and design of the Project are highly effective mitigation in terms of reducing Project visibility. Additional detail on Project visibility is provided in Section J.1 and Appendix 10.

Grid-Interconnection

It is critical for a capacitor bank of this size and purpose to be sited within reasonable proximity to existing electrical infrastructure. The Project is sited directly adjacent to existing transmission infrastructure and will only require the installation of relatively short new transmission line tap. NHT has provided ISO-NE a System Impact Study to demonstrate that the implementation of the Project will not have any adverse impacts to the reliability or operability of the New Hampshire or New England transmission system.

Availability of Privately-Owned Lands

The Project is located entirely within privately-owned lands as described in Section C.5.

Cultural Resources and Scenic Resources

The Project has been sited to avoid adverse effects on historical, archaeological, or architectural resources. The Project has also been sited to avoid adverse effects on scenic resources, with very minimal Project visibility due to local topography and existing environmental conditions, as described in Section J.1 below and Appendix 10.

H.2.a. Alternatives Analysis

In addition to the above-mentioned factors that influenced the initial selection of the Project site, NHT considered several site-specific design configurations throughout the Project development process. These design alternatives examined potential Project impacts on existing site infrastructure, natural resources and other environmental constraints, existing utility and railroad easements, Activity and Use Restriction (AUR) areas from former disposal areas, and overall efficiency of Project construction and operation. In order to minimize and avoid the aforementioned constraints to the maximum extent practicable the capacitor bank was reconfigured over the course of several design iterations. The design work also minimizes land disturbance to previously undisturbed land by situating the final design within an existing paved parking area on the Seabrook Station site.

H.3. Documentation that the Applicant has held at least one public information session in each county where the proposed facility is to be located at least 30 days prior to filing its application

A Public Information Session was held in Rockingham County in the Town of Seabrook on December 1, 2021. A transcript of the Public Information Session is provided in Appendix 11. Notice of this was provided in accordance with NH Administrative Rule Site 201.01 and RSA 162-H:10, I.

H.4. Documentation that written notification of the proposed facility, including copies of the application, has been given to the governing body of each municipality in which the facility is proposed to be located and that written notification of the application filing has been sent via first class mail to the governing body of each of the other affected communities

The Town of Seabrook will be provided with one copy of this Application at the time it is filed with the SEC in accordance with an agreement the Applicant reached with the Town. There are not studies indicating that any other communities will be affected by this Project.

Table H-1. Application Information and Corresponding Section		
Site Section	Content	Application Section
Section 301.04	Financial, technical, and managerial capability	Section I
Section 301.05	Effects on aesthetics	Section J.1
Section 301.06	Effects on historic sites	Section J.2
Section 301.07	Effects on environment	Section J.3
Section 301.08	Effects on public safety	Section J.4
Section 301.09	Effects on orderly development	Section K

H.5. Information described in Sections 301.04 through 301.09

H.6. For a proposed wind energy facility, information regarding cumulative impacts

The proposed Project is not a wind energy facility.

H.7. Information describing how the proposed facility will be consistent with the public interest

The proposed Project will serve the public interest as described herein. In determining whether a proposed energy facility will service the public interest, the SEC considers: welfare of the population; private property; the location and growth of industry; overall economic growth of the state; historic sites; aesthetics; air and water quality; the use of natural resources; and public health and safety. See NH Administrative Rule Site 301.16. Given that this project will enhance the reliability of the transmission grid, it will satisfy a number of these criteria, including public health and safety and the general welfare of the population. In addition, because it will not have a negative effect on aesthetics, natural resources, the environment, private property or historic sites, and that it will enhance economic activity, NHT submits that it will clearly be consistent with the public interest.

As explained throughout this Application, the Project is optimally sited to ensure the Project will not have any unreasonable adverse effects. In addition, the Project will provide quantifiable benefits to the public on both a local and regional level.

H.8. Pre-filed testimony and exhibits supporting the Application

Pre-filed testimony and exhibits are provided in Section L of this Application and include the following:

- Richard W. Allen (NHT President)
- Dana Valleau (Environmental Consultant Project Manager)

Ι. FINANCIAL, TECHNICAL, AND MANAGERIAL CAPABILITY

I.1. **Financial Information**

New Hampshire Transmission, LLC (NHT) is a Delaware limited liability company (LLC) formed as a special purpose entity to own and operate the Seabrook transmission substation. NHT is a direct, wholly-owned subsidiary of NextEra Energy Transmission, LLC (NEET).

Description of the Applicant's experience financing other energy facilities I.1.a.

NHT has obtained financing for a variety of projects at the transmission substation, with the approval of the NHPUC as described in Section I.1.c. Additionally, NEET's parent company, NextEra Energy, Inc. (NEE), a Fortune 200 company included in the Standards and Poor's ("S&P") 100 Index, is one of the largest electric power and energy infrastructure companies in North America, with a market capitalization of approximately \$146 billion as of February 24, 2022. NEE's balance sheet is one of the strongest in the industry and it has long-term issuer credit ratings of A- /A Baa by S&P Global Ratings, FitchRatings, and Moody's Investors Service, respectively, the three leading credit rating agencies globally, which reflect the strength of NEE's balance sheet and the discipline with which it allocates capital. Through the diligent efforts of its experienced financing team and established relationships with many domestic and international financial institutions, NEE and its subsidiaries have successfully raised approximately \$66 billion of debt and equity capital during the period 2014 through 2021. One example is the \$387 million construction financing for NEET's operating utility subsidiary in Texas, Lone Star Transmission, LLC, which allowed the startup utility to develop and construct a more than \$700 million greenfield high voltage transmission line.

I.1.b. Description of the corporate structure of the Applicant

The corporate structure of NEE is depicted in Figure I.1, which reflects the organizational structure as of the date of this application. NHT is a direct, wholly-owned subsidiary of NEET.



Figure I.1. Corporate Structure of NextEra Energy

2) Megawatts shown includes assets operated by Energy Resources owned by NextEra Energy Partners as of December 31, 2021, excludes assets which have been sold to third parties but continue to be operated by Energy Resources

¹⁾ As of February 3, 2022; Source: FactSet

³⁾ As of December 31, 2021

I.1.c. Description of the Applicant's financing plan for the proposed facility

To address the aging infrastructure at the Seabrook Transmission Substation, NHT secured financing approval on December 21, 2018, through the New Hampshire Public Utilities Commission, granted in Order No. 26,204 in DE 18-171 and subsequent loan agreement extension granted in Order No. 26,432 in DE 18-171 on December 17, 2020. The total long-term secured debt instruments approved in the orders are in an aggregate principle amount not to exceed \$59 million. The estimated cost of the project is \$8.9 million³. The project is still in an early stage of development and the cost could change, though we do not anticipate that the costs will increase to any significant extent.

I.1.d. Comparison of Applicant's financing plan compared with financing plans employed by the applicant or its affiliates

NHT's plan for financing the Project is consistent with the financing plans employed by NHT affiliates.

I.1.e. Current and pro forma statements of assets and liabilities of the Applicant

A statement of assets and liabilities of NHT is provided in redacted form in Appendix 12.

I.2. Technical Information

I.2.a. Description of the Applicant's qualifications and experience in constructing and operating energy facilities

NHT is a direct, wholly-owned subsidiary of NEET. NEET has extensive experience developing and owning facilities similar to the proposed capacitor bank. NEET, through its subsidiaries, owns, develops, constructs, manages, and operates transmission facilities in wholesale energy markets primarily in the U.S., as well as in Canada. In total, affiliates of NHT own, operate, and maintain approximately 86,765 circuit miles of high-voltage transmission and distribution lines and 989 substations. NHT has an experienced transmission facility operation and maintenance ("O&M") team and is supported by the nationally recognized O&M teams of the NextEra Energy family of companies, which includes NEET and Florida Power & Light Company ("FPL"). NHT, and its predecessor, has been managing the transmission substation at Seabrook Station since 2004.

NextEra Energy, Inc. (NEE), through its subsidiaries, employs time-tested, robust practices for staffing, operating, and maintaining its facilities using the appropriate mix of local, on-the-ground expertise and affiliate support to ensure safe and reliable operations of its utility facilities. Across the NEE organization, there are more than 750 power system professionals including engineers, technicians, and other staff with expertise in all aspects of transmission and substation equipment installation, operation, maintenance, and repair. Personnel from Seabrook Station's Transmission and Substation team, with the assistance of local contractors, are involved in the O&M of all of NextEra Energy's subsidiaries' high-voltage transmission assets.

³ REFERENCE – ISO-NE Solution Study

NEET has a proven track record of bringing transmission projects through permitting, construction, and ultimately delivering power to market. The Project team for NHT brings these capabilities along with local, New Hampshire-based regulatory and natural resources expertise to support the development of this Project within the regulatory framework set by the SEC.

NEET has a long-standing presence in New England, and extensive development and operational experience of high-voltage transmission infrastructure across the United States. Additionally, other NEET assets include a 280-mile, 230 kV transmission project under construction in Ontario, Canada and a 20-mile, 345 kV transmission project in construction in New York.

Table I-1. NEET Transmission Infrastructure across the United States			
Operating Company	Location/Region	Length of Transmission Line	Voltage (kV)
Lone Star	Texas Region	330 miles	345
GridLiance	Illinois, Kansas, Missouri, Oklahoma, Nevada, and Kentucky	700 miles	69-230
Trans Bay Cable	San Francisco, CA	53 miles	±200
Horizon West	San Diego County, CA	N/A	230

I.2.b. Description of the experience and qualifications of any contractors or consultants engaged by the applicant to provide technical support for the construction and operation of the proposed facility

The Project team assembled for NHT brings national capability and local expertise together to support the development of the Project. The Project team is highly qualified with extensive experience in developing, permitting, constructing, managing, and operating energy transmission facilities across North America, including in the northeastern United States. NHT is supported by NEET and NEER's technical staff and a team of local and regional experts.

The Project team was selected based on their extensive experience and local expertise and is comprised of the following consulting firms:

- <u>TRC:</u> comprehensive Project management, natural resource surveys, permitting, Project design support, and cultural resource review, site / civil engineering and stormwater design, visual assessment, natural resource surveys, economic impact assessment, capacitor bank and interconnection design;
- KCI Technologies: land survey and legal descriptions;
- <u>Tech Environmental, Inc:</u> sound assessment;

A Project organization chart is provided as Figure I.2. Biographical sketches of Key Project Personnel are included below, and additional biographical sketches or resumes will be provided if/as requested.

<u>NHT</u>

Richard W. Allen, President

Richard Allen's biographical sketch is included in Section I.3.b.

Corinne DiDomenico, Director of Business Development

Corinne DiDomenico has over 16 years of experience in the energy and utility industry, with increasing levels of responsibility in Engineering, Operations, Program Management, Energy Policy, and Business Development.

Kim Austin, Environmental Services Senior Project Manager

Kim Austin has been permitting transmission infrastructure facilities for over 22 years across North America. As Senior Project Manager for NHT, Ms. Austin provides expertise in strategic planning across development, execution and operation of energy facilities. Her approach to implementing an avoidance, minimization then mitigation strategy has proven creative and successful in streamlining complicated projects.

Jason Hoffman, Senior Project Manager, Engineering & Construction

Jason Hoffman is the Sr. Project Manager for Engineering and Construction, focusing on the development and preparation of the project specifications, construction cost estimates and project schedule. As Sr. Project Manager and Construction Lead for NextEra Energy, Mr. Hoffman has over 10 years of experience in power generation, substation, transmission, and nuclear construction. He will be overseeing the engineering and design of the project and aids in the development of the project construction and procurement plans. Mr. Hoffman currently leads multiple transmission and substation projects, being responsible for construction planning, project schedule, capital estimates, risk identification, mitigation, and contingency allocation.

Jeromy Miceli, Manager, Substation Engineering

Jeromy Miceli is the Manager of Substation Engineering for NextEra Energy and its affiliates and has overall engineering responsibility for the project. Mr. Miceli has over 15 years of experience in power generation, substation, and transmission line engineering and construction, with particular focus on renewable generation. In his current role he is responsible for managing a team of Substation Engineers who lead design efforts on all substations across NextEra Energy's project portfolio. These efforts include substation physical and electrical layouts, equipment specification, protection and control design, and project execution.

Peter LaRochelle, NHT Manager Nuclear Transmission

Peter LaRochelle has 35 years' experience in the nuclear power generation and transmission substation operation and maintenance environments. He is accountable for the reliability of the offsite power source to the Seabrook nuclear unit which includes all Seabrook transmission facilities. These responsibilities include asset management, construction and maintenance activities observing policies and procedures of the Seabrook nuclear plant, ISO-NE and associated NERC compliance requirements. Additional responsibilities include maintaining O&M and capital budgets for the facility, coordinating project design and implementation for

construction activities in addition to coordinating transmission facility project approvals from the nuclear station, ISO-New England, interfacing utilities.

Consulting Team

Dana Valleau, Project Manager

Dana Valleau is a Project Manager and Environmental Scientist at TRC with nearly 23 years of experience. Dana has successfully managed numerous large energy projects throughout New England and the mid-west. He also has extensive experience in environmental permitting and has helped secured permits for several energy projects, including two projects reviewed by the SEC. As such, he is experienced with the SEC process and has prepared testimony and participated in hearings.

Caleb Frederick, PE, Senior Civil/Structural Engineer

Caleb Frederick is a Senior Civil/Structural Engineer at TRC with over seven years of experience in substation design. He has served as the civil/structural lead on a number of projects in various states, including several previous projects at the Seabrook Nuclear Power Station site. Caleb has experience developing applications for fence, block wall, and grading permits for several substation projects. His experience includes the design of new structures and foundations, the analysis of existing structures and foundations, client interface, and construction support.

Karen Mack, Principal Archaeologist

Karen Mack has 25 years of cultural resources management experience and currently serves as Office Manager and Principal Archaeologist out of TRC's Ellsworth Maine office. She serves as Principal Investigator and Director of field investigations, data analysis and report writing for all levels of investigation: Phase I – III. Her work also Includes developing sensitivity models for large- and small-scale development project such as solar developments, wind farms, natural gas pipelines, transmission lines and hydroelectric relicensing projects. Karen has worked throughout New England and New York; she has conducted projects ranging from initial resource identification survey to intensive data recovery, both at coastal and interior locations. In addition to development and licensing projects, she has extensive expertise in the identification and evaluation of cultural resources within solar development projects. Karen has successfully managed projects possessing challenging logistics in remote locations. She has prior experience directing archaeological surveys for the National Park Service and other federal and state agencies. She has worked regularly with the regional State Historic Preservation Office staff members on a variety of federal and state compliance projects and has an excellent knowledge of the archaeology of the Northeast.

Amber Horrie, GIS Leader

Amber Horrie will serve as the Visual Resources Technical Lead. Ms. Horrie is a GIS Administrator with over 13 years of professional GIS experience. She has a diverse professional background in Geographic Information Systems (GIS) with extensive experience in geospatial analysis and creating customized GIS solutions to fit project needs. Ms. Horrie has a thorough understanding of the technical workings of GIS and its capabilities and has worked with clients over the years to create efficiencies and innovative solutions to data management and GIS workflows. She has a strong background in preparing reports to describe data acquisition

processes and analysis methodology and findings. She has led training sessions and serves as a technical lead on TRC's GIS visualization group. Ms. Horrie has experience working on a variety of GIS projects pertaining to renewable energy and has managed the visual impact assessment portion on multiple other regulatory projects across the country.

Marc Wallace, Noise Consultant

Marc Wallace has 34 years of experience as a noise consultant at Tech Environmental, providing permitting assistance, strategic planning, monitoring, modeling and impact assessment to municipalities, government agencies, and industry on projects in the transportation, wastewater and solid waste disposal and industrial market sectors. Marc's noise experience spans decades and versions of acoustic models. He has extensive experience in performing ambient and sound-source compliance monitoring over his career. Marc often presents the results in public forums, and his multi-decade experience allows him to present detailed and sophisticated results in a simple and easy to understand format.



Figure I.2. Project Organization Chart

I.3. Managerial Information

I.3.a. Description of the Applicant's management structure for the construction and operation of the proposed facility

NHT will be responsible for the overall management of the Project, including the execution and administration of all commercial agreements necessary to ensure that the Project is constructed and operated in conformance with accepted industry practices, permits and, as applicable, the Certificate of Site and Facility. As the owner, NHT will be ultimately responsible for the

management of all contractors engaged to construct and operate this facility. NHT is committed to constructing and operating the Project to achieve the highest standards for safety, reliability, and performance.

NHT will have a construction team on-site to handle materials, construction, and quality control. The construction Contractor(s) will manage subcontractors to complete all aspects of construction. Throughout construction, ongoing coordination will occur between the Project development and construction teams. NHT will maintain a full-time, on-site construction manager to collaborate with the construction Contractors daily. The on-site construction manager will help coordinate all aspects of the Project, including ongoing communications with local officials, citizens, and landowners. The on-site construction manager will also maintain the following responsibilities including, but not limited to: safety and environmental performance; schedule, cost, and quality performance; plan of the day; overall Project direction; and construction Contractor guidance and quality control.

The on-site construction manager will maintain full authority and responsibility for the construction Contractors, all subcontractors, and associated quality control measures. In addition to the onsite construction manager, there will be several personnel with various accountabilities to ensure timely, safe, and efficient use of resources and labor. All supporting personnel will have specific responsibilities related to the Project. Below is a list of the anticipated supporting personnel and their accountabilities in relation to the Project.

- **Project Engineer**: provides technical and performance oversight of the engineering team's supporting design of the Project; monitors any deviations from design requirements and reports on effects to the Project.
- **Project Controls**: tracks cost controls, risks, and capital forecasting in relation to the Project; monitors any updates to the Project schedule and reports on effects to the Project.
- **Civil/Environmental Coordinator**: interfaces with permitting to ensure all requirements have been met; identifies and resolves any deficiencies; provides review and quality assurance of work in accordance with design standards; oversees compliance with environmental requirements.
- Electrical Coordinator: coordinates and monitors electrical contractor's work.
- Logistics and Materials Coordinator: ensures the efficient delivery of Project equipment and materials on-site and in accordance with the Project schedule.
- Site General Support: assists and supports all personnel.
- **Operations Plant Lead and Start-up Operations Transition**: ensures a safe, quick, and efficient transition from the construction team to the operations team; ensures the end of construction and transition into commissioning activities is completed smoothly.

NHT and all contractors and subcontractors will maintain the highest quality controls during the development, construction, and operation of the Project. NHT will have a team of personnel in place, as listed above, to maintain the daily operation and quality of Project construction.

Additionally, the construction Contractors will maintain documentation, conformance, inspection, and testing of all work completed on-site to ensure that all work has been complete in accordance with Project specifications. The comprehensive quality oversight of NHT's team will ensure that all work adheres to the highest quality and safety metrics.

The Project will be constructed according to all plans, designs, manufacturer specifications, engineering standards, contract standards, and expectations. Regular alignment meetings with NHT and the construction Contractors will occur to assure that all expectations are being met. Additionally, testing and inspections will assure that quality standards and expectations are being met. The construction Contractors will deliver the Project components taking precautions to ensure that all employees and the general public stay safe through the duration of construction.

Once the Project is operational, NHT Nuclear Transmission staff, already assigned to the Seabrook site for overall management of the 345 kV switching station expand their scope to include the capacitor bank station. These responsibilities include regulatory compliance, equipment reliability monitoring, maintenance, administration, and operational activities. The onsite staff consist of the following:

- **Manager of Nuclear Transmission**: provides management oversight of project and operational activities for the NHT assets and personnel within the NextEra Energy Nuclear Transmission Organization at Seabrook.
- **Nuclear Project Manager**: provides project management activities that support projects and maintenance operations within the NextEra Energy Nuclear Transmission Organization at Seabrook.
- Nuclear Project Engineer: provides technical input of engineering activities that support
 projects and operations within the NextEra Energy Nuclear Transmission Organization at
 Seabrook. Provides equipment reliability and performance monitoring of the NHT assets
 and recommends maintenance strategies based on monitoring, OEM recommendation,
 regulatory lessons learned and industry best practices. Provides input to support NERC
 compliance activities.
- **Nuclear Project Planner**: supports the work management, scheduling and inventory systems within the NextEra Energy Nuclear Transmission Organization at Seabrook. Maintains and monitors the NHT NERC compliance processes. Works with Corporate Compliance to perform Compliance audits.
- NextEra Energy Seabrook Electrical Maintenance Department: Provides maintenance technician resources in accordance the Operation, Maintenance, and Administrative Service Agreement.

I.3.b. Description of the qualifications of the Applicant and its executive personnel to manage the construction and operation of the proposed facility

A biographical sketch of executive personnel for the Project is included below, and additional biographical sketches or resumes will be provided if/as requested.

Richard W. Allen - President

Richard Allen has worked for over 30 years in the energy industry with increasing levels of responsibility in Engineering, Operations, Project Management, and Business Development. His responsibilities include the management of NHT, as well as oversight and responsibility for any additional transmission upgrades, including the new capacity banks, breakers, and short transmission lines.

I.3.c. Description of the experience and qualifications of the contractors and consultants for construction and operation of the proposed facility

Construction contractors, including the EPC general contractor, have not yet been selected for the Project. However, the Project's parent company, NEET, has extensive experience selecting and working with many of the leading engineering and construction companies in North America. Under close supervision of NHT's management team, the EPC general contractor will be responsible for managing the construction of the Project. The EPC general contractor scope will include all technical and construction services required to complete and turn over a fully commissioned and operational project within designated cost, schedule, quality, and safety requirements. The EPC general contractor will provide an effective organizational structure to ensure a responsible construction team with a commitment to quality and safety. This effective structure will contain appropriate personnel to facilitate the construction of the Project including managers, engineers, superintendents, inspectors, foremen, and quality personnel. Each of these personnel has the responsibility to implement all quality processes in every aspect of the construction process. All non-conforming work with the established level of quality and Project specifications will be corrected in an appropriate manner. With respect to selection and supervision of the construction Contractors, the standards and methods will be consistent with those implemented by other wholly owned subsidiaries of the Project's indirect parent, NEER, which has led to the successful development of more than 20,000 MW of operating assets.

J. POTENTIAL HEALTH AND ENVIRONMENTAL EFFECTS AND MITIGATION PLANS

J.1. Aesthetics

NHT engaged TRC to perform a Visual Impact Assessment (VIA) for the Project. The VIA concluded the Project is consistent with existing uses and will not result in an unreasonable adverse effect on the aesthetics of the surrounding area. The VIA report is contained in Appendix 10.

Prior to conducting the VIA, the area of potential visual impact for the Project was defined via a desktop review to determine the appropriate geographic area for the computer-based visibility analysis. A distance of three (3) miles was deemed appropriate as the VIA Study Area based upon area topography, vegetation, and surrounding development,

Four distinct methods of investigation were implemented to complete the VIA for the Project:

- 1) Background data collection included compiling standard data that can help describe the landscape within the Study Area, as well as identification and classification of scenic resources based on NH SEC Rules.
- 2) Viewshed analysis mapping examined the potential visibility of the Project by applying a line-of-sight method from prescribed points representing the tallest project components to all other locations within the study area. The viewshed analysis was portrayed as two types of viewshed maps: topographic (or bare-earth) viewshed and screened viewshed. These viewshed maps were used to focus the field investigation on areas most likely to have views of the Project.
- 3) Investigation areas of potential Project visibility was verified through a desktop review and review of photographs of the views toward the Project from the areas identified by the viewshed analysis. Other sensitive areas identified within the viewshed were also reviewed.
- 4) Project visualization a photographic simulation was created to help evaluate the potential visual impacts of the Project.

Potential scenic resources identified within the 3-mile study area around the Project conservatively totaled fifty-one. Of these potential scenic resources, 50 were identified as having potential visibility based on the bare-earth viewshed analysis and 17 were identified as visible based on the screened viewshed analysis. Within 3 miles of the Project, the potential for visibility is 74.6% based on the topographic viewshed analysis and 14.74% based on the screened viewshed analysis. Scenic resources with potential visibility of the Project were reviewed through a combination of field investigation and desktop review to confirm visibility, and a systematic evaluation of scenic resources determined to have the highest potential for visibility was performed.

The VIA determined that the location and design of the Project will effectively minimize Project visibility, as summarized below:

- The Project location is set back from nearby roads and properties;
- The layout and associated equipment are in a previously developed area and the proposed development will not require the removal of any existing mature vegetation that will screen the Project from surrounding scenic resources;
- The Project is located adjacent to existing electrical transmission infrastructure, thereby eliminating the need for long interconnection lines; and
- The Project site is surrounded by significant existing utility infrastructure (electric distribution and transmission lines, substations, transmission towers, cell towers, and other structures).

The VIA concluded that Project visibility would be extremely minimal, with no significant visibility within 3 miles of the Project. Other than visibility from the adjacent salt marsh and open water, only isolated views were identified throughout the remainder of the study area, and the analysis determined the Project would not result in unreasonable adverse impacts to the aesthetics of these areas.

J.2. Historic Sites

The Project will not adversely impact any known archaeological sites. A Request for Project Review (RPR) was submitted on February 2, 2022 to NH Division of Historic Resources and is contained in Appendix 13A.

The Project will not physically alter any existing historic buildings or structures. TRC reviewed all available information about previously identified historic properties and completed field studies to evaluate the potential impacts of the Project on historic resources. Studies were conducted in accordance with the NHDHR guidelines. TRC reviewed NHDHR site files within a 5 km distance of the Project boundary. NHDHR concurred with TRC's assessment and issued their findings on February 8, 2022 that no historic properties will be affected by the Project (Appendix 13B).

J.3. Environment

J.3.a. Air quality

Although not expected to have an adverse impact on local air quality, the Project has the potential to generate emissions which may be subject to federal and state permitting and/or reporting. Rule applicability is based on multiple factors and will be evaluated following the final selection of equipment vendor(s). The Project will secure all necessary permits prior to the construction of the Project.

J.3.b. Water quality

The Project will not have an impact on regional water quality. Potential sources of water quality impacts include erosion and sedimentation during Project construction. The Project is designed to meet the standards set forth in the NHDES AoT permit application, which is included in Appendix 4. The Project has been designed to minimize the likelihood of erosion and subsequent sedimentation.

Project Location

The Project is located in the Piscataqua-Salmon Falls Watershed (HUC 8:01060003) and the Hampton Harbor subwatershed (HUC 12:01600031004) subwatersheds. Topography within the Project area generally trends to the east toward the Hampton Harbor Estuary. Wetlands, intermittent and ephemeral streams are located nearby the Project, as identified during natural resources surveys performed by TRC in 2021. The Project is entirely within an existing parking lot.

Erosion and Sedimentation Control

Erosion, sediment control and BMPs will be employed during construction to limit the mobilization of sediments from ground disturbance. The Project design includes BMPs based on the New Hampshire Stormwater Manual. Temporary erosion and sediment control practices to be implemented during Project construction include stabilized construction exits, silt socks and silt fence, mulching and temporary seeding, check dams and level spreaders, sedimentation basins, and erosion control matting.

Erosion and sediment control (ESC) devices will be monitored frequently to ensure they are working properly; this will occur at least once a week or following rain events of more than 1/4 inch of rain, in compliance with the United States Environmental Protection Agency's (USEPA) regulations. Corrective measures will be implemented as soon as possible if any ESC devices are performing inadequately. The BMPs and ESC devices that will be employed during Project construction and operation are illustrated on the civil design drawings provided in Appendix 7 and the AoT permit application contained in Appendix 4.

Spill Prevention, Control, and Countermeasures Plan

To manage hazardous substances in accordance with federal regulations, NHT and the construction contractor will prepare a Spill Prevention, Control, and Countermeasures Plan (SPCC Plan) prior to commencing construction. The SPCC Plan will describe the procedures, methods, and equipment that will be used to comply with the USEPA's oil spill prevention, control, and countermeasures standards during construction. Likewise, the SPCC Plan will comply with federal inspection, reporting, training, and record keeping requirements. An example of the anticipated SPCC Plan for the Project is provided in Appendix 14.

Stormwater Management

The Project will result in a minor increase in impervious area by replacing a small area of naturalized herbaceous and woody vegetation and open space to yard stone. There will not be an increase in the rate of stormwater runoff from the site because yard stone has a lower runoff curve number (CN) than the existing asphalt or compacted gravel areas.

The facility has been designed to minimize impacts to the existing natural drainage ways, and overall drainage patterns will remain generally the same. Runoff will continue to flow northerly as sheet flow across the site toward the wetland and Browns River.

The Project has been designed to avoid wetland and stream impacts.

As stated above, the Project has been designed in accordance with the New Hampshire Stormwater Manual. BMPs for the Project will address the applicable water quality treatment standards for this Project and are intended to improve stormwater quality from the Project site. A 6-inch surface course of yard stone, similar to NHDOT #57 stone (NHDOT Standard Specifications for Road and Bridge Construction, Table 703-1) will trap the water quality volume of runoff in the void space of the stone, where it will either infiltrate into the sub-grade or evaporate. A copy of the complete Stormwater Management Plan is contained in the AoT application provided in Appendix 4.

J.3.c. Natural environment

For the purpose of this discussion, information pertinent to the natural environment will be described in the following categories: wildlife; natural communities and rare plants; and wetlands, waterbodies, and vernal pools. Each of these categories, including potential impacts and mitigation measures, is discussed below.

NHT initiated consultations with state and federal agencies with permitting or regulatory authority over fish, wildlife, and other natural resources in 2021 (see Table J-1).

Table J-1. Agency Consultation Summary for Fish, Wildlife, and Other NaturalResources		
Agency	Date	
NHNHB Data Check Letter	11/12/2021	
USFWS Official Species List	10/28/2021	
NHDES	12/15/2021	
USACE	01/21/2022	
Response to NHNHB to provide additional information	02/03/2022	
Response from NHNHB stating no impact	02/08/2022	

<u>Wildlife</u>

As described above, NHT consulted with the NHNHB and USFWS to identify any documented significant wildlife species in the vicinity of the Project. Based on consultation with the NHNHB in November 2021 there are no records of listed or rare wildlife that have been documented in the Project vicinity. The NHNHB response letters are provided in Appendix 15A.

NHT requested a list of federally listed threatened and endangered species that may occur in the Project area and/or may be affected by the Project. The USFWS generated an Official Species List for the Project, which did not identify any critical habitats within the Project area. The USFWS Official Species List determined that two species protected under the Endangered Species Act (ESA), the federally threatened northern long-eared bat (*Myotis septentrionalis*), and the federally threatened red knot (*Calidris canutus rufa*), a shorebird, had the potential to occur in the vicinity of the Project. In addition, one species, the monarch butterfly (*Danaus plexippus*), was identified as a candidate for listing under the ESA and has the potential to occur in the vicinity of the Project. The Project proposes no removal of trees suitable as habitat for the northern long-eared bat and

proposes no disturbance to nesting or migration habitat suitable for the red knot. The USFWS Official Species List is contained in Appendix 15B.

Natural Communities and Rare Plants

Based on consultation with the NHNHB in November 2021, there are records of exemplary natural communities and rare plant species that occur within the vicinity of the Project. These habitats and plants are all associated with the extensive marsh areas that are found in the area. The Project is sited entirely within previously developed area and will not impact any of the marsh or rare plants associated with the marsh. A response to the NHNHB reply to the initial Data Check inquiry was provided on February 3, 2022. The response provided the limits of disturbance and a detailed description of proposed impacts, including photographs of areas slated for disturbance. On February 8, 2022, NHNHB Review responded via email that they are satisfied that the proposed Project will not impact state-listed plant species or nearby exemplary natural communities/systems. The most recent NHNHB correspondence and response letters are provided in Appendix 15A.

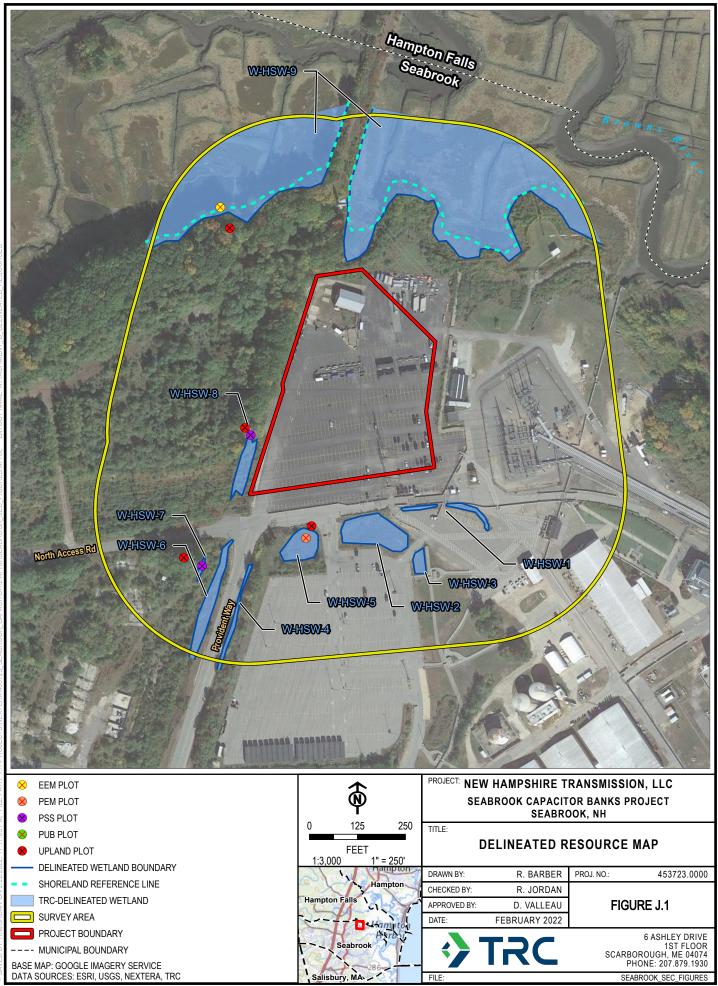
Wetlands, Waterbodies, and Vernal Pools

Wetland and waterbody surveys were conducted for the Project in October 2021. Additionally, potential vernal pools were also part of the survey effort. As a result of these surveys, nine wetlands, no waterbodies, and no potential vernal pools were identified within the survey area, however no jurisdictional resources were identified within the Project area. These resources are illustrated on Figure J.1 and summarized in Table J-2 below. More detailed information is provided in the Wetland, Waterbody, and Vernal Pool Delineation Report contained in Appendix 1.

Wetlands occur throughout the survey area, with the larger wetland complexes located in the northernmost portions of the survey area (see Figure J.1 below). Wetlands within the survey area are predominantly saltmarsh, though there are some isolated pockets of scrub-shrub and emergent wetlands located amongst the developed areas of the survey area.

Tidal ditches within the survey area are located within the saltmarsh in the northern portion of the survey area. The ditches were not delineated as part of this effort, as they do not result in stricter regulatory oversight. Ditches within the survey area are historic and are connected to Browns River, a tidal river to the north of the Project.

The Project has been designed to avoid direct wetland impacts. During construction, BMPs for working near wetlands will be implemented. During construction and operation, appropriate stormwater runoff and erosion control measures will also be implemented. Stormwater runoff prevention, erosion control practices, and BMPs are described in detail in the AoT permit application contained in Appendix 4.



Resource ID	Classification ^a /	Description	Associated Resource
Wetlands			
W-HWS-1	PEM	Constructed drainage ditch between parking lots	N/A
W-HSW-2	PEM	Wetland located between parking lots. Potential naturalized storm pond	N/A
W-HSW-3	PEM	Wetland located between parking lots. Potential naturalized storm pond	N/A
W- HSW-4	PEM	Constructed roadside drainage ditch	N/A
W-HSW-5	PEM	Wetland located between parking lots. Potential naturalized storm pond	N/A
W-HSW-6	PSS	Wetland located between access road and abandoned railroad beds	N/A
W-HSW-7	PSS	Wetland located between abandoned railroad beds and rock fill pad	N/A
W-HSW-8	PSS	Wetland located between abandoned railroad beds and rock fill pad	N/A
W-HSW-9	EEM	Tidal wetland	N/A

 a^{\prime} PSS = palustrine scrub-shrub wetland; PEM = palustrine emergent wetland; EEM = estuarine emergent wetland.

Wetlands are not located within the Project.

J.4. Public Health and Safety

NHT and its parent company, NEET, are environmentally responsible developers and owners of energy transmission projects that place significant importance on preventing negative environmental, health, or safety impacts to the communities where it constructs and operates its facilities. NHT and NEET's goal is to proactively manage concerns during development, siting, permitting, construction, and operation. NHT holds itself and its employees to a very high safety standard, and all construction general contractors are required to meet stringent safety qualifications.

NHT is committed to maintaining a safe working environment, including using suppliers with a demonstrated commitment to safety. In general, suppliers who have a presence on company premises of 30 or more cumulative person-days within 12 months are required to comply with the requirements of NEE's Supplier Safe and Secure Workplace policy whereby suppliers are expected to demonstrate an Experience Modification Rate (EMR) for safety purposes that is equal to or better than average for their industry. An EMR is a ratio that indicates how a

company's Workers' Compensation losses compare to those of other companies with similar classifications. NEE maintains specific guidelines for the implementation of these goals and invokes them as requirements within contractual agreements with suppliers.

NHT will construct and operate the Project consistent with NEE's corporate commitment to meeting all applicable state and federal requirements, including Occupational Safety and Health Administration (OSHA) safety regulations. Additionally, the National Electrical Code (NEC) provides comprehensive electrical safety design, installation, and inspection requirements for electrical conductors and equipment.

Signage and labeling requirements are also important safety elements of electric facilities because they alert the public, firefighters or other emergency responders to electrocution hazards from electric facility equipment. Identification, signage, and labeling requirements are specified in detail in the NESC. NHT will ensure that the Project is properly signed and labeled in accordance with the NESC requirements.

During construction and before the Project is fully operational, all electrical equipment will be inspected under rigorous testing and commissioning procedures. In addition, prior to activating the electrical lines, the interconnecting utility will also perform and require inspections, testing, and commissioning documentation for grid and system safety. This process is also coordinated through regular conference calls with ISO-NE and local utilities.

NHT is committed to constructing and operating the Project with great concern for public health and safety. NHT will work with the Seabrook Fire Department to notify them of construction plans and provide site visits to review access to Project facilities and emergency response procedures. Furthermore, NHT will continue to engage with Seabrook with the goal of addressing issues related to public health and safety. Various aspects of public health and safety related to the Project are described below.

J.4.a. Sound

The Project will not produce sound that will unreasonably adversely affect nearby residents or the general public. Tech Environmental conducted a comprehensive sound level assessment for the Project including baseline sound monitoring and acoustic modeling. There are no sound standards in the Seabrook Zoning Ordinance, Building Code, or Site Plan Review Regulations, so the Project potential sound impacts were assessed under the SEC incremental sound limits standard. The SEC incremental sound limits standard establishes a maximum allowable incremental sound increase of 10 decibel A-weighted above ambient. To assess compliance with the SEC sound limits, the lowest measured ambient sound levels were used in the acoustic modeling analysis. Results of the analysis indicated that the Project will comply with the SEC incremental sound limits.

The complete acoustic study report is contained in Appendix 16.

J.4.b. Transmission Infrastructure and Electric and Magnetic Fields

The planned transmission line interconnections between Seabrook Station, Eversource Section 363 (Scobie Pond), and the proposed Seabrook Capacitor Banks station arrangement will require

the addition of tap structures and a short transmission tap line. The risk to buildings, property lines, and public roads from the collapse of the tap structures and other supporting structures proposed as part of the Project is avoided by Project design and siting being over 1,000 feet from the nearest public area. The existing 345 kV Section 363 is an approximately 29-mile circuit. The addition of the two tap structures and tap line will have a negligible effect on the electric and magnetic field (EMF) characteristics of the line. Further, given the Project is located within the existing Seabrook Station site, the interconnection, and the proposed tap structures and tap line will be installed in areas not readily accessible by the general public. TRC believes this project will have virtually no impacts on public health and safety from an EMF perspective and that any such impacts will be mitigated by the location of the Project.

J.4.c. Decommissioning plan

NHT has provided a decommissioning plan in Appendix 17. This decommissioning plan and cost estimate are consistent with the application requirements for a Certificate found in NH Administrative Rules Site 301.08(d)(2).

As described below and in greater detail in Appendix 17, NHT has addressed all necessary decommissioning activities and will provide decommissioning funding assurance prior to commencement of construction that is consistent with conditions contained in a Certificate.

At the end of the useful life of the Project the site will be decommissioned. Decommissioning will consist of the following activities:

- 1. Provide a decommissioning schedule to Seabrook and the SEC, as applicable, prior to initiating any decommissioning activities.
- 2. Acquire approvals for transport of oversized/overweight loads from the Project site, if needed. Coordinate with the New Hampshire Department of Transportation prior to transport to confirm routes.
- 3. Disconnect the facility from the utility power grid.
- 4. Disconnect all aboveground wirings, lines, and electrical interconnections and recycle offsite by an approved recycling facility.
- 5. Remove the perimeter fence and recycle off-site by an approved metal recycler.
- 6. Remove metal structures for recycling off-site by an approved recycler,
- 7. Remove all station electrical components and recycle off-site by an approved recycler.
- 8. Remove concrete foundations and concrete equipment pads and recycle off-site by a concrete recycler.
- 9. Restore and stabilize the site after all equipment is removed. Minor site grading may be required.

All Project materials will be recycled to the maximum extent possible and will be disposed of at an approved recycling facility.

J.4.d. Fire

As described above, prior to commissioning of the Project, all electrical equipment will be inspected under rigorous commissioning procedures, as well as by the utilities for grid connection and protection system safety. During operations, qualified personnel will routinely inspect equipment in accordance with preventative maintenance schedules.

There will be very few flammable components associated with the Project; however, the presence of electrical equipment does present a potential fire risk. In the event of a fire, Seabrook Station will dispatch site-personnel to investigate accordingly.

Seabrook Station has a dedicated fire protection coordinator that manages any training, protocols and procedures necessary for Seabrook Station staff. The Seabrook Station fire protection coordinator will work with local emergency responders on any special training needed.

J.4.e. Emergency response

The Project will be incorporated into the existing plans and emergency response training and protocols for the Seabrook Station.

The primary concern for first responders is exposure to electrical components that present a hazard to electric shock. In the event of an emergency response, the following assumptions should be made:

- All electric equipment on the Project contains lethal AC and DC voltages;
- Electricity is supplied from multiple sources;
- The Project should only be accessed by personnel or emergency responders under the direction of Seabrook Station staff.

J.4.f. Additional measures to avoid, minimize, or mitigate public health and safety impacts

Construction and operation of the Project will have minimal impacts on public health and safety. The Project has been designed such that it is located within an existing industrial area, observing existing setbacks from residences, roads, and utilities so that the Project will protect the public's health and safety by allowing adequate space for safe construction and operation of the Project. The equipment proposed for the Project are held to industry standards of quality. The design and installation of the equipment, as well as the overall Project configuration, protects against potential danger to the public from noise, fire, and stray voltage. The Project will also be monitored by Seabrook Station site security to ensure there are no public safety issues such as tampering with equipment or forms of vandalism. In the event of an emergency requiring shutdown, the capacitor bank station can be shut off either locally or remotely.

As previously described, the entire Project is located within an existing paved parking lot, within an industrial setting, on private land. To protect public safety, there will be no public access to the Project during construction or operations. Access to the Project will be limited to trained staff and maintenance personnel only. The capacitor bank station will be surrounded by a chain link fence per requirements of the NESC.

Access to the capacitor bank station will be located off U.S. Route 1 via an existing access road within the Seabrook Station. Following initial entrance into the station via the existing access road, the station is enclosed by chain-link fencing with locking gates to ensure public safety. The Seabrook Station has 24/7/365 onsite monitoring and operating capabilities. Should issues arise, Seabrook Station will dispatch site security, operations personnel, and Seabrook responders, as necessary.

K. EFFECTS ON ORDERLY DEVELOPMENT OF THE REGION

The Project will not unduly interfere with the orderly development of the region. The Project, as proposed, is consistent with and complimentary to existing land uses, promotes economic development, expands the local tax base, and uses existing infrastructure, most notably the entire proposed Project is located adjacent to existing Eversource Line 363 345 kV electrical transmission line for interconnection to the grid, within an existing industrial setting, within an existing parking lot. The proposed Project is at the existing Seabrook Station. As described elsewhere in this Application, this eliminates the need for any new major transmission line construction, thereby avoiding the potential impacts associated with such development.

Many towns and regional and state planning agencies strive to reduce dependencies on residential property tax revenue by encouraging environmentally sound commercial and industrial development. The proposed Project is environmentally sound, as it has been designed to avoid impacts to resources and has a minimized Project footprint. The Project will provide a new source of revenue for Seabrook but will not burden Seabrook with costs typically associated with other forms of development.

The construction of the Project will also create jobs and provide tax benefits to Seabrook and the state. NHT will seek to use qualified local labor to the greatest extent possible throughout the permitting, development, and construction of the Project. This will include opportunities such as site preparation, construction, surveying, monitoring, and other related jobs. Additional details regarding economic impacts of the Project are described in Sections K.2 and K.3 below.

Project Outreach

In reviewing the effects of the proposed Project on the orderly development of the region, the views of the municipal governing body in Seabrook were reviewed and considered. NHT has proactively engaged in several discussions about the Project with Seabrook officials. Table K-1 contains a list of primary meetings made by NHT to discuss the Project with agencies, municipal officials, other organizations, and the public. Appendix 18 contains copies of notes recorded during agency meetings.

NHT held a Public Information Session in Seabrook on December 1, 2021, designed to address questions or concerns of the community, including abutters to the Project. At this event, representatives from NHT, along with Project consultants, provided information about the Project, answered questions, and listened to concerns regarding the Project. Written information was provided and visual information in the form of poster boards was presented to attendees.

Table K-1. Project Outreach Summary		
Agency, Governing Body, or Organization	Date	
State and Federal Agencies		
NHNHB Data check Letter	11/12/2021	
USFWS Official Species List	10/28/2021	
NHDES	12/15/2021	
USACE	01/21/2022	
Seabrook		
Town Manager	10/15/2021	
Public Open House	12/01/2021	

Consistency with Master Plans of Affected Communities and Regional Planning Initiatives

The Project is consistent with the Master Plan of the Town of Seabrook. The Project is sited within an Industrial Zone. Much of Seabrook is developed (approximately 45%) and the Master Plan states that it is important for the Town to manage and protect the remaining undeveloped land and open spaces. By siting the proposed Project within an existing facility developed area and within the Town Industrial Zone, these goals are being met. The Seabrook Master Plan is accessible online at https://seabrooknh.info/boards-and-committeesplanning-boardseabrook-master-plan/

The Project is also consistent with the Master Plan of Hampton Falls. The Hampton Falls Master Plan, similar to the Seabrook Master Plan, has a goal "to manage growth so as to preserve and protect the rural character of the Town". Though the Town of Hampton Falls has no regulatory authority over the current proposed Project and is not considered to be an affected community, siting the proposed Project within an existing facility developed area and within the Town of Seabrook Industrial Zone will not interfere with Hampton Falls goals.

The Hampton Falls Master Plan is accessible online at https://www.hamptonfalls.org/sites/g/files/vyhlif5671/f/pages/hampton_falls_complete_mp_2019 .pdf

NHT will provide hard copies of the Seabrook and Hampton Falls Master Plans upon request.

The plans/documents described above provided a broad framework to consider during Project development. Along with these comprehensive planning documents, NHT has coordinated with the Town of Seabrook in order to comply with local ordinances to the maximum extent practicable. The following local provisions were considered during Project design: Zoning Ordinance; Site Plan Regulations. NHT has designed the Project to ensure compatibility with these local ordinances. Copies of these 2 ordinances are contained in Appendices 19A and 19B. NHT will be submitting a commercial building permit application and an electrical permit application to the Town of Seabrook as part of the permitting of this Project.

In summary, the proposed Project will not unduly interfere with the orderly development of the region. The installation of a transmission energy facility on a currently developed energy generation site in Seabrook for the Seabrook Station and associated equipment, is in concert with the orderly development of the region, especially considering the site is within an existing developed site and the Project's proximity to an existing transmission line.

K.1. Land Use

Impacts on local land use during construction and operation of the Project are expected to be minimal. NHT has obtained an easement from the current property owners, for the legal right to own and operate the Project at the proposed site. Additionally, the Project is sited within the previously developed Seabrook Station.

The Project footprint will occupy approximately 2.06 acres comprised of capacitor banks, circuit breakers, busswork, aboveground electric lines, control house, and other appurtenant infrastructure (e.g., security fencing, etc.). Construction of the Project will not impact surrounding land uses, nor create an additional burden in terms of road access, water usage, or strain on municipal services.

K.1.a. Description of prevailing land uses in the affected communities

Prevailing land uses in the affected community of Seabrook includes residential, tourism, and commercial uses. Primary land uses in the vicinity of the Project include industrial, commercial, residential, and undeveloped tidal wetlands. Residential development is primarily medium to high density, with housing ranging from colonial homes to 20th century subdivisions. Recreational resources in the area include the beach area. Residential development and recreational resources are not adjacent to the Project.

Prevailing land uses in the affected community of Hampton Falls includes residential, tourism, and a small amount of commercial uses. Primary land uses in the vicinity of the Project include industrial, residential, and undeveloped tidal wetlands. Residential development is primarily medium to high density, with housing ranging from colonial homes to 20th century subdivisions. Recreational resources in the area include the beach area. Residential development and recreational resources are not adjacent to the Project.

K.1.b. Description of how the proposed facility is consistent or inconsistent with such land uses

The Project is located within an existing industrial setting, within an existing parking lot of the existing Seabrook Station, local land uses will be able to continue in the same manner as they have for several decades as the Project is compatible with local land uses and development patterns in the surrounding area. The Project will be located entirely on private land, with no public access.

A discussion of potential visual impacts to local recreational resources is provided in Section J.1 and Appendix 10.

K.2. Economy of the Region

Utility-scale electric development provides opportunity for economic benefits and job creation resulting from manufacturing of Project materials, sales and distribution of materials, permitting and associated surveys and studies, Project construction, and on-going operation and maintenance activities.

Per NH Administrative Rule Site 202.15 NHT has requested a waiver from the requirements in NH Administrative Rule Site 301.09(b) and (c). NHT submitted the waiver request given the small size, location in a developed area, and cost of the Project, the requirements to perform a complete economic and employment study would be unduly burdensome and unnecessary. As an alternative to the requirements, NHT President Richard Allen has provided general information in his pre-filed testimony sufficient to outline the economic benefits of development of this facility to the local community.

K.2.a. Economic effect of the facility on the affected communities

The estimated cost of the project is \$8.9 million, and it is unlikely that the Project will have a significant economic impact on the local communities.

K.2.b. Economic effect of the proposed facility on in-state economic activity during construction and operation

Due to the specialized nature of the equipment that must be installed, NHT anticipates purchasing equipment and hiring a specialized contractor from outside of the state to complete this Project. Revenues generated for local businesses are a positive economic impact anticipated during construction. However, NHT does not anticipate much economic effect of this new facility on the affected communities or in-state economic activity during construction and operation periods, nor will the Project impact estate values in Seabrook, tourism and recreation, or community services and infrastructure.

K.2.c. Effect of the proposed facility on State tax revenues and tax revenues of the host and regional communities

NHT anticipates the annual property tax payments to be approximately \$160,000 in year 1, and likely decline over time as the project depreciates.

K.2.d. Effect of the proposed facility on real estate values in the affected communities

No anticipated effect.

K.2.e. Effect of the proposed facility on community services and infrastructure

No anticipated effect.

K.3. Employment in the Region

NHT anticipates the potential need for one or two full time positions to inspect and maintain the new equipment associated with the Project.

K.3.a. Number and types of full-time equivalent local jobs

Provided in K.3.

K.3.b. Number and types of full-time equivalent jobs

Provided in K.3.

L. PRE-FILED TESTIMONY AND EXHIBITS SUPPORTING THE APPLICATION

THE STATE OF NEW HAMPSHIRE BEFORE THE NEW HAMPSHIRE SITE EVALUATION COMMITTEE

SEC DOCKET NO. 2021-05

NEW HAMPSHIRE TRANSMISSION, LLC SEABROOK CAPACITOR BANK PROJECT

PREFILED TESTIMONY OF RICHARD ALLEN

APRIL 1, 2022

1	Qualifications	of Richard	Allen

- Q. Please state your name and business address.
 A. My name is Richard Allen and my business address is 700 Universe Blvd., Juno
 Beach Florida, 33408.
- 5 **Q**. What is your position with New Hampshire Transmission, LLC ("NHT")? I am the President of the Applicant, New Hampshire Transmission, LLC 6 A. ("NHT"). NHT is a direct, wholly-owned subsidiary of NextEra Energy Transmission, 7 LLC ("NEET"). NEET, which is an indirect, wholly-owned subsidiary of NextEra 8 Energy, Inc. ("NextEra Energy"). 9 Q. What are your responsibilities as President of NHT? 10 11 A. My responsibilities include the management of NHT, as well as oversight and responsibility for any additional transmission upgrades, including the new capacity 12 banks, breakers, and short transmission line ("Project") associated with the Petition that 13 14 this testimony accompanies.

1	Q.	Please summarize your educational background and professional experience.
2	A.	I received a Bachelor's of Science in Electrical Engineering from Clarkson
3	Unive	rsity in 1987, a Master's of Electric Power Engineering from Rensselaer
4	Polyte	echnic Institute in 1989, and a Master's in Business Administration from Rensselaer
5	Polyte	echnic Institute in 2004. I was employed by National Grid for 25 years, in
6	increa	sing levels of responsibility in Engineering, Operations, Project Management, and
7	Busine	ess Development. In 2014, I was appointed to serve as Vice President for New
8	York	Transco, an affiliate of the New York investor-owned utilities that is used to
9	develo	op and own new transmission facilities across New York State. In 2015, I joined
10	the Ne	ew York Power Authority as Vice President of Project and Business Development
11	respor	sible for the permitting and development of major transmission and generation
12	projec	ts. In 2019, I joined NEET.
12	projec	
13	Q.	Have you testified before the New Hampshire Site Evaluation Committee?
	1 0	
13	Q.	Have you testified before the New Hampshire Site Evaluation Committee?
13 14	Q.	Have you testified before the New Hampshire Site Evaluation Committee?
13 14 15	Q. A.	Have you testified before the New Hampshire Site Evaluation Committee? No.
13 14 15 16	Q. A. Q. A.	Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony?
13 14 15 16 17	Q. A. Q. A. capabi	 Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony? The purpose of my testimony is to address the managerial, financial, and technical
13 14 15 16 17 18	Q. A. Q. A. capabi about	 Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony? The purpose of my testimony is to address the managerial, financial, and technical ilities of NHT to construct, own, and operate the Project, to provide information
13 14 15 16 17 18 19	Q. A. Q. A. capabi about suppor	Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony? The purpose of my testimony is to address the managerial, financial, and technical ilities of NHT to construct, own, and operate the Project, to provide information the impact the Project will have on the orderly development of the region, and to
13 14 15 16 17 18 19 20	Q. A. Q. A. capabi about suppor study.	Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony? The purpose of my testimony is to address the managerial, financial, and technical ilities of NHT to construct, own, and operate the Project, to provide information the impact the Project will have on the orderly development of the region, and to rt the request for a waiver from the requirement to do a complete economic impact
13 14 15 16 17 18 19 20 21	Q. A. Q. A. capabi about suppor study. reinfor	 Have you testified before the New Hampshire Site Evaluation Committee? No. What is the purpose of your testimony? The purpose of my testimony is to address the managerial, financial, and technical illities of NHT to construct, own, and operate the Project, to provide information the impact the Project will have on the orderly development of the region, and to rt the request for a waiver from the requirement to do a complete economic impact Given the minor impacts that will result from this Project, my testimony

2

Q. Please provide an overview of the Project.

A. NHT proposed the Project to resolve a reliability issue identified by ISO-NE in its 3 2029 New Hampshire Solution Study. ISO-NE selected NHT's Project as one element of 4 the Preferred Solution in its 2029 New Hampshire Solution Study. Project components 5 include capacitor banks, circuit breakers, busswork, aboveground electric lines, control 6 house, protection, control, communication, and other appurtenant infrastructure (e.g., 7 8 security fencing, etc.). The capacitor banks will need to be interconnected to the adjacent 345 kV transmission line via transmission tap conductors (lines) and structures that will 9 be built and owned by Eversource as part of the Project. Construction is currently 10 anticipated to commence after all approvals and permits are received which is anticipated 11 in Spring of 2023. The expected Commercial Operation Date for the Project is October 12 of 2023. 13

The Project site is located on property that currently serves as a parking lot for 14 Seabrook Station, which is located north of the north access road to the power station 15 16 (north of Rocks Road), east of Lafayette Road US Route 1. The site to be redeveloped for this Project is approximately 2.1 acres; the total acreage set aside for Seabrook 17 Station, the nuclear generating station, and associated transmission equipment is 18 19 approximately 889 acres, 109 of which is developed and holds most of the operating facilities. The Project site is bordered to the west by an abandoned railroad right of way, 20 21 to the south by an Eversource easement for transmission lines, to the north by an existing emergency response structure, and to the east by a Unitil distribution line easement. 22

1	Beyond the Until easement to the east are estuarine marshlands. The site is located on
2	the western shore of Hampton Harbor, two miles west of the Atlantic Ocean.
3	Q. Please provide an overview of NHT's managerial, financial, and technical
4	capabilities.
5	A. I have included below an overview of the resources available to NHT in each of
6	these areas.
7	Managerial and Technical
8	In addition to the Seabrook Substation owned and operated by NHT, subsidiaries of
9	NEET own, operate, and develop significant high-voltage transmission infrastructure
10	across the United States. In particular, NEET is the direct parent company of:
11	• Lone Star, which owns, operates, and maintains approximately 330 miles
12	of double-circuit 345 kilovolt ("kV") transmission lines and six
13	substations within the Electric Reliability Council of Texas region;
14	• GridLiance which owns, operates, and maintains transmission assets in
15	Illinois, Kansas, Missouri, Oklahoma, Nevada, and Kentucky;
16	• Trans Bay Cable, which owns, operates, and maintains an approximately
17	53-mile, ±200 kV submarine high-voltage direct current transmission
18	system in San Francisco, California area; and
19	• Horizon West, which owns, operates, and maintains a 230 kV substation
20	in San Diego County, California and is developing another high-voltage
21	substation project in northern California.

NEET's other assets include a 280-mile, 230 kV transmission project under construction
 in Ontario, Canada and a 20-mile, 345 kV transmission project in construction in New
 York.

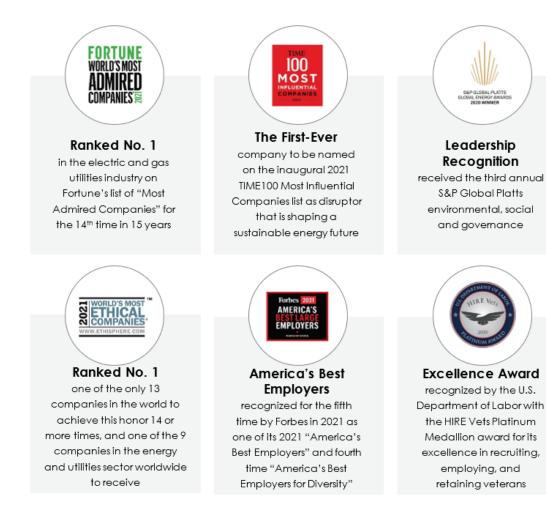
4 In total, affiliates of NHT own, operate, and maintain approximately 81,500 circuit miles of high-voltage transmission and distribution lines and 1,000 substations as of December 5 6 31, 2021. NHT has an experienced transmission facility operation and maintenance 7 ("O&M") team and is supported by the nationally recognized O&M teams of the NextEra 8 Energy family of companies, which includes NEET and Florida Power & Light Company 9 ("FPL").¹ NextEra Energy employs time-tested, robust practices for staffing, operating, and maintaining its facilities using the appropriate mix of local, on-the-ground expertise 10 and affiliate support to ensure safe and reliable operations of its utility facilities. Across 11 the NextEra Energy organization, there are more than 750 power system professionals 12 including engineers, technicians, and other staff with expertise in all aspects of 13 14 transmission and substation equipment installation, operation, maintenance, and repair. Personnel from FPL's Transmission and Substation team, with the assistance of local 15 contractors, are involved in the O&M of all of NextEra Energy's subsidiaries' high-16 17 voltage transmission assets.

NextEra Energy has been recognized by third parties for well over a decade as a highly
 regarded energy company. Those recognitions are the result of the professional and
 technically skilled management and employees of NextEra Energy, including those in
 NHT. More specifically, NextEra has been recognized often by third parties for its

¹ FPL, is one of the nation's most well-respected electric utilities. FPL serves more than 5 million homes and businesses in Florida – more than 10 million people – and is one of the largest rate-regulated electric utilities in the U.S.

efforts in sustainability, corporate responsibility, ethics, compliance, and diversity, and
has been ranked No. 1 in the electric and gas utilities industry in Fortune's 2021 list of
"World's Most Admired Companies" 14 of the last 15 years. In 2021, NextEra Energy
ranked No. 1 for eight of the nine rated attributes, including innovation, people
management, use of corporate assets, quality of management, financial soundness, longterm investment value, quality of products/services and global competitiveness.

2020-2021 Awards & Recognitions



<u>Financial</u>

1	NEET is an industry-leading transmission planning, engineering, procurement,
2	construction, and operations company that has been involved in the electric transmission
3	industry for over 30 years. NEET has in-house transmission planning, development,
4	engineering, environmental, procurement, and regulatory personnel and operates one of
5	the most reliable electric utility networks in the country with 99.98 percent reliability.
6	The company has constructed \$66 billion worth of major projects since 2003 corporate-
7	wide. This extensive experience in transmission ownership, construction, operation, and
8	management demonstrates that NEET and its subsidiary NHT have the financial,
9	managerial, and technical capabilities needed for the successful construction and
10	operation of the Project. NEET is a subsidiary of NextEra Energy, Inc. (NEE) one of the
11	leading energy companies in the United States (U.S.), with consolidated revenues of
12	approximately \$17 billion as of December 31, 2021. NextEra has planned infrastructure
13	investments in the U.S. of over \$28 billion through 2022.
14	Q. Are you familiar with the most recent financing approval obtained from the
15	New Hampshire Public Utilities Commission by NHT and whether there are
16	sufficient funds available from that financing to fund this Project?
17	A. Yes. I am familiar with the most recent financing approval the New Hampshire
18	Public Utilities Commission granted to NHT in Order No. 26,204 in DE 18-171
19	(December 21, 2018) to address aging infrastructure at the Seabrook Transmission
20	Substation, and the extension of the loan agreement that was the subject of that financing
21	for a two-year period beginning on January 1, 2021. Order No. 26,432 in DE 18-171
22	(December 17, 2020). The total amount of the long-term secured debt instruments
23	approved in those orders were in an aggregate principle amount not to exceed \$59

million. The estimated cost of the project is \$8.9 million², but the project is still in an
early stage of development and the cost could change, though we do not anticipate that
the costs will increase to any significant extent.

Q. Based on the managerial, financial, and technical experience of NHT and its
affiliates you outlined above, do you believe it is in the public interest for NHT to
construct, own, and operate the Project and to fund the Project from the previously
approved financing?

A. Yes, for all the reasons set forth in my testimony and in the Petition, NHT is managerially, technically and financially qualified to construct, own, and operate the Project, and it would be for the public good for the New Hampshire Site Evaluation Committee to grant a Certificate of Site and Facility for this Project, or, in the alternative, to grant the Project an exemption pursuant to RSA 162-H:4, IV, or to determine that this Project is not a "sizeable addition" within the meaning of RSA 162-H:5 and therefore does not need a Certificate of Site and Facility.

15

Impact on the Orderly Development of the Region

Q. Can you provide the SEC with information about the impact the Project will have on the orderly development of the Region?

A. Yes. It is my understanding that each SEC application must provide information about the effects that the proposed facility will have on the orderly development of the region, including the views of municipal and regional planning commissions and municipal governing bodies and master plans of the affected communities and an

² New Hampshire (NH) 2029 Solutions Study – Final (CEII), ISO New England (May 2021)

estimate of the effects on land use in the region. The Applicant must also provide information about the economic impact of the proposed facility, which is included below.

1

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3 I believe that the Project will not unduly interfere with the orderly development of 4 the region for a number of reasons. The Project is consistent with and complimentary to existing land uses. It is also consistent with the Seabrook and Hampton Falls Master 5 6 Plans, which outline the goal of balancing issues of energy conservation, protection of 7 natural resources and economic development in a way that maintains rural character and sustains a viable community. This Project is a low impact, non-residential form of 8 9 development that requires no additional strain on the municipalities. The Project will be placed on a currently developed energy generation and transmission site in proximity to 10 an existing transmission line and substation. 11

Q. Are you familiar with the request for a waiver of the economic impact study which NHT filed in this docket on April 1, 2022?

Yes, I reviewed and approved of the request for a waiver from the requirements in 14 A. Admin. Rule Site 301.09(b) and (c). NHT submits that given the size, location and cost 15 16 of this Project, it would be unduly burdensome and unnecessary for it to do the complete economic and employment study provided for in the rules. Given the nature and size of 17 this Project, it is extremely unlikely that it will have any significant economic or lasting 18 19 employment effects in the region, even though this is considered by ISO-NE to be a project that is necessary to address a reliability issue. NHT submits that it would be 20 unduly burdensome and unnecessary to assess the six different factors laid out in 21 paragraph (b) of Site 301.09 and the employment impacts specified in Site 301.09(c). 22

1

2

Q. Can you provide some general information about what you anticipate the economic impact of the Project to be?

3 A. Yes. Given that the estimate of the project is \$8.9 million, it is unlikely that it 4 will have any significant impact on the local economy. Because of the nature of the equipment that must be installed, NHT anticipates purchasing that equipment and hiring a 5 6 specialized contractor from outside of the state to complete this Project. There may be 7 some positive effects on local businesses during construction because of the revenues generated for local businesses. NHT does not believe, however, that there will be 8 9 substantive economic effect of this new facility on the affected communities or in-state 10 economic activity during construction and operation periods, nor will the Project impact real estate values in Seabrook, tourism and recreation, or community services and 11 infrastructure. In terms of the effect on state tax revenues and the tax revenues of 12 Seabrook, NHT anticipates the annual property tax payments to be approximately 13 14 \$160,000 in Year 1, and likely decline over time as the project depreciates. With regard to the effect on employment, including the number of type of full-time equivalent local 15 jobs expected to be created or affected by the proposed facility, and the number and types 16 17 of full-time equivalent jobs expected to be created or affected by the operation of the facility, NHT anticipates very little impact, although there may be the need for one or two 18 19 new full time positions to inspect and maintain the new equipment associated with this Project. 20

21

Does this conclude your testimony?

A. Yes, it does.

Q.

23

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THE STATE OF NEW HAMPSHIRE BEFORE THE NEW HAMPSHIRE SITE EVALUATION COMMITTEE

SEC DOCKET NO. 2021-05

NEW HAMPSHIRE TRANSMISSION, LLC SEABROOK CAPACITOR BANK PROJECT

PREFILED TESTIMONY OF DANA VALLEAU

APRIL 1, 2022

1 **Qualifications of Dana Valleau**

- 2 Q. Please state your name and business address.
- 3 A. My name is Dana Valleau. My business address is TRC, 14 Gabriel Drive,
- 4 Augusta, Maine 04330.
- 5 Q. Who is your current employer and what position do you hold?
- 6 A. I am employed by TRC as an Environmental Specialist.
- 7 Q. Please describe your responsibilities at TRC, including those that relate to

8 the Seabrook Capacitor Bank Project that is the subject of this docket.

- 9 A. My responsibilities include project management, scoping field studies,
- 10 consultation with agencies, and overseeing field studies. I also conduct fieldwork as a
- 11 wetland scientist, wildlife biologist, and environmental inspector on construction sites.
- 12 Additionally, I provide documentation of field study results, prepare permit applications,
- 13 and perform compliance reporting.

14 Q. What is your background and what are your qualifications?

A. I have a B.S. Degree in Wildlife Management and Juris Doctorate, both from the
University of Maine. I have worked in the environmental science field for over 20 years

1 in a wide variety of capacities. I was certified as a wildlife biologist in June 2011 through 2 The Wildlife Society, a nationally recognized certification program for professional 3 wildlife biologists. I renewed my certification in June 2019, as certifications must be 4 renewed every 5 years by demonstrating 80 hours of continued education and 5 professional development. I have conducted/coordinated wetland and vernal pool surveys 6 and assessments on electric transmission line projects such as the Central Maine Power 7 Company Maine Power Reliability Project and also on the Kibby and Kibby Expansion 8 Wind Power Projects in Maine. I have also worked on the Chinook and Chariot Solar 9 Projects in New Hampshire, both of which have been or are now pending before the New 10 Hampshire Site Evaluation Committee ("SEC"). Attachment DV-1.

11 Q. Have you previously testified before this Committee and/or any other state 12 permitting agencies?

13 A. Yes. I presented testimony on the results of bat field studies, as well as testimony 14 regarding the potential effect of the Antrim Wind Project on the natural environment, 15 particularly wetlands, vernal pools, and wildlife habitat, in connection with Antrim Wind 16 Energy, LLC's application for a Certificate of Site and Facility in Docket 2012-01. I also 17 testified before the SEC with regard to the Chinook Solar Project in SEC Docket No. 18 2019-02. In addition, I testified before the Maine Board of Environmental Protection, as 19 well as before the Maine Land Use Regulation Commission on behalf of the applicant in 20 the Kibby and Kibby Expansion Wind Power Projects.

21 **Purpose of Testimony**

22 Q. What is the purpose of your testimony?

1	A. My testimony supports NHT's Application for a Certificate of Site and Facility				
2	for the Project, specifically as it pertains to the potential effects of the Project on the				
3	natural environment, including wetlands, vernal pools, wildlife and wildlife habitat. My				
4	testimony also addresses the visual impact and sound reports that have been prepared on				
5	this Project, as well as the effects upon cultural and historic resources. Given the minor				
6	impacts that will result from this Project, my testimony also reinforces NHT's request				
7	that the SEC either: (1) grant this Project an exemption; (2) determine that it is not a				
8	sizeable addition or change that warrants review; or (3) expedite the review of this				
9	Project.				
10	Q. Please describe the Seabrook Capacitor Banks Project that is the subject of				
11	this docket.				
12	A. NHT proposed the Project to resolve a reliability issue identified by ISO-NE in its				
13	2029 New Hampshire Solution Study. ISO-NE selected NHT's Project as one element of				
14	the Preferred Solution in its 2029 New Hampshire Solution Study. Project components				
15	include capacitor banks, circuit breakers, busswork, aboveground electric lines, control				
16	house, and other appurtenant infrastructure (e.g., security fencing, etc.). The capacitor				
17	banks will need to be interconnected to the adjacent 345 kV transmission line via				
18	transmission tap conductors (lines) and structures that will be built and owned by				
19	Eversource as part of the Project. Construction is currently anticipated to commence				
20	after all approvals and permits are received which is anticipated in Spring of 2023. The				
21	expected Commercial Operation Date for the Project is October of 2023.				
22	I have reviewed all the surveys and studies for the Project related to natural				
23	resources, and I have visited the Project site and participated in the pre-application public				

1

information session. As the result of these activities, I am very familiar with the Project.

2

3 Wetlands, Waterbodies, and Tidal Wetlands

4 Q. Please describe the area that was reviewed for potential effects on wetlands, 5 waterbodies, and tidal wetlands.

6 A. The Project site is located on property that currently serves as a parking lot for 7 Seabrook Station, which is located north of the north access road to the power station 8 (north of Rocks Road), east of Lafayette Road US Route 1. The site to be redeveloped 9 for this Project is approximately 2.1 acres (89,585 square feet) in size; the total acreage 10 set aside for Seabrook Station, the nuclear generating station, and associated transmission 11 equipment is approximately 889 acres, 109 of which is developed and holds most of the 12 operating facilities. The Project site is bordered to the west by an abandoned railroad right of way, to the south by an Eversource easement for transmission lines, to the north 13 14 by an existing emergency response structure, and to the east by a Unitil distribution line 15 easement. Beyond the Unitil easement to the east are estuarine marshlands. The site is 16 located on the western shore of Hampton Harbor, two miles west of the Atlantic Ocean. 17 **O**. Please describe the methodology used by TRC to conduct an analysis of the

18 **Project's potential effect upon wetlands and tidal areas.**

A. TRC surveyed for and delineated any wetlands, waterbodies, vernal pools and
tidal wetlands in this area. In accordance with the New Hampshire Code of

- 21 Administrative Rules for the Delineation and Classification of Wetlands (Env-Wt 301),
- 22 wetland delineations were conducted according to the Regional Supplement to the Corps
- 23 of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, v2

(USACE, 2012). Surface waters were identified using the State of New Hampshire Code
 of Administrative Rules Chapter Env-Wt 101 definitions, and vernal pools were
 identified using the State of New Hampshire Code of Administrative Rules Chapter Env Wt 100.108 definitions.

5 O. Pleas

Q. Please describe the wetlands identified in your surveys.

A. TRC identified a total of 9 wetlands within the survey area. Streams and vernal
pools were not observed within the survey area. The complete wetland and waterbody,
survey report is included as Appendix 1 to the Application.

9 Q. What are your conclusions regarding the Project's potential effect upon

10 wetlands, water bodies and tidal wetlands?

A. TRC determined there will be no direct impacts to wetlands, waterbodies or tidal
wetlands as a result of this Project. The Project was designed to completely avoid direct
impacts to wetlands. The layout of the Project avoided all wetlands and water bodies by
siting the capacitor banks, circuit breakers and transmission tap line entirely within the
boundaries of the existing developed area.

16 Q. In your opinion, will the Project have an unreasonable adverse effect on

17 wetlands, water bodies or tidal wetlands?

A. No. For the reasons described above and in the wetland and waterbody report, it
is our opinion that the Project will not have an unreasonable adverse effect on wetlands,
waterbodies or tidal wetlands.

21 Natural Communities and Rare Plants

Q. Please describe the methodology used by TRC for conducting an analysis of
the Project's potential effects on natural communities and rare plants.

A. TRC consulted with the New Hampshire Natural Heritage Bureau ("NHNHB") to identify any known or potential rare plant and/or natural community occurrences for the proposed site. Consultation with the NHNHB concluded that no records of exemplary natural communities or rare plant species are known to occur within the Project site.

5 Correspondence with the NHNHB is provided as Appendix 15A to the Application.

6 Q. In your opinion, will the Project have an unreasonable adverse effect upon
7 natural communities or rare plants?

8 A. No. Based on field surveys and consultation with the NHNHB, the proposed
9 Project will not result in any effect upon significant natural communities, rare plants or
10 communities which are likely to support rare plants.

11 Wildlife and Wildlife Habitat

12 Q. Please describe the area that was reviewed for effects on wildlife and wildlife 13 habitat.

14 A. As further described above, the Project site is an existing parking lot. While 15 natural resources in and around the Project site provide opportunities for many of New 16 Hampshire's indigenous wildlife species, a desktop review of known environmental factors 17 indicated that no known critical habitat exists within the Project site. NHT has requested 18 a letter from the United States Army Corps of Engineers ("USACE") confirming no 19 USACE jurisdiction for the proposed Project, included in Appendix 3. Following with no 20 USACE jurisdiction, there is no requirement for consultation with the United States Fish and Wildlife Service ("USFWS"). Based on our review of the site and our desktop review, 21 22 we believe that the Project will not impact any wildlife species or wildlife habitat.

Q. In your opinion, will this Project have an unreasonable adverse effect on wildlife and wildlife habitat?

A. No. TRC and NHT have consulted with the NHNHB in an effort to design the
Project to avoid wildlife impacts to the greatest extent possible. Based on these
consultations and our knowledge and review of the Project area, it is our opinion that the
Project will not have an unreasonable adverse effect on wildlife or wildlife habitat.

7 Historic and Cultural Resources

8 Q. Was a review of historic and cultural resources conducted for this Project?

9 Yes. TRC consulted with the New Hampshire Division of Historical Resources A. 10 ("NHDHR") to determine compliance with Section 106 requirements of the National 11 Historic Preservation Act. TRC recommended a study area consisting of a 2-mile radius 12 around the Project, with which NHDHR concurred. TRC reviewed all information about 13 previously identified historic properties and completed field studies, in accordance with 14 NHDHR guidelines, to evaluate potential impacts of the Project on historic resources. A 15 copy of correspondence with NHDHR is included in Appendix 13B. NHDHR provided 16 concurrence that the Project will not impact any known archaeological sites, nor will it 17 physically alter any existing historic buildings or structures.

18 Q. In your opinion, will this Project have an unreasonable adverse effect on

19 historic and cultural resources?

A. No. Based on our review, we believe that this Project will not have an
unreasonable adverse effect on historic and cultural resources.

- 22 Visual/Aesthetic Impact
- 23 Q. Was a visual impact study conducted for this Project?

1	A. Yes. TRC performed a Visual Impact Assessment ("VIA") for the Project. The					
2	VIA concluded that the Project will not result in an unreasonable adverse effect on the					
3	aesthetics of the surrounding area. The VIA report is contained in Appendix 10. Prior to					
4	conducting the VIA, TRC defined the area of potential visual impact via a desktop review					
5	to determine the appropriate geographic area for the computer-based visibility analysis.					
6	The VIA determined that the location and design of the Project mitigates any potential					
7	visibility of the Project. This is based on the fact that the Project is set back from nearby					
8	roads and properties, the array layout and associated equipment incorporate adequate					
9	buffers to retain existing mature vegetation that will screen the Project, and the Project is					
10	located adjacent to existing electrical transmission infrastructure.					
11						

11 Q. In your opinion, will this Project have an unreasonable adverse effect on 12 aesthetics?

A. No. Based on our review and our knowledge of the Project area, we believe that
it will not have an unreasonable adverse effect on aesthetics.

15 Sound Impact

16 Q. Was a sound impact study conducted for this Project?

A. Yes. Tech Environmental conducted a comprehensive sound level assessment for
the Project. This assessment included baseline sound monitoring and acoustic modeling.
The SEC incremental sound limit standard establishes a maximum allowable incremental
sound increase of 10 decibel A-weighted above ambient. *See* Admin. Rule Site
301.08(d)(1). The Town of Seabrook does not have any sound standards in the zoning
ordinances, building code, or site plan review regulations. To assess compliance with the
SEC sound limits, the lowest measured ambient sound levels were used in the acoustic

1 modeling analysis. Results indicate that the Project will comply with the SEC

2 incremental sound limits.

3 Q. In your opinion, will this Project have an unreasonable adverse effect on
4 sound?

5 A. No. Based on the assessment that has been conducted, as well as the location of 6 the Project away from residences and businesses, we do not believe that the Project will 7 have an unreasonable adverse effect on sound.

8 **Public Health and Safety**

9 Q. Has NHT looked at the potential for impacts on public health and safety?

10 Yes. NHT has a proposed decommissioning plan for this Project that includes: Α. 11 providing a decommissioning schedule to Seabrook and the SEC prior to initiating any 12 decommissioning activities; acquiring approvals for transport of oversized/overweight loads from the Project site, if needed; coordinating with the New Hampshire Department 13 14 of Transportation prior to transport to confirm routes; disconnecting the facility from the 15 utility power grid; disconnecting all aboveground wirings, lines, and electrical 16 interconnections and recycling offsite by an approved recycling facility; removing the 17 perimeter fence and recycling off-site by an approved metal recycler; removing metal 18 structures for recycling off-site by an approved recycler; removing all site inverters, 19 transformers, meters, fans, and other electrical components and recycling off-site by an 20 approved recycler; removing concrete foundations and concrete equipment pads and 21 recycling off-site by a concrete recycler; restoring and stabilizing the site after all 22 equipment is removed; and completing any minor site grading that may be required.

1 All electrical equipment that will be installed will be inspected under rigorous 2 commissioning procedures, as well as by the utilities for grid connection and protection 3 system safety. During operations qualified personnel will routinely inspect equipment in 4 accordance with preventative maintenance schedules.

5

Fire safety and response will be handled by Seabrook Station.

6 The addition of the two tap structures and tap line will have a negligible effect on 7 the electric and magnetic field (EMF) characteristics of the line. Further, given the Project 8 is located within the existing Seabrook Station site, the interconnection, and the proposed 9 tap structures and tap line will be installed in areas not readily accessible by the general 10 public. TRC believes this project will have virtually no impacts on public health and safety 11 from an EMF perspective and that any such impacts will be mitigated by the location of 12 the Project.

13 NHT also reviewed the risks of collapse of the towers and supporting structures
14 that will be part of the Project and believe the risk of potential adverse effects from
15 collapse of such structures is minimal.

16 Q. In your opinion, will this Project have an unreasonable adverse effect on 17 public health and safety?

18 A. Based on our review of all the information noted above, we do not believe the
19 Project will have an unreasonable adverse effect on public health and safety.

20 Conclusion

21 Q. Does this conclude your testimony?

22 A. Yes.

1 3362883_1

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APPENDIX 1: WETLAND, WATERBODY, AND VERNAL POOL DELINEATION REPORT

WETLAND, WATERBODY AND VERNAL POOL DELINEATION REPORT

SEABROOK CAPACITOR BANKS PROJECT

TOWN OF SEABROOK, ROCKINGHAM COUNTY, NEW HAMPSHIRE

January 2022

Prepared for:



New Hampshire Transmission, LLC

700 Universe Boulevard

Juno Beach, Florida 33408

Prepared by:



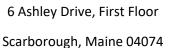




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Attachment B: Photographic Log
Attachment C: New Hampshire Natural Heritage Bureau Response
Attachment D: Delineated Resource Map
Attachment E: USACE Wetland Determination Forms

Acronyms and Abbreviations

Acronym	Definition
CFR	Code of Federal Regulations
CWA	Clean Water Act
EEM	estuarine emergent
Env-Wq	Environmental Services Water Quality
Env-Wt	Environmental Services Wetlands
ESA	Endangered Species Act
FAC	Facultative
HOTL	highest observable tide line
HUC	hydrologic unit code
ILF	In-Lieu Fee
IP	Individual Permit
kV	kilovolt
NEET	NextEra Energy Transmission, LLC
NHDES	New Hampshire Department of Environmental Services
NHGIS	New Hampshire GIS
NHGP	New Hampshire General Permit
NHNHB	New Hampshire Natural Heritage Bureau
NHT	New Hampshire Transmission, LLC
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
PCN	Pre-Construction Notice
PEM	palustrine emergent
PRA	Priority Resource Areas
PSS	palustrine scrub-shrub
RSA	revised statutes annotated
SVN	Self-Verification Notification
ТВΖ	Tidal Buffer Zone



Acronym	Definition
TNW	traditional navigable waters
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Service
WOTUS	Waters of the United States

TRC

1.0 Introduction

New Hampshire Transmission, LLC (NHT), a direct subsidiary of NextEra Energy Transmission, LLC (NEET), is proposing to develop an energy capacitor bank, named the Seabrook Capacitor Banks (the Project), on privately-owned property located in Seabrook, Rockingham County, New Hampshire. TRC Environmental Corp. (TRC) conducted natural resource field surveys in October 2021 to identify state and federal jurisdictional wetlands, waterbodies, and vernal pools, to aid in the development of the Project. This report describes the survey area including results of a desktop review of publicly-available natural resource data, field survey methods pursuant to state and federal jurisdictions, and summarizes the survey results.

2.0 Regulatory Authority

2.1 U.S. Army Corps of Engineers

2.1.1 Regulatory Jurisdiction

In accordance with Section 404 of the Clean Water Act (CWA), the United States Army Corps of Engineers (USACE) asserts jurisdiction over Waters of the United States (WOTUS), defined as wetlands, streams, and other aquatic resources under the regulatory authority per Title 33 Code of Federal Regulations (CFR) Part 328, and the United States Environmental Protection Agency (USEPA) per Title 40 CFR Part 230.3(s). Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (USEPA, 2020).

The USACE will assert jurisdiction over the following waters:

- Territorial seas and traditional navigable waters (TNW);
- Tributaries and non-navigable tributaries of traditional navigable waters that are relatively permanent;
- Wetlands adjacent to traditional navigable waters;
- Lakes and ponds, and impoundments of jurisdictional waters; and
- Adjacent wetlands.

The USACE will decide jurisdiction over the following wetlands based on analysis to determine whether they are adjacent to territorial seas, traditional navigable waters, and tributaries of such features, as well as lakes ponds and impounds of jurisdictional waters. "Adjacent" means one or more of the following:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and
- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary.



The USACE generally will not assert jurisdiction over the following features:

- Waters not listed as WOTUS;
- Groundwater;
- Ephemeral features;
- Diffuse stormwater runoff;
- Ditches not identified as WOTUS;
- Prior converted cropland;
- Artificially irrigated areas;
- Artificial lakes and ponds;
- Water-filled depressions incidental to mining or construction activity;
- Stormwater control features;
- Groundwater recharge, water reuse, and wastewater recycling structures; and
- Wastewater treatment systems.

The USACE has vacated the Navigable Waters Protection Rule (NWPR) and in fall of 2021 began interpreting WOTUS consistent with the pre-2015 ruling which may evaluate wetlands by a significant nexus test.

The USACE will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of downstream traditional navigable waters; and
- Significant nexus includes consideration of hydrologic and ecologic factors.

The USACE also regulates navigable waters under Section 10 of the Rivers and Harbor Act (33 U.S.C. 401 et seq.), which requires that a permit must be issued by the USACE to construct any structure in or over any navigable water of the United States, as well as any proposed action (such as excavation/dredging or deposition of materials) that would alter or disturb these waters. If the proposed structure or activity affects the course, location, condition, or capacity of the navigable water, even if the proposed activity is outside the boundaries of the stream in associated wetlands, a Section 10 permit from the USACE is required.

2.1.2 Federal CWA Permits and Approvals

The CWA defines wetlands as:

...areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances (do) support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Impacts to wetlands will require permitting through the USACE, where there are three permit categories: Self-Verification Notification (SVN), Pre-Construction Notice (PCN), or Individual



Permit (IP). In New Hampshire, the USACE issues SVN and PCN under the USACE's State Programmatic General Permit, the New Hampshire General Permit (NHGP) for impacts less than 3 acres to non-tidal wetlands and for impacts less than 1 acre for tidal wetlands.

Projects can qualify for SVN, depending on the activity type, resources impacted, and whether certain conditions can be met. A common threshold for SVN is whether a project impacts less than 3,000 square feet of non-tidal wetland with permanent or temporary fill. Tidal fill thresholds for a SVN are no new fill (State) and less than 100 square feet (USACE), while PCN thresholds are no new fill (State) and less than 1 acre (Corps). For SVN, there is no review required after self-reporting activities to the USACE. In general, (but not the only threshold shifting projects from PCN to IP), if a project impacts greater than 3,000 square feet of non-tidal wetland and less than 3 acres, the project may be permitted under PCN. For PCN, USACE takes approximately 60 days for the application review process, but there is nothing in statute for processing timeline requirements. If a project cannot qualify for SVN or PCN, the USACE will review the project through an IP. Projects in the IP category typically have impacts to freshwater wetlands greater than 3 acres, or to tidal wetlands greater than 1 acre, and the typical processing time is 120 days.

In all cases, the USACE will require impacts to be avoided, minimized, and (potentially) mitigated. Mitigation preference is generally in the form of an In-Lieu Fee (ILF) payment, however, preservation, restoration, and creation, or some combination thereof, may also be used, but is less preferred by the agencies, thus less common. Mitigation is required when certain thresholds of freshwater wetland impact, of 10,000 square feet, and any impact to tidal wetlands or buffer zones are incurred. ILF is where a one-time, upfront fee is paid into a joint state/federal account that is used to provide funding for mitigation projects across the State. The USACE uses ILF's set by each municipality. In the Town of Seabrook, wetland impact fees are currently \$5.95 per square foot of forested wetland impact, \$11.90 per square foot of tidal wetland impact, and \$5.95 per square foot of all other wetland types impacted. The ILF rates listed on the New Hampshire Department of Environmental Services (NHDES) website are valid through December 31, 2022 and may change after that date.

The Federal Endangered Species Act (ESA) aims to provide a framework to conserve and protect threatened and endangered species and their habitats. Permitting by federal agencies may be required for impacts to these species or their critical habitats.

The proposed Project will have no impacts to wetlands and will not require a permit through the USACE.

2.2 NHDES

2.2.1 Regulatory Jurisdiction

Wetlands in New Hampshire are regulated under the Fill and Dredge in Wetlands Law (Wetlands Law, Revised Statutes Annotated (RSA) 482-A), which is administered by the NHDES Wetlands Bureau. In most cases, the NHDES regulates activities located in wetlands and surface waters, such as excavation, removal, filling, dredging, and/or construction of structures in or on any bank, flat, marsh, forested wetland or adjacent to waterbodies, generally requires review and approval from the Wetlands Bureau in accordance with the Wetlands Law. Delineation and Classification of Jurisdictional Areas; and Classifications of Projects can be found in Chapter Environmental Services Wetlands (Env-Wt) 400.



In addition to the Wetlands Law, NHDES also claims jurisdiction over the Shoreland Area, which is generally lands located within 250 feet of the reference line of public waters, including lakes, ponds and impoundments greater than 10 acres; year-round flowing waters fourth order, or higher; designated rivers and streams; and coastal waters. The Shoreland Water Quality Protection Act protects the shoreland, under RSA 482-B and administrative rules Env-Wq 1400.

2.2.2 State Wetlands Permits and Approvals

2.2.2.1 Wetlands

The State of New Hampshire has three levels of wetland permitting, categorized as "minimum" (< 3,000 square feet and meeting other requirements); "minor" (3,000 square feet > 10,000 square feet and meeting other requirements); and "major" (>10,000 square feet).

Impacts to the Tidal Buffer Zone (TBZ) are regulated under Chapter Env-Wt 600 Coastal Lands and Tidal Waters/Wetlands, also administered by the NHDES Wetlands Bureau. The TBZ is the area of land bordering on tidal waters within 100 feet of the highest observable tide line (HOTL), which can contain banks, upland areas, bogs, salt marsh, swamps, meadows, flats, or other lowlands subject to tidal action. Similar to Fill and Dredge in Wetlands described above, the State has three levels of permit classification for activity within the TBZ.

- Major A project that involves any dredging, filling, or construction activity within 100 feet of the HOTL, and alters any tidal shoreline bank, tidal flat, wetlands, surface water, or undeveloped uplands or is aggregate of projects under Env-Wt 400.
- Minor A project involves any dredging, filling, or construction activity within 75 feet of a saltmarsh in the developed TBZ, is not a major project and disturbs less than 10,000 square feet, but greater than 3,000 square feet in the developed upland tidal buffer.
- Minimum Impact A project involves any dredging, filling, or construction activity within a previously developed upland area, is within 100 feet of the HOTL and disturbs less than 3,000 square feet.

Streams are regulated by Tiers. Tier 1 streams have a watershed size of less than 200 acres and the least stringent requirements. Tier 2 streams have a watershed size of 200 to 640 acres, and Tier 3 streams have a watershed size of over 640 acres. NHDES requires wetlands to be delineated pursuant to the methodology described in Section 3.1.

The State of New Hampshire claims jurisdiction over anywhere freshwater flows or stands including great ponds or lakes, areas created by the rising of great ponds or lakes, all fresh surface water of the State and any bank or shore bordering them, and any swamp or bog subject to periodical flooding by fresh water including the surrounding shore. Furthermore, the NHDES also claims jurisdiction over coastal lands, including tidal beaches, tidal flats, tidal shorelines, tidal buffer zones, and sand dunes.

The proposed Project will have no impacts to wetlands or the 100-foot tidal buffer zone, and therefore, will not require a wetland permit.



2.2.2.2 Shoreland

The protected shoreland is an area close to public waters, within which vegetation removal, excavation, fill, and development is regulated. Within the protected shoreland, excavation, fill, and construction typically require a shoreland permit. However, if development occurs within the bank of a waterbody, a wetland permit may be required instead of a shoreland permit.

Following the completion of field reconnaissance surveys and the development of engineering plans, the limit of disturbance for the Project will encroach into the 250-foot shoreland buffer zone and therefore, will require a shoreland permit.

2.3 Town of Seabrook, New Hampshire

2.3.1 Regulatory Jurisdiction

Under the Town of Seabrook Zoning Ordinance Section 15 Surface Water Protection, the Town aims to protect the larger expanses of wetlands in Seabrook, to minimize flooding, to protect wildlife habitats, to protect groundwater quality, and to prevent damage to structures and property. As stated in Section 15.3 Vegetation, in order to ensure that wetlands remain well vegetated, no natural herbaceous vegetation and no more than 50% of trees, saplings, or shrubs shall be removed from wetlands. Vegetation shall only be removed during the dry season or when the ground is frozen.

- Not more than a maximum of 50% of the basal area of trees, and a maximum of 50% of the total number of saplings shall be removed for any purpose in a 15-year period. Any subsequent cutting requires prior approval by the Planning Board. A healthy, welldistributed stand of trees, saplings, shrubs, ground cover, and their living, undamaged root systems shall be left in place.
- Dead, diseased, unsafe, or fallen trees, saplings, shrubs, or ground cover may be removed. Their removal shall not be used in computing the percentage limitations.
- Stumps and their root systems shall be left intact in the ground.
- Preservation of dead and living trees that provide dens and nesting places for wildlife is encouraged.
- Planting efforts that are beneficial to wildlife are encouraged.

Under Section 15.4 Buffers & Setbacks, all parking lots shall observe a minimum setback of 25 feet, and the following vegetative buffers and structural setbacks shall be observed to protect the integrity and functionality of Seabrook's water resources.

Water Resource	Minimum Buffer	Minimum Setback	
Wetlands less than 5,000 sq ft	None	10 feet	
Vernal Pools of any size, and Wetlands greater than 5,000 sq ft	25 feet limited-cut, consistent with Paragraph D above.	25 feet	
Ponds & Streams	25 feet limited-cut, consistent with Paragraph D above.	50 feet	

Table 1. Town of Seabrook Surface Water Buffers & Setbacks

Any water resource or its buffer altered in violation of this ordinance shall be restored at the expense of the violator(s) as provided by RSA 483-A:5 and under the direction of a New Hampshire-certified wetland scientist and said restoration shall be subject to review by the Seabrook Conservation Commission. When appropriate, injunctive relief shall be sought by the Town as per RSA 676:15, and civil fines imposed as per RSA 676:17.

The proposed Project does not encroach any areas under the jurisdiction of the Town of Seabrook.

3.0 Project Survey Area

3.1 Survey Area Delineation

The Project Survey Area (Survey Area) encompasses approximately 37.9 acres in Seabrook, Rockingham County, New Hampshire. The boundary of the Survey Area is depicted on the Project Location and Survey Area Map in Figure 1, outlined in yellow. The Survey Area is situated within the context of a larger 578-acre parcel (Project Parcel) that contains the NextEra Seabrook Station.

3.2 Survey Area Description and Current Land Use

3.2.1 Watersheds

Topography of the Survey Area generally slopes to the north, and the entire Survey Area is located within the Hampton River-Atlantic Ocean watershed (hydrologic unit code (HUC) 10: 0106000310). The Browns River is located approximately 75 feet to the north at its nearest point from the Survey Area. The northern portions of the Survey Area drain to the Browns River, which drains directly into Hampton Harbor; while the southern portions of the Survey Area drain through the wetlands and their closed drainage system.

3.2.2 General Description

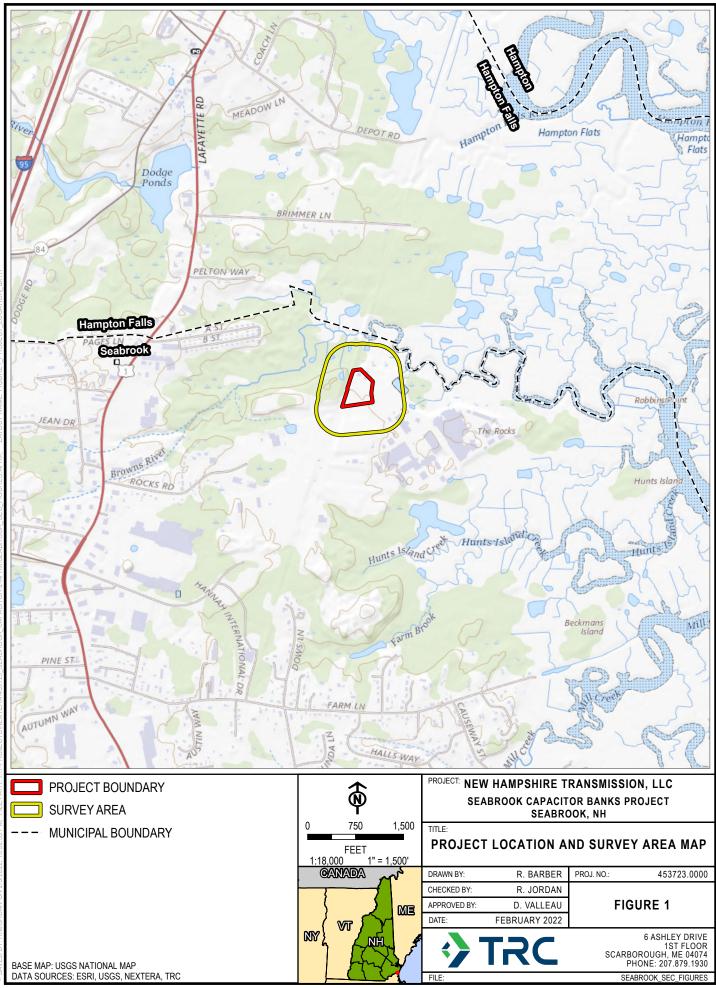
The Survey Area extends 400 feet from all sides of Parking Lot A, located to the northwest of the NextEra Seabrook Station. The Seabrook Station Facilities Map, Figure 2, shows the location of landmarks such as Parking Lot A, and other landmarks identified within this report. The paved parking lot makes up the central portion of the Survey Area, and is developed with several storage buildings, office trailers and equipment storage area, mainly to the north. An east-west running

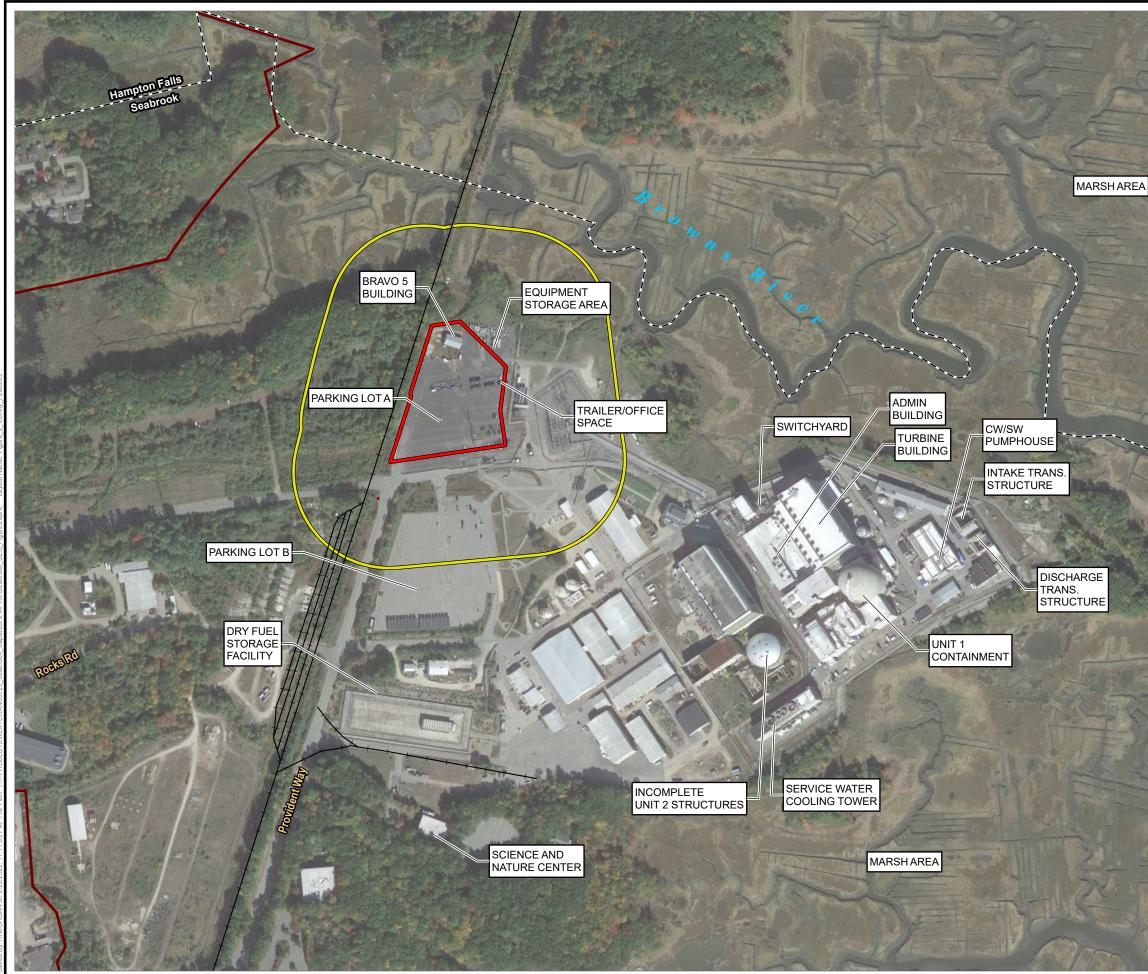


345 kilovolt (kV) transmission line traverses the southern end of the Survey Area and a northsouth 34.5kV transmission line runs through the Survey Area.

The area to the north of Parking Lot A is partially forested leading up to the tidal marsh area that borders the Browns River. A fence runs east to west along the northern portion of the lot, separating the developed portions from the undeveloped areas. The eastern side of the Survey Area is predominantly paved and developed with overhead electrical transmission. The southern end of the Survey Area is developed with an additional parking lot, Parking Lot B, and the main entrance drive, called Provident Way, that extends to the south, exiting the Survey Area. There are multiple delineated wetlands that are situated between the impervious areas, connected by a closed drainage system. The western portion of the Survey Area is thickly forested with evidence of historic anthropogenic activity. An abandoned railroad line runs north-south to the west of Parking Lot A. In addition, an old, large area of rock spoil was deposited within the western side of the Survey Area. The rock area is several hundred feet thick and encompasses an area several hundred feet long by several hundred feet wide. The rock "pad" is overgrown with woodland pioneer species.

Please see Figures 1 and 2 below.







3.2.3 Soils

The Natural Resources Conservation Service (NRCS) Web Soil Survey identifies three soil map units within the Survey Area (NRCS, 2020). The Survey Area consists of:

- 30B Unadilla very fine sandy loam, 3 to 8-percent slopes;
- 299 Udorthents, smoothed; and
- 397 Ipswich mucky peat, 0 to 2-percent slopes, very frequently flooded.

A NRCS Soil Report with additional details on soil types and properties within the Survey Area is included as Attachment A.

4.0 Methodologies

To identify wetlands, streams, and other protected natural resources within the Survey Area, TRC wetland scientists performed on-the-ground investigations in October of 2021. Prior to conducting field investigations, the following data sources were reviewed to aid in identifying wetlands and streams:

- United States Geological Service (USGS) topographic maps;
- United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) maps;
- NRCS Web Soil Survey maps;
- New Hampshire GIS (NHGIS) data; and
- Recent and historic aerial photographs.

4.1 Wetland Delineations

4.1.1 U.S. Army Corps of Engineers

Wetlands are regulated by the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). The CWA defines wetlands as:

...areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances (do) support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Wetland delineations were conducted according to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, v2* (USACE 2012). This supplement follows criteria established in the USACE Wetlands Delineation Manual (Environmental Laboratory, Technical Report T-87-1, 1987), but is region-specific, giving the wetland delineator a better tool to apply to regional vegetation communities, indicators of hydrology and indicators of hydric soils when conducting a wetland boundary determination.

The USACE manual provides a repeatable methodology to identify potential wetland areas using a three-factor approach (i.e., hydrophytic vegetation, indicators of hydrology, and the presence of hydric soils). When a location having the requisite three factors that constitute a wetland were encountered, the boundaries were flagged in the field using glo-pink survey flagging emblazoned with the words "Wetland Delineation" or "Wetland Boundary" and sequentially labeled with a

unique numeric code. This code designates the Wetland Resource ID, which is used on Wetland Determination Forms, resource mapping and summary tables to identify each delineated resource. Wetland flags were geo-located as described in Section 3.6. Representative photographs were taken of each delineated resource and are provided in Attachment B.

4.1.2 NHDES

NHDES follows the USACE wetland delineation methodology and its regulations. The NHDES requires wetlands to be delineated pursuant to the methodology described in Section 4.1.1. New Hampshire also holds certain areas such as Prime Wetlands and Priority Resource Areas to a higher level of protection under RSA 482-A as described below.

4.1.2.1 Prime Wetlands

Under RSA 482-A:15 and administrative rules Env-Wt 700, municipalities may designate "prime wetlands" when they are of substantial significance due to their size, unspoiled character, fragile condition, or other relevant factors. The Town of Seabrook does not contain designated prime wetlands, so this rule is not applicable.

4.1.2.2 Priority Resource Areas

The NHDES groups certain high-value wetland resources into Priority Resource Areas (PRA). PRA are protected under New Hampshire wetland law RSA 482-A and have one or more of the following characteristics:

- (a) Has documented occurrences of protected species or habitat;
- (b) Is a bog;
- (c) Is a floodplain wetland contiguous to a Tier 3 or higher watercourse;
- (d) Is a designated prime wetland;
- (e) Is a duly-established 100-foot buffer of designated prime wetlands;
- (f) Is a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone; or
- (g) Is any combination of (a) through (f), above.

At the time of this writing, the Survey Area contains wetlands that meet characteristics (a), (c), and (f) above. The Project has received a response from the New Hampshire Natural Heritage Bureau (NHNHB), regarding occurrences of protected species, see Attachment C. Additional clarification on the limits of PRAs within the Survey Area may be required, because of the connected nature of the large wetland complex, not all of which supports tidal wetland or floodplain wetland. Table 2 below identifies any PRA within a delineated wetland resource.

4.1.2.3 Shorelands

To determine areas protected by the Shoreland Water Quality Protection Act and its associated rules, Env-Wq 1400, the coastal waters Reference Line was delineated in accordance with RSA Section 483-B:4 XVII(b). "Reference Line" defined for coastal waters as "For coastal waters, the highest observable tide line, which means a line defining the furthest landward limit of tidal flow, not including storm events, which can be recognized by indicators such as the presence of a



strand line of flotsam and debris, the landward margin of salt tolerant vegetation, or a physical barrier that blocks further flow of the tide."

4.1.2.4 Streams

"Stream channel" is defined in the State of New Hampshire Code of Administrative Rules Chapter Env-Wt 902.30 as "A channel that carries the bankfull flow of a watercourse."

Streams are further defined based on the flow characteristics as ephemeral, intermittent, or perennial using the following definitions:

"Ephemeral stream" is defined at Env-Wt 102.65 as:

A watercourse that is located above the water table year-round and is not fed by groundwater, such that runoff from rainfall and snowmelt is the primary source of stream flow and so the stream has flowing water only during, and for a short duration after, precipitation or spring thaw events, but which has less flow than an intermittent stream and no evidence of riffles, meander bends, point bars, or braiding.

"Intermittent stream" is defined at Env-Wt 103.21 as:

A watercourse that is fed by groundwater but is not in the groundwater table throughout the year, where runoff from rainfall and snowmelt is a supplemental source of water for flow, such that the stream typically does not have flowing water during dry portions of the year.

"Perennial stream" is defined at Env-Wt 103.53 as:

A watercourse that is in the groundwater table for most of the year and so has groundwater as its primary source of water for stream flow, with runoff from rainfall and snowmelt as a supplemental source of water, so that it contains flowing water year-round during a typical year.

Env-Wt 406.04 provides clarification on how to delineate watercourses:

Water courses shall be delineated as follows:

- (a) For perennial streams, by identifying on each side:
 - (1) The limit of the bank; and
 - (2) The ordinary highwater mark on the bank; and
- (b) For intermittent streams, by the ordinary highwater mark.

In practice, perennial streams that flow through upland have jurisdictional upland banks. For perennial streams that flow through wetland, the limit of jurisdiction is the wetland limit (i.e., there is no delineated bank).

When a stream meeting the above definition was encountered, blue survey flagging was labeled with an alpha-numeric code and hung at points along the stream. For perennial streams and other streams wider than 6 feet, flags were hung along the banks of the stream. For intermittent and ephemeral streams narrower than 6 feet, flags were hung along the centerline of the stream.

4.2 Vernal Pools

The USACE regulates vernal pools in accordance with the New Hampshire General Permit (2017-2022). Vernal pools are also protected as wetlands or surface waters under the New Hampshire wetlands dredge and fill law, RSA 482-A. In accordance with New Hampshire Code of Administrative Rules (Chapter Env-Wt 300), applicants for wetlands permits through the NHDES



must also demonstrate that they have considered potential impacts to plants, fish, and wildlife, including vernal pools, in assessing the impact of the proposed project. These rules require that any standard application for a minor or major state wetlands permit locate and delineate vernal pools and consider the impact of the proposed project on vernal pools. The rules provide a definition of vernal pools, primary vernal pool indicators, and secondary vernal pool indicators. The protection of an upland buffer may be included in a wetlands permit approval; however, at this time, there is no rule specifically defining a standard buffer width for vernal pools.

New Hampshire Code of Administrative Rules (Chapter Env-Wt 104.44) defines a vernal pool as "a surface water or wetland, including an area intentionally created for purposes of compensatory mitigation, that provides breeding habitat for amphibians and invertebrates that have adapted to the unique environments provided by such pools and that:

- 1. Is not the result of on-going anthropogenic activities that are not intended to provide compensatory mitigation, including but not limited to:
 - a. Gravel pit operations in a pit that has been mined at least every other year; and
 - b. Logging and agricultural operations conducted in accordance with all applicable New Hampshire statutes and rules; and
- 2. Typically has the following characteristics
 - a. Cycles annually from flooded to dry conditions, although the hydroperiod, size, and shape of the pool might vary from year to year;
 - b. Form in a shallow depression or basin;
 - c. Has no permanently flowing outlet;
 - d. Holds water for at least 2 continuous months following spring ice-out;
 - e. Lacks a viable fish population; and
 - f. Supports one or more primary vernal pool indicators, or 3 or more secondary vernal pool indicators."

4.3 Geo-Location of Delineated Resources

When any of the aforementioned resources were encountered during field investigations, the feature boundaries, center points or centerlines were flagged with numbered strips of survey tape. Each flag was geo-located using a mapping grade GPS unit or tablet based hand-held computer. Each flag location was then post-processed using data collection and processing standards designed by the manufacturer to achieve at least sub-meter accuracy. These data were then converted to ESRI shapefile format and plotted on maps using GIS software. Shapefile data can be used during Project design and natural resource minimization and avoidance planning.

5.0 Results

TRC investigated the Survey Area depicted on the Delineated Resource Map provided as Attachment D. The investigations found nine wetlands and no streams or potential vernal pools within the Survey Area. Wetlands, streams or potential vernal pools are not located within the footprint of the proposed Project.

5.1 Wetlands

Wetland and waterbody delineations occurred during field investigations on October 20 and 21, 2021. Attachment D includes mapping showing the location of all delineated resources identified within the Survey Area. Table 2 includes a summary of the wetlands delineated within the Survey

Area. Each wetland is listed by the Resource ID designated in the field and depicted on project mapping and in GIS data. USACE wetland determination forms are included in Attachment E. Descriptions of each wetland by cover type are provided below.

Palustrine Emergent Wetlands

Wetlands W-HSW-1, W-HSW-2, W-HSW-3, W-HSW-4, and W-HSW-5 are freshwater palustrine emergent (PEM) wetlands located within the Survey Area. W-HSW-1 is south of Parking Lot A and is a constructed drainage ditch between parking lots. W-HSW-2, W-HSW-3, and W-HSW-5 appear to be naturalized storm ponds also located south of Parking Lot A, between parking lots A and B. W-HSW-4 is a constructed roadside drainage ditch located in the southwest corner of the Survey Area adjacent to the Provident Way access road.

Palustrine Scrub-Shrub Wetlands

Wetlands W-HSW-6, W-HSW-7, and W-HSW-8 are freshwater palustrine scrub-shrub (PSS) wetlands found within the Survey Area. W-HSW-6 is in the southwestern portion of the Survey Area between the Provident Way access road and the abandoned railroad bed. W-HSW-7 and W-HSW-8 are also located in the southwestern portion of the Survey Area between the abandoned railroad and rock fill pads.

Estuarine Emergent Wetlands

Wetland W-HSW-9 is a tidally influenced, estuarine emergent (EEM) wetland located on the north side of the Survey Area. The tidal wetland associated with the Browns River, a tidal river that flows into Hampton Harbor.

5.2 Shoreland

Shoreland delineations occurred during field investigations on October 21, 2021. Attachment D includes a Delineated Resources Map showing the location of the shoreland reference line within the Survey Area.

5.3 Streams

There were no streams identified or delineated within the Survey Area.

5.4 Vernal Pools

There were no potential vernal pools identified or delineated within the Survey Area.



Table 2. Wetland Resources Delineated

Resource ID	Dominant Cover type ⁱ	Soil Map Unit ⁱⁱ	Dominant Vegetation	Hydrologic Regime	Hydrology Indicators ⁱⁱⁱ	Hydric Soil Indicator ^{iv}	Priority Resource Area
W-HSW-1	PEM	Udorthents, smoothed	Common reed (<i>Phragmites australis</i>), Purple loosestrife (<i>Lythrum salicaria</i>)	Seasonally Flooded	Surface Water (A1), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Saturation (A3), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	No
W-HSW-2	PEM	Udorthents, smoothed	Common reed (<i>Phragmites australis</i>), Purple loosestrife (<i>Lythrum salicaria</i>)	Seasonally Flooded	Surface Water (A1), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Saturation (A3), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	No
W-HSW-3	PEM	Udorthents, smoothed	Common reed (<i>Phragmites australis</i>), Purple loosestrife (<i>Lythrum salicaria</i>)	Seasonally Flooded	Surface Water (A1), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Saturation (A3), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	No
W-HSW-4	PEM	Udorthents, smoothed	Common reed (<i>Phragmites australis</i>), Purple loosestrife (<i>Lythrum salicaria</i>)	Seasonally Flooded	Surface Water (A1), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Saturation (A3), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	No
W-HSW-5	PEM	Udorthents, smoothed	Common reed (<i>Phragmites australis</i>), Purple loosestrife (<i>Lythrum salicaria</i>)	Seasonally Flooded	Surface Water (A1), Inundation Visible on Aerial Imagery (B7), Water-Stained Leaves (B9), Saturation (A3), FAC-Neutral Test (D5)	Depleted Below Dark Surface (A11)	No
W-HSW-6	PSS	Udorthents, smoothed	Long-beaked willow (Salix bebbiana), Carolina buckthorn (<i>Frangula</i> <i>caroliniana</i>), Purple loosestrife (<i>Lythrum</i> <i>salicaria</i>)	Saturated	Water-Stained Leaves (B9), Saturation (A3), Oxidized Rhizospheres on Living Roots (C3), FAC-Neutral Test (D5)	Depleted Matrix (F3)	No
W-HSW-7	PSS	Udorthents, smoothed	Long-beaked willow (Salix bebbiana), Carolina buckthorn (<i>Frangula</i> caroliniana), Purple loosestrife (<i>Lythrum</i> salicaria)	Saturated	Water-Stained Leaves (B9), Saturation (A3), Oxidized Rhizospheres on Living Roots (C3), FAC-Neutral Test (D5)	Depleted Matrix (F3)	No
W-HSW-8	PSS	Udorthents, smoothed	Speckled alder (<i>Alnus incana</i>), Carolina buckthorn (<i>Frangula caroliniana</i>), Sensitive fern (<i>Onoclea sensibilis</i>)	Seasonally Flooded	High Water Table (A2), Saturation (A3), Water Stained Leaves (B9), FAC-Neutral Test (D5)	Redox Depressions (F8)	No
W-HSW-9	E2EM1	Unadilla very fine sandy loam, 3 to 8 percent slopes	Common reed (<i>Phragmites australis</i>), Smooth cordgrass (<i>Spartina alterniflora</i>)	Permanently Flooded	Surface Water (A1), High Water Table (A2), Saturation (A3), Water Stained Leaves (B9), FAC-Neutral Test (D5)	Histosol (A1)	Yes (Criteria c & f)



 ⁱ Cowardin et. al.
 ⁱⁱ USDA-NRCS Web Soil Survey
 ⁱⁱⁱ USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual
 ^{iv} USDA-NRCS Field Indicators for Hydric Soils v8.2

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ATTACHMENT A

NRCS Soils Report





United States Department of Agriculture

Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants Custom Soil Resource Report for Rockingham County, New Hampshire



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



	MAP L	EGEND	MAP INFORMATION
Area of In Soils	terest (AOI) Area of Interest (AOI)	Spoil Area	The soil surveys that comprise your AOI were mapped at 1:24,000.
~	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features Blowout Borrow Pit	 Very Stony Spot Wet Spot Other Special Line Features Streams and Cana 	contrasting soils that could have been shown at a more detailed scale.
│ ※ ◇ 光 ☆ ◎ ○ ◇ 十 ∵ ⇔ ◇	Clay Spot Closed Depression Gravel Pit Gravelly Spot Landfill Lava Flow Marsh or swamp Mine or Quarry Miscellaneous Water Perennial Water Rock Outcrop Saline Spot Sandy Spot Severely Eroded Spot Sinkhole	Transportation +++ Rails ~ Interstate Highways ~ US Routes ~ Major Roads ~ Local Roads Background Aerial Photography	Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Rockingham County, New Hampshire Survey Area Data: Version 24, Aug 31, 2021 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Dec 31, 2009—Sep
ð Ø	Slide or Slip Sodic Spot		12, 2016 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
30B	Unadilla very fine sandy loam, 3 to 8 percent slopes	2.2	5.8%
299	Udorthents, smoothed	32.4	85.4%
397 Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded		3.3	8.8%
Totals for Area of Interest		37.9	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockingham County, New Hampshire

30B—Unadilla very fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9cmz Elevation: 90 to 1,800 feet Mean annual precipitation: 28 to 55 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 110 to 180 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Unadilla and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Unadilla

Typical profile

H1 - 0 to 4 inches: very fine sandy loam *H2 - 4 to 30 inches:* very fine sandy loam *H3 - 30 to 60 inches:* very fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: B Ecological site: F144AY024NY - Well Drained Eolian Outwash Hydric soil rating: No

Minor Components

Slope inclusion

Percent of map unit: 5 percent Hydric soil rating: No

Scio

Percent of map unit: 5 percent *Hydric soil rating:* No

Eldridge

Percent of map unit: 5 percent Hydric soil rating: No

299—Udorthents, smoothed

Map Unit Setting

National map unit symbol: 9cmt Elevation: 0 to 840 feet Mean annual precipitation: 44 to 49 inches Mean annual air temperature: 48 degrees F Frost-free period: 155 to 165 days Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 100 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Properties and qualities

Depth to restrictive feature: More than 80 inches Drainage class: Excessively drained Depth to water table: More than 80 inches Frequency of flooding: None Frequency of ponding: None

397—Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded

Map Unit Setting

National map unit symbol: 2tyqj Elevation: 0 to 10 feet Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F Frost-free period: 140 to 250 days Farmland classification: Not prime farmland

Map Unit Composition

Ipswich and similar soils: 90 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Ipswich

Setting

Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Parent material: Partially- decomposed herbaceous organic material

Typical profile

Oe - 0 to 42 inches: mucky peat *Oa - 42 to 59 inches:* muck

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.14 to 99.90 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to strongly saline (0.7 to 111.6 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water supply, 0 to 60 inches: Very high (about 26.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8w Hydrologic Soil Group: A/D Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

Minor Components

Pawcatuck

Percent of map unit: 5 percent Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

Westbrook

Percent of map unit: 5 percent Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

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ATTACHMENT B

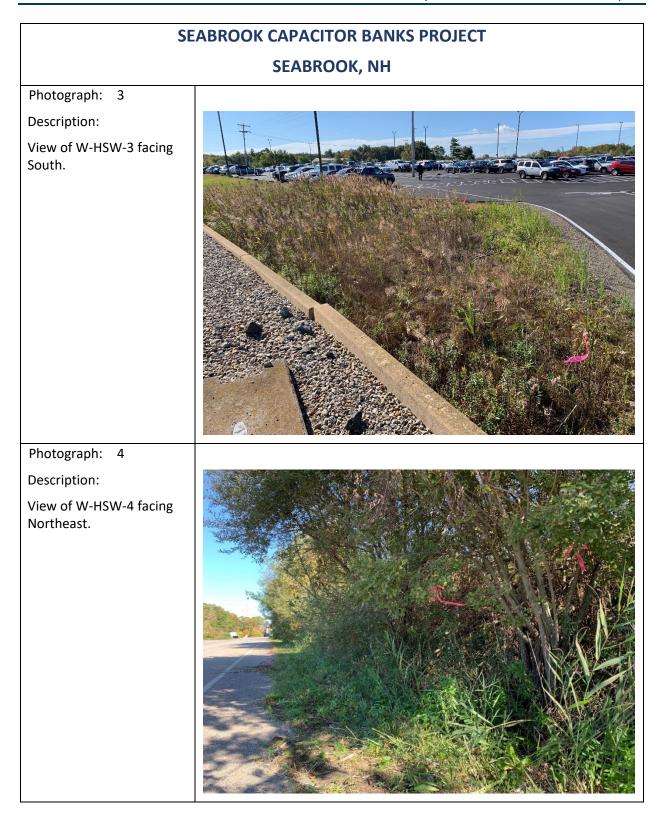
Photographic Log



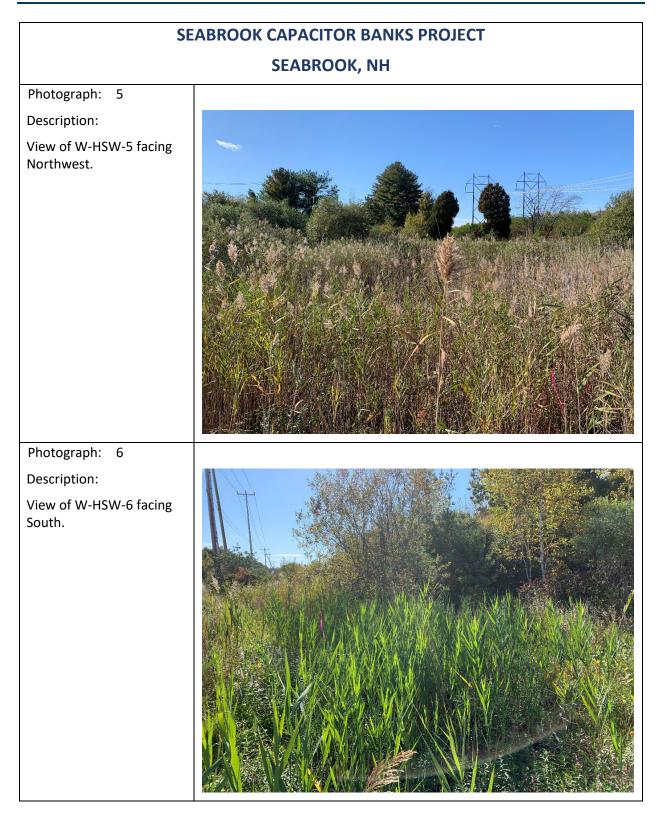




Attachment B Page 1





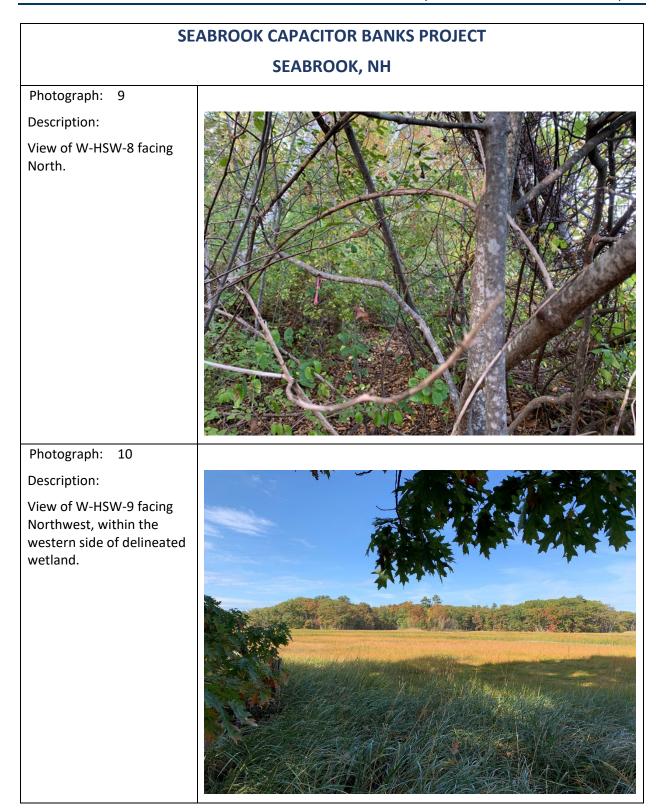




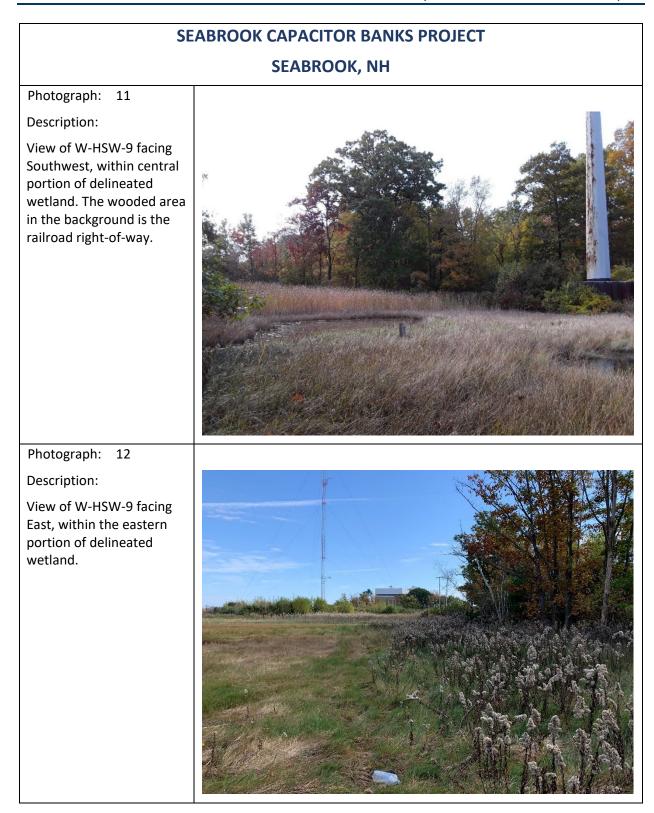




Attachment B Page 4









ATTACHMENT C

New Hampshire Natural Heritage Bureau Response



Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Location:

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: Heather Storlazzi Ward, TRC 6 Ashley Dr Scarborough, ME 04074

- **From:** NHB Review, NH Natural Heritage Bureau
- **Date:** 11/12/2021 (valid until 11/12/2022)
- **Re**: Review by NH Natural Heritage Bureau

Permits: NHDES - Alteration of Terrain Permit, NHDES - Shoreland Standard Permit

NHB ID: NHB21-3502 Town: Description: Construction of a capacitor bank on an existing parking lot.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments NHB: Although the project description indicates that the capacitor bank will be constructed on an existing parking lot, a portion of the Exemplary Salt marsh system is mapped within the project area. Please indicate if salt marsh is proposed to be impacted for the project and provide a clear aerial overlaid with the full limit of disturbance. Please describe impacts proposed in any previously undisturbed area for the project, and provide photos of such locations.

F&G: No Comments At This Time

Natural Community	State ¹	Federal	Notes
Brackish marsh*			
High salt marsh			
Low salt marsh*			
Salt marsh system			Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Subtidalsystem			Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species

State¹ Federal Notes

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

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1 1 0		1
dry land sedge (Carex siccata)	Е	
dwarf glass wort (<i>Salicornia bigelovii</i>)*	E	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
hollow Joe-Pye weed (Eutrochium fistulosum)*	Е	 Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.
marsh elder (Iva frutescens)	Т	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)	Е	
perennial glasswort (Salicornia ambigua)*	E	 Primarily vulnerable to changes to the hydrology of its habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
saltmarsh agalinis (<i>Agalinis maritima ssp.</i> <i>maritima</i>)	Т	
upright knotweed (Polygonum erectum)*	Е	 Threats include direct desctuction of the plants and loss of habitat.
yellow thistle (<i>Cirsium horridulum var.</i> horridulum)*	Е	
1		

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3502



New Hampshire Natural Heritage Bureau - Community Record

Brackish marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Imperiled due to rarity or vulnerability
Description at this Lo	ocation
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	Rank is for largest area visited (). Others were B- (three sites) or C
	Salt Marsh).
Detailed Description:	1997: A characteristic mix of graminoids includes Agrostis stolonifera var. palustris (marsh
General Area:	creeping bent-grass), <i>Spartina patens</i> (salt-meadow cord-grass), <i>Juncus gerardii</i> (salt marsh rush), <i>Solidago sempervirens</i> (seaside goldenrod), <i>Distichlis spicata</i> (spike-grass), <i>Juncus arcticus</i> var. <i>littoralis</i> (shore rush), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (fresh water cord-grass, slough-grass), <i>Carex paleacea</i> (chaffy salt sedge), <i>Hierochloe odorata</i> (sweet grass), <i>Aster novi-belgii</i> (New York aster), <i>Scirpus pungens</i> (three-square rush), and several other less frequent species. At the grass of the grass of the set grass), <i>Small</i> elevated knoll in middle with <i>Quercus bicolor</i> (swamp white oak), <i>Toxicodendron radicans</i> (climbing poison ivy), and <i>Rosa virginiana</i> (Virginia rose). 1997: The grass of salt marsh in the state. The portion of the estuary continues south into grass of salt marsh in the state. The grass and land ward to where ocean-derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Exemplary subtidal communities are <i>tidal creek bottom</i> and undifferentiated <i>saline/brackish subtidal channel/bay bottom</i> . Exemplary intertidal communities are <i>brackish marsh, coastal shoreline strand/swale, saline/brackish intertidal flat</i> , and high
General Comments:	and <i>low salt marsh</i> . Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh islands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the fourther area, the forest of the rail road track, and the fourther area, the forest of the rail road track, and the fourther area, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997). 1997: Tidally flooded by salt water only during spring tides and storm surges. Supports a greater diversity of plants and generally flooded less frequently than the robust forb brackish marsh. Elevationally higher, received more freshwater input, and experienced less frequent tidal flow different fresh water runoff or groundwater discharge flows onto the marsh surface. This hydrologic regime supports brackish marsh species and other species most often found in fresh or salt marshes but tolerant of brackish conditions and able to
Management	successfully compete in this environment.
Comments:	
Location	
Survey Site Name:	
Managed By:	
County:	

Town(s): Size: 34	31.4 acres Elevation:
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates docume	ented

First reported: 1997-07-05

Last reported: 1997-10-06

New Hampshire Natural Heritage Bureau - Community Record

High salt marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Lo	cation
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank:	These ranks are for the entire estuary.
Detailed Description: General Area:	photographed. 1997: In addition to <i>Spartina patens</i> (salt meadow cordgrass) and <i>Juncus gerardii</i> (salt marsh rush), other common plants on the high marsh included smooth cordgrass (short form) and <i>Distichlis spicata</i> (spike-grass). <i>D. spicata</i> formed pure stands in wetter, more poorly drained areas, or mixed with <i>S. patens</i> , growing at similar elevations on the high marsh. <i>J. gerardii</i> dominated landward of salt meadow-grass in narrow vegetative zones with decreased tidal flooding and soil water salinity, beginning at about mean spring high water. This zone had the highest species richness within the high marsh and included <i>Solidago sempervirens</i> (seaside goldenrod), <i>Panicum virgatum</i> (switch-grass), <i>Hierochloe odorata</i> (sweet grass), <i>Carexhormathodes</i> (necklace sedge), <i>Festuca rubra</i> (red fescue), <i>Aster novi-belgii</i> (New York aster), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (freshwater cordgrass), and <i>Potentilla anserina</i> (silverweed). 2007: Mostly borders a fringe of low salt marsh seaward, but occasionally transitions directly to <i>intertidal flat</i> and/or subtidal system . Borders upland forest and developed areas landward, as well as occasional patches of <i>brackish marsh</i> and coastal sand dune system . 1997: At marsh rises from ca. 4 feet above mean sealevel at its lower end to 5 feet.
	above mean sea level at the landward limit of the salt marsh rush zone. The Estuary contains the majority of the estimated 6,200 acres of salt marsh in the state. The River portion of the estuary continues south into the estuarine system extends seaward to an imaginary line drawn across Inlet and upstream and landward to where ocean -derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Subtidal communities include the undifferentiated saline/brackish subtidal channel/bay bottom and tidal creek bottom. Other intertidal flat, and low salt marsh. Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh is lands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the west of the rail road track (USDA Soil Conservation Service 1994).
General Comments:	
Management Comments:	 1997: Marsh ditched heavily; greenhead boxes present. In the last four years, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997).
Location	
Survey Site Name: Managed By:	
County: Town(s): Size: 3431.4 act	res Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the	map.
---	------

Directions:				
		·		
Dates documente	ed			
First reported:	1997-07-05	Last reported:	2006-08-17	

New Hampshire Natural Heritage Bureau - Community Record

Low salt marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Lo	peation
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank:	These ranks are for the entire estuary.
Detailed Description:	1997: Community mostly occurs as a fringe around the seaward edge of the much more extensive <i>high salt marsh</i> .
General Area:	1997: The state of
General Comments:	
Management	
Comments:	
Location	
Survey Site Name: Managed By:	
County: Town(s): Size: 3431.4 act	res Elevation:
Precision: Within	n (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates documented	
	997-07-05 Last reported: 1997-10-08
i istropolited. I	

New Hampshire Natural Heritage Bureau - System Record

Salt marsh system

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this L	ocation
Conservation Rank:	Fair quality, condition and/or landscape context ('C' on a scale of A -D).
Comments on Rank:	Component communities are in fair condition. 2007 (A): Largest estuarine system in the state.
Detailed Description:	 2013, 2012, 2011: This system supports an expected array of estuarine communities, all in fair condition. The marsh has a history of ditching (New HampshireÆs salt marshes were ditched in an effort to control salt marsh mosquitoes and to improve salt marsh hay production). Brackish marshes have occasionally formed along the upland edge where wetlands and streams landward of the salt marsh drain freshwater onto the marsh. Several rare (S1 and S2) and uncommon (S3) plant species have been documented in the marsh over the years. Surveys in 2011 and 2012 documented new occurrences of saltmarsh agalinis (<i>Agalinis maritima</i>), sea-milkwort (<i>Lysimachia maritima</i>), beach umbrella sedge (<i>Cyperus filicinus</i>), seaside crowfoot (<i>Ranunculus cymbalaria</i>), and many-seeded plantain (<i>Plantago intermedia</i>). 2007: Photographs taken, from the air and the ground. 1997: Dominated by <i>high salt marsh</i> with narrow fringes and patches of <i>low saltmarsh</i>, bordered in places by <i>brackish marsh</i> and with scattered <i>salt pannes and pools</i> throughout. This system contains the majority of the estimated 6,200 acres of salt marsh in the state. Most of the estuary has unrestricted tidal flow. 2013: The system is bounded by heavy residential development on its east side. Elsewhere, it
	borders residential and commercial development or forest buffer. 2007: Mostly borders intertidal system and subtidal system below, and upland forests and developed areas above. Also borders coastal sand dune system at The Sands. Includes several islands with <i>dry Appalachian oak forest</i> within.
General Comments:	
Management Comments:	2013: Some stands of the invasive common reed (<i>Phragmites australis</i>) are being managed in the marsh, although resources to continue management may be nearing their end.
Location	
Survey Site Name:	
Managed By:	
County: Town(s):	res Elevation:
Size: 3431.4 ac	res Elevation:
Precision: Withi	n (but not necessarily restricted to) the area indicated on the map.
Directions: 1997-2	2013: Systemoccurs throughout the entire estuary.
Dates documented	
First reported:	1997-07-05 Last reported: 2013-08-12

New Hampshire Natural Heritage Bureau - System Record

Subtidal system

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Location	
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	
Detailed Description:	A relatively short main channel to the second seco
General Area:	Borders intertidal flat community and salt marsh system landward.
General Comments:	
Management	-
Comments:	
Location	
Survey Site Name: Managed By:	
County: Town(s):	
Size: 870.6 acres	Elevation:
Precision: Within (but not necessarily restricted to) the area indicated on the map.	
Directions: Subtida	alcreeks and bay bottoms in the Marsh estuary.
Dates documented	
First reported: 19	997-07-05 Last reported: 2007-10-13

dry land sedge (Carex siccata)

Legal Status		Conser	vation Sta	itus
Federal: Not listed		Global:	Demonst	trably widespread, abundant, and secure
State: Listed Enda	angered	State:	Critically	imperiled due to rarity or vulnerability
Description at this L	ocation			
Conservation Rank:	Not ranked			
Comments on Rank:	n an			
	2019: At least 200 fruiting st			
General Area:	2019: Greenbriar and poison	ivy ring t	he upland	ls and are common throughout. 1972:
ALL 12 12 13	•			
General Comments:				
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County:				
Town(s):				
Size: .4 acres		Elevatio	n:	
Precision: Withi	n (but not necessarily restricted	lto)the a	rea indica	ted on the map.
Directions: 1972:	Ledges at southwestern side of	f	", nea	end of point.
Dates documented				
First reported:	1972-06-03	Last rep	orted:	2019-07-26

dwarf glass wort (Salicornia bigelovii)

Legal Status		Conser	vation S tat	us		
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure		
State: Listed Enda	ngered	State:	Critically	imperiled due to rarity or vulnerability		
Description at this Lo	cation					
Conservation Rank:	Not ranked					
Comments on Rank:	Sub-population of a large "A	Sub-population of a large "A-" population.				
Detailed Description:	1982: Plants only 1 cmtall and indistinguishable from other species of <i>Salicornia</i> (6/10). Collections made from flowering material (8/17). 1972: Specimen collected.					
General Area:	1982: Salt marsh with Salico	rnia virg	inica.	-		
General Comments:		_				
Management						
Comments:						
Location						
Survey Site Name: Managed By:						
County: Town(s):Image: County- Image: County- Image: County- 		Elevatio	on:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions:	salt marsh. North of "		."			
Dates documented						
First reported: 1	931	Last rep	orted:	1982-08-17		

hollow Joe-Pye weed (Eutrochium fistulosum)

Legal Status		Conserv	vation Stat	us
Federal: Not listed		Global:	Demonstra	ably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Critically i	mperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description:	1972: Documented as "occas	ional" in A	Area 2 by A	Ibion Hodgdon and Johonet Wicks.
General Area:				
General Comments:				
Management				
Comments:				
Location				
Survey Site Name:				
Managed By:				
County:				
Town(s):	-			
Size: 644.9 acres	8	Elevatio	n:	
Precision: Within	1.5 miles of the area indicated	d on the n	nap (locatio	n information is vague or uncertain).
Directions:				
Dates documented				
	972-06	Last rep	orted:	1972-06

marsh elder (*Iva frutescens*)

Legal Status		Conser	vation S tat	us		
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure		
State: Listed Threa	tened	State:	Imperiled	due to rarity or vulnerability		
Description at this Lo	cation					
Conservation Rank:	Not ranked					
Comments on Rank:						
	2019: 4 plants observed.					
General Area:	2019: High salt marsh south	of The Ro	ocks.			
General Comments:						
Management Comments:						
Comments.						
Location Survey Site Name: Managed By:						
County:						
Town(s):	-					
Size: .4 acres		Elevatio	n:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions: 2019: S	alt marsh fringe adjacent to		, east of			
Dates documented						
First reported: 20)19-07-26	Last rep	orted:	2019-07-26		

orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)

Legal St	atus		Conser	ervation Status
Federal:	Not listed		Global:	l: Demonstrably widespread, abundant, and secure
State:	Listed Enda	ngered	State:	Critically imperiled due to rarity or vulnerability
Descrip	tion at this Lo	ocation		
Conserv	ation Rank:	Fair quality, condition and/c	rlandsca	cape context ('C' on a scale of A-D).
Commen	ts on Rank:	Rank does not consider the e	effects of	of the nuclear power plant.
Detailed	Description:	plant. 1997: 6 clumps with 6 and somewhat beneath shub	7 fruiting s, all stem	egetative plants. Area 2: 4 fruiting stems, 1 vegetative ng stems, scattered in small area of particular in open ems in fruit, some dropping when touched. 1982: ca. 60 ree of insect damage. 1972: Specimens at the state of the
General .	Area:	2019: Greenbriar and poisor		g the uplands and are common throughout. Area 2: dhickory. 1997:
General	Comments:			·
Manage		()()		
Commen	ts:			
Location	ı I			
Survey S Manage	Site Name: d By:			
County:				
Town(s) Size:	.9 acres		Elevatio	tion:
Precision	n: Withir	n (but not necessarily restricte	dto)the a	e area indicated on the map.
Direction	ns: 1982:			. Nea
	endof			•
Dates do	cumented			
First rep	orted: 1	.972	Last rep	eported: 2019-07-26

perennial glasswort (Salicornia ambigua)

Legal Status		Conser	vation Sta	atus		
Federal: Not listed		Global:	Not rank	ed (need more information)		
State: Listed Enda	ngered	State:	Critically	imperiled due to rarity or vulnerability		
D						
	Description at this Location					
Conservation Rank:	Poor quality, condition and/	orlandsca	ape contex	t ('D' on a scale of A-D).		
Comments on Rank:	2 .					
Detailed Description: General Area:	1982: Elevated land in a core	lgrass (Sj 2: Salt m	<i>partina</i> sp arsh, amid	er. 1972: Small flowering stand. .) salt marsh. Full sun, moist, flat, but above common glasswort (<i>Salicornia depressa</i>) ens).		
General Comments:	3 	0	1			
Management	-					
Comments:						
Location Survey Site Name: Managed By:						
County: Town(s): Size: 2.8 acres		Elevatio	on:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions: rock. 1	marsh. 1982: North 972:	n side of"		, on elevated land next to a		
Dates documented						
First reported: 1	.972-09	Last rep	orted:	1982-08-17		

saltmarsh agalinis (Agalinis maritima ssp. maritima)

Federal: Not listed Global: Demonstrably widespread, abundant, and secure State: Listed Threatened State: Imperiled due to rarity or vulnerability Description at this Location Conservation Rank: Not ranked Comments on Rank: Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
Description at this Location Conservation Rank: Not ranked Comments on Rank: Not ranked Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
Comments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most
flowering, but plant is very difficult to spot when it is not flowering and very ephemeral when it is.
General Area: 1982: Flat, full sun. Damp but not innundated. With Spartina patens (salt-meadow cordgrass).
General Comments:
Management
Comments:
Location Survey Site Name: Managed By:
County: Town(s): Town(s): Elevation:
Precision: Within (but not necessarily restricted to) the area indicated on the map.
Directions: 2019: High marsh south of complex and The south of marsh. Directly south of the sout
Dates documented
First reported: 1982-08-17 Last reported: 2019-07-26

upright knotweed (Polygonum erectum)

Legal Status		Conser	ervation Status
Federal: Not listed		Global:	l: Demonstrably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Not ranked (need more information)
T			
Description at this Lo			
Conservation Rank:	Not ranked		
Comments on Rank:			
	1070 0	C.	11 1 1
General Area:	1972: Straus specimen at Clo	Straus p	personal neroarium.
General Comments:			
Management Comments:			
Comments:			
Location			
Survey Site Name:			
Managed By:			
0,			
County:			
Town(s):	_		
Size: 2.8 acres		Elevatio	ion:
D W//1	<i>A</i>	1	
Precision: Within	(but not necessarily restricted	to) the a	area indicated on the map.
Directions:	The second se	Edgeof	" road.
Directions.	. 1		1040.
Dates documented			
First reported: 19	072	Last rep	eported: 1972-09-11

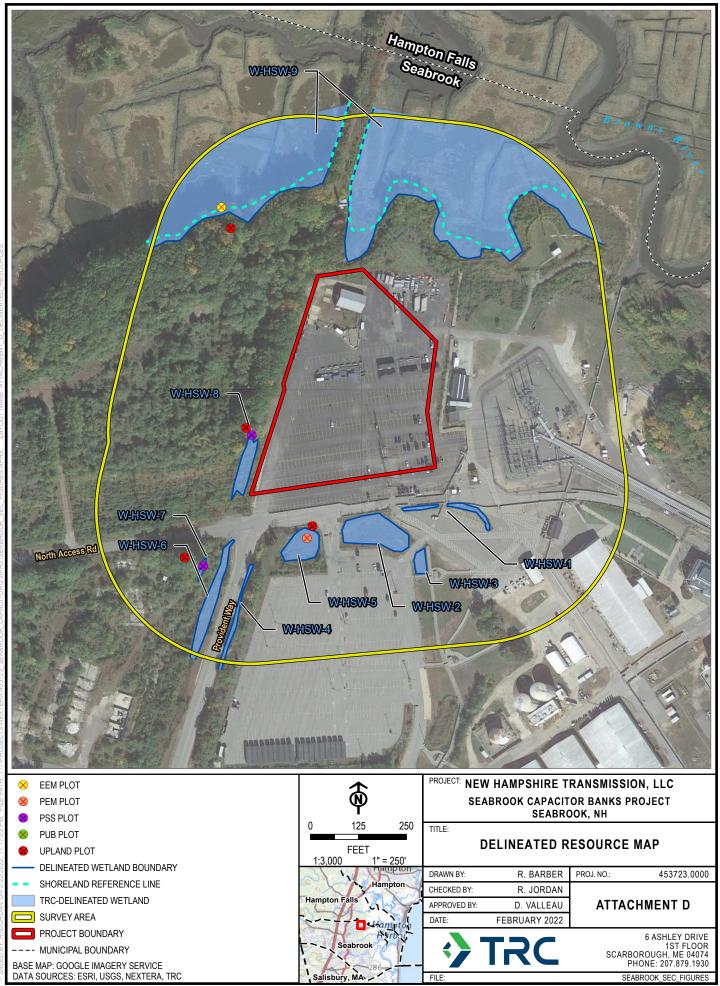
yellow this tle (Cirsium horridulum var. horridulum)

Legal Status	Conservation Status
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure
State: Listed Endangered	State: Not ranked (need more information)
Description at this Location	
Conservation Rank: Not ranked	
Comments on Rank:	
Detailed Description: 1982: 5 vigorous plants. Spec General Area: 1982: Salt marsh; open, wet. General Comments: Management Comments:	cimen of Dunlop at NHA.
Location Survey Site Name: Managed By:	
County: Town(s): Size: 2.8 acres	Elevation:
Precision: Within (but not necessarily restricted	to) the area indicated on the map.
Directions: The Southeast of fence. A second group more to the	Site. Immediate edge of outside of .
Dates documented	
First reported: 1982-08-17	Last reported: 1982-08-17

ATTACHMENT D

Delineated Resource Map





ATTACHMENT E

USACE Wetland Determination Forms



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook Cap Bank	City/County: Seabrook, Rockingham County	Sampling Date: 2021-Oct-20
Applicant/Owner: NextEra	State: NH	Sampling Point: W-HSW-05_PEM-1
Investigator(s): Jen Bonta, Heather Storlazzi Ward	Section, Township, Range: N	A
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, none):	Concave Slope (%): 0 to 1
Subregion (LRR or MLRA): LRR R	Lat: 42.8999792212 Long:	-70.8560060772 Datum: WGS84
Soil Map Unit Name: Udorthents, smoothed		NWI classification: PEM1E
Are climatic/hydrologic conditions on the site typical	for this time of year? Yes 🖌 No (If no	o, explain in Remarks.)
	significantly disturbed? Are "Normal Circums naturally problematic? (If needed, explain ar	tances" present? Yes 🟒 No y 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	Is the Sampled Area within a Wetland?	Yes 🟒 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-HSW-05
Remarks: (Explain alternative procedur	es here or in a separate repo	ort)	
been anthropogenically influenced, or a	are naturalized, man-made f	eatures, dominated by invasive species	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of or	<u>ie is required; check all tha</u>	Secondary Indicators (minimum of two required)		
✓ Surface Water (A1) ✓ Water-Stained Leaves (B9) — High Water Table (A2) — Aquatic Fauna (B13) ✓ Saturation (A3) — Marl Deposits (B15) — Water Marks (B1) — Hydrogen Sulfide Odor (C1) — Sediment Deposits (B2) — Oxidized Rhizospheres on Living Roots (C3) — Drift Deposits (B3) — Presence of Reduced Iron (C4) — Algal Mat or Crust (B4) — Recent Iron Reduction in Tilled Soils (C6) — Iron Deposits (B5) — Thin Muck Surface (C7) ✓ Inundation Visible on Aerial Imagery (B7) — Other (Explain in Remarks) — Sparsely Vegetated Concave Surface (B8) —		 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):	0	_
Water Table Present?	Yes 🟒 No	Depth (inches):	0	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	_
(includes capillary fringe)				
Describe Recorded Data (stream g	auge, monitoring well, aer	ial photos, previous inspe	ctions), if	available:

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-05_PEM-1

<u>Free Stratum</u> (Plot size: <u>30 ft</u>)	Absolute	e Dominant	Indicator	Dominance Test worksh	neet:		
<u>ree stratum</u> (Plot size. <u>50 lt</u>)	% Cover	Species?	Status	Number of Dominant S	pecies That	1	(A)
				Are OBL, FACW, or FAC:			
				Total Number of Domin	ant Species	1	(B)
				Across All Strata:			
				Percent of Dominant Sp	oecies That	100	(A/B)
j.				Are OBL, FACW, or FAC:			
				Prevalence Index works			
· ·				Total % Cover		Multiply	•
	0	= Total Cov	er	- OBL species	1	x 1 =	1
apling/Shrub Stratum (Plot size: <u>15 ft</u>)				FACW species	99	x 2 =	198
				FAC species	0	x 3 =	0
				FACU species	0	x 4 =	0
				- UPL species	0	x 5 =	0
				Column Totals	100	(A)	199 (B)
	·	·		Prevalence In	dex = B/A =	2	
		·		Hydrophytic Vegetation	Indicators:		
·		·		1- Rapid Test for H		egetatior	า
				2 - Dominance Tes		0	
	0	= Total Cov	er	3 - Prevalence Ind			
<u>lerb Stratum</u> (Plot size: <u>5 ft</u>)				4 - Morphological	Adaptations ¹	(Provide	supporting
. Phragmites australis	99	Yes	FACW	- data in Remarks or on a	·		
. Lythrum salicaria	1	No	OBL	Problematic Hydro	ophytic Vege	tation ¹ (E:	xplain)
B				¹ Indicators of hydric soi	l and wetlan	d hydrola	gy must be
				present, unless disturbe	ed or probler	matic	
				Definitions of Vegetatio	n Strata:		
<u> </u>				Tree – Woody plants 3 in	n. (7.6 cm) or	more in	diameter a
				breast height (DBH), reg	gardless of h	eight.	
3.				Sapling/shrub - Woody	plants less tl	han 3 in. l	DBH and
				greater than or equal to	o 3.28 ft (1 m) tall.	
0.				Herb – All herbaceous (non-woody)	plants, re	gardless of
1.				size, and woody plants			
2.				Woody vines – All wood	y vines great	er than 3	.28 ft in
	100	= Total Cov	er	height.			
<u>Noody Vine Stratum</u> (Plot size: <u>30 ft</u>)			-	Hydrophytic Vegetation	n Present?	/es 🟒 🏻 🖌	No
-							
		·		·			
				•			
		·		-			
1		- Tetal C		-			
	0	= Total Cov	er				

SOIL

Depth inches)	Matrix		Redox	Feat	ures		absence of indicator	
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ² Tex	ture	Remarks
0 - 6	7.5YR 2.5/3	100					Silt Loam	
6 - 15	10Y 4/1	98	7.5YR 5/4	2			ly Clay	
·								
·								
/pe: C = C	oncentration. D =	 Depletio	n. RM = Reduced	Mati	rix. MS =	Masked Sand Grains. ² l	Location: PL = Pore I	ining. M = Matrix.
	ndicators:							blematic Hydric Soils ³ :
Histosol			Polyvalue Bel	low S	urface (S	8) (LRR R, MLRA 149B)		10) (LRR K, L, MLRA 149B)
-	ipedon (A2)		•			R, MLRA 149B)		Redox (A16) (LRR K, L, R)
Black His	stic (A3)		Loamy Mucky	y Min	eral (F1)			Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Gleye				Dark Surface	
	d Layers (A5)		Depleted Ma					ow Surface (S8) (LRR K, L)
•	d Below Dark Surfa						-	face (S9) (LRR K, L)
	irk Surface (A12) lucky Mineral (S1)		Depleted Dar					ese Masses (F12) (LRR K, L, R)
			Redox Depre	SSIO	IS (F8)		Piedmont Flo	odplain Soils (F19) (MLRA 149B)
-	leyed Matrix (S4)						Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)
	edox (S5) l Matrix (S6)						Red Parent M	
_ suipped	rface (S7) (LRR R, N		וסו				-	Dark Surface (TF12)
Dark Su		ILINA 14:	,6)				Other (Explai	n in Remarks)
_ Dark Sui				ology	/ must be	e present, unless disturb	ed or problematic.	
		etation a	and wetland hydr	0.08,				
dicators o			and wetland hydr	0.08.	,			
dicators o strictive L	of hydrophytic veg		and wetland hydr None			Hydric Soil Present?		Yes 🏒 No
dicators o strictive L	of hydrophytic veg .ayer (if observed):			<u>-</u>	,	Hydric Soil Present?		Yes 🟒 No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes 🟒 No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			<u>-</u>		Hydric Soil Present?		Yes _ 🖌 No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			<u>-</u>		Hydric Soil Present?		Yes No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes 🟒 No
dicators o t rictive L	of hydrophytic veg .ayer (if observed) : Type:					Hydric Soil Present?		Yes _ 🖌 No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes _ 🖌 No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			<u>-</u>		Hydric Soil Present?		Yes _ 🖌 _ No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			<u>-</u>		Hydric Soil Present?		Yes _ 🖌 _ No
dicators o t rictive L	of hydrophytic veg .ayer (if observed) : Type:					Hydric Soil Present?		Yes No
dicators o t rictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:					Hydric Soil Present?		Yes No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:					Hydric Soil Present?		Yes No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes No
ndicators o estrictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes _ 🖌 _ No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:			-		Hydric Soil Present?		Yes _ 🖌 _ No
dicators o strictive L	of hydrophytic veg .ayer (if observed) : Type:					Hydric Soil Present?		Yes _∠_ No

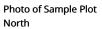




Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook Cap Bank	City/County: Seabrook, Rockingham County	Sampling Date: 2021-Oct-20
Applicant/Owner: NextEra	State: NH	Sampling Point: W-HSW-05_UPL-1
Investigator(s): Jen Bonta, Heather Storlazzi Ward	Section, Township, Ra	nge: NA
Landform (hillslope, terrace, etc.): Man made r	badside Local relief (concave, convex,	none): None Slope (%): 0 to 1
Subregion (LRR or MLRA): LRR R	Lat: 42.9000454379	Long: -70.855953758 Datum: WGS84
Soil Map Unit Name: Udorthents, smoothed		NWI classification: None
Are climatic/hydrologic conditions on the site typica	for this time of year? Yes 🖌 No	(If no, explain in Remarks.)
		ircumstances" present? Yes No plain 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 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedures	here or in a separate repo	rt)	
Covertype is UPL. Fill area adjacent to a r	oad. Soils most likely impo	rted as fill Man made activity.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all th	<u>nat apply)</u>	Secondary Indicators (minimum of tw	<u>o required)</u>
 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 Ima Sparsely Vegetated Concave Sur 	Aquatic Marl De Hydroge Oxidizee Presenc Recent I Thin Mu gery (B7) Other (E	tained Leaves (B9) Fauna (B13) posits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) te of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) ick Surface (C7) Explain in Remarks)	 Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Image Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 	ry (C9)
Field Observations:				
Surface Water Present?	Yes No 🟒	Depth (inches):	_	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Ye	es No⁄
Saturation Present?	Yes No 🟒	Depth (inches):	_	
(includes capillary fringe)				
	auge, monitoring well, ae	rial photos, previous inspections), if	available:	
Remarks:				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-05_UPL-1

ree Stratum (Plot size: <u>30 ft</u>)		Dominant	Indicator	Dominance Test worksheet:		
<u>ree stratum (Fiot size)</u>	% Cover	Species?	Status	Number of Dominant Species	That 1	(A)
·				Are OBL, FACW, or FAC:		
·				Total Number of Dominant Spe	ecies 3	(B)
				Across All Strata:		
				 Percent of Dominant Species T Are OBL, FACW, or FAC: 	hat 33.3	8 (A/B)
i				Prevalence Index worksheet:		
				- <u>Total % Cover of:</u>	Multiph	D.a
				- OBL species 1	<u>Multiply</u>	<u>ру.</u> 1
	0	= Total Cov	er	· · · · · · · · · · · · · · · · · · ·	x 1 =	
apling/Shrub Stratum (Plot size: <u>15 ft</u>)				FACW species 10 FAC species 0	x 2 =	20
. Salix discolor	10	Yes	FACW		x 3 =	0
. Elaeagnus umbellata	5	Yes	NI	FACU species 3	x 4 =	12
. Myrica gale	1	No	OBL	UPL species 0	x 5 =	0
. Rosa multiflora	1	No	FACU	- Column Totals 14	、	33 (B)
				Prevalence Index = E	B/A =2.4	·
		·		Hydrophytic Vegetation Indicat	tors:	
		·		1- Rapid Test for Hydroph	nytic Vegetation	۱
	17	= Total Cov	or	2 - Dominance Test is > 5	0%	
lorh Stratum (Plat ciza) E ft			ei	$_{✓}$ 3 - Prevalence Index is ≤	3.0 ¹	
l <u>erb Stratum</u> (Plot size: <u>5 ft</u>) . <i>Poaceae</i>	90	Vac	NI	4 - Morphological Adapta	tions¹ (Provide	supporting
		Yes	NI	- data in Remarks or on a separ	ate sheet)	
. Vicia sativa	2	No	FACU	Problematic Hydrophytic	Vegetation ¹ (E	xplain)
. <u>Asteracae</u>	1	No	NI	- ¹ Indicators of hydric soil and w	etland hydrolo	ogy must be
		·		present, unless disturbed or p	roblematic	
		<u> </u>		Definitions of Vegetation Strate	a:	
				Tree – Woody plants 3 in. (7.6 c	-	diameter a
				breast height (DBH), regardles	-	
				Sapling/shrub – Woody plants		DBH and
				greater than or equal to 3.28 f		
0				Herb – All herbaceous (non-wo	2.1	gardless of
1				size, and woody plants less tha		20.6
2.				Woody vines – All woody vines	greater than 3	3.28 ft in
	93	= Total Cov	er	height.		
<u>Voody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetation Prese	nt? Yes I	No 🟒
·						
		·		-		
3.				-		
		·		-		
·	0	= Total Cov	er	-		
	0		Ci .			

SOIL

(inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/4	<u>100</u>		<u> </u>		Sandy Loam	
 		· ·		 			
		·					
¹ Type: C = Co Hydric Soil In		Depletic	on, RM = Reduced	Matrix, MS = I	Masked Sand Grains.	² Location: PL = Pore L	ning, M = Matrix. Dematic Hydric Soils ³ :
Black Hist Hydroger Stratified Depleted Thick Dar Sandy Mu Sandy Gle Sandy Re Sandy Re Stripped	oedon (A2) ic (A3) Sulfide (A4) Layers (A5) Below Dark Surfa k Surface (A12) icky Mineral (S1) eyed Matrix (S4)		Thin Dark Sur Loamy Mucky Depleted Mat Redox Dark S Depleted Dark Redox Depres	face (S9) (LRR ^r Mineral (F1) (d Matrix (F2) rix (F3) urface (F6) k Surface (F7)	(LRR K, L)	Coast Prairie F 5 cm Mucky Pe 5 cm Mucky Pe Dark Surface (Polyvalue Belo Thin Dark Surf Iron-Mangane Piedmont Floo Mesic Spodic (Red Parent Ma	w Surface (S8) (LRR K, L) ace (S9) (LRR K, L) se Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B) TA6) (MLRA 144A, 145, 149B) aterial (F21) Dark Surface (TF12)
			and wetland hydro	ology must be	e present, unless distu	rbed or problematic.	
Restrictive La	yer (if observed): ype:		rtificial likely		Hydric Soil Present?		Yes No 🟒
Т			6				
D Remarks:	epth (inches):						

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook Cap Bank	City/County: Seabrook, Rockingham County	Sampling Date: 2021-Oct-20
Applicant/Owner: NextEra	State: NH	Sampling Point: W-HSW-07_PSS-1
Investigator(s): Jen Bonta, Heather Storlazzi War	Section, Township, Ran	ge: NA
Landform (hillslope, terrace, etc.): Depression	Local relief (concave, convex, r	one): Concave Slope (%): 1 to 3
Subregion (LRR or MLRA): LRR R	Lat: 42.8997619261	Long: -70.8570015568 Datum: WGS84
Soil Map Unit Name: Udorthents, smoothed		NWI classification: PSS1E
Are climatic/hydrologic conditions on the site typic	I for this time of year? Yes 🖌 No	_ (lf no, explain in Remarks.)
		cumstances" present? Yes 🟒 No ain any answers in Remarks.)
Are vegetation, Soli, Or rightiology		and any answers in Kenial KS.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🧹 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-HSW-07
Remarks: (Explain alternative procedures he	re or in a separate report)	
Covertype is PSS. This data form also indicat	ive of conditions within W	/-HSW-6.	

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of c	one is required; check all t	<u>that apply)</u>		Secondary Indicators (minimum of two required)
 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 In Sparsely Vegetated Concave S 	— Aquatio — Marl D — Hydrog — Oxidize — Presen — Recent — Thin M magery (B7) — Other (Stained Leaves (B9) c Fauna (B13) eposits (B15) gen Sulfide Odor (C1) ed Rhizospheres on Living R ice of Reduced Iron (C4) : Iron Reduction in Tilled Soi luck Surface (C7) (Explain in Remarks)		 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):	7	Wetland Hydrology Present? Yes No
Saturation Present?	Yes 🟒 No	Depth (inches):	0	_
(includes capillary fringe)				
Describe Recorded Data (stream	gauge, monitoring well, a	erial photos, previous inspe	ctions), if	available:

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-07_PSS-1

<u> Free Stratum</u> (Plot size: <u>30 ft</u>)	Absolute	Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That	5	(A)
Salix bebbiana	100	Yes	FACW	Are OBL, FACW, or FAC:		
				Total Number of Dominant Species Across All Strata:	5	(B)
				Percent of Dominant Species That		
				- Are OBL, FACW, or FAC:	100	(A/B)
·				- Prevalence Index worksheet:		
				- Total % Cover of:	Multiply E	Rv-
				- OBL species 5	x 1 =	- j. 5
	100	= Total Cov	er	FACW species 120	x 2 =	240
apling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 25	x3=	75
. Salix bebbiana	20	Yes	FACW	- FACU species 0	x 4 =	0
. Frangula caroliniana	10	Yes	FAC	- UPL species 0	 x5=	0
				· · ·		-
					(A)	320 (B
				Prevalence Index = B/A =		
				Hydrophytic Vegetation Indicators:		
		·		1- Rapid Test for Hydrophytic	Vegetation	
·		= Total Cov	er	∠ 2 - Dominance Test is >50%		
l <u>erb Stratum</u> (Plot size: <u>5 ft</u>)		-		\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
. Frangula caroliniana	15	Yes	FAC	4 - Morphological Adaptation		supportir
. Lythrum salicaria	5	Yes	OBL	- data in Remarks or on a separate s		
			ODL	Problematic Hydrophytic Veg		
		······································		¹ Indicators of hydric soil and wetla		y must b
				present, unless disturbed or proble	ematic	
		·		Definitions of Vegetation Strata:		
		<u> </u>		Tree – Woody plants 3 in. (7.6 cm)		iameter
				breast height (DBH), regardless of	-	DI Louid
				Sapling/shrub – Woody plants less		вн апо
				greater than or equal to 3.28 ft (1 r Herb – All herbaceous (non-woody		ardlocc
0		·		size, and woody plants less than 3.		aruless c
1		·		Woody vines – All woody vines greater		28 ft in
2				height.		
	20	= Total Cov	er		Vee (N	
<u>Noody Vine Stratum</u> (Plot size: <u>30 ft</u>)				Hydrophytic Vegetation Present?	Yes 🟒 No	0
				_		
				_		
				_		
				_		
	0	= Total Cov	er			

SOIL

Inches Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks 0 - 3 2.5Y 3/3 100	(inches) Color (moist) % Type* Loc? Texture Remarks 0 - 3 2.5Y 3/3 100	Depth	cription: (Describe Matrix	to the c	•			ndicato	r or confirm the al	bsence of indicators.)
0 - 3 2.5Y 3/3 100	0-3 2.5Y 3/3 100			06					Toyturo	Pomarks
3.9 10YR 4/2 98 10YR 5/4 2 C Silt Loam 3.9 10YR 4/2 98 10YR 5/4 2 C Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Mictoria Sile Silt Loam Silt Loam Silt Loam Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L R) Histosol (A1) Loamy Gleyed Matrix (F3) Sond Mucky Mineral (F1) (LRR K, L) Sond Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Sondy Mucky Mineral (S1) Sondy Mucky Mineral (S1) Sondy Mucky Mineral (S1) Sandy Medox (S5) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L R) Sandy Medox (S5) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L R)	3 - 9 10YR 4/2 98 10YR 5/4 2 C Silt Loam 3 - 9 10YR 4/2 98 10YR 5/4 2 C Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam Jepietd Ristic Ja Silt Loam Silt Loam Silt Loam Jepietd Matrix (A3) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Silt Loam Surface (S3) (LRR K, L) Shady Mucky Mineral (S1) Redox Depressions (F8) Silt Loam Matrix (S4) Sandy Silt Social (S1) (MLRA 1449B) Sandy Redox (S5) Silt Depleted Dark Surface (F7) Red Parent Matrix						туре	LUC		
ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. *Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) ✓ Depleted Dark Surface (F7) Thick Dark Surface (A11) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Strapte Matrix (S6) Pelpeted Matrix (F2) Dark Surface (S7) (LRR K, L) Mesic Spodic (TA6) (MLRA 149B) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144B) Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144B) Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 144B, 145, 149B) Stripped Matrix (S6) Predmont Floodplain Soils (F19) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144B,	ype: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils? Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, NLRA 149B) Biack Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Matrix (F2) Depleted Below Dark Surface (F6) Thin Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Peledmatrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 14 Sandy Redox (S5) Red Parent Material (F21) Wery Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Yes No				10VP 5/4					
dric Soil Indicators: Indicators for Problematic Hydric Soils ³ : _ Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) _ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) /_ Depleted Matrix (F3) _ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) _ Stripped Matrix (S6) Derk Surface (S7) (LRR R, MLRA 149B) _ Stripped Matrix (S6) Red Parent Material (F21) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Thin Dark Surface (TF12) Other (Explain in Remarks) _ dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Very Shallow Dark Surface (TF12) _ Type: Rock fill from	ydric Soil Indicators: Indicators for Problematic Hydric Soils ² : _ Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) _ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) ✓ Depleted Matrix (F3) _ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) _ Stripped Matrix (S6) Nesic Spodic (TA6) (MLRA 1442A, 145, 142A) _ Stripped Matrix (S6) Other (Explain in Remarks) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Stripped Matrix (S6) Other (Explain in Remarks) _ Dark Surface (F7) Other (Explain in Remarks) _ Thin Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Sandy Redox (S5) Other (Explain in Remarks) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LR	3-9	1011(4/2	90	1018 3/4		<u> </u>		Silt Loan	
dric Soil Indicators: Indicators for Problematic Hydric Soils ³ : _ Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) _ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) _ Stratified Layers (A5) /_ Depleted Matrix (F3) _ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) _ Stripped Matrix (S6) Derk Surface (S7) (LRR R, MLRA 149B) _ Stripped Matrix (S6) Red Parent Material (F21) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Thin Dark Surface (TF12) Other (Explain in Remarks) _ dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Very Shallow Dark Surface (TF12) _ Type: Rock fill from	rdric Soil Indicators: Indicators for Problematic Hydric Soils ² : _ Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) _ Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) _ Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)									
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										Indicators for Problematic Hydric Soils ³ :
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Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) S tiff Muduky Peat Of Peat (S3) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F3) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L)									
	_ Stratified Layers (A5) ✓ Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3) Polyvalue Below Surface (S9) (LRR K, L) _ Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L) _ Sandy Gleyed Matrix (S4) Neico Spodic (TA6) (MLRA 144A, 145, 14, 1	-						(LKK K, I	_)	-
_ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Polyvalue Below Surface (S9) (LRR K, L) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L, R) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B _ Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) _ Stripped Matrix (S6) Negree (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) _ Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) _ dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	_ Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Polyvalue Below Surface (S3) (LRR K, L) _ Thick Dark Surface (A12) Depleted Dark Surface (F7) Thin Dark Surface (S9) (LRR K, L) _ Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA _ Sandy Gleyed Matrix (S4) Nesic Spodic (TA6) (MLRA 144A, 145, 14, 1									
_ Thick Dark Surface (A12) _ Depleted Dark Surface (F7) _ Inin Dark Surface (S9) (LRR K, L) _ Sandy Mucky Mineral (S1) _ Redox Depressions (F8) _ Piedmont Floodplain Soils (F19) (MLRA 149B _ Sandy Redox (S5) _ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) _ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) _ Stripped Matrix (S6) _ Red Parent Material (F21) _ Very Shallow Dark Surface (TF12) _ Dark Surface (S7) (LRR R, MLRA 149B) _ Other (Explain in Remarks) _ dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. _ Other (Explain in Remarks) _ Type: _ Rock fill from railroad Hydric Soil Present? Yes _ No	_ Thick Dark Surface (A12) _ Depleted Dark Surface (F7) _ Inin Dark Surface (S9) (LRR K, L) _ Sandy Mucky Mineral (S1) _ Redox Depressions (F8) _ Iron-Manganese Masses (F12) (LRR K, L) _ Sandy Gleyed Matrix (S4) _ Piedmont Floodplain Soils (F19) (MLRA _ Sandy Redox (S5) _ Mesic Spodic (TA6) (MLRA 144A, 145, 14) _ Stripped Matrix (S6) _ Red Parent Material (F21) _ Dark Surface (S7) (LRR R, MLRA 149B) _ Other (Explain in Remarks) ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. _ Other (Explain in Remarks) estrictive Layer (if observed): _ Rock fill from railroad _ Hydric Soil Present? Yes _ No _ Depth (inches): 9 _ Piedmont Soil Present? Yes _ No		-	face (A1						-
_ Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L, R) _ Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA 149B) _ Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) _ Stripped Matrix (S6) Red Parent Material (F21) _ Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) _ dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Yes No _ Type: Rock fill from railroad Hydric Soil Present? Yes No	_ Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L _ Sandy Gleyed Matrix (S4) Piedmont Floodplain Soils (F19) (MLRA _ Sandy Redox (S5) Mesic Spodic (TA6) (MLRA 144A, 145, 14) _ Stripped Matrix (S6) Red Parent Material (F21) _ Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) _ Other (Explain in Remarks) _ adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): _ Type: _ Rock fill from railroad _ Depth (inches): 9									
_ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Hydro Source (S7) (Version Present?) Type: Rock fill from railroad Hydro Source (S7) (Version Present?) Hydric Soil Present?	Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type:Rock fill from railroadPersent? Yes No)						-
_ Sandy Redox (S5) _ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLRA 149B) mdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Hydro Rod Present? Yes _ No	Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) hdicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type:Rock fill from railroadPersent? Yes _✓_ No Depth (inches):9	_ Sandy (Gleyed Matrix (S4)							• • • • • • • • •
_ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R, MLRA 149B) indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. istrictive Layer (if observed): Type: Rock fill from railroad Hydric Soil Present? Yes _ No		_ Sandy I	Redox (S5)							• • • • • • • • •
_ Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Hydric Soil Present? Yes No	Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Depth (inches): 9	Strippe	d Matrix (S6)							
Adicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Hydric Soil Present? Yes _ ✓ No	ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Rock fill from railroad Depth (inches): 9	_ Dark Sı	urface (S7) (LRR R,	MLRA 14	19B)					-
estrictive Layer (if observed): Type:Rock fill from railroadHydric Soil Present? YesNo	estrictive Layer (if observed): Type: Rock fill from railroad Depth (inches): 9 Yes _/ No									
Type: Rock fill from railroad Hydric Soil Present? Yes No	Type: Rock fill from railroad Hydric Soil Present? Yes _ No Depth (inches): 9			-	and wetland hydro	ology	must be	e preser	it, unless disturbe	d or problematic.
	Depth (inches): 9		-		CH C H					
Depth (inches): 9				Rock		-		Hydrid	Soil Present?	Yes 🟒 No
	emarks:		Depth (inches):		9					

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South

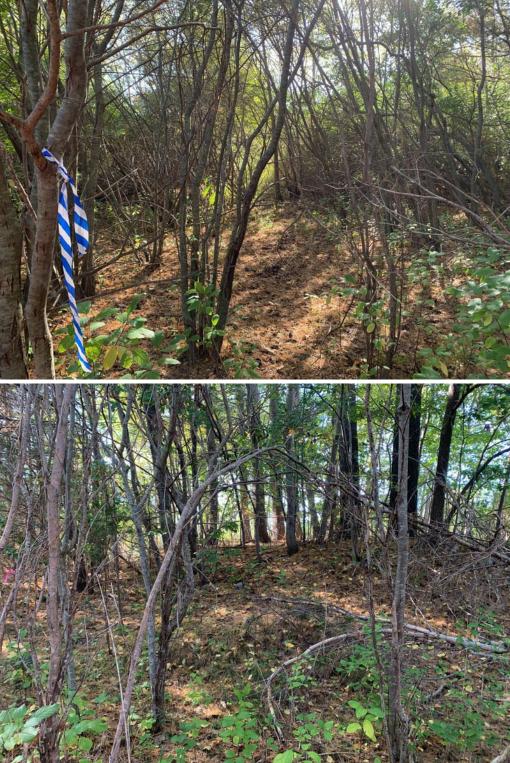


Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

City/County: Seabrook, Rockingham County	Sampling Date: 2021-Oct-20
State: NH	Sampling Point: W-HSW-07_UPL-1
d Section, Township, Range:	NA
Local relief (concave, convex, nor	be): Convex Slope (%): 1 to 3
Lat: 42.899777544 Lo	ng: -70.8570805063 Datum: WGS84
	NWI classification: None
al for this time of year? Yes 🟒 No (I	f no, explain in Remarks.)
	mstances" present? Yes 🖌 No any answers in Remarks.)
	State: NH Section, Township, Range: Local relief (concave, convex, non Lat: 42.899777544 Lou Lat: for this time of year? Yes ∠ No (i Yes _ No (i Are "Normal Circu

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No _	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedure	es here or in a separate repo	prt)	
Covertype is UPL. Appears to be historic	: (pre-CWA) fill area for soil a	and rock spoils.	
	- (

HYDROLOGY

Wetland Hydrology Indicators:				
Primary Indicators (minimum of on	e is required; check all th	Secondary Indicators (minimum of two required)		
 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 Ima Sparsely Vegetated Concave Sur 	Aquatic Marl De Hydrog Oxidize Presend Recent Thin Mu gery (B7) Other (I	Stained Leaves (B9) Fauna (B13) eposits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 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) 	
Field Observations:			FAC-Neutral Test (D5)	
Surface Water Present?	Yes No 🟒	Depth (inches):	_	
Water Table Present?	Yes No 🟒	Depth (inches):	Wetland Hydrology Present? Yes No	
Saturation Present?	Yes No 🟒	Depth (inches):		
(includes capillary fringe)				
Describe Recorded Data (stream ga	auge, monitoring well, ae	rial photos, previous inspections), if	available:	
Remarks:				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-07_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That	t 3	(4)
. Pinus strobus	85	Yes	FACU	Are OBL, FACW, or FAC:		(A)
. Populus grandidentata	15	No	FACU	Total Number of Dominant Specie Across All Strata:	^s 5	(B)
3				Percent of Dominant Species That		
				Are OBL, FACW, or FAC:	60	(A/B
5				Prevalence Index worksheet:		
5				Total % Cover of:	<u>Multiply</u>	By:
7				OBL species 0	x 1 =	0
	100	= Total Cov	er	FACW species 1	x 2 =	2
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 10	x 3 =	30
. <i>Quercus rubra</i>	5	Yes	FACU	FACU species 108	x 4 =	432
2. Frangula caroliniana	2	Yes	FAC	UPL species 0	x 5 =	0
3. <i>Carya ovata</i>	1	No	FACU	Column Totals 119	(A)	464 (E
4. Acer rubrum	1	No	FAC	Prevalence Index = B/A =	- `´ -	(
5. Vaccinium corymbosum	1	No	FACW			·
5. <i>Quercus alba</i>	1	No	FACU	Hydrophytic Vegetation Indicators		_
7				1- Rapid Test for Hydrophytic	vegetation	1
	11	= Total Cov	er	2 - Dominance Test is >50%		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)				3 - Prevalence Index is $\leq 3.0^{10}$		
1. Frangula caroliniana	5	Yes	FAC	4 - Morphological Adaptation	-	supportin
2. Toxicodendron radicans	2	Yes	FAC	data in Remarks or on a separate Problematic Hydrophytic Veg	-	(aialay
3. Vaccinium angustifolium	1	No	FACU	, , , , , , , , , , , , , , , , ,		
4.				¹ Indicators of hydric soil and wetla present, unless disturbed or probl		igy must t
5.				<u> </u>	ematic	
5.				Definitions of Vegetation Strata: Tree – Woody plants 3 in. (7.6 cm)	or moro in	diameter
7.				breast height (DBH), regardless of		ulameter
3.				Sapling/shrub – Woody plants less	0	DBH and
).				greater than or equal to 3.28 ft (1		DDITUIIG
0.				Herb – All herbaceous (non-wood)		gardless
				size, and woody plants less than 3		0
11				Woody vines – All woody vines gre		8.28 ft in
12				height.		
	8	= Total Cov	er	Hydrophytic Vegetation Present?	Yes / M	No
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)					105 <u>v</u> 1	
l						
2						
3						
4						
	0	= Total Cov	er			

SOIL

Depth	Matrix		Redox				he absence of indicato	,
(inches)	Color (moist)	%	Color (moist)		Type ¹	Loc ²	Texture	Remarks
0 - 2	10YR 3/3	100		_			andy Loam	
2 - 4	10YR 4/4	100		-			e Sandy Loam	
4 - 20	10YR 4/6	100					Silt Loam	
				-		·		
				-				-
					<u> </u>	· ·		
				-				
				-		·		<u>-</u>
				-		·		-
				_		· ·		
			n DM - Deduced	N.I.a.t		Maalkad Canal Crains	21 a antione DL - Davia	
		Depletio	n, RM = Reduced	Mat	TX, IVIS =	Masked Sand Grains		, , , , , , , , , , , , , , , , , , ,
	ndicators:		Dolwalus D-	<u></u>	urface (C	8) (LRR R, MLRA 1498		oblematic Hydric Soils ³ :
Histosol	(AT) bipedon (A2)					8) (LRR R, MLRA 1496 R, MLRA 149B)		A10) (LRR K, L, MLRA 149B)
Black Hi			Loamy Mucky					Redox (A16) (LRR K, L, R)
_	en Sulfide (A4)		Loamy Gleyed			(/		Peat or Peat (S3) (LRR K, L, R)
	d Layers (A5)		Depleted Mat				Dark Surface	
_ Deplete	d Below Dark Surfa						•	low Surface (S8) (LRR K, L) rface (S9) (LRR K, L)
_	ark Surface (A12)		Depleted Dar					lese Masses (F12) (LRR K, L, R)
			Redox Depre	ssior	ns (F8)		•	bodplain Soils (F19) (MLRA 149B)
_ Sandy N	lucky Mineral (S1)		Redux Depre					
-	lucky Mineral (S1) ileyed Matrix (S4)							•
_ Sandy G	-						Mesic Spodic	: (TA6) (MLRA 144A, 145, 149B)
Sandy G Sandy R	ileyed Matrix (S4)						Mesic Spodic Red Parent N	: (TA6) (MLRA 144A, 145, 149B) /laterial (F21)
Sandy G Sandy R Stripped	ileyed Matrix (S4) edox (S5)						Mesic Spodic Red Parent N	(TA6) (MLRA 144A, 145, 149B) Jaterial (F21) Dark Surface (TF12)
_ Sandy G _ Sandy R _ Strippec _ Dark Su	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N	ILRA 149	9B)		v must be	e present, unless dist	Mesic Spodic Red Parent N Very Shallow Other (Explai	(TA6) (MLRA 144A, 145, 149B) Jaterial (F21) Dark Surface (TF12)
Sandy G Sandy R Stripped Dark Sun ndicators o	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg	ILRA 149 etation a	9B)		y must be	e present, unless dist	Mesic Spodic Red Parent N Very Shallow	(TA6) (MLRA 144A, 145, 149B) Jaterial (F21) Dark Surface (TF12)
Sandy G Sandy R Stripped Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) :	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
Sandy G Sandy R Stripped Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B)		y must be	e present, unless dist Hydric Soil Present?	Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Jaterial (F21) Dark Surface (TF12)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) :	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Strippec _ Dark Su dicators d strictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Strippec _ Dark Su dicators d strictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Strippec _ Dark Su dicators d strictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Strippec _ Dark Su dicators d strictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, N of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
Sandy G Sandy R Stripped Dark Su ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) <i>M</i> aterial (F21) Dark Surface (TF12) in in Remarks)
Sandy G Sandy R Stripped Dark Su ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators d estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Stripped _ Dark Sun ndicators of estrictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)
_ Sandy G _ Sandy R _ Strippec _ Dark Su dicators d strictive L	ileyed Matrix (S4) edox (S5) d Matrix (S6) rface (S7) (LRR R, M of hydrophytic veg .ayer (if observed) : Type:	ILRA 149 etation a	9B) and wetland hydr		y must be		Mesic Spodic Red Parent N Very Shallow Other (Explai urbed or problematic.	(TA6) (MLRA 144A, 145, 149B) Material (F21) Dark Surface (TF12) in in Remarks)

Photo of Sample Plot North



Photo of Sample Plot East

Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook Cap I	Bank	City/County:	Seabrook, Rocki	ngham County		Sampling Date:	2021-Oct-21
Applicant/Owner: NextEra	1			State: NH		Sampling Point: <u>W</u>	V-HSW-08_PSS-1
Investigator(s): Jen Bonta,	Heather Storlazzi Ward		Sect	ion, Township, Ra	nge: N/	Ą	
Landform (hillslope, terrace,	etc.): Depression		Local relief	(concave, convex,	none):	Concave	Slope (%): 0 to 1
Subregion (LRR or MLRA):	LRR R		Lat:	42.9006822696	Long:	-70.856583822	Datum: WGS84
Soil Map Unit Name: Udo	rthents, smoothed					NWI classifica	ation: PSS
Are climatic/hydrologic cond	itions on the site typical	for this time of	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarl	ks.)
Are Vegetation, Soil _ Are Vegetation, Soil _		0	5			ances" present? y answers in Rema	Yes _✔ No rks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🟒 No	Is the Sampled Area within a Wetland?	Yes 🟒 No _
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-HSW-08
Remarks: (Explain alternative procedures	here or in a separate repor	t)	
Covertype is PSS.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of or ✓ 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 Images Sparsely Vegetated Concave Sume	✓ Water-S Aquatic Marl De Hydrog Oxidizer Presenc Recent Thin Mu agery (B7) Other (E	Roots (C3) ils (C6)	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? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream g	Yes No Yes No Yes No auge, monitoring well, ae	Depth (inches): Depth (inches): Depth (inches): rrial photos, previous inspe	0 5 0 ections), if	Wetland Hydrology Present? Yes No
Remarks:				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-08_PSS-1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u>)		Dominant	Indicator	Dominance Test worksheet:		
	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	3	(A)
2.				Total Number of Dominant Species	3	(B)
}				Percent of Dominant Species That	100	 (A/B)
5.				Are OBL, FACW, or FAC:		
5.				- Prevalence Index worksheet:	Multimbu Du	
7.				- <u>Total % Cover of:</u>	Multiply By	
	0	= Total Cov	er	- OBL species 0	x 1 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		-		FACW species 25	x 2 =	50
1. Alnus incana	20	Yes	FACW	FAC species 5	x 3 =	15
2. Frangula alnus	5	Yes	FAC	FACU species 0	x 4 =	0
3.				- UPL species 0	x 5 =	0
4.				- Column Totals 30		65 (B)
5.				Prevalence Index = B/A =	2.2	
5.				Hydrophytic Vegetation Indicators:		
7.				1- Rapid Test for Hydrophytic	Vegetation	
	25	= Total Cov	er	2 - Dominance Test is >50%		
<u>Herb Stratum</u> (Plot size: <u>5 ft</u>)		-		\checkmark 3 - Prevalence Index is ≤ 3.0 ¹		
1. Onoclea sensibilis	5	Yes	FACW	4 - Morphological Adaptations		pporting
2.				 data in Remarks or on a separate s Problematic Hydrophytic Vege 		ain)
3.				¹ Indicators of hydric soil and wetlar		
4.				present, unless disturbed or proble		mustbe
5.				Definitions of Vegetation Strata:	inauc	
6.				Tree – Woody plants 3 in. (7.6 cm) c	r moro in dir	motor
7.				breast height (DBH), regardless of h		
8.				Sapling/shrub – Woody plants less		H and
9.				greater than or equal to 3.28 ft (1 n		
				Herb – All herbaceous (non-woody)		rdless o
10				size, and woody plants less than 3.		
11				Woody vines – All woody vines grea		3 ft in
12	5	= Total Cov	or	height.		
Woody Vine Stratum (Plot size: <u>30 ft</u>)		_ 10tai C0v	ei	Hydrophytic Vegetation Present?	Yes 🖌 No	
1.						
				-		
2				-		
3				-		
4		- Tetal C		-		
	0	= Total Cov	er			

SOIL

Color (moist) % Color (moist) % Type! Local Texture Remarks 0 - 2 10YR 2/1 90 2.5Y 4/1 10 D Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand		cription: (Describe	to the	-			indicator or cor	nfirm the abse	nce of indicators.)
0 - 2 10 YR 2/1 90 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 - 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Mark Mark Mark Mark Mark Mark Mark Mark	Depth	Matrix						- .	
2 · 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 · 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 · 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 · 7 2.5Y 4/2 95 2.5Y 6/3 5 Loamy Sand 2 · 7 2.5Y 4/2 95 2.5Y 6/3 5							Loc ²		Remarks
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ² Location: PL = Pore Lining, M = Matrix. Histos Ol A11 Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Indicators for Problematic Hydric Soils?: Histos Ol A11 Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Fipiedon (A2) Thin Dark Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L) Stratified Layers (A5) Depleted Matrix (F2) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Sandy Gleyed Matrix (S4) Depleted Matrix (S4) Mesic Spodic (TA6) (MLRA 149B) Sandy Gleyed Matrix (S4) Red Parent Material (F21) Wery Shallow Dark Surface (TF12) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Very Shallow Dark Surface (TF12)						D			
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	2 - 7	2.5Y 4/2	95	2.5Y 6/3	5			Loamy Sand	l
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
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Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2)			Deplet	ion, RM = Reduce	d Mat	rix, MS =	wasked Sand (
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B)	-								dicators for Problematic Hydric Soils ³ :
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)				•					_ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Hydrogen Sulfide (A4) Loany Gleyed Matrix (F2)) _	_ Coast Prairie Redox (A16) (LRR K, L, R)
Stratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (S6) Red Parent Material (F21) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Other (Explain in Remarks) Type: Rocky fill Hydric Soil Present? Yes _/ No Depth (inches): 7 Yes _/ No							(LRR K, L)	_	_ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
								_	_ Dark Surface (S7) (LRR K, L)
			(\ 1					_	_ Polyvalue Below Surface (S8) (LRR K, L)
			ace (A I				,	_	_ Thin Dark Surface (S9) (LRR K, L)
)	_	_ Iron-Manganese Masses (F12) (LRR K, L, R)
	,				ession	15 (FO)		_	_ Piedmont Floodplain Soils (F19) (MLRA 149B)
	-	-						_	_ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	-							_	_ Red Parent Material (F21)
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rocky fill Depth (inches): 7				(0.5)				_	Very Shallow Dark Surface (TF12)
Restrictive Layer (if observed): Type: Rocky fill Depth (inches): 7	Dark Su	rtace (S7) (LRR R, N	ILKA 1	49B)					_ Other (Explain in Remarks)
Type: Rocky fill Hydric Soil Present? Yes _ < No Depth (inches): 7	³ Indicators	of hydrophytic veg	etatior	n and wetland hyd	drolog	y must b	e present, unle	ss disturbed o	r problematic.
Depth (inches): 7	Restrictive I	_ayer (if observed):							
		Туре:		Rocky fill	_		Hydric Soil Pr	esent?	Yes 🟒 No
		Depth (inches):		7	-				
	Remarks:								

Photo of Sample Plot North



Photo of Sample Plot East



Photo of Sample Plot South



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrool	< Cap Bank		City/County:	Seabrook, Rock	ingham County		Sampling Date: 20	21-Oct-21
Applicant/Owner: N	lextEra				State: NH		Sampling Point: W-H	ISW-08_UPL-1
Investigator(s): Jen E	Bonta, Heathei	^r Storlazzi Ward		Sec	tion, Township, Ra	nge: N	Ą	
Landform (hillslope, te	rrace, etc.):	Hillslope		Local relief	f (concave, convex,	none):	Convex	Slope (%): 15 to 20
Subregion (LRR or MLF	RA): LRR I	2		Lat:	42.9007527729	Long:	-70.8567038479	Datum: WGS84
Soil Map Unit Name:	Udorthents,	smoothed					NWI classificatio	on: None
Are climatic/hydrologie	c conditions or	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Remarks.)
Are Vegetation, Are Vegetation,		or Hydrology or Hydrology	0	5			tances" present? y answers in Remarks	Yes No 5.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes No 🟒								
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒						
Wetland Hydrology Present?	Yes No 🟒	lf yes, optional Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a separate report)									
Covertype is UPL. UPL data plot appears to be within area of historic (pre-CWA) rocky fill .									

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of on	e is required; check all th	nat apply)	Secondary Indicators (minimum of two required)
 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 Ima Sparsely Vegetated Concave Surface 	Aquatic Marl De Hydrog Oxidize Presenc Recent I Thin Mu agery (B7) Other (E	itained Leaves (B9) Fauna (B13) eposits (B15) en Sulfide Odor (C1) d Rhizospheres on Living Roots (C3) ee of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 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):	Wetland Hydrology Present? Yes No _
Saturation Present?	Yes No 🟒	Depth (inches):	
(includes capillary fringe)			
	auge, monitoring well, ae	rial photos, previous inspections), if	available:
Remarks:			

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-08_UPL-1

Tree Stratum (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test workshee Number of Dominant Spe		0	(• •
. Quercus rubra	25	Yes	FACU	Are OBL, FACW, or FAC:		0	(A)
2. Prunus serotina	20	Yes	FACU	Total Number of Dominan	t Species	7	(B)
3. Populus tremuloides	15	Yes	FACU	Across All Strata:			(2)
4.				Percent of Dominant Spec	ies That	0	(A/B)
5.				Are OBL, FACW, or FAC:			
5.				Prevalence Index workshe			_
7.				- <u>Total % Cover of:</u>		Multiply	•
	60	= Total Cov	er	- OBL species	0	x 1 =	0
Sapling/Shrub Stratum (Plot size: <u>15 ft</u>)		•		FACW species	0	x 2 =	0
. Lonicera japonica	40	Yes	FACU	FAC species	0	x 3 =	0
2.				FACU species	130	x 4 =	520
3.				- UPL species	25	x 5 =	125
				- Column Totals	155	(A)	645 (B)
5.				Prevalence Inde	x = B/A =	4.2	<u> </u>
·				Hydrophytic Vegetation In	dicators:		
·				1- Rapid Test for Hyd	rophytic V	egetatio	n
	40	= Total Cov	or	2 - Dominance Test is	s > 50%		
<u>lerb Stratum</u> (Plot size: <u>5 ft</u>)	40		CI	3 - Prevalence Index	is ≤ 3.01		
. Rubus idaeus	25	Yes	FACU	4 - Morphological Ad	•		supporting
2. Solidago sp.	20	Yes	NI	- data in Remarks or on a se			
3. Lonicera japonica	5	No	FACU	 Problematic Hydroph 			
4.		INU	FACU	- ¹ Indicators of hydric soil a			ogy must be
+				present, unless disturbed		natic	
				_ Definitions of Vegetation S			
				Tree – Woody plants 3 in. (diameter a
7				breast height (DBH), regar		-	DDU and
3				Sapling/shrub – Woody pla greater than or equal to 3.			
)				Herb – All herbaceous (no			ardless of
0				size, and woody plants les			gal diess of
11				Woody vines – All woody v			8.28 ft in
2				height.			
	50	= Total Cov	er	Hydrophytic Vegetation P	recent? V	<u>م</u>	
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u>)					i cociiti; i		···· _ · /_
. <u>Celastrus orbiculatus</u>	25	Yes	UPL	-			
2				-			
3				-			
4				-			
	25	= Total Cov	er				

SOIL

(inches) Color (moist) % Color (moist) % Type1 Loc² Texture Remarks 0-7 10/R 3/2 100		Matrix		Redox	Features			
Type: C = Concentration, D = Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. ?Location: PL = Pore Lining, M = Matrix. Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Histosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Histosol (A1) Depletion, RM = Reduced Matrix, MS = Masked Sand Grains. Pilstosol (A1) Polyvalue Below Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) Black Histic (A3) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F2) Stratified Layers (A5) Depleted Dark Surface (F6) Thin Dark Surface (A11) Redox Depressions (F8) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S4) Red Parent Material (F21) Shipped Matrix (S6) Red Parent Material (F21) Stratarde (S7) (LRR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Mucky Mineral (S1) Red Parent Material (F21) Shipped Matrix (S6) Red Parent Material (F21) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)	(inches)	Color (moist)	%	Color (moist)	% Type ¹	Loc ² Text	ure	Remarks
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	0 - 7	10YR 3/2	100			Loa	m	
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
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Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
Judric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Stratified Layers (A5) Depleted Matrix (F3) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Red Parent Material (F2) Stripped Matrix (S6) Red Parent Material (F2) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Very Shallow Dark Surface (TF12) Type: Rocky fill Hydric Soil Present? Yes No/	Type: C = C	Concentration, D = l	Depletic	on, RM = Reduced	l Matrix, MS =	Masked Sand Grain	s. ² Location: PL = P	Pore Lining, M = Matrix.
	Hydric Soil	Indicators:					Indicators fo	r Problematic Hydric Soils ³ :
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)				,	-		B) 2 cm Mue	ck (A10) (LRR K, L, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)							Coast Pra	airie Redox (A16) (LRR K, L, R)
Stratified Layers (A5)) (LRR K, L)	5 cm Mu	cky Peat or Peat (S3) (LRR K, L, R)
			ice (A11	'				
	•					')		
	Sandy N	lucky Mineral (S1)		Redox Depre	essions (F8)			
	Sandy (Gleyed Matrix (S4)						•
	Sandy F	edox (S5)						
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and wetland hydrology must be present. Indicators of hydrophytic vegetation and hydrology must be present. Indicators of hydrophytic vegetation and hyd	Strippe	d Matrix (S6)						
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. testrictive Layer (if observed): Type:	Dark Su	rface (S7) (LRR R, N	ILRA 14	9B)				
Image: Sector of the served): Type: Rocky fill Depth (inches): 5	³ Indicators	of hydrophytic yea	otation	and wetland hyd	rology must h	o present unless dis		
Type: Rocky fill Hydric Soil Present? Yes No Depth (inches): 5					iology must c	present, unless dis		
Depth (inches): 5	<i>Contented</i>	-		Rocky fill		Hydric Soil Present	7 Ves	No. 7
					-	ingune son resent	. ies	
				5				
	lemarks:		<u>.</u>					
	Remarks:							
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	Remarks:							
	Remarks:							

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook	Cap Bank		City/County:	Seabrook, Rock	ingham County		Sampling Date:	2021-Oct-21
Applicant/Owner: N	extEra				State: NH		Sampling Point:	W-HSW-09_E2EM1-1
Investigator(s): Jen B	Bonta, Heathei	⁻ Storlazzi Ward		Sec	tion, Township, Ra	nge: N	A	
Landform (hillslope, ter	rrace, etc.):	Saltmarsh		Local relief	(concave, convex,	, none):	None	Slope (%): 0 to 1
Subregion (LRR or MLR	A): LRR I	२		Lat:	42.9023416256	Long:	-70.8568714912	Datum: WGS84
Soil Map Unit Name:	UnB - Unadil	la very fine sand	ly loam, 3 to	8 percent slopes			NWI classific	cation: E2EM1
Are climatic/hydrologic	conditions or	n the site typical	for this time	of year?	Yes 🟒 No 🔄	(If no	, explain in Rema	rks.)
Are Vegetation,	Soil,	or Hydrology	significan	tly disturbed?	Are "Normal (Circumst	tances" present?	Yes 🟒 No
Are Vegetation,	Soil,	or Hydrology	naturally	problematic?	(If needed, ex	plain an	y answers in Rem	arks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes 🟒 No		
Hydric Soil Present?	Yes 🖌 No	Is the Sampled Area within a Wetland?	Yes 🯒 No
Wetland Hydrology Present?	Yes 🟒 No	If yes, optional Wetland Site ID:	W-HSW-09
Remarks: (Explain alternative procedur	es here or in a separate re	port)	
Covertype is E2EM1.			

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of or 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) Sparsely Vegetated Concave Su	✓ Water-S Aquatic Marl De Hydrog Oxidize Presenc Recent Thin Mu agery (B7) Other (E	nat apply) Stained Leaves (B9) Fauna (B13) eposits (B15) en Sulfide Odor (C1) d Rhizospheres on Living F ce of Reduced Iron (C4) Iron Reduction in Tilled So uck Surface (C7) 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? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream g	Yes _∠_ No Yes _∠_ No Yes _∠_ No rauge, monitoring well, ae	Depth (inches): Depth (inches): Depth (inches): rial photos, previous inspe	0 0 0 ections), if	Wetland Hydrology Present? Yes No available:
Remarks:				

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-09_E2EM1-1

<u>Free Stratum</u> (Plot size: <u>30 ft</u>)		Dominant		Dominance Test worksheet:		
		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
				Total Number of Dominant Species		
				Across All Strata:	2	(B)
·				Percent of Dominant Species That	100	(4 (D)
·				Are OBL, FACW, or FAC:	100	(A/B)
				Prevalence Index worksheet:		
				- <u>Total % Cover of:</u>	Multiply	By:
	0	= Total Cov	or	- OBL species 20	x 1 =	20
anling (Church Stratum (Dist sizes 15 ft)	0	- 10tal COV	er	FACW species 80	x 2 =	160
apling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 0	x 3 =	0
				FACU species 0	x 4 =	0
				UPL species 0	x 5 =	0
·				Column Totals 100	(A)	180 (B)
·				Prevalence Index = B/A =		
				Hydrophytic Vegetation Indicators:		
				1- Rapid Test for Hydrophytic `	Vogotation	
					vegetation	
	0	= Total Cov	er	2 - Dominance Test is >50%		
<u>erb Stratum</u> (Plot size: <u>5 ft</u>)		_		\checkmark 3 - Prevalence Index is ≤ 3.0 ¹	1 (Dura dala	
Phragmites australis	80	Yes	FACW	4 - Morphological Adaptations		supporting
. Spartina alterniflora	20	Yes	OBL	- data in Remarks or on a separate s		
· ·				Problematic Hydrophytic Vege		
·				¹ Indicators of hydric soil and wetlar		gy must be
·				present, unless disturbed or proble	matic	
				Definitions of Vegetation Strata:		
·				Tree – Woody plants 3 in. (7.6 cm) o		diameter a
·				breast height (DBH), regardless of h		
				Sapling/shrub – Woody plants less		OBH and
				greater than or equal to 3.28 ft (1 m		
0				Herb – All herbaceous (non-woody)		gardless of
1				size, and woody plants less than 3.2		20.6
2				Woody vines – All woody vines grea	iter than 3.	28 ft in
	100	= Total Cov	er	height.		
<u>Voody Vine Stratum</u> (Plot size: <u>30 ft</u>)		_		Hydrophytic Vegetation Present?	Yes 🟒 N	lo
				-		
				-		
·				•		
•		= Total Cov	or	-		
	0		CI			

SOIL

Sampling Point: W-HSW-09_E2EM1-1

nches) Color (moist)	%	Color (moist)	%	Type ¹	Loc ² Te	exture	Remarks
0 - 20 10YR 2/1	100		-		Mu	cky Peat	
20 - 24 10YR 2/1	100		· —		Muck	y Silty Clay	
					<u> </u>		
	·					·	
· · · · · / / _ /	·		· —				
	·				·		
			_				
pe: C = Concentration, D =	Depletio	n, RM = Reduced	Mati	rix, MS = I	Masked Sand Grains.	² Location: PL = Pore L	*
Iric Soil Indicators:		Debaselue Del		urface (C			blematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2)					8) (LRR R, MLRA 149B) R, MLRA 149B)		10) (LRR K, L, MLRA 149B)
Black Histic (A3)		Loamy Mucky		• • •			Redox (A16) (LRR K, L, R) eat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)		Loamy Gleye				Dark Surface	
Stratified Layers (A5)		Depleted Ma					ow Surface (S8) (LRR K, L)
Depleted Below Dark Surf	ace (A11)					-	face (S9) (LRR K, L)
Thick Dark Surface (A12)		Depleted Dar					ese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)		Redox Depre	ssior	IS (F8)		Piedmont Flo	odplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Sandy Redox (S5)						Mesic Spodic	(TA6) (MLRA 144A, 145, 149B)
Stripped Matrix (S6)						Red Parent M	
						Van Challeur	Dark Surface (TE12)
_ Dark Surface (S7) (LRR R, N	MLRA 149)B)				Very Shallow	
_ Dark Surface (S7) (LRR R, N			olom	, must be	procent unloss distur	Other (Explain	
_ Dark Surface (S7) (LRR R, N dicators of hydrophytic veg	getation a		ology	/ must be	e present, unless distur	Other (Explain	
Dark Surface (S7) (LRR R, N dicators of hydrophytic veg strictive Layer (if observed)	getation a	and wetland hydr	ology	/ must be		Other (Explair bed or problematic.	n in Remarks)
Dark Surface (S7) (LRR R, N	getation a		ology	/ must be	e present, unless distur Hydric Soil Present?	Other (Explair bed or problematic.	

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Seabrook	< Cap Bank		City/County:	Seabrook, Rock	ingham County		Sampling Date:	2021-Oct-21
Applicant/Owner: N	lextEra				State: NH		Sampling Point: \	N-HSW-09_UPL-1
Investigator(s): Jen E	Bonta, Heather	Storlazzi Ward		Sec	tion, Township,	Range: N	A	
Landform (hillslope, te	rrace, etc.):	Flat		Local relie	f (concave, conv	ex, none):	Convex	Slope (%): 1 to 3
Subregion (LRR or MLF	RA): LRR F	2		Lat:	42.902079236	Long:	-70.8566265505	Datum: WGS84
Soil Map Unit Name:	Udorthents,	smoothed					NWI classific	ation: None
Are climatic/hydrologic	c conditions or	the site typical	for this time	of year?	Yes 🟒 No	(If no	o, explain in Rema	rks.)
÷		or Hydrology or Hydrology	0	5			tances" present? y answers in Rem	Yes 🟒 No arks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes No 🟒		
Hydric Soil Present?	Yes No 🟒	Is the Sampled Area within a Wetland?	Yes No 🟒
Wetland Hydrology Present?	Yes No 🟒	If yes, optional Wetland Site ID:	
Remarks: (Explain alternative procedure	s here or in a separate repo	rt)	
Covertype is UPL.			

HYDROLOGY

Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required; check all that apply)			Secondary Indicators (minimum of two required)		
 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 Ima Sparsely Vegetated Concave Surface 	Aquatio Marl D Hydrog Oxidize Presen Recent Thin M agery (B7) Other (Stained Leaves (B9) c Fauna (B13) eposits (B15) gen Sulfide Odor (C1) ed Rhizospheres on Living Roots (C3) ce of Reduced Iron (C4) Iron Reduction in Tilled Soils (C6) uck Surface (C7) Explain in Remarks)	 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):	Wetland Hydrology Present? Yes No		
Saturation Present?	Yes No 🟒	Depth (inches):			
(includes capillary fringe)			<u> </u>		
	auge, monitoring well, a	erial photos, previous inspections), if	available:		
Remarks:					

VEGETATION -- Use scientific names of plants.

Sampling Point: W-HSW-09_UPL-1

ree Stratum (Plot size: <u>30 ft</u>)		Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species Tha	^{it} 3	(A)
. Quercus rubra	30	Yes	FACU	Are OBL, FACW, or FAC:		(~)
. Carya ovata	30	Yes	FACU	Total Number of Dominant Specie	^{es} 7	(B)
8. Prunus serotina	10	No	FACU	Across All Strata:		
. Pinus strobus	10	No	FACU	 Percent of Dominant Species Tha Are OBL, FACW, or FAC: 	t 42.9	(A/E
		·		Prevalence Index worksheet:		
				- <u>Total % Cover of:</u>	Multiply	By:
		·		- OBL species 0	x 1 =	0
	80	= Total Cov	er	FACW species 30	x 2 =	60
apling/Shrub Stratum (Plot size: <u>15 ft</u>)				FAC species 1	x 3 =	3
. <u>llex verticillata</u>	10	Yes	FACW	FACU species 100	x 4 =	400
. Vaccinium corymbosum	10	Yes	FACW	- UPL species 0	x 5 =	0
. Pinus strobus	10	Yes	FACU	- Column Totals 131	(A)	463 (I
. Prunus serotina	5	No	FACU	Prevalence Index = B/A		
·		·		Hydrophytic Vegetation Indicators	5:	
		·		1- Rapid Test for Hydrophyti	c Vegetation	
·	35	= Total Cov	or	2 - Dominance Test is > 50%		
larh Stratum (Diat size) E ft			ei	3 - Prevalence Index is \leq 3.0	1	
lerb Stratum (Plot size: <u>5 ft</u>)	10	Vec	FACW	4 - Morphological Adaptatio	ns¹ (Provide	supporti
. Rubus hispidus	5	Yes		- data in Remarks or on a separate	sheet)	
. Prunus serotina		Yes	FACU	Problematic Hydrophytic Ve	-	
8. <i>Pyrola americana</i> 9.	1	No	FAC	 Indicators of hydric soil and wether 		gy must l
		<u> </u>		present, unless disturbed or prob	lematic	
				Definitions of Vegetation Strata:		
 7		·		Tree – Woody plants 3 in. (7.6 cm) breast height (DBH), regardless o		lameter
·		<u> </u>		Sapling/shrub – Woody plants les	-	NBH and
 				greater than or equal to 3.28 ft (1		
		<u> </u>		Herb – All herbaceous (non-wood		ardless
0		·		size, and woody plants less than a		Sararess
1		·		Woody vines – All woody vines gr		28 ft in
2		Table		height.		
	16	= Total Cov	er	Hydrophytic Vegetation Present?	Yes N	
<u>Voody Vine Stratum</u> (Plot size: <u>30 ft</u>)					ics i	<u>.</u>
		·		-		
<u> </u>		·		-		
3				-		
ł		·		-		
	0	= Total Cov	er			

SOIL

Depth Matrix nches) Color (moist) 0 - 5 10YR 3/4 5 - 9 10YR 4/4 9 - 15 2.5Y 5/6	% Color (moist) 100	Features % Type1 Loc2	Texture Loam Silt Loam Silt Loam	Remarks
0 - 5 10YR 3/4 5 - 9 10YR 4/4	100 100		Loam Silt Loam	
5 - 9 10YR 4/4	100		Silt Loam	
			Silt Loan	
<u> </u>				
<u> </u>				
	Depletion, RM = Reduced	Matrix, MS = Masked Sand (L = Pore Lining, M = Matrix.
/dric Soil Indicators: _ Histosol (A1)		ow Surface (S8) (LRR R, MLR		rs for Problematic Hydric Soils ³ :
_ Thick Dark Surface (A12) _ Sandy Mucky Mineral (S1) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Dark Surface (S7) (LRR R , I	Loamy Mucky Loamy Gleyec Depleted Mat face (A11) Redox Dark So Depleted Darl 0 Redox Depres	rix (F3) urface (F6) s Surface (F7)) Coas 5 cm Dark Poly Thin Iron- Pied Mes Red Very Othe	a Muck (A10) (LRR K, L, MLRA 149B) st Prairie Redox (A16) (LRR K, L, R) a Mucky Peat or Peat (S3) (LRR K, L, R) s Surface (S7) (LRR K, L) value Below Surface (S8) (LRR K, L) Dark Surface (S9) (LRR K, L) • Manganese Masses (F12) (LRR K, L, R) mont Floodplain Soils (F19) (MLRA 149B) ic Spodic (TA6) (MLRA 144A, 145, 149B) Parent Material (F21) • Shallow Dark Surface (TF12) er (Explain in Remarks) lematic.
strictive Layer (if observed)):			
Type:	None	Hydric Soil Pr	esent?	Yes No⁄_
Depth (inches):				

Photo of Sample Plot North



Photo of Sample Plot East Photo of Sample Plot South



Photo of Sample Plot West

APPENDIX 2: EASEMENT AGREEMENT MEMORANDA

SUBSTATION EASEMENT AGREEMENT

THIS SUBSTATION EASEMENT AGREEMENT ("Agreement") is hereby granted and conveyed this <u>29th</u> day of <u>March</u>, 2022 by NextEra Energy Seabrook, LLC, a Delaware limited liability company, whose mailing address is 700 Universe Blvd., Juno Beach, FL 33408, Massachusetts Municipal Wholesale Electric Company, a body politic and corporate and political subdivision of the Commonwealth of Massachusetts, whose address is 327 Moody Street, Ludlow, Massachusetts, 01056, Hudson Light & Power Department, a Massachusetts municipal light plant organized pursuant to Massachusetts General Laws, Chapter 164, §§34-69, whose address is 49 Forest Avenue, Hudson, Massachusetts 01749, and Taunton Municipal Light Plant a Massachusetts municipal light plant organized pursuant to Massachusetts 02780 (collectively, "Grantor") to New Hampshire Transmission, LLC, a Delaware limited liability company, whose mailing address is 700 Universe Boulevard, Juno Beach, Florida 33408 ("Grantee").

RECITALS

A. Grantor is the owner of a certain tract of real property located in Rockingham County, New Hampshire ("**Property**") and Public Service Company of New Hampshire, a New Hampshire corporation currently operates a transmission easement on the Property by that certain Easement dated October 31, 2002 and recorded in Rockingham County Register of Deeds ("**Registry**") at Book 3875, Page 2055 (collectively "**Transmission Easement**"); and

B. Grantor desires to grant and convey to Grantee an easement for the construction, operation and maintenance of a transmission capacitor bank on the Property as more particularly described on **Exhibit A** and depicted in the attached **Exhibit B** (collectively "**Substation Parcel**") into which electricity is delivered from the Transmission Easement; and

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration as well as the mutual benefits derived here from, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. <u>Grant</u>. Grantor does hereby grant and convey to Grantee, its successors and permitted assigns, a non-exclusive easement over and across the Substation Parcel. The parties hereto acknowledge and agree that the use of the Substation Parcel pursuant to this Agreement shall be limited to use by Grantee and Grantor subject to the Joint Ownership, Construction and Operation of New Hampshire Nuclear Units, by and among Grantor, originally dated May 1, 1973, as amended ("JOA").

2. <u>Use</u>.

2.1 Grantee shall have the right and privilege to use the Substation Parcel solely for the construction, operation and maintenance of a transmission capacitor bank, one or more electric transmission and distribution lines and equipment associated therewith, attachments and appurtenant equipment for an electric substation and any and all other uses consistent with the operation of an electric substation (all of the foregoing hereinafter referred to as "Facilities"), together with the right and privilege from time to time to maintain, reconstruct, inspect, alter, improve, change the voltage, as well as the nature or physical characteristics of, replace, remove or relocate such Facilities or any part of them upon, across, over or under the Substation Parcel with all rights and privileges necessary or convenient for the full enjoyment or the use thereof for the herein described purposes and solely for the use, transmission and delivery of electrical energy; and shall include the right of access, ingress and egress by Grantee, its contractors, employees, agents and invitees to the Substation Parcel in accordance with Section 5 hereof. Grantee's exercise of the rights set forth in this Section 2.1 shall not in any way interfere with, impede or otherwise be adverse to the exercise and enjoyment of the Grantor's use of the land burdened by the Transmission Easement or the easement granted in this instrument.

2.2 The use of the Substation Parcel by Grantee shall be at the sole risk and expense of Grantee. Grantee agrees to warn its employees, agents, contractors and invitees of the fact that the electrical Facilities and appurtenances installed or to be installed within the Substation Parcel are of high voltage electricity and agrees to use, or cause to be used, safety and precautionary measures in conformance with OSHA standards when working under or near the Facilities. Grantee acknowledges that Grantor is operating a nuclear facility located on the Property and that Grantor and the Property are subject to the rules, regulations and laws that are issued by the United States Nuclear Regulatory Commission ("NRC Regulations"). Where reasonably necessary or desirable to protect the public health and safety, Grantor shall have the authority and unimpeded right to determine all activities on the Substation Parcel, including the authority to exclude or remove personnel and property associated with activities conducted by Grantee on the Substation Parcel. All persons, property, or activities conducted on the Substation Parcel shall be subject to the Atomic Energy Act of 1954 (as amended), United States Nuclear Regulatory Commission Regulations and orders, and all relevant conditions of the NRC operating license for Grantor. Grantee shall notify Grantor in advance of (a) any activity that will be undertaken within the Substation Parcel, and (b) the entry upon the land within the Substation Parcel by Grantee or its agents or employees. No residences or permanent buildings (besides those already present) shall be constructed within the Substation Parcel without approval of Grantor after completion of any regulatory reviews and

approvals. Temporary structures or facilities may be constructed to the extent necessary to install the Facilities. Plans and specifications for such temporary structures shall be submitted to the Grantor for review and approval before any structures are built.

3. <u>Indemnification</u>.

3.1 Grantee agrees to indemnify and save harmless Grantor, their respective parent, subsidiaries, affiliates , and their respective officers, directors, agents, participants, commissioners, managers and employees (hereinafter referred to as "**Grantor Entities**") from all liability, loss, cost, and expense, including attorneys' fees, which may be sustained by Grantor Entities, including the death of or injury to any person or damage to any real or personal property, arising out of or in connection with the use of the Substation Parcel by Grantee, its contractors, agents, invitees or employees; and Grantee agrees to defend, at its sole cost and expense and at no cost and expense to Grantor Entities, any and all suits or actions instituted against Grantor Entities for the imposition of such liability, loss, cost and expense; provided, however, Grantee's duty to indemnify Grantor Entities under this paragraph shall not extend to any claim, cause of action, liability, loss, cost, or expense proximately caused by or arising out of the gross negligence, deliberate corporate action, or intentional or willful misconduct of Grantor Entities.

The indemnity shall include liability caused by Grantee which may be asserted 3.2 against any of the Grantor Entities by any other party or parties, including without limitation a Governmental Entity, arising out of or in connection with (i) the use, generation, manufacture, production, storage, release, threatened release, or presence of a Hazardous Substance on, under or about the Substation Parcel as a result of Grantee's acts or omissions during the term of this Agreement or (ii) any violation or claim of violation of any federal, state or local Environmental Law with respect to the Substation Parcel by Grantee during the term of this Agreement. A Governmental Entity is defined as a local, state, or federal government authority having jurisdiction over the Substation Parcel. This obligation by Grantee to indemnify and save harmless Grantor includes, without limitation, all costs incurred by the Grantor Entities in connection with any investigation of site conditions or any cleanup, remedial, monitoring, restoration or closure work required by any federal, state, or local governmental entity, agency or political subdivision, or any third party action, because of any Hazardous Substances present in the soil, air, surface or groundwater, on, under, or about the Substation Parcel as a result of any actions, inactions or activities of the Grantee and its agents employees contractors, subcontractors, subtenants assignees and invitees on or in connection with the Substation Parcel, but excluding that portion of any damages to the extent caused by the negligent acts of Grantor or Grantor Entities. This indemnity shall survive the termination or expiration of this Agreement for a period of three (3) years from the date of such termination or expiration.

3.3 For purposes of this section, "**Hazardous Substances**" shall mean all hazardous substances, hazardous wastes, hazardous materials, toxic materials, toxic wastes or toxic substances and any other substances, including asbestos, petroleum and its by-products, the remediation, disposal, storage, production, or use of which is regulated by federal, state or local

laws, ordinances, regulations, permit conditions, administrative orders and similar requirements pertaining to health, safety and the environment, including, but not limited to, substances listed under the Spill Prevention, Control and Countermeasure Rule, Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 <u>et seq.</u>; the Hazardous Materials Transportation Act, 42 U.S.C. Section 1801 <u>et seq.</u>; the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 <u>et seq.</u>; the Toxic Substances Control Act, 15 U.S.C. Section 2601 <u>et seq.</u>; the Clean Water Act, 33 U.S.C. Section 1251 <u>et seq.</u>; the Safe Drinking Water Act, 42 U.S.C. Section 300f <u>et seq.</u>; the Clean Air Act, 42 U.S.C. Section 1910.1001; and the National Emission Standard for Hazardous Air Pollutants, 40 C.F.R. Part 61, Subpart M, as each may be amended from time to time (herein referred to as the "**Environmental Laws**").

4. <u>**Roads**</u>. Grantor agrees that Grantee may use the existing roads on Grantor's real property or roads Grantee may construct or improve from time to time for the purposes of access, ingress and egress to the Substation Parcel as described or shown on **Exhibit B**.

5. <u>Other Uses</u>. Grantor reserves the right and privilege to use the Substation Parcel for all purposes other than those that might substantially interfere or be inconsistent with the use, occupation, maintenance or enjoyment thereof by Grantee, or its successors or permitted assigns, as provided herein. Except as allowed hereunder for the construction of the Facilities pursuant to the Plans (defined below), Grantee expressly agrees that no portion of the Substation Parcel shall be excavated, altered, obstructed, improved, surfaced or paved without the prior written permission of Grantor, its successors or assigns, which approval shall not be unreasonably withheld, delayed, or conditioned. The cost of any such approved excavation, alteration, obstruction, improvement, surfacing pr paving, including, but not limited to relocation of existing structures on or near the Substation Parcel, shall be borne by Grantee.

6. <u>Construction Plans</u>. Grantee shall submit the plans and specifications for its use of the Substation Parcel ("Plans") to Grantor for review and approval. There shall be no material modifications, improvements, upgrades, or alterations which deviate from the Plans without written consent from Grantor. Grantor shall promptly, and within a commercially reasonable period of time, review and approve the Plans.

7. <u>Taxes</u>. Grantee shall pay any increase in the real property taxes on Substation Parcel that is directly attributable to the installation of Facilities or to a reclassification of the Substation Parcel because of creation of this Agreement. If the Facilities are subject to real property taxes, Grantee shall request that the Facilities be separately assessed and that taxing authorities bill Grantee directly for taxes attributable to the Facilities. Grantee shall not be liable for taxes attributable to facilities installed by Grantor or others on the Substation Parcel or for any increase due to any other cause. Grantee agrees to reimburse Grantor for any taxes paid by Grantor that are properly payable by Grantee under the terms of this Agreement. To receive reimbursement, Grantor must submit any real property tax bill to Grantee for reimbursement within a reasonable time after Grantee receives the bill from a taxing authority. The parties hereto agree to fully cooperate to obtain any available tax refunds or tax abatements.

8. Removal of Facilities. Upon termination of the Agreement, Grantee shall, upon written request by Grantor, prepare and place of record in Rockingham County, New Hampshire, a release of all of Grantee's right, title and interest in and to the Agreement. On the termination of the Agreement, Grantee shall peaceably and quietly leave, surrender and return the Substation Parcel to Grantor. Grantee shall have twelve (12) months to remove any and all equipment, improvements, fixtures and other property constituting the Facilities from the Substation Parcel and restore the surface of the Substation Parcel to a neat and clean condition. Failure to remove such items within said period and restore the surface of the Substation Parcel as provided above shall be deemed an abandonment of such items to Grantor and Grantor shall have the right, but not the obligation, to remove, or to cause removal of, any property deemed to be abandoned and to receive reimbursement from Grantee for the actual and reasonable cost of such removal, and for restoration of the surface of the Substation Parcel, and Grantor shall be entitled to the salvage value of any such items removed. If Grantee discontinues the use of the Facilities for a period greater than twenty four uninterrupted months and such discontinuance is not due to an act of force majeure, (not defined) then after receiving a written request from Grantor, Grantee shall remove all of the Facilities installed on the Substation Parcel in accordance with this paragraph.

9. <u>Warranties & Representations</u>. Grantor represents and warrants to Grantee that it has sufficient right, title and interest in and to the Substation Parcel and to convey the rights and interests conveyed and granted herein.

10. <u>Assignment: Mortgage Rights</u>. Grantee may, upon notice to Grantor, but without Grantor's consent, (i) assign this Agreement, or any interest herein, or (ii) encumber, by one or more mortgage, security interest or otherwise, Grantee's interest, or any portion thereof, in this Agreement or the Facilities (each, a "Mortgage") to any mortgage or secured party of or under any Mortgage (each, a "Mortgagee"). Any Mortgagee shall be required to exercise or perform any and all of Grantee's rights and obligations in this Agreement and Grantor shall accept such exercise and performance by Mortgagee as if the Mortgagee executed this Agreement as Grantee.

11. **Governing Law**. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire, without reference to the conflict of laws principles thereof. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved in favor of any particular party shall not be employed in the interpretation hereof and is hereby waived.

[Signatures on Next Pages]

IN WITNESS WHEREOF, Grantor and Grantee have executed this Substation Easement on the date set forth above.

Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

Buch C. Ba By: e President

ACKNOWLEDGMENT

STATE OF

)) ss:)

COUNTY OF

The foregoing instrument was acknowledged before me by means of \boxtimes physical presence or \square online notarization, this <u>28</u>th day of <u>FEBRUARY</u>, 2022 by Brian C. Booth, as Site Vice President of NextEra Energy Seabrook, LLC, a Delaware limited liability company, on behalf of the company, who is personally known to me or has produced a driver's license as identification.

MUMA RO (notary seal) MMISSION EXPIRES "minimum"

Cand Q. Colomon'

My commission expires: <u>June 21 2022</u>

12

AFTER RECORDING RETURN TO Orin Shakerdge, Esq. NextEra Energy Resources, LLC 700 Universe Blvd. Juno Beach, FL 33408 (561) 694-4678 Grantor:

Massachusetts Municipal Wholesale Eleetric Company
By:

Ronald C. DeCurzio, Chief Executive Officer

ACKNOWLEDGMENT

COMMONWEALTH OF MASSACHUSETTS) :ss. COUNTY OF HAMPder)

On the 29th day of MATCA, in the year, 2022, before me, the undersigned, personally appeared Ronald C. DeCurzio, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

lea

Notary Public



Grantor:

Hudson Light & Power Department

Bing Choxer By: Brian Choquette, General Manager

ACKNOWLEDGMENT

COMMONWEALTH OF MASSACHUSETTS		
COUNTY OF	Middlesex	:ss.)

On the 24 day of <u>MATCA</u>, in the year, 2022, before me, the undersigned, personally appeared Brian Choquette, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public (

HOLLY E. CONRY Notary Public Commonwealth of Massachusetts My Commission Expires March 20, 2026 Grantor:

Taunton Municipal Lighting Plant

Kim Holmes, General Manager By:

ACKNOWLEDGMENT

COMMONWEA	ALTH OF MASSACHUSETTS)
		:ss.
COUNTY OF	BRISTOL)

On the 28 day of MARCH, in the year, 2022, before me, the undersigned, personally appeared Kim Holmes, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Merisi M. Tavarece Notary Public

DENISE M. TAVARES Notary Public Commonwealth of Massachusetts My Commission Expires June 3, 2022

Grantee:

New Hampshire Transmission, LLC, a Delaware limited liability company

By:

Richard W. Allen, President

ACKNOWLEDGMENT

)

STATE OF NEW YORK) :ss.

COUNTY OF Schenectady

On the <u>25</u> day of <u>March</u>, in the year, 2022, before me, the undersigned, personally appeared Richard W. Allen, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Cen Notary Public

PAULA A MADIA Notary Public - State of New York NO. 01MA6424871 Qualified in Schenectady County My Commission Expires Nov 8, 2025

EXHIBIT A

Legal Description of Substation Parcel

A certain easement located in the Town of Seabrook, County of Rockland and State of New Hampshire containing 2.126 acres and being shown as "Proposed Capacity Bank Easement" on a map entitled "Capacity Bank Easement Map New Hampshire Transmission, LLC Lafayette Road Town of Seabrook Rockland County New Hampshire", by KCI Technologies, Inc., scale 1"=40', dated January 2022, said easement being more particularly bounded and described as follows:

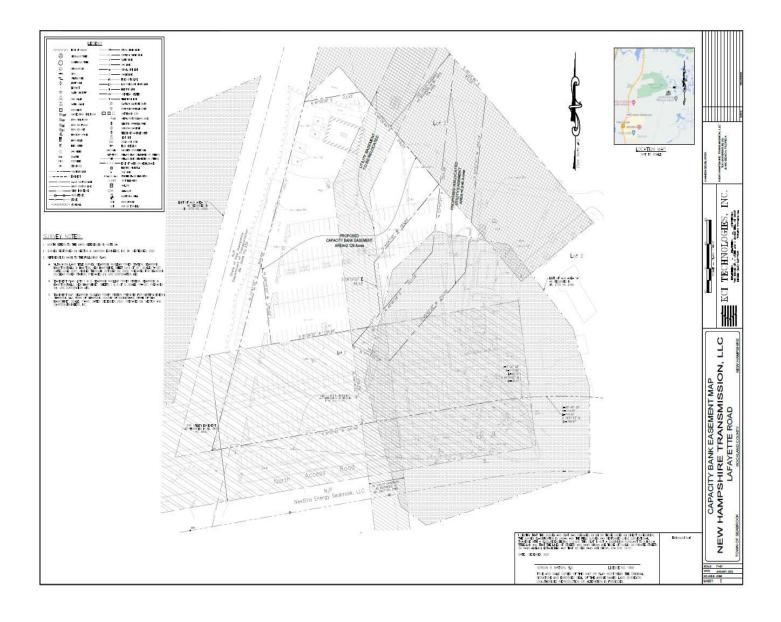
Beginning at a point on the property line between land of NextEra Energy Seabrook, LLC and land now or formerly of the State of New Hampshire, said point being located North 17°41'55" East, 326.16 feet from the northerly line of North Access Road when measured along said property line;

Thence continuing North 17°41'55" East, 282.31 feet along said property line between land of NextEra Energy Seabrook, LLC and land now or formerly of the State of New Hampshire;

Thence running North 81°40'05" East, 113.43 feet, South 45°24'46" East, 218.52 feet, South 44°47'45" West, 183.83 feet, South 08°19'55" East, 84.53 feet, South 45°40'28" West, 33.45 feet, South 81°36'55" West, 194.96 feet and North 08°19'55" West, 135.33 feet through land of NextEra Energy Seabrook, LLC to the point and place of beginning.

EXHIBIT B

Depiction of Substation Parcel



In consideration for granting a Substation Easement Agreement to New Hampshire Transmission, LLC, a Delaware limited liability company ("Grantee"), NextEra Energy Seabrook, LLC, a Delaware limited liability company ("Grantor") shall receive a payment of \$79,000.00 which will be allocated as follows:

88.22889% to NextEra Energy Seabrook, LLC
11.59340% to Massachusetts Municipal Wholesale Electric Company
00.10034% to Taunton Municipal Lighting Plant
00.07737% to Hudson Light & Power Department
Signed and completed W-9 form required from each payee before payment is due from Grantee.

Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Brian C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By:

Kim Holmes, General Manager

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Signed and completed W-9 form required from each payee before payment is due from Grantee.

Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Bria C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By:

Kim Holmes, General Manager

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Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Bria C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By: Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By:

Kim Holmes, General Manager

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Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Bria C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By: Kim Holmes, General Manager

APPENDIX 3: USACE EMAIL REQUEST CONFIRMING NO JURISDICTION

From:	StorlazziWard, Heather
Sent:	Friday, January 21, 2022 3:18 PM
То:	cenae-r-nh@usace.army.mil; Arthur.B.Harmon@usace.army.mil
Cc:	
Subject:	Seabrook Capacitor Bank Project - No Jurisdiction Documentation Letter Request
Attachments:	NHB_Project_Aerial_8x11P_WETLANDS (004).pdf

Hello Arthur,

TRC is assisting New Hampshire Transmission, LLC with a proposed Capacitor Bank Project located at the Seabrook Station facility, in Seabrook NH. The Project consists of an electrical capacitor bank, resulting in approximately 2.3 acres of project work area. The proposed facility will be located on property that currently serves as a paved parking lot for the Station. In October, I conducted a wetland and waterbody delineation within a survey area extending 400 feet from the Project area. TRC also consulted with state agencies regarding sensitive species. Wetlands are primarily confined to the north of the site, contiguous with the salt marsh that is associated with the tidal Browns River. There are also some isolated freshwater wetland pockets amongst the developed and paved areas. Please see the attached figure for the Project area-and the limits of disturbance in relationship to the delineated wetlands.

The Project avoids all wetlands and we are looking to receive a letter from the Corps, indicating that this is the case, and there is no jurisdiction under the Corps of Engineers purview.

Will the Corps need anything further from TRC and/or the Applicant to craft a letter such as this?

Thank you,

Heather Storlazzi Ward, NHCWS Senior Scientist/Project Manager



6 Ashley Drive, 1st Floor, Scarborough, ME 04074 C 207 317 6630 LinkedIn | Twitter | Blog | TRCcompanies.com

Please note that our domain name and email addresses have changed

APPENDIX 4: PERMIT APPLICATIONS

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

SEABROOK CAPACITOR BANKS PROJECT

ALTERATION OF TERRAIN PERMIT APPLICATION

(SEC Docket No. 2021-05)

Submitted by:



New Hampshire Transmission, LLC 700 Universe Boulevard Juno Beach, FL 33408

Prepared by:



TRC 249 Western Avenue Augusta, ME 04330

April 2022



T 207.621.7000 TRCcompanies.com

April 1, 2022

Mr. Michael Hansen, P.E. New Hampshire Department of Environmental Services Land Resources Management – Alteration of Terrain Bureau 29 Hazen Drive PO Box 95 Concord, NH 03302-0095

RE: Application for Alteration of Terrain Permit for the Seabrook Capacitor Banks Project New Hampshire Transmission Proposed Capacitor Banks 626 Lafayette Road, Seabrook, NH TRC Project No. 453723.0000.0000

Dear Mr. Hansen:

On behalf of New Hampshire Transmission, LLC (NHT or the Applicant), TRC Companies, Inc. (TRC) is pleased to submit the enclosed Alteration of Terrain Permit application for the Seabrook Capacitor Banks Project (Project). The Project includes the construction of a capacitor bank and associated infrastructure (Facility) to be constructed on the Seabrook Station site, located at 626 Lafayette Road, in Seabrook, New Hampshire. The Project is located on a small portion of parcel 11-2. Parcel 11-2 is approximately 577 acres in size according to the Town of Seabrook publicly available GIS maps. The proposed Facility will utilize 2.1 acres (the Project Area) for the capacitor banks, circuit breakers, busswork, aboveground electric lines, control house, and other appurtenant infrastructure (e.g., security fencing, etc.). The subject Project Area is currently developed with an existing parking lot, office trailers, and equipment storage area. The Project requires a Shoreland Permit by Notification (PBN) for geotechnical investigations, a Shoreland permit, and is also applying for an exemption under the Site Evaluation Committee (SEC) Docket No. 2021-05.

The Project Area will predominantly impact previously developed, impervious areas and has been designed to avoid impacts to wetlands and the 100-foot Tidal Buffer Zone. The Project footprint within the proposed safety fence is less than 2.1 acres, disturbs approximately 2.2 acres, and replaces existing pavement with crushed stone, reducing overall impacts from stormwater runoff. The Project is utilizing existing paved areas for construction workspace which will not be disturbed. As the post-construction peak runoff rates are not greater than the pre-construction peak runoff rates, we do not anticipate adverse effects to stormwater quantity or quality. Furthermore, the Project avoids tree clearing to the greatest extent practicable; therefore, environmental impacts associated with the Project are not significant. All associated Project work will occur within uplands that are on historic fill and are adjacent to the Seabrook Station. There are no direct impacts to Browns River and no impacts to the water quality of Browns River, or its associated salt marsh (both located to the north of the Project Area) expected to result from Project work.

The Town of Seabrook has been notified of the application via certified mail, with a letter describing the Project. Furthermore, NHT has met with the Town of Seabrook, providing an overview of the proposed Project. A New Hampshire Natural Heritage Bureau (NHNHB) datacheck was conducted for the Project. No rare wildlife occurrences were reported however, several rare plant/community occurrences were noted within 0.5 miles of the Project Area. Please see correspondence in Exhibit 5.

Mr. Michael Hansen, P.E. April 1, 2022 Page 2 of 2

The following submissions are enclosed:

- Exhibit 1: Alteration of Terrain Application Form;
- Exhibit 2: Application Fee Documentation;
- Exhibit 3: Project Mapping;
- Exhibit 4: Stormwater Management Narrative;
- Exhibit 5: Natural Heritage Bureau Documentation;
- Exhibit 6: Photographs Representative of the Site;
- Exhibit 7: Site Specific Soil Survey Waiver Request;
- Exhibit 8: Coastal/Great Bay Region Community Impact Statement;
- Exhibit 9: Civil Site Plan Set

If you or other Department staff have any questions as you conduct your review, please do not hesitate to contact me at (207) 272-2638 or via email at <u>cfrederick@trccompanies.com</u>.

Respectfully submitted,

all f. Frederica

Caleb Frederick, P.E. Senior Civil/Structural Engineer

Enclosures

cc: Corrinne DiDomenico, NEET Kim Austin, NEE Dana Valleau, TRC TRC Project File 453723.0000.0000



EXHIBIT 1

Alteration of Terrain Permit Application Form





ALTERATION OF TERRAIN PERMIT APPLICATION



Water Division/ Alteration of Terrain Bureau/ Land Resources Management Check the Status of your Application: <u>www.des.nh.gov/onestop</u>

RSA/ Rule: RSA 485-A:17, Env-Wq 1500

			File Number:		per:
Administrative	Administrative	Use		Check No.	
Use Only	Use Only			Amount:	
			Ini	Initials:	
1. APPLICANT INFORMATION (IN	TENDED PERMIT HOLDER)				
Applicant Name: New Hampshire	e Transmission, LLC	Contact Name: Richa	rd W. Allen		
Email: Richard.Allen2@nexteraer	nergy.com	Daytime Telephone: 5	18-522-3449		
Mailing Address: 700 Universe Bl	vd	I			
Town/City: Juno Beach			State: FL		Zip Code: 33408
2. APPLICANT'S AGENT INFORMA	ATION If none, check here:]			
Business Name:		Contact Name:			
Email:		Daytime Telephone:			
Address:					
Town/City:			State:		Zip Code:
3. PROPERTY OWNER INFORMAT	ION (IF DIFFERENT FROM APPLICAN	ІТ)			
Applicant Name: Nextera Energy	Contact Name: Lawre	ence Dernulc			
Email: Lawrence.Dernulc@nexter	Daytime Telephone: 5	61-691-7234			
Mailing Address: 700 Univers Blv	d	-			
Town/City: Juno Beach		State: FL		Zip Code: 33408	
4. PROPERTY OWNER'S AGENT IN	IFORMATION If none, check	here: 🔀			
Business Name:		Contact Name:			
Email:		Daytime Telephone:			
Address:					
Town/City:		State:		Zip Code:	
5. CONSULTANT INFORMATION	If none, check here:		·		
Engineering Firm: TRC Companies	Contact Name: Dana Valleau				
Email: dvalleau@trccompanies.co	om	Daytime Telephone: 2	Daytime Telephone: 207-215-4582		
Address: 249 Western Ave.					
Town/City: Augusta		State: ME		Zip Code: 04330	

ridge.mauck@des.nh.gov or (603) 271-2147

NHDES Alteration of Terrain Bureau, PO Box 95, Concord, NH 03303-0095

NHDES-W-01-003 6. PROJECT TYPE Excavation Only Residential Commercial Golf Course School Municipal Other: Agricultural Land Conversion 7. PROJECT LOCATION INFORMATION Project Name: Seabrook Capacitor Banks Project Street/Road Address: 626 Lafayette Road Town/City: Seabrook County: Rockingham Block: Lot Number: 2 Unit: Tax Map: 11 Location Coordinates: 348515m E 4751460m N Latitude/Longitude State Plane Post-development, will the proposed project withdraw from or directly discharge to any of the following? If yes, identify the purpose. **Yes** 1. Stream or Wetland Withdrawal Discharge No 🛛 Purpose: 2. Man-made pond created by impounding a stream or wetland Yes Withdrawal Discharge No Purpose: Withdrawal 3. Unlined pond dug into the water table Yes Discharge No No Purpose: Post-development, will the proposed project discharge to: • A surface water impaired for phosphorus and/or nitrogen? 🛛 No 🗌 Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen • A Class A surface water or Outstanding Resource Water? 🛛 No Yes - include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen • A lake or pond not covered previously? 🛛 No Yes - include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond Yes No Is the project a High Load area? If yes, specify the type of high load land use or activity: **Yes** No 🛛 Is the project within a Water Supply Intake Protection Area (WSIPA)? No 🛛 Is the project within a Groundwater Protection Area (GPA)? **Yes** ∏ No Yes Will the well setbacks identified in Env-Wq 1508.02 be met? Note: Guidance document titled "Using NHDES's OneStop WebGIS to Locate Protection Areas" is available online. For more details on the restrictions in these areas, read Chapter 3.1 in Volume 2 of the NH Stormwater Manual. Is any part of the property within the 100-year floodplain? No | Yes If yes: Cut volume: _____ cubic feet within the 100-year floodplain cubic feet within the 100-year floodplain Fill volume: Project IS within ¼ mile of a designated river Name of River: Project is **NOT** within ¼ mile of a designated river Project IS within a Coastal/Great Bay Region community - include info required by Env-Wq 1503.08(I) if applicable Project is NOT within a Coastal/Great Bay Region community 8. BRIEF PROJECT DESCRIPTION (PLEASE DO NOT REPLY "SEE ATTACHED") The Seabrook Capacitor Banks Project proposes to construct a capacitor bank in an existing parking lot, within the Seabrook Station. Project components include capacitors, switches, busswork, control house, aboveground electrical lines, and other necessary appurtenant infrastructure (e.g., interior acces road, security fencing). 9. IF APPLICABLE. DESCRIBE ANY WORK STARTED PRIOR TO RECEIVING PERMIT Installation of retaining wall and fill (2018).

NHDES-W-01-003

NHDES-W-01-003								
10. ADDITIONAL REQUIRED INFORMATION	10. ADDITIONAL REQUIRED INFORMATION							
A. Date a copy of the application was sent to the municipality as required by Env-Wq 1503.05(e) ¹ : / /								
(Attach proof of delivery)								
B. Date a copy of the application was sent to the	local river advisory committee	if required by	[,] Env-Wq 1503.05(e)²: <u>//</u> .					
(Attach proof of delivery)								
C. Type of plan required: 🗌 Land Conversion 🛛	C Detailed Development 🗌 E	cavation, Gra	ading & Reclamation 🗌 Steep Slope					
D. Additional plans required: 🗌 Stormwater Dra	ainage & Hydrologic Soil Groups	s 🗌 Source (Control 🗌 Chloride Management					
E. Total area of disturbance: <u>108,000</u> square fee	t							
F. Additional impervious cover as a result of the coverage).	project: <u>11,765</u> square feet (us	e the "-" sym	bol to indicate a net reduction in impervious					
Total final impervious cover: <u>108,000</u> square f	feet							
G. Total undisturbed cover: <u>0</u> square feet								
H. Number of lots proposed: <u>0</u>								
I. Total length of roadway: <u>O</u> linear feet								
J. Name(s) of receiving water(s): <u>0</u>								
K. Identify all other NHDES permits required for t the required approval has been issued provide			n application has been filed and is pending, or if proval letter number, as applicable.					
			Status					
Type of Approval	Application Filed?	Pending	If Issued:					
1. Water Supply Approval	☐ Yes ⊠ No ☐N/A		Permit number:					
2. Wetlands Permit	☐ Yes ⊠ No ☐N/A		Permit number:					
3. Shoreland Permit	Yes No N/A		Permit number:					
4. UIC Registration	☐ Yes ⊠ No ☐N/A		Registration date:					
5. Large/Small Community Well Approval	Yes 🛛 No 🗌 N/A		Approval letter date:					
6. Large Groundwater Withdrawal Permit								
7. Other:								
L. List all species identified by the Natural Heritage Bureau as threatened or endangered or of concern: <u>Dry land sedge, dwarf glasswort, hollow Joe-Pye weed, marsh elder, orange-fruited horse-gentian, perennial glasswort, saltmarsh agalinis, upright knotweed, and yellow thistle. For more information, see Exhibit 5.</u>								
M. Using NHDES's Web GIS OneStop program (<u>www2.des.state.nh.us/gis/onestop/</u>), with the Surface Water Impairment layer turned on, list the impairments identified for each receiving water. If no pollutants are listed, enter "N/A." <u>FECAL COLIFORM</u>								
N. Did the applicant/applicant's agent have a pre-application meeting with AOT staff?								

ridge.mauck@des.nh.gov or (603) 271-2147 NHDES Alteration of Terrain Bureau, PO Box 95, Concord, NH 03303-0095

www.des.nh.gov

¹ Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the governing body of each municipality in which the project is proposed.

² Env-Wq 1503.05(c)(6), requires proof that a completed application form, checklist, plans and specifications, and all other supporting materials have been sent or delivered to the Local River Advisory Committee, if the project is within ¼ mile of a designated river.

NHDES-W-01-003
O. Will blasting of bedrock be required? Yes No If yes, estimated quantity of blast rock: cubic yards If yes, standard blasting BMP notes must be placed on the plans, available at: <u>http://des.nh.gov/organization/commissioner/pip/publications/wd/documents/wd-10-12.pdf</u>
NOTE: If greater than 5,000 cubic yards of blast rock will be generated, a groundwater monitoring program must be developed and submitted to NHDES. Contact AOT staff for additional detail.
11. CHECK ALL APPLICATION ATTACHMENTS THAT APPLY (SUBMIT WITH APPLICATION IN ORDER LISTED)
LOOSE:
🛛 Signed application form: des.nh.gov/organization/divisions/water/aot/index.htm (with attached proof(s) of delivery)
🛛 Check for the application fee: des.nh.gov/organization/divisions/water/aot/fees.htm
\boxtimes Color copy of a USGS map with the property boundaries outlined (1" = 2,000' scale)
🗌 If Applicant is not the property owner, proof that the applicant will have a legal right to undertake the project on the property if a
permit is issued to the applicant.
BIND IN A REPORT IN THE FOLLOWING ORDER:
Copy of the signed application form & application checklist (<u>des.nh.gov/organization/divisions/water/aot/index.htm</u>)
\boxtimes Copy of the check
\boxtimes Copy of the USGS map with the property boundaries outlined (1" = 2,000' scale)
Narrative of the project with a summary table of the peak discharge rate for the off-site discharge points
Web GIS printout with the "Surface Water Impairments" layer turned on -
http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
Web GIS printouts with the AOT screening layers turned on -
http://www4.des.state.nh.us/onestopdatamapper/onestopmapper.aspx
NHB letter using DataCheck Tool – <u>www.nhdfl.org/about-forests-and-lands/bureaus/natural-heritage-bureau/</u>
🔀 The Web Soil Survey Map with project's watershed outlined – websoilsurvey.nrcs.usda.gov
Aerial photograph (1" = 2,000' scale with the site boundaries outlined)
Photographs representative of the site
🔀 Groundwater Recharge Volume calculations (one worksheet for each permit application):
des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
igtimes BMP worksheets (one worksheet for each treatment system):
des.nh.gov/organization/divisions/water/aot/documents/bmp_worksh.xls
ig igl Drainage analysis, stamped by a professional engineer (see Application Checklist for details)
Riprap apron or other energy dissipation or stability calculations
🔀 Site Specific Soil Survey report, stamped and with a certification note prepared by the soil scientist that the survey was done in
accordance with the Site Specific Soil Mapping standards, Site-Specific Soil Mapping Standards for NH & VT, SSSNNE Special Publication
No. 3.
Infiltration Feasibility Report (example online) [Env-Wq 1503.08(f)(3)]
Registration and Notification Form for Storm Water Infiltration to Groundwater (UIC Registration-for underground
systems only, including drywells and trenches):
(http://des.nh.gov/organization/divisions/water/dwgb/dwspp/gw_discharge)
Inspection and maintenance manual with, if applicable, long term maintenance agreements [Env-Wq 1503.08(g)]
PLANS:
One set of design plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for details)
\square Pre & post-development color coded soil plans on 11" x 17" (see Application Checklist for details)
\square Pre & post-development drainage area plans on 34 - 36" by 22 - 24" white paper (see Application Checklist for
details)
100-YEAR FLOODPLAIN REPORT:
All information required in Env-Wq 1503.09, submitted as a separate report.
ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE
INCLUDED WITH SUBMITTAL.

NHDES-W-01-003

12. REQUIRED SIGNATURES
By InitialIng here, I acknowledge that I am required by Env-Wq 1503.20(e) to submit a copy of all approved documents to the department In PDF format on a CD within one week after permit approval.
By signing below, I certify that:
 The information contained in or otherwise submitted with this application is true, complete, and not misleading to the best of my knowledge and belief;
 I understand that the submission of false, incomplete, or misleading information constitutes grounds for the department to deny the application, revoke any permit that is granted based on the information, and/or refer the matter to the board of professional engineers established by RSA 310-A:3 If I am a professional engineer; and
• I understand that I am subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.
X APPLICANT APPLICANT'S AGENT: Signature: APPLICANT'S AGENT: Name (print or type): Richard W. Allen Title: TRESIDENT
Name (print or type): Richard W. Allen
\square property owner \square property owner's agent:
Signature: Bruin C. BOOH Date: 2/28/02 Name (print or type): BRIAN C. BOOTH Title: SITE VICE PRESIDENT
Name (print or type): BRIAN C. BOOTH Title: SITE VICE PRESIDENT

ATTACHMENT A:

ALTERATION OF TERRAIN PERMIT APPLICATION CHECKLIST

Check the box to indicate the item has been provided or provide an explanation why the item does not apply.

DESIGN PLANS

- Plans printed on 34 36" by 22 24" white paper
- 🛛 PE stamp
- Wetland delineation
- Temporary erosion control measures
- Treatment for all stormwater runoff from impervious surfaces such as roadways (including gravel roadways), parking areas, and nonresidential roof runoff. Guidance on treatment BMPs can be found in Volume 2, Chapter 4 of the NH Stormwater Management Manual.
- Pre-existing 2-foot contours
- Proposed 2-foot contours
- Drainage easements protecting the drainage/treatment structures
- Compliance with the Wetlands Bureau, RSA 482- A <u>http://des.nh.gov/organization/divisions/water/wetlands/index.htm</u>. Note that artificial detention in wetlands is not allowed.
- Compliance with the Comprehensive Shoreland Protection Act, RSA 483-B. <u>http://des.nh.gov/organization/divisions/water/wetlands/cspa</u>
- Benches. Benching is needed if you have more than 20 feet change in elevation on a 2:1 slope, 30 feet change in elevation on a 3:1 slope, 40 feet change in elevation on a 4:1 slope.
- Check to see if any proposed ponds need state Dam permits. http://des.nh.gov/organization/divisions/water/dam/documents/damdef.pdf

DETAILS

- Typical roadway x-section
- Detention basin with inverts noted on the outlet structure
- Stone berm level spreader
- Outlet protection riprap aprons
- A general installation detail for an erosion control blanket
- Silt fences or mulch berm
- Storm drain inlet protection. Note that since hay bales must be embedded 4 inches into the ground, they are not to be used on hard surfaces such as pavement.
- Hay bale barriers
- Stone check dams
- Gravel construction exit
- Temporary sediment trap
- The treatment BMP's proposed
- Any innovative BMP's proposed

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CONSTRUCTION SEQUENCE/EROSION CONTROL

Note that the project is to be managed in a manner that meets the requirements and intent of RSA 430:53 and Chapter Agr 3800 relative to invasive species.

Note that perimeter controls shall be installed prior to earth moving operations.

Note that temporary water diversion (swales, basins, etc) must be used as necessary until areas are stabilized.

Note that ponds and swales shall be installed early on in the construction sequence (before rough grading the site).

Note that all ditches and swales shall be stabilized prior to directing runoff to them.

Note that all roadways and parking lots shall be stabilized within 72 hours of achieving finished grade.

🛛 Note that all cut and fill slopes shall be seeded/loamed within 72 hours of achieving finished grade

Note that all erosion controls shall be inspected weekly AND after every half-inch of rainfall.

Note the limits on the open area allowed, see Env-Wq 1505.02 for detailed information.

Example note: 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.

Note the definition of the word "stable"

Example note: An area shall be considered stable if one of the following has occurred:

- Base course gravels have been installed in areas to be paved.
- A minimum of 85 percent vegetated growth has been established.
- A minimum of 3 inches of non-erosive material such stone or riprap has been installed.
- Or, erosion control blankets have been properly installed.

Note the limit of time an area may be exposed Example note: All areas shall be stabilized within 45 days of initial disturbance.

Provide temporary and permanent seeding specifications. (Reed canary grass is listed in the Green Book; however, this is a problematic species according to the Wetlands Bureau and therefore should not be specified)

Provide winter construction notes that meet or exceed our standards.

Standard Winter Notes:

- All proposed vegetated areas that do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized by seeding and installing 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 on frozen ground and shall be completed in advance of thaw or spring melt events.
- All ditches or swales which do not exhibit a minimum of 85 percent vegetative growth by October 15, or which are disturbed after October 15, shall be stabilized temporarily with stone or erosion control blankets appropriate for the design flow conditions.
- After October 15, 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 per NHDOT item 304.3.

Note at the end of the construction sequence that "Lot disturbance, other than that shown on the approved plans, shall not commence until after the roadway has the base course to design elevation and the associated drainage is complete and stable." − This note is applicable to single/duplex family subdivisions, when lot development is not part of the permit.

DRAINAGE ANALYSES

NHDES-W-01-003

Please double-side 8 $\frac{1}{2}$ × 11" sheets where possible but, **do not** reduce the text such that more than one page fits on one side.

PE stamp

Rainfall amount obtained from the Northeast Regional Climate Center- <u>http://precip.eas.cornell.edu/</u>. Include extreme precipitation table as obtained from the above referenced website.

Drainage analyses, in the following order:

- Pre-development analysis: Drainage diagram.
- Pre-development analysis: Area Listing and Soil Listing.
- Pre-development analysis: Node listing 1-year (if applicable), 2-year, 10-year and 50-year.
- Pre-development analysis: Full summary of the 10-year storm.
- Post-development analysis: Drainage diagram.
- Post-development analysis: Area Listing and Soil Listing.
- Post-development analysis: Node listing for the 2-year, 10-year and 50-year.
- Post-development analysis: Full summary of the 10-year storm.

Review the Area Listing and Soil Listing reports

- Hydrologic soil groups (HSG) match the HSGs on the soil maps provided.
- There is the same or less HSG A soil area after development (check for each HSG).
- There is the same or less "woods" cover in the post-development.
- Undeveloped land was assumed to be in "good" condition.
- The amount of impervious cover in the analyses is correct.

Note: A good check is to subtract the total impervious area used in the pre analysis from the total impervious area used in the post-analysis. For residential projects without demolition occurring, a good check is to take this change in impervious area, subtract out the roadway and divide the remaining by the number of houses/units proposed. Do these numbers make sense?

Check the storage input used to model the ponds.

Check to see if the artificial berms pass the 50-year storm, i.e., make sure the constructed berms on ponds are not overtopped.

- Check the outlet structure proposed and make sure it matches that modeled.
- \boxtimes Check to see if the total areas in the pre and post analyses are same.

Confirm the correct NRCS storm type was modeled (Coos, Carroll & Grafton counties are Type II, all others Type III).

PRE- AND POST-DEVELOPMENT DRAINAGE AREA PLANS

 \square Plans printed on 34 - 36" by 22 - 24" on white paper.

- \boxtimes Submit these plans separate from the soil plans.
- A north arrow.
- 🛛 A scale.
- Labeled subcatchments, reaches and ponds.
- Tc lines.
- \boxtimes A clear delineation of the subcatchment boundaries.
- Roadway station numbers.
- Culverts and other conveyance structures.

PRE AND POST-DEVELOPMENT COLOR-CODED SOIL PLANS

NHDES-W-01-003 \Box 11" × 17"sheets suitable, as long as it is readable.
Submit these plans separate from the drainage area plans.
A north arrow.
A scale.
Name of the soil scientist who performed the survey and date the soil survey took place.
2-foot contours (5-foot contours if application is for a gravel pit) as well as other surveyed features.
Delineation of the soil boundaries and wetland boundaries.
Delineation of the subcatchment boundaries.
Soil series symbols (e.g., 26).
A key or legend which identifies each soil series symbol and its associated soil series name (e.g., 26 = Windsor).
The hydrologic soil group color coding (A = Green, B = yellow, C= orange, D=red, Water=blue, & Impervious = gray).
Please note that excavation projects (e.g., gravel pits) have similar requirements to that above, however the following are common exceptions/additions:
Drainage report is not needed if site does not have off-site flow.
5 foot contours allowed rather than 2 foot.
No PE stamp needed on the plans.
Add a note to the plans that the applicant must submit to the Department of Environmental Services a written update of the project and revised plans documenting the project status every five years from the date of the Alteration of Terrain permit.
Add reclamation notes.
See NRCS publication titled: <i>Vegetating New Hampshire Sand and Gravel Pits</i> for a good resource, it is posted online at: http://des.nh.gov/organization/divisions/water/aot/categories/publications .
ADDITIONAL INFORMATION RE: NUTRIENTS, CLIMATE
If project will discharge stormwater to a surface water impaired for phosphorus and/or nitrogen, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
If project will discharge stormwater to a Class A surface water or Outstanding Resource Water, include information to demonstrate that project will not cause net increase in phosphorus and/or nitrogen.
If project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not

It project will discharge stormwater to a lake or pond not covered previously, include information to demonstrate that project will not cause net increase in phosphorus in the lake or pond.

If project is within a Coastal/Great Bay Region community, include info required by Env-Wq 1503.08(I) if applicable.

EXHIBIT 2

Application Fee Documentation



Сору

February 22, 2022

Pay Three Thousand One Hundred Twenty Five and 00/100 Dollars

PAY TO THE ORDER OF

To Treasurer State Of New Hampshire NHDES Land Resources Management Alteration of Terrain Bureau 29 Hazen Drive, PO Box 95 Concord, NH 03302-0095

\$ 3,125.00

Check Date: 2/22/2022

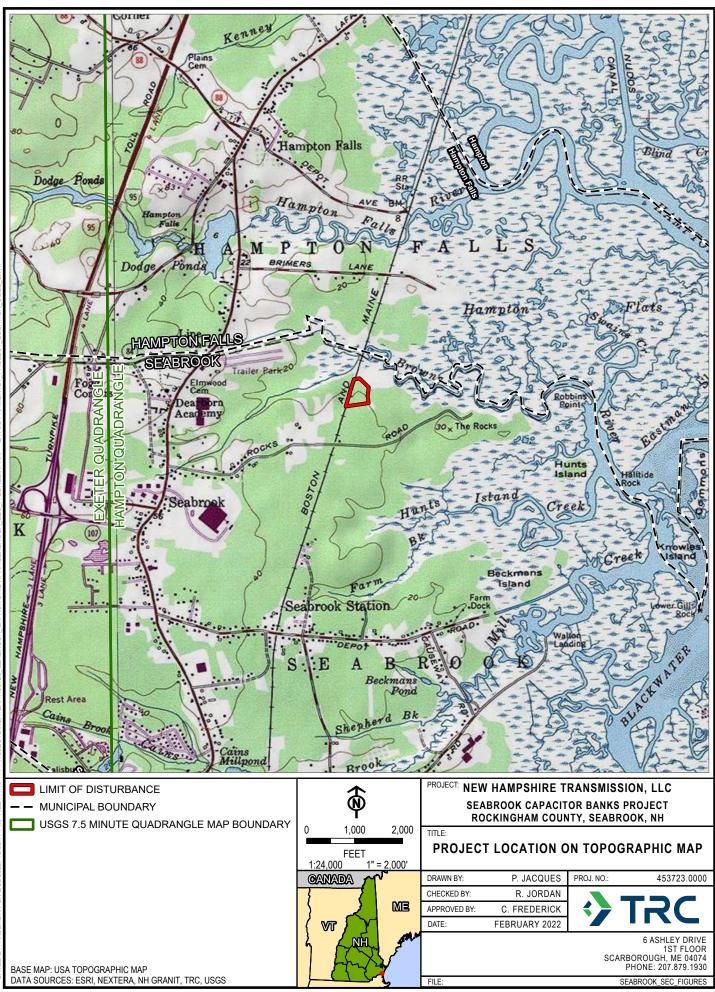
Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
PO 200038984	2/21/2022	007757573591	3,125.00			3,125.00
Treasurer State Of New Ham	pshire	TOTAL	3,125.00			3,125.00
Citizen Bank - Disbursement	10	028264				

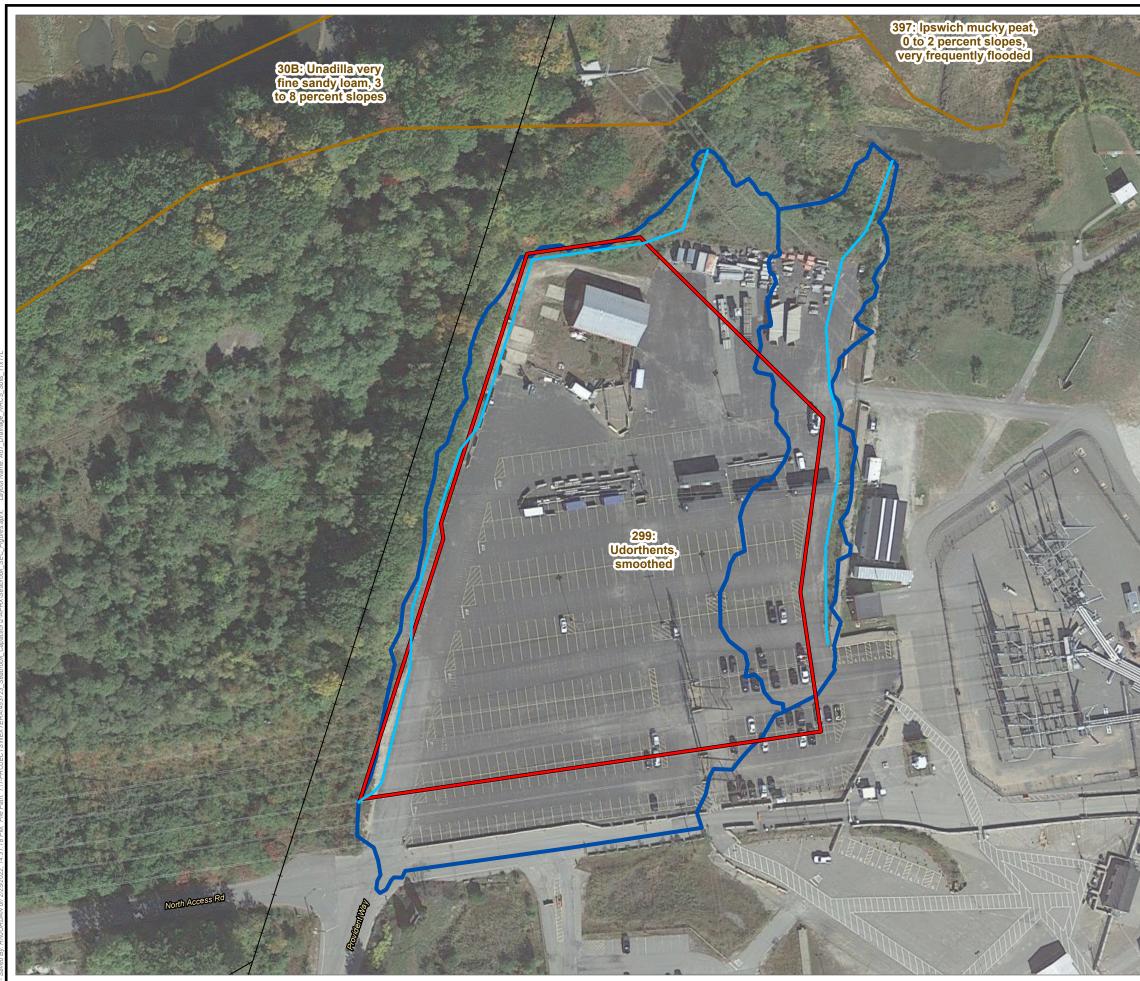
EXHIBIT 3

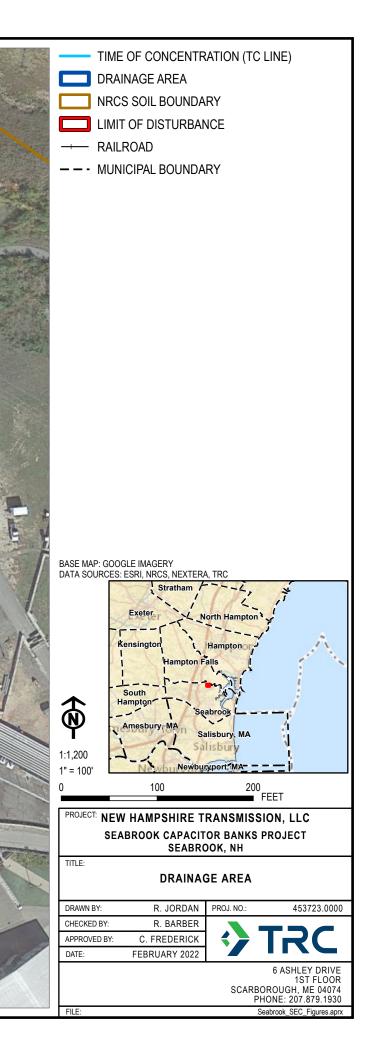
Project Mapping

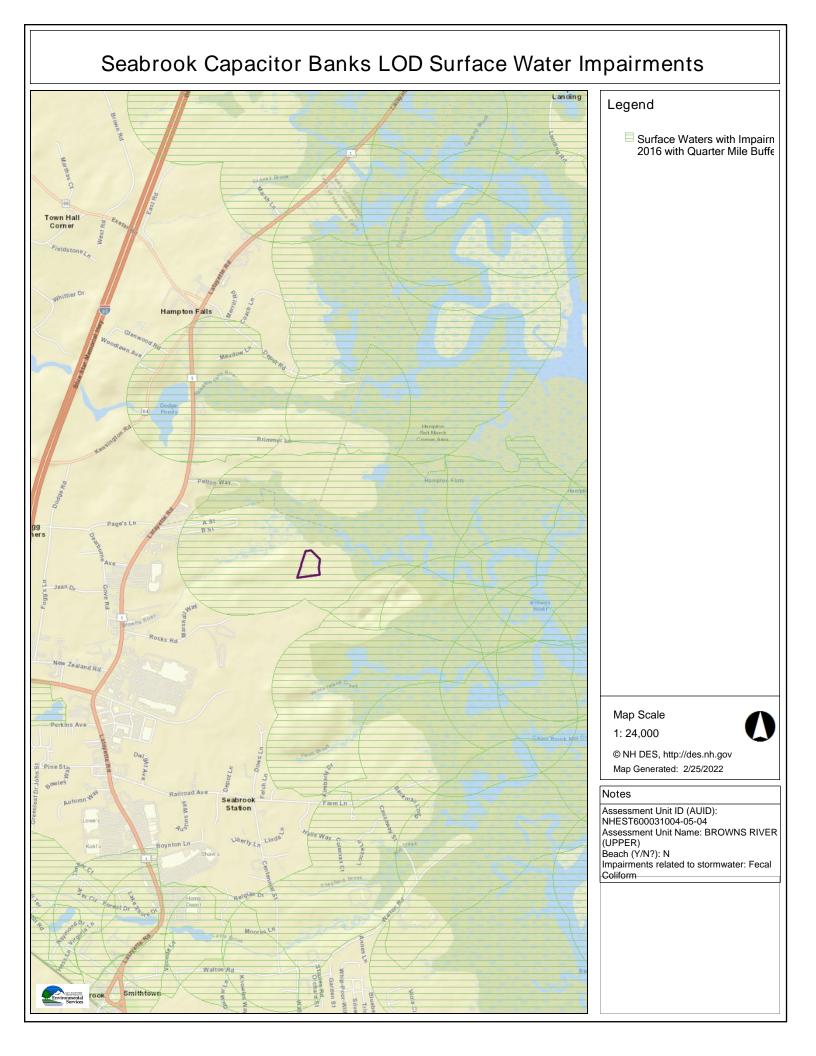












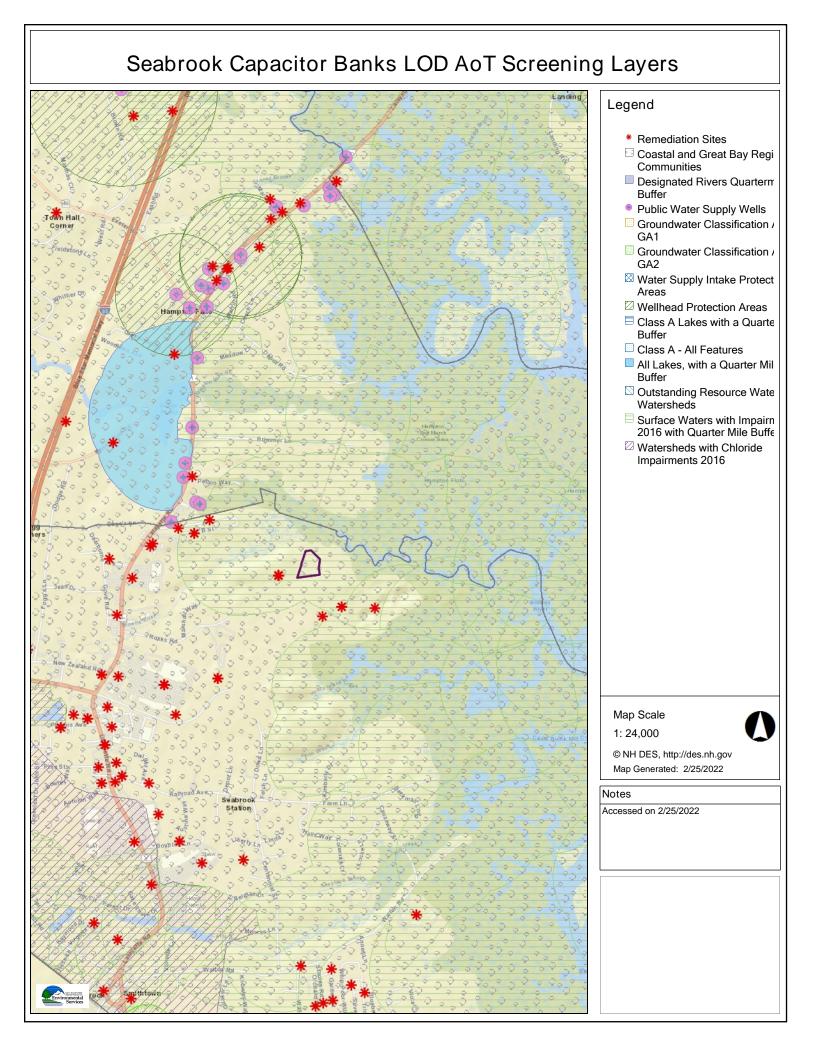


EXHIBIT 4

Stormwater Management Narrative



NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

SEABROOK CAPACITOR BANKS PROJECT

STORMWATER MANAGEMENT REPORT (SEC DOCKET NO. 2021-05)

Submitted by:

NEW HAMPSHIRE

New Hampshire Transmission, LLC 700 Universe Boulevard Juno Beach, FL 33408

Prepared by:

TRC 249 Western Avenue Augusta, ME 04330

March 2022

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APPENDICES

- Appendix B Stormwater Management Design Supporting Data and Calculations
- Appendix C Stormwater Runoff Analysis Results
- Appendix D Issued For Permitting Plan Set

REFERENCES

- New Hampshire Department of Environmental Services (NHDES) Alteration of Terrain Permit Application
- New Hampshire Stormwater Manual Volumes 1, 2, and 3 (December 2008)
- New Hampshire Department of Transportation (NHDOT) Standards and Specifications for Road and Bridge Construction (March 2016)

1.0 Seabrook Station Capacitor Banks Project

The proposed Seabrook Station Capacitor Banks Project is located at 626 Lafyette Road in the Town of Seabrook, Rockingham County, New Hampshire. The proposed redevelopment project will replace an existing asphalt parking lot and storage area associated with the adjacent power generation facility. The project involves construction of a capacitor bank station. The station will connect two capacitor banks to the existing LN 363 Scobie Pond 345 kV generation tie line via a tap. The station will consist of two (2) capacitor banks with associated equipment and structures, and a new Relay and Control structure.

The proposed site is generally flat, and slopes to the north-east with an average slope of 1.0%. The project will remove a portion of the existing asphalt parking and storage areas, as well as an existing building. It is bound on the north by wetlands and Browns River, to the east by the existing substation, to the south by an asphalt parking area, and to the west by a railroad easement and woods. See Appendix A for a project location map.

2.0 Existing Conditions

2.1 Land Cover

The project site is currently in use as a parking and material storage area. The landcover is predominantly asphalt, with smaller areas of woods, meadow, and open space adjacent to the site.

2.2 Soils

Soil information used in stormwater analysis was obtained from the Natural Resources Conservation Service (NRCS) medium intensity soil survey of Rockingham County, New Hampshire. The information was downloaded from the NRCS Web Soil Survey website. See Appendix B for a copy of this information. The Hydrologic Soil Groups (HSG) of the soils are classified by Technical Release TR-55 of the Natural Resources Conservation Service (formerly the Soil Conservation Service). Table I below summarizes the soils identified on or adjacent to the site.

Table I - Site Soils					
Symbol	Soil Type	HSG			
299	Udorthents, smoothed	NR			

The entire project site is underlain by udorthents. From NRCS, "Udorthents are in areas that have been cut to a depth of 2 feet or more or are on areas with more than 2 feet of fill. Udorthents consist primarily of moderately coarse textured soil material and a few small areas of medium textured material." This soil type does not have an HSG rating from NRCS so an HSG D rating is assumed for runoff calculations.

2.3 Site Topography/Hydrology

The proposed project location drains generally to the northeast, with an average slope of 1.0%. The site discharges to wetlands associated with the floodplain of Browns River. Elevations range from approximately 23 feet at the southwest of the site to approximately 16 feet at the northeast of the site. There is no stormwater management system associated with the existing parking and storage areas.

The site is shown on FEMA FIRM Panel 330143 0438 F for Rockingham County, New Hampshire. The site is located in Zone X – Area of Minimal Flood Hazard. See Appendix A for a copy of the FIRM panel.

2.4 Downstream Waterbodies

As shown on the Watershed Plan, the project site discharges runoff to a wetland associated with the floodplain of Browns River. Browns River joins the Hampton River at Hampton Beach State Park where it discharges into the Gulf of Maine.

3.0 **Proposed Development Description**

This project involves the redevelopment of an existing paved parking area for construction of a capacitor bank station to include two (2) capacitor banks, with associated equipment, foundations, structures, and a new Relay and Control House. The new yard will encompass 2.142 acres of crushed gravel yard stone and will be enclosed within a security fence. The entire site will be lowered by two (2) to three (3) feet for installation of the grounding grid. Foundation locations will be over-excavated to below the frost line. The subgrade will be compacted, and the area backfilled to proposed grades. The surface course of the yard area will be six (6) inches of an open graded yard stone similar to NHDOT #57 coarse aggregate.

3.1 Alterations to Land Cover

The project area is currently an asphalt parking lot and material storage area, with small areas of woods, meadow, and open space. Approximately 2.142 acres of predominantly Asphalt paving or other impervious surfaces will be removed and replaced with equipment foundations and yard stone. Proposed grading will approximate existing topography and will continue to discharge to the northeast.

3.2 Alterations to Natural Drainage Ways

The proposed project will replace an existing paved parking and material storage area. The project will not alter any natural drainage ways.

4.0 Regulatory Requirements

This Stormwater Management Narrative has been prepared as part of an NHDES Alteration of Terrain Permit application. As such, the project has been designed to meet the standards set forth in the "New Hampshire Code of Administrative Rules, Chapter Env-Wq 1500 Alteration of Terrain", as well as the "New Hampshire Stormwater Manual (Volumes 1, 2, and 3) – December 2008".

4.1 Runoff Quality Control

Design requirements for runoff quality control are included in the New Hampshire Stormwater Manual (SWM), Volume 2, Chapter 2.

4.1.1 Water Quality Volume

The Water Quality Volume (WQV) is the amount of runoff from a rainfall event that is required to be captured and treated by a pollutant removal device. The volume is based on the first one (1)

inch of rainfall. For this project, WQV calculations are required for the new impervious surfaces associated with the proposed station. Refer to Appendix B for all WQV calculations.

4.1.2 Water Quality Flow

The Water Quality Flow (WQF) is the flow rate used for sizing flow-through water quality treatment devices. Such devices are not proposed for this project, and WQF calculations are not included with this report.

4.1.3 Groundwater Recharge Volume

The Groundwater Recharge Volume (GRV) criterion is a standard implemented to protect groundwater resources. The volume is calculated by the equation:

$$GRV = A_i * R_d$$

where A_i represents the Effective Impervious Area created by the development and Rd represents the groundwater recharge depth based on the HSG of the soil. No runoff from the project site will be directed to an existing municipal stormwater management system. As such, the project will create no effective impervious area (Ai = 0.0 sq. ft.), and the GRV is zero. No infiltration is required.

4.1.4 Effective Impervious Cover

The concept of Effective Impervious Cover is described in SWM, Volume 1, Chapter 5, Section 5-2 Proposed Antidegradation Requirements. Effective Impervious Cover (EIC) is defined as the total impervious cover, having a runoff curve number (CN) of 98 or greater, that is directly connected to a storm drain network. No part of the impervious area of the site is connected to a storm drain system, so the EIC = 0.0 sq. ft. for this site.

4.1.5 Undisturbed Cover

Undisturbed Cover (UDC) is described in SWM, Volume 1, Chapter 5, Section 5-2 Proposed Antidegradation Requirements. It is defined as land surface that has not been altered by human activity. The project site is built up on made land (See Section 2.2 above for a discussion of udorthents) and currently in use as a paved parking and material storage area. This project will not impact any undisturbed cover.

4.1.6 WQv BMP Description

The project involves re-development of an existing paved parking area. The site is constrained on all sides by existing infrastructure and natural resources/buffers. The Project proposes to use the yard stone for water quality treatment of runoff from the proposed station area. The surface course of the yard stone will be 6-inches of open-graded crushed stone, with a gradation similar to NHDOT #57 coarse aggregate. The stone will capture and detain the WQv within the void space. WQ treatment will be provided by infiltration (assumed to be minimal), evaporation, or slow discharge to the north through the stone matrix. Sediment associated with water quality degradation will be retained in the yard stone.

4.1.7 Slope Stabilization

An embankment slope of 3H:1V was used during site design in order to provide stable slopes without the need for riprap. Slopes will be stabilized with erosion control blankets, loam, and seed. See Sheet DWG-400 of the permitting plan set for details.

4.2 Runoff Quantity Control

Design requirements for runoff quantity control are included in New Hampshire Stormwater Manual (SWM), Volume 2, Chapters 2 and 4. A comparison of peak rates of runoff from the pre-development and post-development conditions has been prepared in accordance with criteria provided in these chapters. Design storms evaluated include the 2-year, 10-year, and 50-year storms.

4.2.1 Channel Protection

The Channel Protection criterion is intended to prevent erosion and sedimentation of streams, downstream receiving waters, and wetlands. The results of the runoff model comparison indicate the 2-year, 24-hour post-development peak rates of runoff and runoff volumes will not increase from the pre-development condition as a result of the project. Therefore, no runoff quantity controls are required.

4.2.2 Peak Control

The Peak Control criterion is intended to prevent off-site impacts due to an increase in the peak rate of runoff resulting from a development. The results of the runoff model comparisons indicate the 10-year and 50-year post-development peak rates of runoff and runoff volumes will not increase from the pre-development conditions as a result of the project. Therefore, no runoff detention facilities are required.

5.0 Runoff Analysis

A runoff analysis comparing pre- and post-development peak rates of runoff and runoff volumes has been prepared in accordance with the requirements of the NHDES Stormwater Manual, Volume 2. The Pre- and Post-Development Stormwater Management Plans for the project include 1-foot contours, cover types, subcatchment boundaries, time of concentration flow lines, and existing features, as well as the locations of proposed equipment, structures, yard stone, security fence, other above ground structures.

Stormwater runoff analysis calculations are provided in Appendix C. The calculations include the HydroCAD output which provides Tc calculations, composite CN calculations, and peak discharge and volume calculations for the design storms. See Appendix D for Pre-Development and Post-Development Stormwater Plans.

5.1 Methodology

Stormwater runoff was estimated using HydroCAD, Version 10.10. HydroCAD is based on methodologies developed by the United States Department of Agriculture Soil Conservation Service (USDA-SCS), now Natural Resources Conservation Service (USDA-NRCS), namely *Urban Hydrology for Small Watersheds*, Technical Release 55 and Technical Release 20 (TR-55 and TR-20), in conjunction with other hydrologic and hydraulic calculations. Based on site specific information, including land cover, slopes, soils, and rainfall data, the program calculates inflow and outflow hydrographs for a watershed.

5.1.1 Rainfall Data

Rainfall data for the design storms were downloaded from the Northeast Regional Climate Center on-line database. Storm events modeled for the runoff analyses assumed precipitation events with a 24-hour duration having a Type III rainfall distribution, with return frequencies of 2, 10, and 50 years. Table II below summarizes the rainfall depths used in these analyses.

Table II – Precipitation Frequency Estimates						
Extreme Recurrence Interval						
2-Year	2-Year 10-Year 50-Year					
3.26" 4.98" 7.63"						

The rainfall distribution type is based on Figure B-2 of the NRCS TR-55 manual (1986). See Appendix B for precipitation data.

5.1.2 Curve Number Computations

Runoff curve numbers are based on the land cover and soils of the project site. Cover types for the site were determined from aerial photography and site visits and are indicated on the Preconstruction and Post-construction Stormwater Plans.

The soil classifications and hydrologic soil groups within the area to be redeveloped were obtained from the Natural Resources Conservation Service (NRCS) medium intensity soil survey of Rockingham County, New Hampshire. The information was downloaded from the NRCS Web Soil Survey website. See Appendix B for copies of this information. The Hydrologic Soil Groups (HSG) of the soils are classified by Technical Release TR-55 of the NRCS.

The runoff curve numbers are taken from a look-up table within the *HydroCAD* program. According to software documentation, this table is based on Table 2-2 of the SCS/NRCS TR-55 publication.

5.1.3 Time of Concentration Calculations

Times of concentration were calculated using USDA-SCS TR-55 methodologies for each subcatchment considering the hydrologic flow lengths, slope, vegetative cover, and surface roughness. The type and length of each hydrologic flow line for determining time of concentration and travel times in the area to be developed are indicated on the Stormwater Management Plans. The maximum sheet flow length used for this analysis was 100 feet. Shallow concentrated flow lengths varied for each subcatchment and were extended until they reached the end of the sub-watershed or until it reached a concentrated flow channel. A Manning's n for overland flow across the open graded yard stone was determined based on Figure L.1 from the "New York State Stormwater Management Design Manual". See Appendix B for a copy of Figure L.1.

5.1.4 Peak Discharge Calculations

Peak discharge calculations are included in the *HydroCAD* output. The Alteration of Terrain Permit application requires analysis of the 2, 10, and 50-year storm events.

5.2 Analysis and Results

Two (2) subcatchments were delineated for runoff analysis for this site for both pre-development and post-development conditions. Both include contributing area outside the project limits.

5.2.1 Pre-Development

Subcatchment 1S represents the westerly part of the site. It is made up predominantly of existing pavement but also includes a building, several concrete pads, an existing gravel road, and some grassed area associated with the current use of the facility. It also includes areas of

woods and meadow outside of the project limits. Runoff flows generally to the northeast across the existing pavement, and discharges into a wetland. Runoff is analyzed at study point SP-1.

Subcatchment 2S represents the easterly side of the site. Similar to 1S, this subcatchment is made up predominantly of pavement with some concrete pads, as well as areas of woods and meadow outside of the project limits. Runoff flows generally to the north across the existing pavement, and discharges into the same wetland as 1S. Runoff is analyzed at study point SP-2. Table III below is a summary of the pre-development land cover conditions. See Appendix C for detailed calculations for the pre-development stormwater runoff analysis.

Table III – Pre-Development Land Cover Summary (acres)						
Cover Type	HSG	CN	1S	2S		
Impervious	D	98	4.390	0.909		
Gravel	D	96	0.109	0.018		
Open Space	D	84	0.282	-		
Meadow	D	78	0.156	0.112		
Woods	D	77	0.132	0.109		
Total			5.069	1.148		

5.2.2 Post-Development

The post-development runoff model uses the same two (2) subcatchments as the predevelopment model, modified to account for the proposed grading for the station yard. The total contributing area of the site is unchanged. In the post-development condition existing asphalt surface, as well as a building and minor areas of open space and woods, will be replaced with substation yard stone. While the yard stone is considered an impervious surface, the CN is lower than that of a typical gravel road. This results in the reduction of peak rates of runoff and runoff volumes in the post-development condition. Study point locations are unchanged from the pre-development condition. See Appendix C for detailed calculations for the postdevelopment stormwater runoff analysis.

Table IV – Post-Development Land Cover Summary (acres)						
Cover Type	HSG	CN	1S	2S		
Impervious	D	98	0.714	2.750		
Gravel	D	96	0.072	0.018		
Yard Stone	D	91	1.968	0.173		
Open Space	D	84	0.039	-		
Meadow	D	78	0.156	0.112		
Woods	D	77	0.106	0.109		
Total			3.055	3.162		

5.2.3 Results

Tables V and VI below compare the pre- and post-development peak rates and volumes of runoff. The stormwater runoff models indicate the peak rates and volumes of runoff to SP-1 decrease for all design storms, while the peak rates and volumes to SP-2 increase. This is the result of a change in subcatchment areas due to the proposed grading for the station yard. Subcatchment 1S is smaller and 2S is larger. The total combined area is unchanged. Because the study points represent approximate discharge locations to the same wetland runoff should be evaluated as the sum of the two (2) study points. The runoff models demonstrate that when taken together, the post-development peak rates and volumes of runoff are decreased from the pre-development condition for all design storms.

Table V – Stormwater Peak Rates of Runoff						
Study Point	Storm Event	Peak Rate of Runoff (cfs)				
		Pre	Post	Delta		
SP1	2-Yr	11.89	6.18	-5.71		
	10-Yr	18.62	10.18	-8.44		
	50-Yr	28.89	16.26	-12.63		
SP2	2-Yr	2.62	7.23	4.61		
	10-Yr	4.20	11.32	7.12		
	50-Yr	6.59	17.57	10.98		
Total	2-Yr	14.51	13.41	-1.10		
	10-Yr	22.82	21.50	-1.32		
	50-Yr	35.48	33.83	-1.65		

Table VI – Stormwater Runoff Volumes						
Study Point	Storm Event	Total Runoff Volume (ac-ft)				
		Pre	Post	Delta		
SP1	2-Yr	1.186	0.613	-0.573		
	10-Yr	1.906	1.036	-0.870		
	50-Yr	3.021	1.700	-1.321		
SP2	2-Yr	0.249	0.740	0.491		
	10-Yr	0.410	1.189	0.779		
	50-Yr	0.661	1.884	1.223		
Total	2-Yr	1.435	1.353	-0.082		
	10-Yr	2.316	2.222	-0.091		
	50-Yr	3.682	3.583	-0.099		

5.2.4 Operation and Maintenance Plan

An Operation and Maintenance plan has not been prepared because the project will not require construction of any typical permanent stormwater management BMPs.

6.0 Conclusions

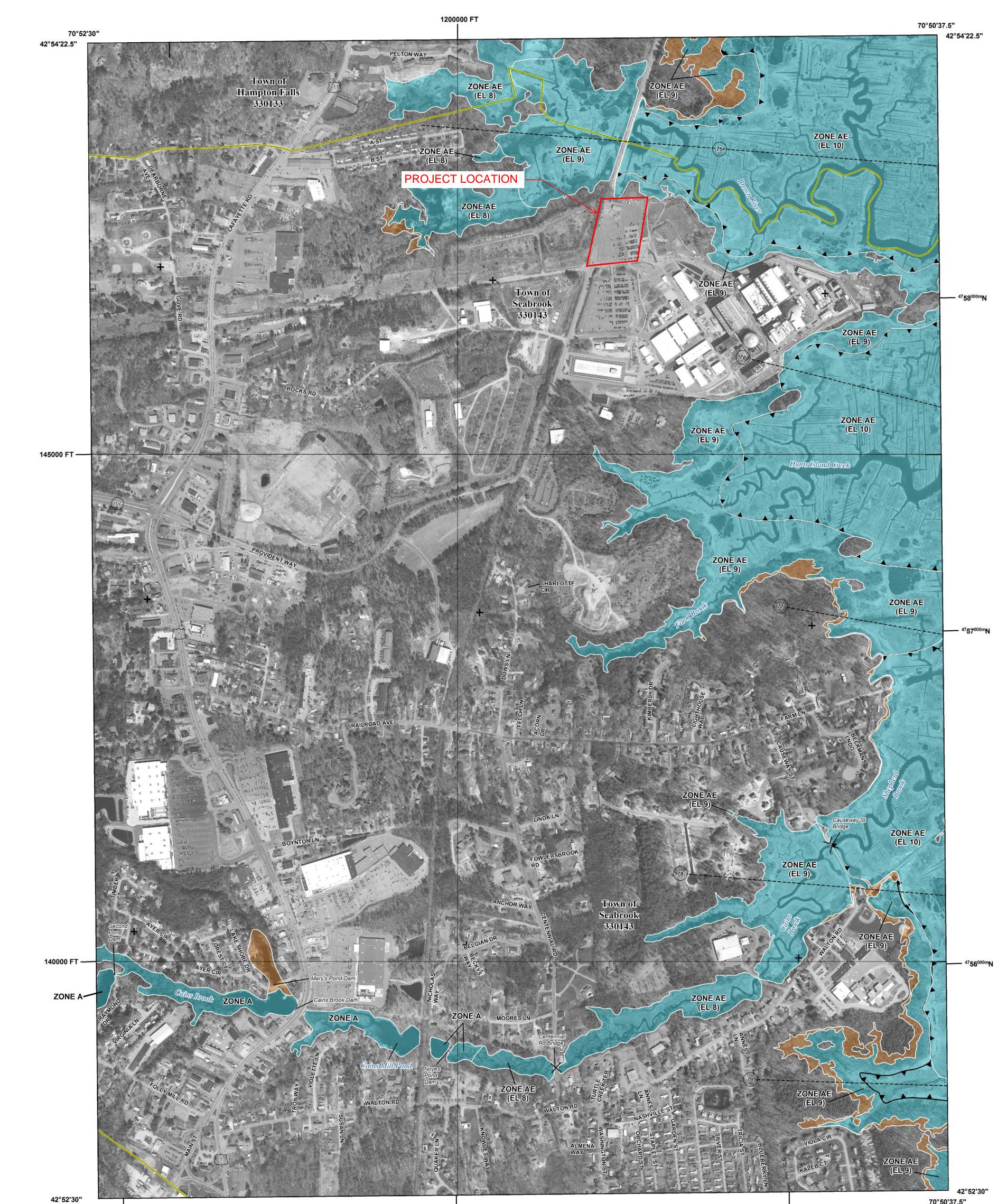
This project is characterized as a redevelopment project, meaning existing paved surfaces will be replaced with a more permeable material for a different use. This practice is a clear benefit to watersheds. For this project, part of an existing paved parking and material storage area will be removed to make room for a capacitor bank station. The surface course of the station yard will be six (6) inches of crushed stone with a gradation similar to NHDOT #57 coarse aggregate. The void space in the stone will provide storage for a volume of runoff in excess of the WQv. The captured runoff will be reduced by infiltration (anticipated to be minimal), evaporation, or will be released slowly as runoff passes northerly through the stone matrix.

The information in this report demonstrates that as proposed, the Seabrook Station Capacitor Banks Project will meet the stormwater management requirements of Chapter Env-Wq 1500 Alteration of Terrain. It has been shown that groundwater recharge will not be required because there will be no effective impervious area created by this project. It has also been shown that the proposed water quality treatment measures provide adequate treatment of runoff from the station site, and that nearby natural resources are protected. And finally, it has been demonstrated that no permanent stormwater management BMPs will be required for runoff quantity control because the post-development total peak rates and volumes of runoff will be less than those of the pre-development condition for all design storms.

APPENDIX A

Maps & Figures





70°52'30"

70°50'37.5"

837^{000m}E

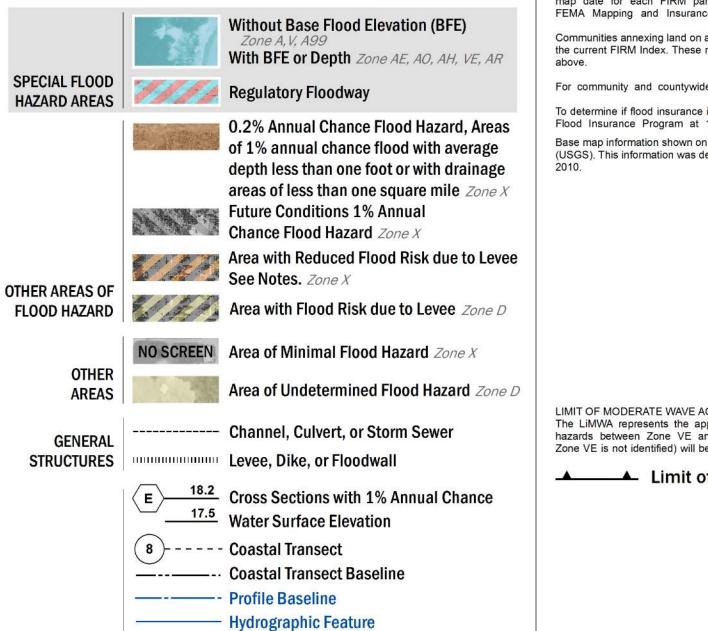
⁸38^{000m}E

°39000mE

FEMA

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT HTTPS://MSC.FEMA.GOV



----- 513 ----- Base Flood Elevation Line (BFE)

Jurisdiction Boundary

Limit of Study

OTHER

FEATURES

NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Mapping and Insurance eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at https://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Map Service Center website or by calling the FEMA Mapping and Insurance eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed

For community and countywide map dates refer to the Flood Insurance Study Report for this jurisdiction.

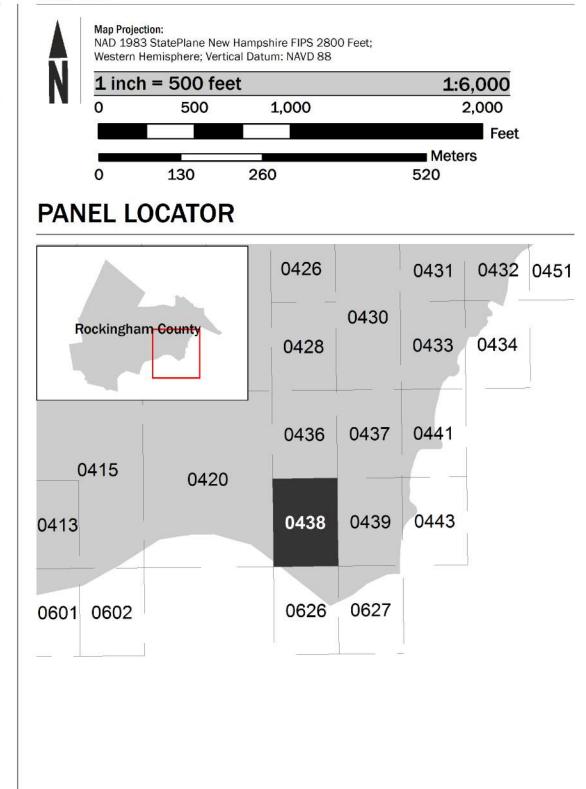
To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

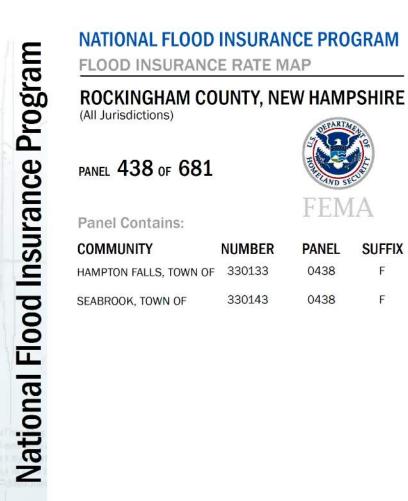
Base map information shown on this FIRM was provided in digital format by the United States Geological Survey (USGS). This information was derived from digital orthophotography at a 1-foot resolution from photography dated

LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in Zone VE.

▲ Limit of Moderate Wave Action (LiMWA)

SCALE





VERSION NUMBER 2.3.2.1 MAP NUMBER

E

F

33015C0438F

MAP REVISED January 29, 2021

APPENDIX B

Stormwater Management Design Supporting Data and Calculations



United States Department of Agriculture

Natural Resources

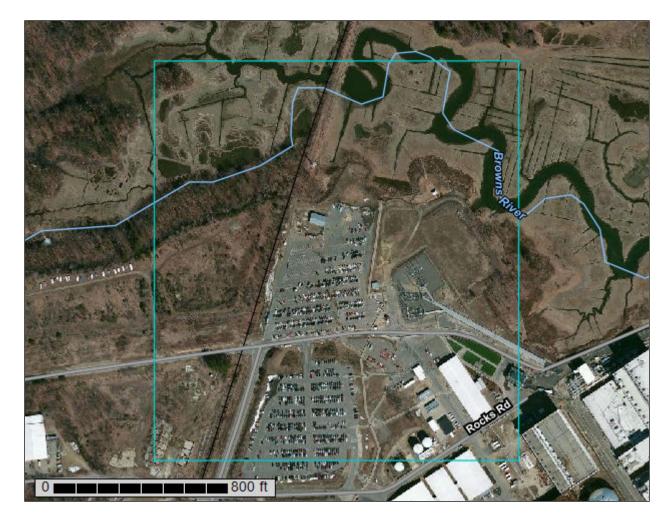
Conservation

Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Rockingham County, New Hampshire

SEABROOK CAPACITOR BANKS



Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report Soil Map



	MAP L	EGEND	MAP INFORMATION
Area of In Soils	terest (AOI) Area of Interest (AOI)	Spoil Area	The soil surveys that comprise your AOI were mapped at 1:24,000.
~	Soil Map Unit Polygons Soil Map Unit Lines Soil Map Unit Points Point Features Blowout Borrow Pit	 Very Stony Spot Wet Spot Other Special Line Features Streams and Cana 	contrasting soils that could have been shown at a more detailed scale.
│ ※ ◇ 光 ☆ ◎ ○ ◇ 十 ∵ ⇔ ◇	Clay Spot Closed Depression Gravel Pit Gravelly Spot Landfill Lava Flow Marsh or swamp Mine or Quarry Miscellaneous Water Perennial Water Rock Outcrop Saline Spot Sandy Spot Severely Eroded Spot Sinkhole	Transportation +++ Rails ~ Interstate Highways ~ US Routes ~ Major Roads ~ Local Roads Background Aerial Photography	Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857) Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required. This product is generated from the USDA-NRCS certified data as of the version date(s) listed below. Soil Survey Area: Rockingham County, New Hampshire Survey Area Data: Version 24, Aug 31, 2021 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger. Date(s) aerial images were photographed: Dec 31, 2009—Sep
ð Ø	Slide or Slip Sodic Spot		12, 2016 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
30B	Unadilla very fine sandy loam, 3 to 8 percent slopes	3.3	4.6%
299	Udorthents, smoothed	48.8	68.8%
397	Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded	18.8	26.6%
Totals for Area of Interest		70.8	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Rockingham County, New Hampshire

30B—Unadilla very fine sandy loam, 3 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9cmz Elevation: 90 to 1,800 feet Mean annual precipitation: 28 to 55 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 110 to 180 days Farmland classification: Farmland of statewide importance

Map Unit Composition

Unadilla and similar soils: 85 percent Minor components: 15 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Unadilla

Typical profile

H1 - 0 to 4 inches: very fine sandy loam *H2 - 4 to 30 inches:* very fine sandy loam *H3 - 30 to 60 inches:* very fine sand

Properties and qualities

Slope: 3 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 7.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 2e Hydrologic Soil Group: B Ecological site: F144AY024NY - Well Drained Eolian Outwash Hydric soil rating: No

Minor Components

Slope inclusion

Percent of map unit: 5 percent Hydric soil rating: No

Scio

Percent of map unit: 5 percent *Hydric soil rating:* No

Eldridge

Percent of map unit: 5 percent Hydric soil rating: No

299—Udorthents, smoothed

Map Unit Setting

National map unit symbol: 9cmt Elevation: 0 to 840 feet Mean annual precipitation: 44 to 49 inches Mean annual air temperature: 48 degrees F Frost-free period: 155 to 165 days Farmland classification: Not prime farmland

Map Unit Composition

Udorthents and similar soils: 100 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udorthents

Properties and qualities

Depth to restrictive feature: More than 80 inches Drainage class: Excessively drained Depth to water table: More than 80 inches Frequency of flooding: None Frequency of ponding: None

397—Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded

Map Unit Setting

National map unit symbol: 2tyqj Elevation: 0 to 10 feet Mean annual precipitation: 36 to 71 inches Mean annual air temperature: 39 to 55 degrees F Frost-free period: 140 to 250 days Farmland classification: Not prime farmland

Map Unit Composition

Ipswich and similar soils: 90 percent *Minor components:* 10 percent *Estimates are based on observations, descriptions, and transects of the mapunit.*

Description of Ipswich

Setting

Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Parent material: Partially- decomposed herbaceous organic material

Typical profile

Oe - 0 to 42 inches: mucky peat *Oa - 42 to 59 inches:* muck

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to very high (0.14 to 99.90 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Very frequent
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline to strongly saline (0.7 to 111.6 mmhos/cm)
Sodium adsorption ratio, maximum: 20.0
Available water supply, 0 to 60 inches: Very high (about 26.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8w Hydrologic Soil Group: A/D Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

Minor Components

Pawcatuck

Percent of map unit: 5 percent Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

Westbrook

Percent of map unit: 5 percent Landform: Tidal marshes Landform position (three-dimensional): Dip Down-slope shape: Linear Across-slope shape: Linear Ecological site: R144AY001CT - Tidal Salt Low Marsh mesic very frequently flooded, R144AY002CT - Tidal Salt High Marsh mesic very frequently flooded Hydric soil rating: Yes

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group (SEABROOK CAPACITOR BANKS)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

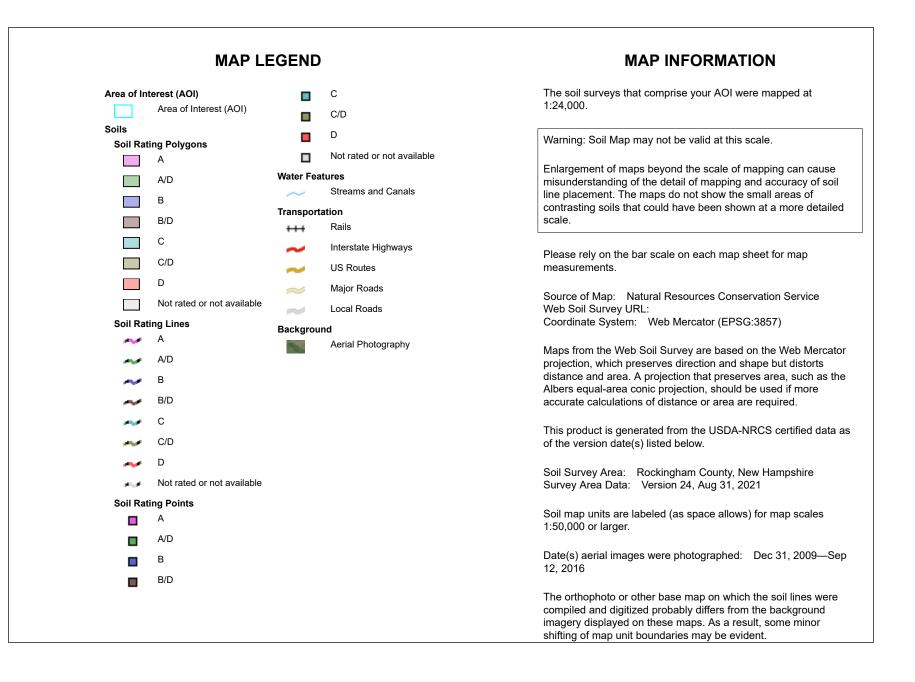
Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Custom Soil Resource Report





Table—Hydrologic Soil Group (SEABROOK CAPACITOR BANKS)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
30B	Unadilla very fine sandy loam, 3 to 8 percent slopes	В	3.3	4.6%
299	Udorthents, smoothed		48.8	68.8%
397	Ipswich mucky peat, 0 to 2 percent slopes, very frequently flooded	A/D	18.8	26.6%
Totals for Area of Intere	st		70.8	100.0%

Rating Options—Hydrologic Soil Group (SEABROOK CAPACITOR BANKS)

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified Tie-break Rule: Higher

20

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Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	New Hampshire
Location	
Longitude	70.855 degrees West
Latitude	42.902 degrees North
Elevation	0 feet
Date/Time	Fri, 18 Feb 2022 09:20:49 -0500

Extreme Precipitation Estimates

		1																					
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12		24hr		hr		1day	2day	4day	7day	10day	
1yr	0.27	0.41	0.50	0.66	0.83	1.05	1yr	0.71	0.99	1.23	1.59	2.	06	2.71	2,	9	1yr	2.40	2.88	3.30	4.01	4.67	1yr
2yr	0.33	0.50	0.63	0.82	1.04	1.32	2yr	0.89	1.20	1.54	1.96	2.	<i>5</i> 2	3.26	3.	3	2yr	2.88	3.49	4.00	4.75	5.42	2yr
5yr	0.38	0.59	0.74	1.00	1.28	1.64	5yr	1.10	1.50	1.93	2.48	3.	1	4.15	1	67	5yr	3.67	4.49	5.15	6.07	6.84	5yr
10yr	0.43	0.67	0.85	1.15	1.50	1.95	10yr	1.29	1.77	2.30	2.97	3	85	4.98	5.	5	10yr	4.41	5.43	6.24	7.30	8.15	10y
25yr	0.50	0.79	1.01	1.39	1.85	2.43	25yr	1.59	2.21	2.88	3.76	4.	1	6.35	7.	26	25yr	5.62	6.98	8.04	9.33	10.30	25y
50yr	0.56	0.90	1.16	1.62	2.17	2.89	50yr	1.87	2.62	3.44	4.50	5.	87	7.63	8	9	50yr	6.75	8.46	9.74	11.23	12.30	50y
100yr	0.63	1.02	1.32	1.87	2.55	3.43	100yr	2.20	3.11	4.10	5.40	7.	<i>1</i> 5	9.17	10	65	100yr	8.12	10.24	11.80	13.53	14.69	100y
200yr	0.72	1.17	1.52	2.18	3.00	4.06	200yr	2.59	3.69	4.88	6.45	8.	5	11.03	1	89	200yr	9.76	12.40	14.31	16.31	17.55	200y
500yr	0.85	1.40	1.83	2.66	3.73	5.10	500yr	3.22	4.62	6.15	8.18	10	77	14.09	16	62	500yr	12.47	15.98	18.47	20.88	22.21	500y

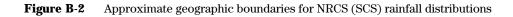
Lower Confidence Limits

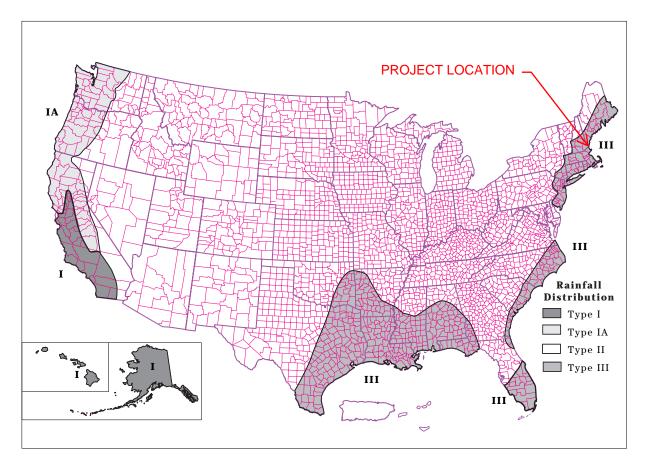
	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.23	0.36	0.44	0.59	0.73	0.88	1yr	0.63	0.86	0.95	1.31	1.64	2.45	2.63	1yr	2.17	2.53	2.94	3.46	4.20	1yr
2yr	0.32	0.49	0.61	0.82	1.01	1.21	2yr	0.87	1.18	1.38	1.82	2.33	3.17	3.56	2yr	2.81	3.42	3.92	4.65	5.29	2yr
5yr	0.36	0.56	0.69	0.95	1.20	1.43	5yr	1.04	1.40	1.63	2.11	2.72	3.89	4.37	5yr	3.44	4.20	4.85	5.72	6.45	5yr
10yr	0.40	0.62	0.76	1.07	1.38	1.64	10yr	1.19	1.61	1.83	2.38	3.05	4.50	5.09	10yr	3.98	4.90	5.69	6.65	7.45	10yr
25yr	0.46	0.70	0.87	1.25	1.64	1.97	25yr	1.42	1.92	2.13	2.74	3.53	5.18	6.23	25yr	4.59	5.99	7.01	8.11	9.00	25yr
50yr	0.51	0.78	0.97	1.40	1.88	2.26	50yr	1.62	2.21	2.39	3.06	3.93	5.92	7.25	50yr	5.24	6.97	8.21	9.43	10.39	50yr
100yr	0.58	0.87	1.09	1.58	2.17	2.59	100yr	1.87	2.53	2.68	3.40	4.37	6.74	8.43	100yr	5.97	8.10	9.62	10.94	11.96	100yr
200yr	0.65	0.97	1.23	1.78	2.48	2.96	200yr	2.14	2.90	3.00	3.76	4.84	7.65	9.81	200yr	6.77	9.43	11.29	12.70	13.80	200yr
500yr	0.76	1.13	1.45	2.11	3.00	3.57	500yr	2.59	3.49	3.50	4.29	5.55	9.00	11.97	500yr	7.97	11.51	13.94	15.41	16.65	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.54	0.73	0.90	1.09	1yr	0.78	1.06	1.29	1.72	2.17	2.97	3.17	1yr	2.63	3.05	3.59	4.41	5.05	1yr
2yr	0.34	0.52	0.64	0.87	1.08	1.28	2yr	0.93	1.26	1.49	1.96	2.50	3.39	3.72	2yr	3.00	3.57	4.11	4.90	5.64	2yr
5yr	0.41	0.63	0.78	1.07	1.37	1.65	5yr	1.18	1.62	1.90	2.52	3.23	4.42	4.97	5yr	3.91	4.78	5.47	6.44	7.24	5yr
10yr	0.48	0.74	0.92	1.29	1.66	2.02	10yr	1.44	1.98	2.31	3.09	3.91	5.48	6.20	10yr	4.85	5.96	6.84	7.98	8.86	10yr
25yr	0.60	0.92	1.14	1.63	2.14	2.64	25yr	1.85	2.59	2.99	4.04	5.07	7.64	8.33	25yr	6.77	8.01	9.17	10.62	11.61	25yr
50yr	0.71	1.08	1.34	1.93	2.60	3.23	50yr	2.24	3.16	3.65	4.95	6.20	9.59	10.42	50yr	8.49	10.02	11.47	13.19	14.23	50yr
100yr	0.84	1.27	1.59	2.29	3.15	3.95	100yr	2.72	3.86	4.45	6.08	7.59	12.06	13.04	100yr	10.67	12.54	14.32	16.44	17.46	100yr
200yr	0.99	1.49	1.89	2.73	3.81	4.84	200yr	3.29	4.73	5.43	7.48	9.28	15.19	16.34	200yr	13.44	15.71	17.93	20.47	21.44	200yr
500yr	1.24	1.84	2.37	3.44	4.90	6.31	500yr	4.23	6.17	7.07	9.86	12.15	20.65	22.02	500yr	18.28	21.17	24.07	27.38	28.17	500yr







Rainfall data sources

This section lists the most current 24-hour rainfall data published by the National Weather Service (NWS) for various parts of the country. Because NWS Technical Paper 40 (TP-40) is out of print, the 24-hour rainfall maps for areas east of the 105th meridian are included here as figures B-3 through B-8. For the area generally west of the 105th meridian, TP-40 has been superseded by NOAA Atlas 2, the Precipitation-Frequency Atlas of the Western United States, published by the National Ocean and Atmospheric Administration.

East of 105th meridian

Hershfield, D.M. 1961. Rainfall frequency atlas of the United States for durations from 30 minutes to 24 hours and return periods from 1 to 100 years. U.S. Dept. Commerce, Weather Bur. Tech. Pap. No. 40. Washington, DC. 155 p.

West of 105th meridian

Miller, J.F., R.H. Frederick, and R.J. Tracey. 1973. Precipitation-frequency atlas of the Western United States. Vol. I Montana; Vol. II, Wyoming; Vol III, Colorado; Vol. IV, New Mexico; Vol V, Idaho; Vol. VI, Utah; Vol. VII, Nevada; Vol. VIII, Arizona; Vol. IX, Washington; Vol. X, Oregon; Vol. XI, California. U.S. Dept. of Commerce, National Weather Service, NOAA Atlas 2. Silver Spring, MD.

Alaska

Miller, John F. 1963. Probable maximum precipitation and rainfall-frequency data for Alaska for areas to 400 square miles, durations to 24 hours and return periods from 1 to 100 years. U.S. Dept. of Commerce, Weather Bur. Tech. Pap. No. 47. Washington, DC. 69 p.

Hawaii

Weather Bureau. 1962. Rainfall-frequency atlas of the Hawaiian Islands for areas to 200 square miles, durations to 24 hours and return periods from 1 to 100 years. U.S. Dept. Commerce, Weather Bur. Tech. Pap. No. 43. Washington, DC. 60 p.

Puerto Rico and Virgin Islands

Weather Bureau. 1961. Generalized estimates of probable maximum precipitation and rainfall-frequency data for Puerto Rico and Virgin Islands for areas to 400 square miles, durations to 24 hours, and return periods from 1 to 100 years. U.S. Dept. Commerce, Weather Bur. Tech. Pap. No. 42. Washington, DC. 94 P.

PROJECT:	NextEra
	Seabrook Station Capacitor Banks Project
Proj. No.:	452267

Calculated By: PMM Checked By: Date:

2/28/22

Water Quality Volume Calculations

New Hampshire Stormwater Manual (NHSM), Volume 2, Chapter 2, Section 2-1: "The Water Quality Volume (WQV) is amount of stormwater runoff from a rainfall event that should be captured and treated to remove the majority of stormwater pollutants on an average annual basis." The WQV is the volume of runoff generated from the entire 90th percentile rain event. New Hampshire has determined this to be equivalent to 1 inch of precipitation. The WQV is directly related to the amount of impervious cover constructed at a site."

Station Expansion Area

The WQV of runoff from the redelevopment area will be captured and treated by the yard stone. A volume in excess of the WQV will be captured and held in the void space of the yard stone. Treatment of the WQV will be provided by evaporation, with some infiltration. This calculation assumes no part of the WQV will infiltrate.

Yard Stone Area, A	93,300	sq-ft	
Percent Impervious Cover, I	100.0	%	
90% Rainfall depth, P	1.00	in	From Table 2.1 - NHSM, Volume 2, December 2008

Water Quality Volume, WQV

Calculate Vol	umetric Rund	off Coefficient, Rv			
Rv = 0.05 + (0	.009 * I) =	0.950	Rv =	0.950	
Min. Rv = 0.2					
Calculate Wa	ter Quality Vo	blume, WQV (cu-ft)			
WQV = (P * R	v * A)/12		WQV =	7386	cu-ft
Calculate the	Provided Sto	orage Volume, Vstone (cu-ft)			
Vstone = Area	* Depth * Por	osity			
Base Area, A:	93,300	sq-ft			
Depth, D:	0.5	ft.			
Porosity, N:	0.40		Vstone =	18,660	cu-ft

This calculation demonstrates that the yard stone voids will be capable of capturing and retaining more than 2.5 times the runoff from the WQV precipitation event.

PROJECT:	NextEra
	Seabrook Station Capacitor Banks Project
Proj. No.:	452267

Calculated By: Checked By: Date:

2/28/22

PMM

Groundwater Recharge Volume Calculations

<u>New Hampshire Stormwater Manual, Volume 2, Chapter 2, Section 2.3</u> - "The purpose of the groundwater recharge volume (GRV) criterion is to protect groundwater resources by minimizing the loss of annual pre-development groundwater recharge as a result of development."

The GRV is based on the effective impervious area (Ai) and groundwater recharge depth (Rd). The Ai is the impervious area that is directly connected to the storm drain network. The Rd is based on the USDA/NRCS hydrologic soil groups, as follows:

HSG	Rd (in.)
А	0.40
В	0.25
С	0.10
D	0.00

Substation Expansion Area

Effective Impervious Area, Ai Groundwater Recharge Depth, Rd

0	sq-ft
0.00	in

No runoff enters a storm drain network Existing developed land, not rated - Assume HSG D

Groundwater Recharge Volume, GRV

Calculate Groundwater Recharge Volume, GRV (cu-ft) GRV = Effective Impervious Area * Groundwater Recharge Depth

GRV = 0 cu-ft

Manning's n value

The roughness coefficient, n, varies with the type of vegetative cover and flow depth. At very shallow depths, where the vegetation height is equal to or greater than the flow depth, the n value should be approximately 0.15. This value is appropriate for flow depths up to 4 inches typically. For higher flow rates and flow depths, the n value decreases to a minimum of 0.03 for grass channels at a depth of approximately 12 inches. The n value must be adjusted for varying flow depths between 4" and 12" (see Figure L.1).

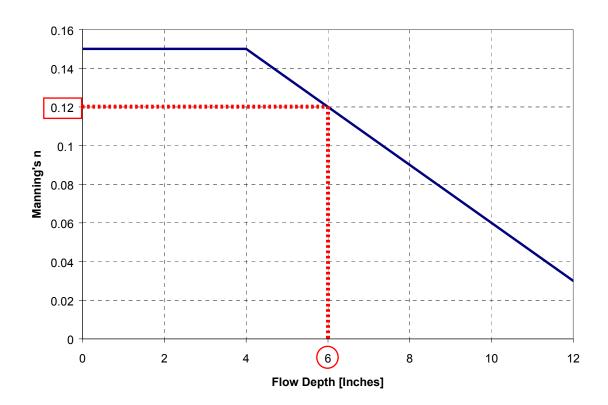


Figure L.1 Manning's n Value with Varying Flow Depth (Source: Claytor and Schueler, 1986)

APPENDIX C

Stormwater Runoff Analysis Results

SEABROOK CAPACITOR BANKS - PRE CONSTRUCTION

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- 2 Rainfall Events Listing (selected events)
- 3 Area Listing (all nodes)
- 4 Soil Listing (all nodes)
- 5 Ground Covers (all nodes)

2 year storm Event

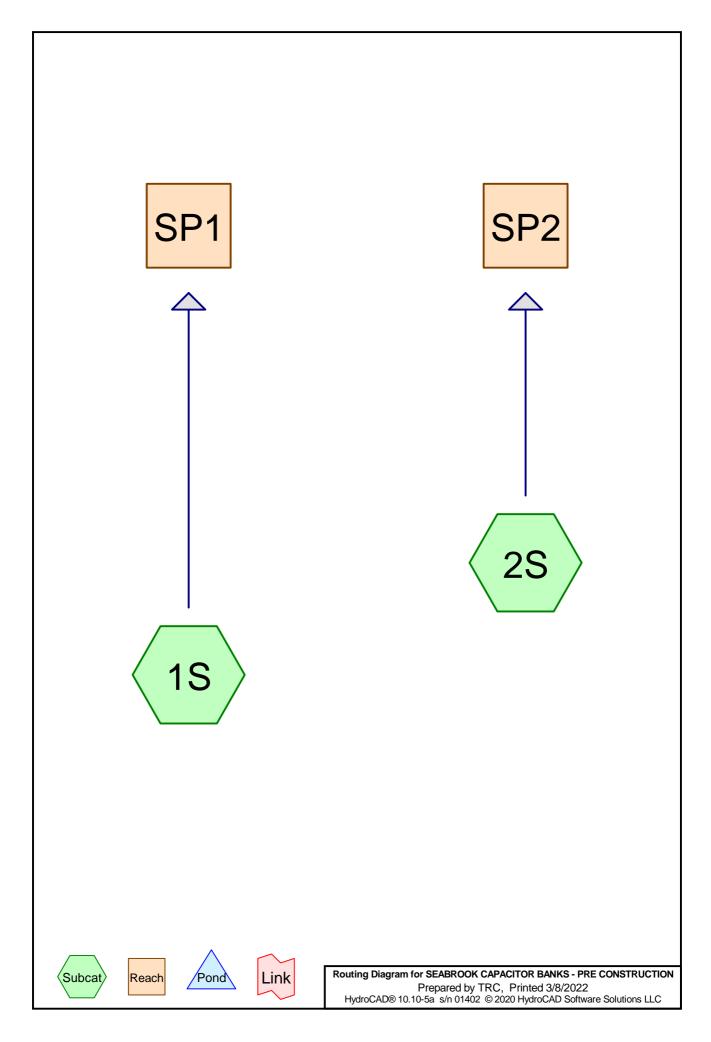
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SEABROOK CAPACITOR BANKS - PRE CONSTRUCTION

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Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC	
1	2 year storm	Type III 24-hr		Default	24.00	1	3.26	2	
2	10 year storm	Type III 24-hr		Default	24.00	1	4.98	2	
3	50 year storm	Type III 24-hr		Default	24.00	1	7.63	2	

Rainfall Events Listing (selected events)

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Prepared by TRC					
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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.282	84	50-75% Grass cover, Fair, HSG D (1S)
0.127	96	Gravel surface, HSG D (1S, 2S)
4.390	98	Impervious (1S)
0.268	78	Meadow, non-grazed, HSG D (1S, 2S)
0.241	77	Woods, Good, HSG D (1S, 2S)
0.909	98	impervious (2S)
6.217	96	TOTAL AREA

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Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
0.918	HSG D	1S, 2S
5.299	Other	1S, 2S
6.217		TOTAL AREA

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 HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
 0.000	0.000	0.000	0.282	0.000	0.282	50-75% Grass cover, Fair	1S
0.000	0.000	0.000	0.127	0.000	0.127	Gravel surface	1S, 2S
0.000	0.000	0.000	0.000	4.390	4.390	Impervious	1S
0.000	0.000	0.000	0.268	0.000	0.268	Meadow, non-grazed	1S, 2S
0.000	0.000	0.000	0.241	0.000	0.241	Woods, Good	1S, 2S
0.000	0.000	0.000	0.000	0.909	0.909	impervious	2S
0.000	0.000	0.000	0.918	5.299	6.217	TOTAL AREA	

Ground Covers (all nodes)

SEABROOK CAPACITOR BANKS - PRE CONSTRType III 24-hr2 year storm Rainfall=3.26"Prepared by TRCPrinted 3/8/2022HydroCAD® 10.10-5a s/n 01402 © 2020 HydroCAD Software Solutions LLCPage 6

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=5.069 ac 86.60% Impervious Runoff Depth=2.81" Flow Length=813' Tc=14.6 min CN=96 Runoff=11.89 cfs 1.186 af
Subcatchment 2S:	Runoff Area=1.148 ac 79.18% Impervious Runoff Depth=2.60" Flow Length=560' Tc=13.7 min CN=94 Runoff=2.62 cfs 0.249 af
Reach SP1:	Inflow=11.89 cfs 1.186 af Outflow=11.89 cfs 1.186 af
Reach SP2:	Inflow=2.62 cfs 0.249 af Outflow=2.62 cfs 0.249 af
Total Runoff Area = 6.21	7 ac Runoff Volume = 1.435 af Average Runoff Depth = 2.77"

14.77% Pervious = 0.918 ac 85.23% Impervious = 5.299 ac

Summary for Subcatchment 1S:

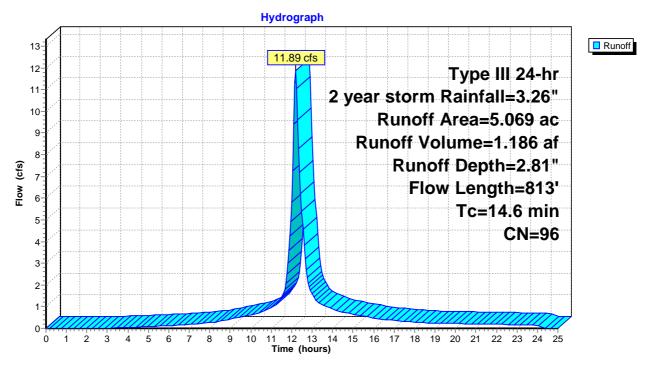
Runoff = 11.89 cfs @ 12.19 hrs, Volume= 1.186 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 2 year storm Rainfall=3.26"

Area	(ac) (CN Des	cription					
0	.132	77 Woo	ods, Good,	HSG D				
0	.156		Meadow, non-grazed, HSG D					
				cover, Fair	, HSG D			
			Gravel surface, HSG D					
	.390	I	ervious					
			ghted Ave					
	.679	-	0% Pervio					
4	.390	80.0	0% imper	vious Area				
Тс	Length	Slope	Velocity	Capacity	Description			
(min)	(feet)		(ft/sec)	(cfs)				
5.7	100	0.0004	0.29		Sheet Flow, Segment 1			
					Smooth surfaces n= 0.011 P2= 3.26"			
3.6	427	0.0094	1.97		Shallow Concentrated Flow, Segment 2			
					Paved Kv= 20.3 fps			
1.2	127	0.0112	1.70		Shallow Concentrated Flow, Segment 3			
0.4	70	0 00 4 0	1 1 0		Unpaved Kv= 16.1 fps			
0.4	27	0.0048	1.12		Shallow Concentrated Flow, Segment 4 Unpaved Kv= 16.1 fps			
3.7	132	0.0143	0.60		Shallow Concentrated Flow, Segment 5			
5.7	152	0.0140	0.00		Woodland Kv= 5.0 fps			
44.0	040	T . (]						

14.6 813 Total

Subcatchment 1S:



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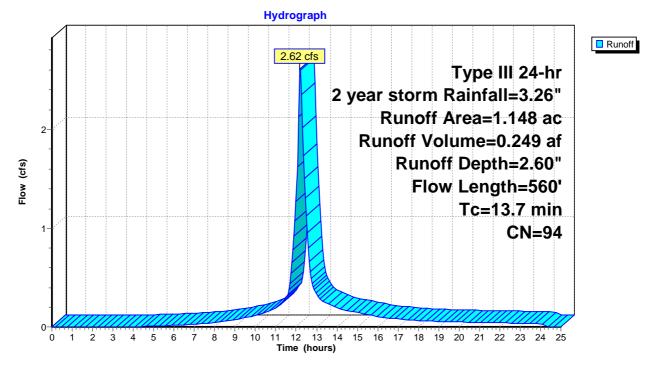
Summary for Subcatchment 2S:

Runoff = 2.62 cfs @ 12.18 hrs, Volume= 0.249 af, Depth= 2.60"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 2 year storm Rainfall=3.26"

	Area	(ac) C	N Des	cription					
	0.	109	77 Woo	Voods, Good, HSG D					
	0.	112	78 Mea	leadow, non-grazed, HSG D					
	0.	018	96 Grav	el surface	, HSG D				
*	0.	909	98 impe	ervious					
	1.	148	94 Wei	ghted Avei	age				
	0.	239	20.8	2% Pervio	us Area				
	0.	909	79.1	8% Imperv	ious Area				
	Тс	Length	Slope	Velocity	Capacity	Description			
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)				
	1.6	99	0.0098	1.04		Sheet Flow, Segment 1			
						Smooth surfaces n= 0.011 P2= 3.26"			
	2.6	351	0.0123	2.25		Shallow Concentrated Flow, Segment 2			
						Paved Kv= 20.3 fps			
	9.5	110	0.0059	0.19		Shallow Concentrated Flow, Segment 3			
						Forest w/Heavy Litter Kv= 2.5 fps			
	13.7	560	Total						
					_				

Subcatchment 2S:



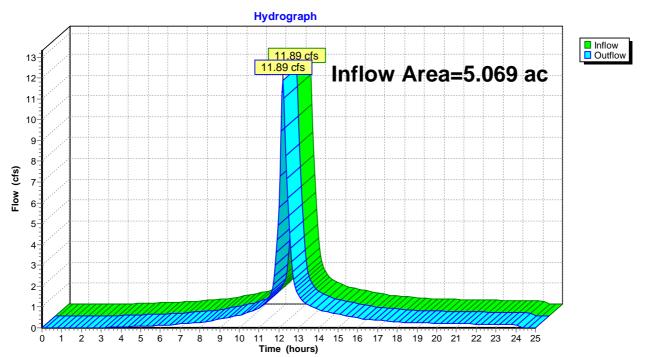
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Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area	=	5.069 ac, 86	6.60% Impervious,	Inflow Depth =	2.81"	for 2 year storm event
Inflow =	=	11.89 cfs @	12.19 hrs, Volume	= 1.186	af	
Outflow =	=	11.89 cfs @	12.19 hrs, Volume	= 1.186	af, Atte	en= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



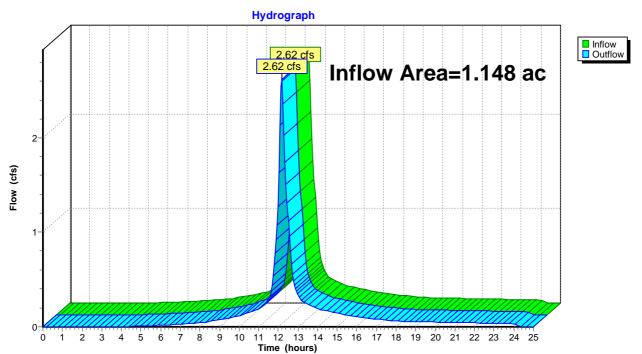
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area	a =	1.148 ac, 79.18% Impervious, Inflow Depth = 2.60" for 2 year storm event
Inflow	=	2.62 cfs @ 12.18 hrs, Volume= 0.249 af
Outflow	=	2.62 cfs @ 12.18 hrs, Volume= 0.249 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



Reach SP2:

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SEABROOK CAPACITOR BANKS - PRE CONSTType III 24-hr10 year storm Rainfall=4.98"Prepared by TRCPrinted 3/8/2022HydroCAD® 10.10-5a s/n 01402 © 2020 HydroCAD Software Solutions LLCPage 11

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=5.069 ac 86.60% Impervious Runoff Depth=4.51" Flow Length=813' Tc=14.6 min CN=96 Runoff=18.62 cfs 1.906 af
Subcatchment 2S:	Runoff Area=1.148 ac 79.18% Impervious Runoff Depth=4.29" Flow Length=560' Tc=13.7 min CN=94 Runoff=4.20 cfs 0.410 af
Reach SP1:	Inflow=18.62 cfs 1.906 af Outflow=18.62 cfs 1.906 af
Reach SP2:	Inflow=4.20 cfs 0.410 af Outflow=4.20 cfs 0.410 af
Total	Runoff Area = 6.217 ac Runoff Volume = 2.316 af Average Runoff Depth = 4.47"

14.77% Pervious = 0.918 ac 85.23% Impervious = 5.299 ac

Summary for Subcatchment 1S:

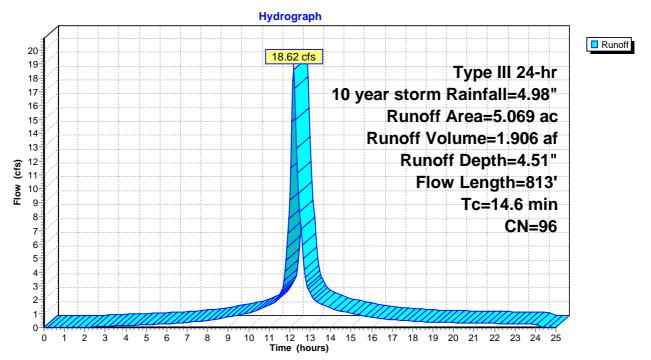
Runoff = 18.62 cfs @ 12.19 hrs, Volume= 1.906 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 10 year storm Rainfall=4.98"

Are	a (ac)	С	N Desc	cription		
	0.132	7	7 Woo	ds, Good,	HSG D	
	0.156	7	8 Mea	dow, non-g	grazed, HS	G D
	0.282	8	4 50-7	5% Grass	cover, Fair	r, HSG D
	0.109			el surface	, HSG D	
*	4.390	9	8 Impe	ervious		
	5.069	9		ghted Aver	•	
	0.679		-	0% Pervio		
	4.390		86.60	0% Imperv	vious Area	
Т	c Leng	nth	Slope	Velocity	Capacity	Description
(min	-	-	(ft/ft)	(ft/sec)	(cfs)	Description
5.7	/ · · ·	00	0.0004	0.29	()	Sheet Flow, Segment 1
				0.20		Smooth surfaces $n = 0.011$ P2= 3.26"
3.6	64	27	0.0094	1.97		Shallow Concentrated Flow, Segment 2
						Paved Kv= 20.3 fps
1.2	21	27	0.0112	1.70		Shallow Concentrated Flow, Segment 3
						Unpaved Kv= 16.1 fps
0.4	4	27	0.0048	1.12		Shallow Concentrated Flow, Segment 4
						Unpaved Kv= 16.1 fps
3.7	1 /	32	0.0143	0.60		Shallow Concentrated Flow, Segment 5
						Woodland Kv= 5.0 fps

14.6 813 Total

Subcatchment 1S:

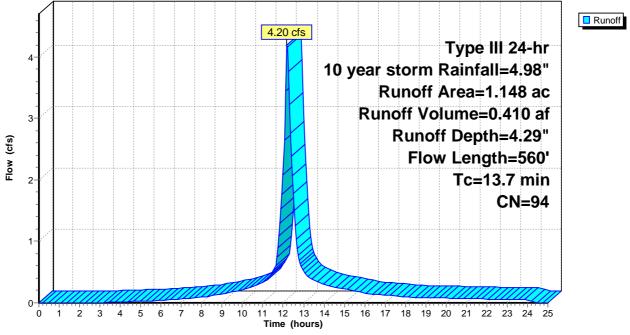


Summary for Subcatchment 2S:

Runoff = 4.20 cfs @ 12.18 hrs, Volume= 0.410 af, Depth= 4.29"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 10 year storm Rainfall=4.98"

	Area	(ac) C	N Desc	cription		
				ds, Good,		
	0.	112 7			grazed, HS	G D
	0.	018 9	96 Grav	el surface	, HSG D	
*	0.	909 9	98 impe	ervious		
	1.	148 9	94 Weig	ghted Aver	age	
	0.	239	20.8	2% Pervio	us Area	
	0.	909	79.1	8% Imperv	vious Area	
	Тс	Length	Slope	Velocity	Capacity	Description
	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.6	99	0.0098	1.04		Sheet Flow, Segment 1
						Smooth surfaces n= 0.011 P2= 3.26"
	2.6	351	0.0123	2.25		Shallow Concentrated Flow, Segment 2
						Paved Kv= 20.3 fps
	9.5	110	0.0059	0.19		Shallow Concentrated Flow, Segment 3
						Forest w/Heavy Litter Kv= 2.5 fps
	13.7	560	Total			
					Subca	atchment 2S:
					Hydrog	graph

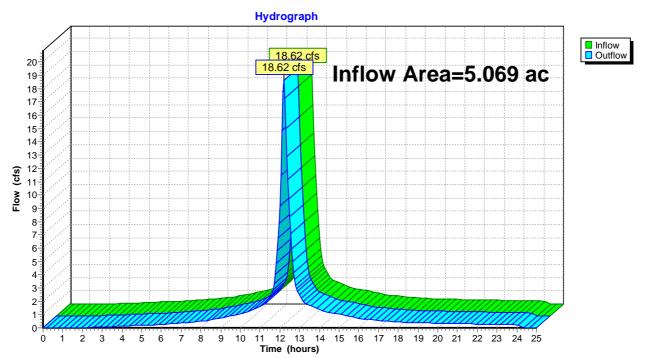


Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	5.069 ac, 86.60% Impervious, Inflow Depth = 4.51" for 10 year storm even	t
Inflow	=	18.62 cfs @ 12.19 hrs, Volume= 1.906 af	
Outflow	=	18.62 cfs @ 12.19 hrs, Volume= 1.906 af, Atten= 0%, Lag= 0.0 min	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



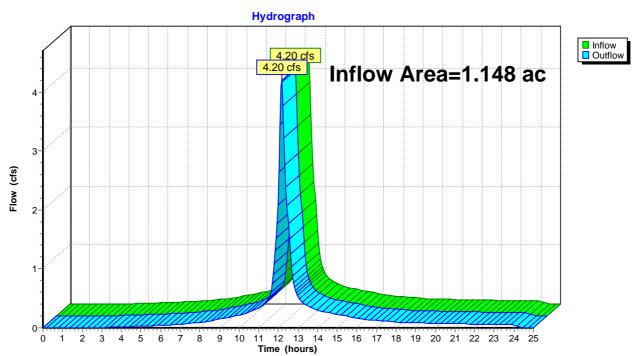
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	1.148 ac, 79.18% Impervious, Inflow D	Pepth = 4.29" for 10 year storm event
Inflow	=	4.20 cfs @ 12.18 hrs, Volume=	0.410 af
Outflow	=	4.20 cfs @ 12.18 hrs, Volume=	0.410 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



Reach SP2:

SEABROOK CAPACITOR BANKS - PRE CONSTType III 24-hr50 year storm Rainfall=7.63"Prepared by TRCPrinted 3/8/2022HydroCAD® 10.10-5a s/n 01402 © 2020 HydroCAD Software Solutions LLCPage 16

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=5.069 ac 86.60% Impervious Runoff Depth=7.15" Flow Length=813' Tc=14.6 min CN=96 Runoff=28.89 cfs 3.021 af
Subcatchment 2S:	Runoff Area=1.148 ac 79.18% Impervious Runoff Depth=6.91" Flow Length=560' Tc=13.7 min CN=94 Runoff=6.59 cfs 0.661 af
Reach SP1:	Inflow=28.89 cfs 3.021 af Outflow=28.89 cfs 3.021 af
Reach SP2:	Inflow=6.59 cfs 0.661 af Outflow=6.59 cfs 0.661 af
Total Runoff Area = 6.2	217 ac Runoff Volume = 3.682 af Average Runoff Depth = 7.11"

14.77% Pervious = 0.918 ac 85.23% Impervious = 5.299 ac

Summary for Subcatchment 1S:

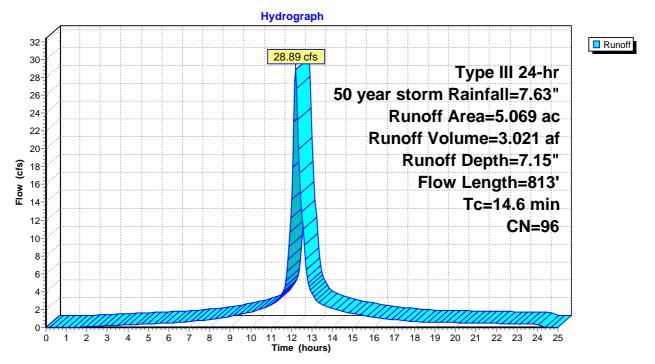
Runoff = 28.89 cfs @ 12.19 hrs, Volume= 3.021 af, Depth= 7.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 50 year storm Rainfall=7.63"

Area	a (ac)	CN E)esci	ription		
().132	77 V	Vood	ds, Good,	HSG D	
().156				grazed, HS	
).282				cover, Fair	r, HSG D
	0.109			el surface	, HSG D	
<u>*</u>	1.390		-	rvious		
	5.069			hted Aver		
).679			% Pervio		
2	1.390	8	6.60	1% Imperv	vious Area	
Тс	Lengt	n Slo	ne	Velocity	Capacity	Description
(min)			/ft)	(ft/sec)	(cfs)	
5.7		/ · · ·	- /	0.29	//	Sheet Flow, Segment 1
						Smooth surfaces n= 0.011 P2= 3.26"
3.6	42	7 0.00	94	1.97		Shallow Concentrated Flow, Segment 2
						Paved Kv= 20.3 fps
1.2	12	7 0.01	12	1.70		Shallow Concentrated Flow, Segment 3
	0		40	4.40		Unpaved Kv= 16.1 fps
0.4	2	7 0.00	48	1.12		Shallow Concentrated Flow, Segment 4
3.7	13	2 0.01	10	0.60		Unpaved Kv= 16.1 fps Shallow Concentrated Flow, Segment 5
3.7	13.	2 0.01	43	0.00		Woodland Kv= 5.0 fps
	0.1	. Tata				

14.6 813 Total

Subcatchment 1S:



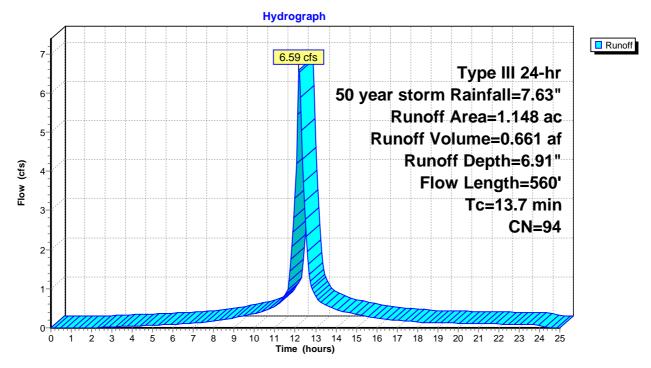
Summary for Subcatchment 2S:

Runoff = 6.59 cfs @ 12.18 hrs, Volume= 0.661 af, Depth= 6.91"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 50 year storm Rainfall=7.63"

	Area	(ac) (CN Des	cription		
	0.	109	77 Woo	ods, Good,	HSG D	
	0.	112	78 Mea	dow, non-	grazed, HS	G D
	0.	018	96 Grav	vel surface	, HSG D	
*	0.	909	98 impe	ervious		
	1.	148	94 Wei	ghted Ave	rage	
	0.	239	20.8	2% Pervio	us Area	
	0.909 79.18% Impervious Area				ious Area	
	Тс	Length		Velocity	Capacity	Description
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)	
	1.6	99	0.0098	1.04		Sheet Flow, Segment 1
						Smooth surfaces n= 0.011 P2= 3.26"
	2.6	351	0.0123	2.25		Shallow Concentrated Flow, Segment 2
						Paved Kv= 20.3 fps
	9.5	110	0.0059	0.19		Shallow Concentrated Flow, Segment 3
_						Forest w/Heavy Litter Kv= 2.5 fps
	13.7	560	Total			

Subcatchment 2S:

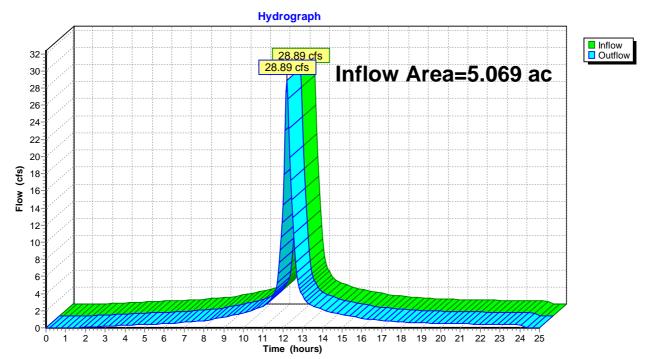


Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	5.069 ac, 86.60% Impervious, Inflow Depth = 7.15" for 50 year storm event	t
Inflow	=	28.89 cfs @ 12.19 hrs, Volume= 3.021 af	
Outflow	=	28.89 cfs @ 12.19 hrs, Volume= 3.021 af, Atten= 0%, Lag= 0.0 min	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



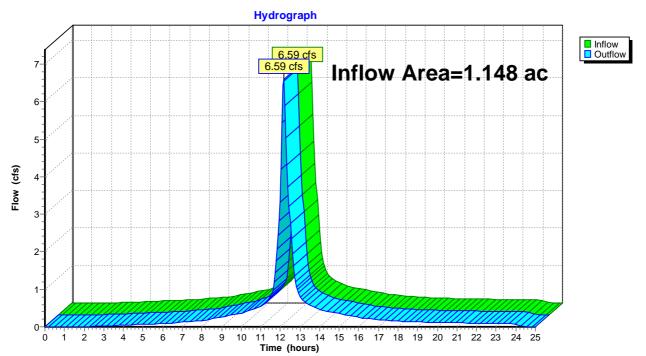
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	1.148 ac, 79.18% Impervious, Inflow Depth = 6.91" for 50 year storm	event
Inflow	=	6.59 cfs @ 12.18 hrs, Volume= 0.661 af	
Outflow	=	6.59 cfs @ 12.18 hrs, Volume= 0.661 af, Atten= 0%, Lag= 0.0 m	nin

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



Reach SP2:

SEABROOK CAPACITOR BANKS - POST CONSTRUCTION

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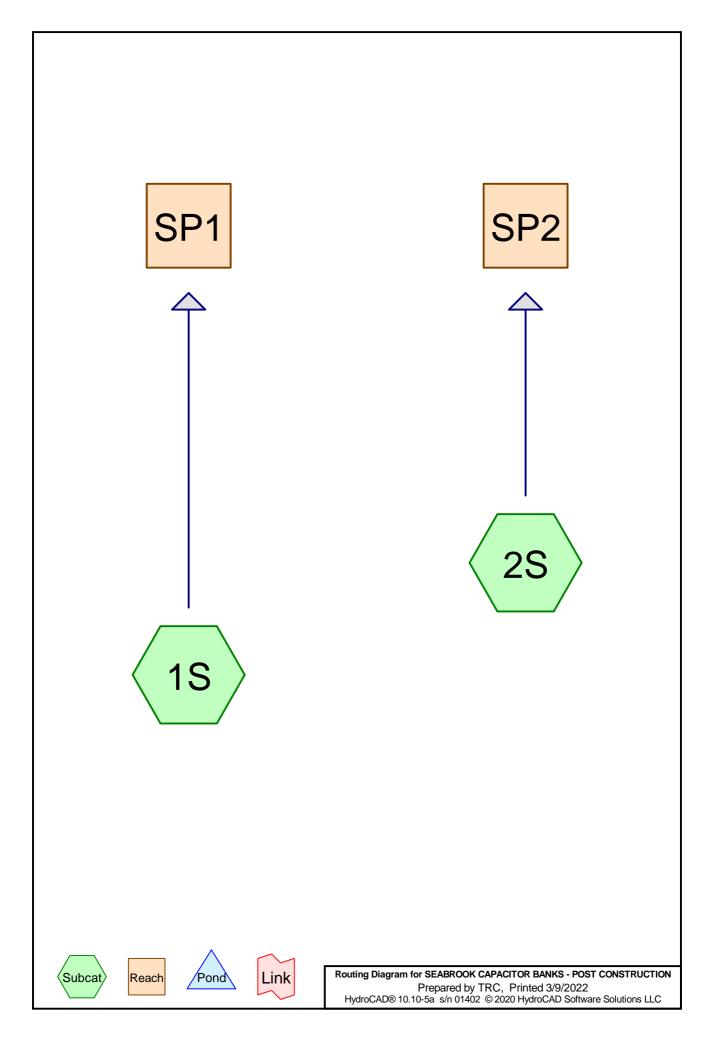
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SEABROOK CAPACITOR BANKS - POST CONSTRUCTION

Prepared by TRC	
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Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2 year storm	Type III 24-hr		Default	24.00	1	3.26	2
2	10 year storm	Type III 24-hr		Default	24.00	1	4.98	2
3	50 year storm	Type III 24-hr		Default	24.00	1	7.63	2

Rainfall Events Listing (selected events)

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Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.039	84	50-75% Grass cover, Fair, HSG D (1S)
0.090	96	Gravel surface, HSG D (1S, 2S)
0.714	98	Impervious (1S)
0.268	78	Meadow, non-grazed, HSG D (1S, 2S)
0.215	77	Woods, Good, HSG D (1S, 2S)
2.141	91	Yard stone, HSG D (1S, 2S)
2.750	98	impervious (2S)
6.217	94	TOTAL AREA

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Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
0.000	HSG A	
0.000	HSG B	
0.000	HSG C	
2.753	HSG D	1S, 2S
3.464	Other	1S, 2S
6.217		TOTAL AREA

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	-

		ISG-B acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchmen Numbers
0.	000	0.000	0.000	0.039	0.000	0.039	50-75% Grass cover, Fair	1S
0.	000	0.000	0.000	0.090	0.000	0.090	Gravel surface	1S, 2S
0.	000	0.000	0.000	0.000	0.714	0.714	Impervious	1S
0.	000	0.000	0.000	0.268	0.000	0.268	Meadow, non-grazed	1S, 2S
0.	000	0.000	0.000	0.215	0.000	0.215	Woods, Good	1S, 2S
0.	000	0.000	0.000	2.141	0.000	2.141	Yard stone	1S, 2S
0.	000	0.000	0.000	0.000	2.750	2.750	impervious	2S
0.	000	0.000	0.000	2.753	3.464	6.217	TOTAL AREA	

Ground Covers (all nodes)

SEABROOK CAPACITOR BANKS - POST CONSTType III 24-hr2 year storm Rainfall=3.26"Prepared by TRCPrinted 3/9/2022HydroCAD® 10.10-5as/n 01402© 2020 HydroCAD Software Solutions LLCPage 6

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=3.055 ac 23.37% Impervious Runoff Depth=2.41" Flow Length=526' Tc=16.3 min CN=92 Runoff=6.18 cfs 0.613 af
Subcatchment 2S:	Runoff Area=3.162 ac 86.97% Impervious Runoff Depth=2.81" Flow Length=736' Tc=15.7 min CN=96 Runoff=7.23 cfs 0.740 af
Reach SP1:	Inflow=6.18 cfs 0.613 af Outflow=6.18 cfs 0.613 af
Reach SP2:	Inflow=7.23 cfs 0.740 af Outflow=7.23 cfs 0.740 af
Total Runoff Area = 6.217	7 ac Runoff Volume = 1.353 af Average Runoff Depth = 2.61"

44.28% Pervious = 2.753 ac 55.72% Impervious = 3.464 ac

Summary for Subcatchment 1S:

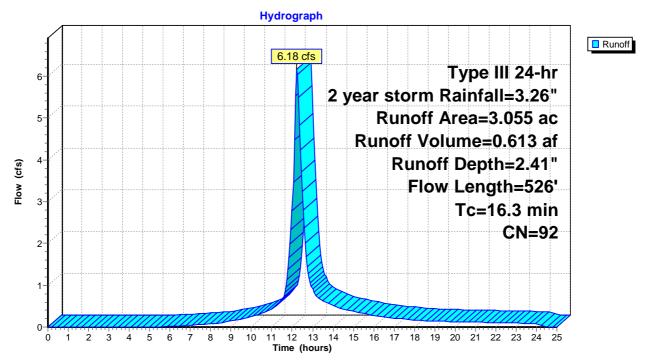
Runoff = 6.18 cfs @ 12.22 hrs, Volume= 0.613 af, Depth= 2.41"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 2 year storm Rainfall=3.26"

	Area	(ac)	CN	Desc	Description							
	0.	106	77	Woo	Woods, Good, HSG D							
	0.156 78 Meadow, non-grazed, HSG D											
	0.	039	84	50-7	5% Grass	cover, Fair	, HSG D					
	0.	072	96	Grav	el surface	, HSG D						
*	0.	714	98	Impe	ervious							
*	1.	968	91	Yard	stone, HS	G D						
	3.	055	92	Weig	ghted Aver	age						
	2.	341		76.6	3% Pervio	us Area						
	0.	714		23.3	7% Imperv	vious Area						
	Tc Length Slope Velocity Capacity				Velocity	Capacity	Description					
_	(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)						
	10.5	10	0.	0104	0.16		Sheet Flow, Segment 1					
							n= 0.120 P2= 3.26"					
	3.3	34	1 0.	0116	1.73		Shallow Concentrated Flow, Segment 2					
							Unpaved Kv= 16.1 fps					
	2.5	8	50.	0132	0.57		Shallow Concentrated Flow, Segment 5					
_							Woodland Kv= 5.0 fps					

16.3 526 Total

Subcatchment 1S:



Summary for Subcatchment 2S:

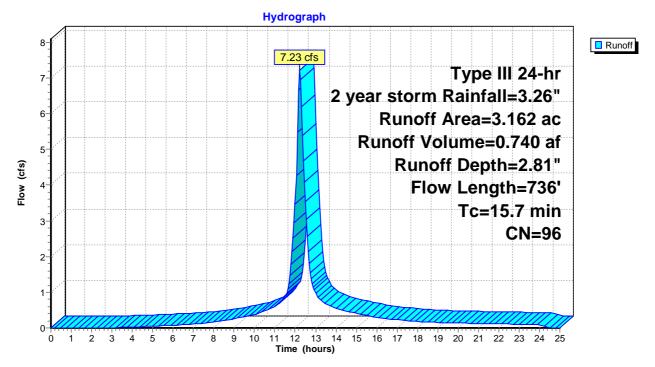
Runoff = 7.23 cfs @ 12.21 hrs, Volume= 0.740 af, Depth= 2.81"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 2 year storm Rainfall=3.26"

	Area	(ac) (CN Des	Description						
	0.	109	77 Woods, Good, HSG D							
	0.112 78 Meadow, non-grazed, HSG D									
	0.	018	96 Grav	vel surface	, HSG D					
*	2.	750		ervious						
*	0.	173	91 Yard	stone, HS	SG D					
				ghted Ave						
	-	412		3% Pervio						
	2.750 86.97% Impervious Area									
	Та	Longth	Clana	Valacity	Conositu	Description				
	Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description				
-	1.7	100	· · · /	0.97	(013)	Sheet Flow, Segment 1				
	1.7	100	0.0002	0.97		Smooth surfaces n= 0.011 P2= 3.26"				
	4.5	526	0.0091	1.94		Shallow Concentrated Flow, Segment 2				
	-1.0	020	0.0001	1.54		Paved $Kv = 20.3$ fps				
	9.5	110	0.0060	0.19		Shallow Concentrated Flow, Segment 3				
						Forest w/Heavy Litter Kv= 2.5 fps				
_	45 7	700	Tatal							

15.7 736 Total

Subcatchment 2S:

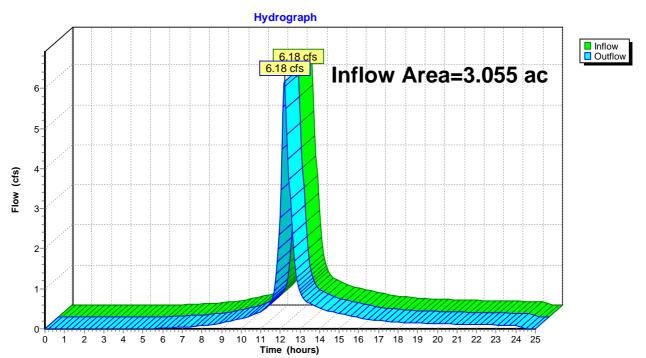


Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	3.055 ac, 23.37% Impervious, Inflow Dep	th = 2.41" for 2 year storm event
Inflow =	6.18 cfs @ 12.22 hrs, Volume= 0.	.613 af
Outflow =	6.18 cfs @ 12.22 hrs, Volume= 0.	.613 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



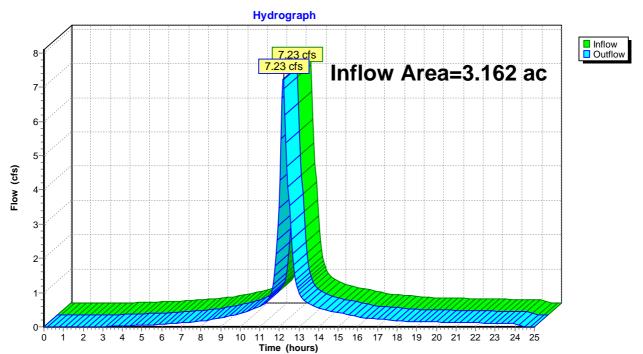
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Area =	3.162 ac, 86.97% Impervious, In	flow Depth = 2.81" for 2 year storm event
Inflow =	7.23 cfs @ 12.21 hrs, Volume=	0.740 af
Outflow =	7.23 cfs @ 12.21 hrs, Volume=	0.740 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



Reach SP2:

SEABROOK CAPACITOR BANKS - POST CONSType III 24-hr10 year storm Rainfall=4.98"Prepared by TRCPrinted 3/9/2022HydroCAD® 10.10-5a s/n 01402 © 2020 HydroCAD Software Solutions LLCPage 11

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=3.055 ac 23.37% Impervious Runoff Depth=4.07" Flow Length=526' Tc=16.3 min CN=92 Runoff=10.18 cfs 1.036 af
Subcatchment 2S:	Runoff Area=3.162 ac 86.97% Impervious Runoff Depth=4.51" Flow Length=736' Tc=15.7 min CN=96 Runoff=11.32 cfs 1.189 af
Reach SP1:	Inflow=10.18 cfs 1.036 af Outflow=10.18 cfs 1.036 af
Reach SP2:	Inflow=11.32 cfs 1.189 af Outflow=11.32 cfs 1.189 af
Total Runoff Area = 6.21	7 ac Runoff Volume = 2.225 af Average Runoff Depth = 4.30" 44.28% Pervious = 2.753 ac 55.72% Impervious = 3.464 ac

Summary for Subcatchment 1S:

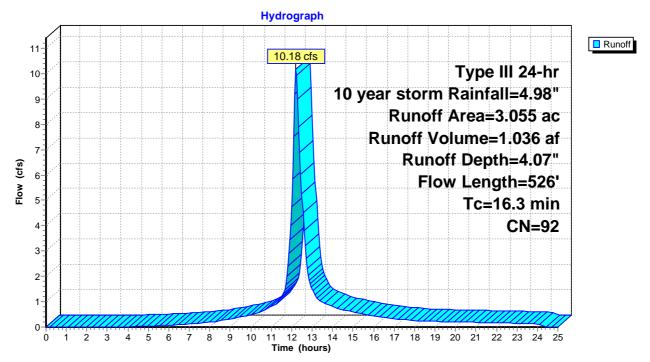
Runoff = 10.18 cfs @ 12.22 hrs, Volume= 1.036 af, Depth= 4.07"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 10 year storm Rainfall=4.98"

	Area	(ac)	CN	Desc	Description							
	0.	106	77	Woo	oods, Good, HSG D							
	0.	0.156 78 Meadow, non-grazed, HSG D										
	0.	039	84	50-7	5% Grass	cover, Fair	r, HSG D					
	0.	072	96	Grav	el surface	, HSG D						
*	0.	714	98	Impe	ervious							
*	1.	968	91	Yard	stone, HS	G D						
	3.	055	92	Weig	ghted Aver	age						
	2.	341		76.6	3% Pervio	us Area						
	0.	714		23.3	7% Imperv	vious Area						
	Тс	Lengt	h :	Slope	Velocity	Capacity	Description					
	(min)	(feet	:)	(ft/ft)	(ft/sec)	(cfs)						
	10.5	10	0 0	.0104	0.16		Sheet Flow, Segment 1					
							n= 0.120 P2= 3.26"					
	3.3	34	10	.0116	1.73		Shallow Concentrated Flow, Segment 2					
							Unpaved Kv= 16.1 fps					
	2.5	8	50	.0132	0.57		Shallow Concentrated Flow, Segment 5					
							Woodland Kv= 5.0 fps					

16.3 526 Total

Subcatchment 1S:



Summary for Subcatchment 2S:

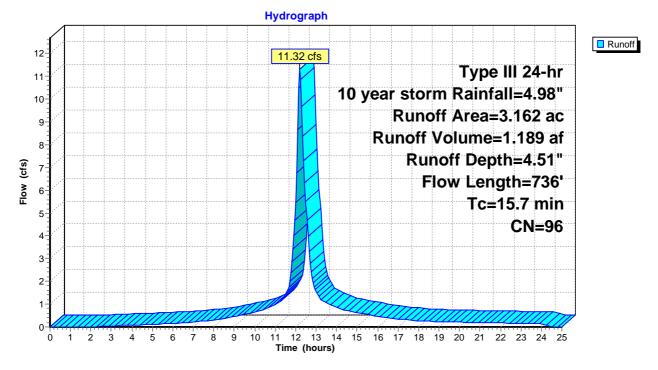
Runoff = 11.32 cfs @ 12.21 hrs, Volume= 1.189 af, Depth= 4.51"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 10 year storm Rainfall=4.98"

	Area	(ac) (CN De	Description						
	0.	109	77 W	oods, Good	, HSG D					
0.112 78 Meadow, non-grazed, HSG D										
	0.	018	96 Gr	avel surface	e, HSG D					
*	2.	750		pervious						
*	0.	173	<u>91 Ya</u>	rd stone, H	SG D					
	3.	162	96 W	eighted Ave	rage					
	-	412	-	.03% Pervi						
	2.750 86.97% Impervious Area									
	τ.	1		·	0	Development				
	Tc	Length				Description				
_	(min)	(feet)		/ / /	(cfs)					
	1.7	100	0.008	2 0.97		Sheet Flow, Segment 1				
						Smooth surfaces n= 0.011 P2= 3.26"				
	4.5	526	0.009	1 1.94		Shallow Concentrated Flow, Segment 2				
						Paved Kv= 20.3 fps				
	9.5	110	0.006	0 0.19		Shallow Concentrated Flow, Segment 3				
_						Forest w/Heavy Litter Kv= 2.5 fps				
		=	— · ·							

15.7 736 Total

Subcatchment 2S:

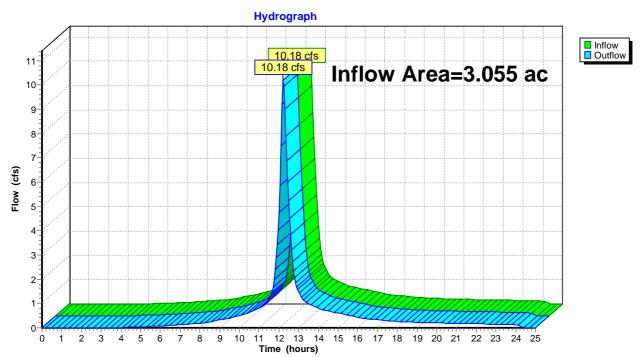


Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	3.055 ac, 23.37% Impervious, Inflow Depth =	4.07" for 10 year storm event
Inflow	=	10.18 cfs @ 12.22 hrs, Volume= 1.036 a	f
Outflow	=	10.18 cfs @ 12.22 hrs, Volume= 1.036 a	f, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



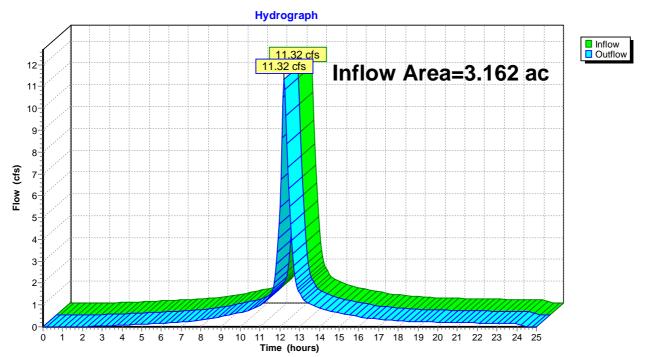
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	3.162 ac, 86.97% Impervious, Inflow Depth = 4.51" for 10 year storm event
Inflow	=	11.32 cfs @ 12.21 hrs, Volume= 1.189 af
Outflow	=	11.32 cfs @ 12.21 hrs, Volume= 1.189 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



Reach SP2:

SEABROOK CAPACITOR BANKS - POST CONSType III 24-hr50 year storm Rainfall=7.63"Prepared by TRCPrinted 3/9/2022HydroCAD® 10.10-5a s/n 01402 © 2020 HydroCAD Software Solutions LLCPage 16

Time span=0.00-25.00 hrs, dt=0.05 hrs, 501 points Runoff by SCS TR-20 method, UH=SCS, Weighted-CN Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment 1S:	Runoff Area=3.055 ac 23.37% Impervious Runoff Depth=6.68" Flow Length=526' Tc=16.3 min CN=92 Runoff=16.26 cfs 1.700 af
Subcatchment 2S:	Runoff Area=3.162 ac 86.97% Impervious Runoff Depth=7.15" Flow Length=736' Tc=15.7 min CN=96 Runoff=17.57 cfs 1.884 af
Reach SP1:	Inflow=16.26 cfs 1.700 af Outflow=16.26 cfs 1.700 af
Reach SP2:	Inflow=17.57 cfs 1.884 af Outflow=17.57 cfs 1.884 af
Total Runoff Area = 6.21	7 ac Runoff Volume = 3.584 af Average Runoff Depth = 6.92" 44.28% Pervious = 2.753 ac 55.72% Impervious = 3.464 ac

Summary for Subcatchment 1S:

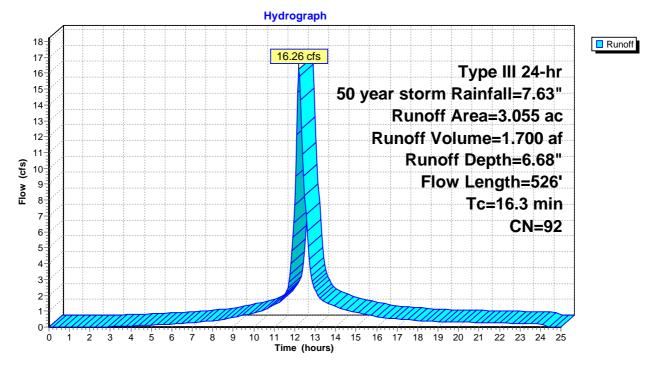
Runoff = 16.26 cfs @ 12.22 hrs, Volume= 1.700 af, Depth= 6.68"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 50 year storm Rainfall=7.63"

	Area	(ac)	CN	Desc	cription		
	0.	106	77	Woo	ds, Good,	HSG D	
	0.	156	78	Mea	dow, non-g	grazed, HS	G D
	0.	039	84	50-7	5% Grass	cover, Fair	r, HSG D
	0.	072	96	Grav	el surface	, HSG D	
*	0.	714	98	Impe	ervious		
*	1.	968	91	Yard	stone, HS	G D	
	3.	055	92	Weig	ghted Aver	age	
	2.	341		76.6	3% Pervio	us Area	
	0.	714		23.3	7% Imperv	vious Area	
	Тс	Lengt	h :	Slope	Velocity	Capacity	Description
	(min)	(feet	:)	(ft/ft)	(ft/sec)	(cfs)	
	10.5	10	0 0	.0104	0.16		Sheet Flow, Segment 1
							n= 0.120 P2= 3.26"
	3.3	34	10	.0116	1.73		Shallow Concentrated Flow, Segment 2
							Unpaved Kv= 16.1 fps
	2.5	8	50	.0132	0.57		Shallow Concentrated Flow, Segment 5
							Woodland Kv= 5.0 fps

16.3 526 Total

Subcatchment 1S:



Summary for Subcatchment 2S:

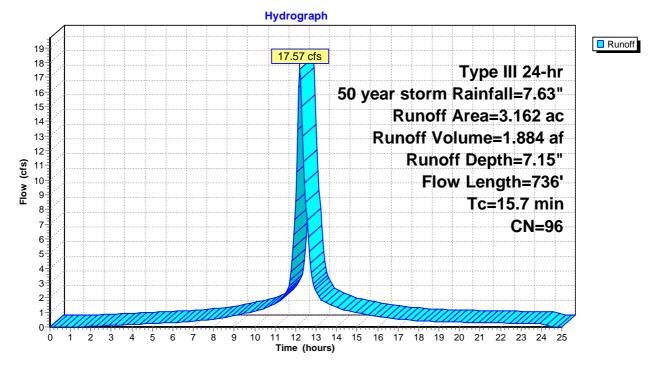
Runoff = 17.57 cfs @ 12.21 hrs, Volume= 1.884 af, Depth= 7.15"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs Type III 24-hr 50 year storm Rainfall=7.63"

_	Area	(ac)	CN	Desc	ription		
_	0.	109	77	Woo	ds, Good,	HSG D	
	0.	112	78	Mea	dow, non-g	grazed, HS	G D
	0.	018	96	Grav	el surface	, HSG D	
*	2.	750	98	impe	rvious		
*	0.	173	91	Yard	stone, HS	G D	
		162	96		phted Aver		
		412			3% Pervio		
	2.	750		86.97	7% Imperv	vious Area	
	т.	1				0	Description
	Tc	Lengt		Slope	Velocity	Capacity	Description
_	(min)	(feet	/	(ft/ft)	(ft/sec)	(cfs)	
	1.7	10	0.0	.0082	0.97		Sheet Flow, Segment 1
							Smooth surfaces n= 0.011 P2= 3.26"
	4.5	52	60.	.0091	1.94		Shallow Concentrated Flow, Segment 2
							Paved Kv= 20.3 fps
	9.5	11	0.0	.0060	0.19		Shallow Concentrated Flow, Segment 3
_							Forest w/Heavy Litter Kv= 2.5 fps
		=0	~ -				

15.7 736 Total

Subcatchment 2S:

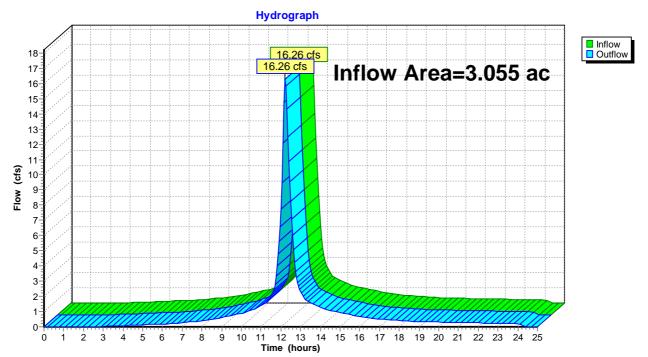


Summary for Reach SP1:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	a =	3.055 ac, 23.37% Impervious, Inflow Depth = 6.68" for 50 year storm event	[
Inflow	=	16.26 cfs @ 12.22 hrs, Volume= 1.700 af	
Outflow	=	16.26 cfs @ 12.22 hrs, Volume= 1.700 af, Atten= 0%, Lag= 0.0 min	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs



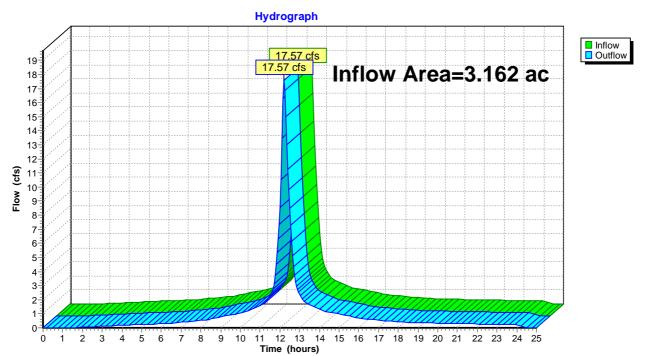
Reach SP1:

Summary for Reach SP2:

[40] Hint: Not Described (Outflow=Inflow)

Inflow Are	ea =	3.162 ac, 86.97% Impervious, Inflow Depth = 7.15" for 50 year storm event
Inflow	=	17.57 cfs @ 12.21 hrs, Volume= 1.884 af
Outflow	=	17.57 cfs @ 12.21 hrs, Volume= 1.884 af, Atten= 0%, Lag= 0.0 min

Routing by Dyn-Stor-Ind method, Time Span= 0.00-25.00 hrs, dt= 0.05 hrs

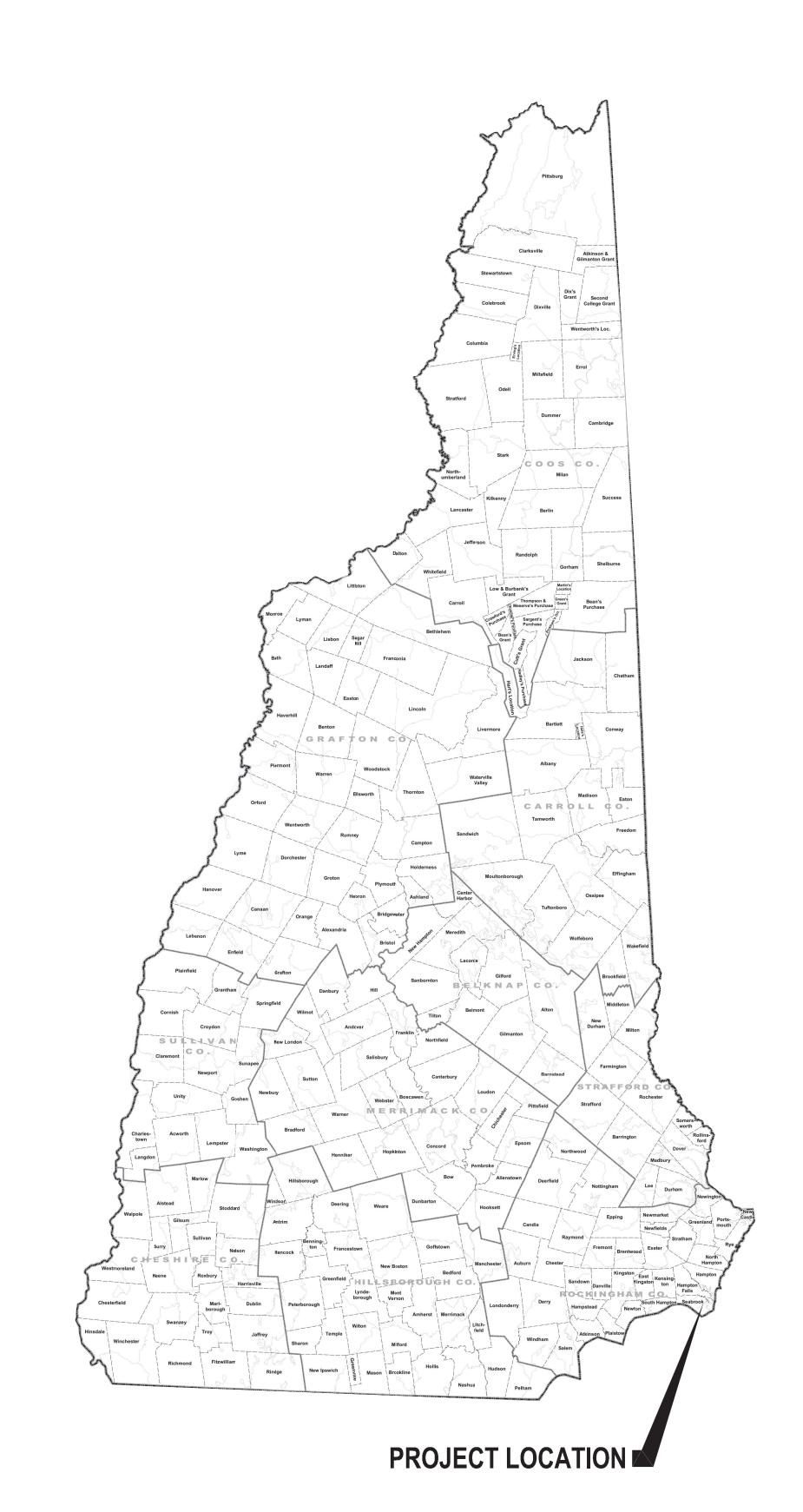


Reach SP2:

APPENDIX D

Issued For Permitting Plan Set

PRELIMINARY NOT FOR CONSTRUCTION



SEABROOK CAPACITOR BANKS BROWNS RIVER STATION

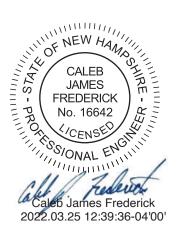
TOWN OF SEABROOK ROCKINGHAM COUNTY NEW HAMPSHIRE





DRAWING INDEX					
NO.	REV.	TITLE			
452267-100	А	GENERAL NOTES			
452267-101	В	SITE PLAN			
452267-102	В	EXISTING CONDITIONS AND REMOVALS PLAN			
452267-103	В	GRADING AND EROSION CONTROL PLAN			
452267-104	В	PRE CONSTRUCTION STORMWATER PLAN			
452267-105	В	POST CONSTRUCTION STORMWATER PLAN			
452267-106	А	EROSION AND SEDIMENT CONTROL DETAILS			





PRELIMINARY ISSUED FOR PERMIT NOT FOR CONSTRUCTION

GENERAL NOTES:

SURVEY NOTES

- 1. SURVEY PERFORMED BY WESTON & SAMPSON LAND ENGINEERS, INC. IN SEPTEMBER, 2021.
- 2. THIS SURVEY IS PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM.
- 4. ELEVATIONS AND CONTOURS SHOWN REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOID12B) AND ARE BASED ON PUBLICLY AVAILABLE LIDAR.
- 5. WETLANDS, WATERBODIES, AND THE SHORELAND REFERENCE LINE WERE DELINEATED ON OCTOBER 20 AND 21, 2021 BY TRC WETLAND SCIENTIST HEATHER STORLAZZI WARD, NHCWS #206. WETLAND DELINEATIONS WERE CONDUCTED ACCORDING TO THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, V2 (USACE 2012)". THE COASTAL WATERS SHORELAND REFERENCE LINE WAS DELINEATED IN ACCORDANCE WITH NEW HAMPSHIRE'S RSA SECTION 483-B:4 XVII(B.).
- 6. SOILS INFORMATION FROM USDA-NRCS WEB SOIL SURVEY ROCKINGHAM COUNTY DATED JANUARY 2022.

REMOVAL NOTES:

- 1. TREE REMOVAL SHALL BE IN CONFORMANCE WITH THE EXISTING CONDITIONS & REMOVALS PLAN.
- 2. TREES AND OTHER VEGETATION MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND USED AS REQUIRED FOR EROSION CONTROL. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM REMOVAL OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 3. ALL EXISTING DEBRIS, RUBBISH, AND ABANDONED ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 4. ALL DEMOLITION WASTE, DEBRIS AND RUBBISH SHALL BE PROPERLY REMOVED FROM THE SITE AS IT OCCURS. ALL MATERIALS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 5. TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

EXCAVATION AND BACKFILL NOTES:

- 1. ALL THE EXCAVATION, BACKFILLING, AND COMPACTION SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SEABROOK STATION MS0517.19.
- COMPACTION TESTING SHALL BE PERFORMED ON ALL RE-COMPACTED SUBGRADE.
- 3. IF APPLICABLE, GRANULAR BACKFILL SHALL BE SELECTED FROM SUITABLE OFF-SITE SOURCES AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO TRANSPORT TO THE SITE.
- 4. THE CONTRACTOR SHALL SUBMIT GRADATION DATA FOR GRANULAR BACKFILL MATERIALS TO THE OWNER FOR REVIEW.
- 5. CONTROLLED LOW-STRENGTH MATERIAL (C.L.S.M.) FILL MAY BE USED FOR BACKFILL IN LIEU OF GRANULAR BACKFILL PER MS0517.19.
- 6. WITHIN THE AUR, IF UNANTICIPATED CONDITIONS AND POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER.
- 7. ENGINEER SHALL DESIGNATE TEMPORARY STOCKPILE AREAS WITHIN PROJECT LIMITS TO ENSURE STOCKPILE LOCATIONS ARE NOT STAGED NEAR SENSITIVE HUMAN HEALTH RECEPTORS SUCH AS PUBLIC AND PRIVATE WATER SUPPLY WELLS OR SENSITIVE ENVIRONMENTAL RECEPTORS SUCH AS
- 8. CONTRACTOR SHALL SEGREGATE AND STOCKPILE POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS AS FOLLOWS:
- 8.1. CONTRACTOR SHALL MANAGE STOCKPILES TO PREVENT DISCHARGE OF CONTAMINATES TO GROUNDWATER AND SURROUNDING SOIL.
- 8.2. CONTRACTOR SHALL ENSURE STORMWATER RUNOFF IS DIVERTED AROUND AND AWAY FROM STOCKPILED MATERIALS.
- 8.3. CONSTRUCT STOCKPILES ON A DOUBLE LAYER OF 6-MIL POLYETHYLENE SHEETING. 8.4. COVER STOCKPILES WITH A SINGLE LAYER OF 6-MIL POLYETHYLENE SHEETING AND SECURE TO PREVENT DISTURBANCE BY WIND.
- TRANSFER OF POTENTIALLY CONTAMINATED MATERIALS FROM THE EXCAVATION TO DESIGNATED 8.5.
- STOCKPILE AREAS SHALL BE CONDUCTED IN A MANNER TO LIMIT THE SPREAD OF CONTAMINATION. 8.6. CONTRACTOR SHALL IDENTIFY THE STOCKPILE WITH ORIGIN AND DATE OF GENERATION.
- 8.7. CONTRACTOR SHALL SECURE STOCKPILE AREA WITH CAUTION FLAGGING, FENCING, OR OTHER MEANS AS NECESSARY TO PREVENT UNAUTHORIZED ACCESS AND LIMIT CONTACT OF SITE WORKERS TO STOCKPILED MATERIALS.
- 9. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING AND ANALYZING SAMPLES OF POTENTIALLY CONTAMINATED MATERIAL FOR DISPOSAL CHARACTERIZATION AND PROVIDING CONTRACTOR WITH COPIES OF LABORATORY REPORTS.
- 10. CONTRACTOR SHALL DISPOSE OF CONTAMINATED MATERIAL AT AN APPROVED OFF-SITE FACILITY. DOCUMENTATION OF HANDLING, MANAGEMENT, TRANSPORTATION AND OFF-SITE DISPOSAL INCLUDING BUT NOT LIMITED TO MANIFESTS. WEIGHT-TICKETS, ANALYTICAL REPORTS OR WASTE PROFILES, SHALL BE PROVIDED TO THE OWNER.

CONTRACTOR NOTES:

- 1. UNLESS INDICATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR FOR ROAD AND BRIDGE CONSTRUCTION (2016) FOR GENERAL REQUIREMENTS, PRODUCTS AND EXECUTION RELATED TO CONSTRUCTION OF BUT NOT LIMITED TO; CLEARING, GRUBBING, ROADS, UTILITY TRENCH EXCAVATION, BORROW, SUBGRADE, SUBBASE, GRANULAR FILL, AND AGGREGATE BASE
- 2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MARK OR DELINEATE THE FOLLOWING PROJECT FEATURES USING APPROPRIATE MEANS, INCLUDING BUT NOT LIMITED TO LATH MARKERS, SURVEYORS RIBBON, PIN FLAGS, BARRIER FENCE, OR SUITABLE EQUIVALENT. A.PROPOSED FACILITY COMPONENTS DEPICTED ON THE CONSTRUCTION DRAWINGS
- **B. STREAMS AND WETLANDS**
- C. VEHICLE TRAVEL CORRIDORS, STREAM CROSSING LOCATIONS
- D.LIMITS OF CLEARING AND DISTURBANCE
- E. PROTECTED CULTURAL AND NATURAL RESOURCES
- 3. THE CONTRACTOR SHALL NOTE THE CONDITION OF ANY EXISTING FEATURES NOT INDICATED FOR REMOVAL THAT MAY BE IMPACTED BY PROJECT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FEATURES AT THEIR EXPENSE.
- 4. DISRUPTION TO REGULATED WETLANDS AND PROTECTED HABITAT SHALL BE MINIMIZED. THE CONTRACTOR SHALL NOTIFY NHDES FIELD REPRESENTATIVE, AND THE APPLICANT'S REPRESENTATIVE OF ANY ACTIVITIES THAT VIOLATE OR MAY VIOLATE EITHER THE TERMS OF THE CERTIFICATE OR THE ENVIRONMENTAL CONSERVATION LAW. DES STAFFS' FIELD REPRESENTATIVES WILL WORK COOPERATIVELY TO DETERMINE WHETHER STOP WORK AUTHORITY WILL BE EXERCISED. OR WHETHER TO DIRECT THE APPLICANT TO TAKE ACTION TO FURTHER MINIMIZE IMPACTS TO STREAMS AND WETLANDS.

- INCLUDE THE FOLLOWING RESTRICTIONS:
- FEET OF WETLANDS;
- B. NO UNNECESSARY REMOVAL OF WOOD VEGETATION WITHIN WETLAND AND STREAM BUFFERS OR DEGRADATION OF STREAM BANKS;
- PROJECT DOCUMENTS;
- CONTAINERS.
- 6. AT THE END OF EACH WORK DAY ALL EQUIPMENT AND MACHINERY SHALL BE STORED AND SAFELY
- PETROLEUM PRODUCTS.
- CONTAINED AND SPILLS CLEANED UP IMMEDIATELY.
- REQUIREMENTS.
- DESIGNATED PARKING AND MATERIAL LAYDOWN AREAS.

GENERAL ENVIRONMENTAL RESTRICTIONS:

- DOCUMENTS.
- VEHICLE CONTAINING AN APPROVED CHEMICAL TREATMENT) SHALL BE MADE AVAILABLE AS NEEDED.
- NOISE BUFFER.
- LIFE IS EXPRESSLY PROHIBITED.
- (LATEST EDITION).

NON-AGRICULTURAL LAND RESTRICTIONS

- LIMITED TO, THE FOLLOWING:
- A. TOPSOIL STRIPPING AND STOCKPILING, B. USE OF CONSTRUCTION MATTING, LAYER,
- D. REGRADING AND SPREADING PREVIOUSLY STRIPPED TOPSOIL, E. DRAINAGE SYSTEM REPAIR OR ALTERATION.
- PRESCRIBED BY THE PERMIT.
- TREATMENTS:
- AND ALLOWED TO RE-VEGETATE NATURALLY.
- BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.
- 5. TOPSOIL STRIPPED FROM WORK SITES SHALL BE SEGREGATED FROM OTHER SOIL PRODUCTS AND USED FOR RESTORATION OF THAT SITE.



5. RESTRICTED ACTIVITIES PERTAIN TO A BUFFER ZONE OF 100 FEET ON EITHER SIDE OF THE BOUNDARIES OF WATER-RELATED RESOURCES (STREAMS, WETLANDS, SPRINGS, WELLS, DRAINAGE, ETC.) AND

A.NO DEPOSITION OF SLASH WITHIN IDENTIFIABLE STREAM CHANNELS OR WOOD CHIPS WITHIN 25

C.NO EQUIPMENT WASHING OR REFUELING EXCEPT AS SPECIFICALLY PERMITTED BY THE FINAL

D. AND NO STORAGE, MIXING, OR HANDLING OF ANY PETROLEUM OR CHEMICAL MATERIALS IN OPEN

CONTAINED MORE THAN 100 FEET LANDWARD OF ANY REGULATED WETLAND OR WATER BODY. 7. ALL MOBILE EQUIPMENT, EXCLUDING DEWATERING PUMPS, SHALL BE FUELED IN LOCATIONS THAT ARE A MINIMUM OF 100 FEET FROM THE TOP OF STREAM BANK, WETLAND, OR WATER BODY. DEWATERING PUMPS OPERATING CLOSER THAN 100 FEET FROM THE STREAM BANK WETLAND, OR WATER BODY MUST BE ON AN IMPERVIOUS SURFACE WITH ABSORBENTS CAPABLE OF CONTAINING ANY LEAKAGE OF

8. ALL EQUIPMENT USED WITHIN BED OR BANKS OF STREAMS OR IN REGULATED WETLANDS AND 100-FOOT WETLAND BUFFER ZONES MUST BE INSPECTED DAILY FOR LEAKS OF PETROLEUM, OTHER FLUIDS, OR CONTAMINANTS. EQUIPMENT FOUND TO BE LEAKING SHALL BE REMOVED FROM THE WORK SITE; LEAKS

9. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE SPECIFIC CUT AND FILL CONSTRUCTION

10. ALL VEHICLE TRAFFIC AND PARKING SHALL BE CONFINED TO THE DESIGNATED WORK AREAS, AND/OR

1. ALL EQUIPMENT ACCESS, STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING, AND OTHER CONSTRUCTION ACTIVITIES ARE RESTRICTED TO THE DESIGNATED ACCESS ROADS, LAYDOWN AREAS, SUBSTATION SITE, COLLECTION LINE AND TRANSMISSION LINE ROUTES AS INDICATED BY THE PROJECT

2. FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. THESE MEASURES INCLUDE THE APPLICATION OF MULCH, WATER, OR STONE ON ACCESS ROADS, EXPOSED SOILS, STOCKPILED SOILS, OR UNPAVED PUBLIC ROADS WHEN DRY, WINDY CONDITIONS EXIST. A WATERING VEHICLE (OR A

3. CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITION. ALL MOTORS AND ENGINES SHALL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH STATE ENVIRONMENTAL LAW. ANY FAULTY NOISE SUPPRESSOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EQUIPMENT SHALL NOT BE LEFT RUNNING UNNECESSARILY. EXISTING TALL GROWING VEGETATION SHALL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE, TO SERVE AS A

4. ALL FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, SAND, AND/OR GRAVEL THAT IS FREE OF THE FOLLOWING SUBSTANCES: ASPHALT, SLAG, FLY ASH, DEMOLITION DEBRIS, BROKEN CONCRETE, GARBAGE, HOUSEHOLD REFUSE, TIRES, WOODY MATERIALS, AND METAL OBJECTS. REASONABLE EFFORTS SHALL BE MADE TO USE FILL MATERIALS THAT ARE VISUALLY FREE OF INVASIVE SPECIES BASED ON ONSITE AND SOURCE INSPECTIONS. THE INTRODUCTION OF MATERIALS TOXIC TO AQUATIC

5. INDIRECT IMPACTS TO STREAMS AND WETLANDS SHALL BE CONTROLLED THROUGH THE EMPLOYMENT OF APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED STATION PROCEDURES. MEASURES TO BE EMPLOYED SHALL INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, CHECK DAMS, MULCH, TEMPORARY SEEDING, AND OTHER PRACTICES AS OUTLINED IN THE NEW HAMPSHIRE STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

6. IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS, HUMAN REMAINS, OR EVIDENCE OF HUMAN BURIALS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE VICINITY OF THE FIND SHALL BE IMMEDIATELY HALTED AND THE APPROPRIATE STATION PERSONNEL SHALL BE NOTIFIED. 7. EXCESS CONCRETE AND EXCAVATION SPOILS SHALL BE PROPERLY DISPOSED OF OFF SITE.

1. NON-AGRICULTURAL LAND MITIGATION, RESTORATION, AND CLEAN UP MAY INCLUDE, BUT IS NOT

C.PLACEMENT AND COMPACTION OF STONE BEARING LAYER WITH OR WITHOUT GEOSYNTHETIC

2. TEMPORARY GRAVEL ROADS, TEMPORARY CULVERTS, TIMBER MATS, AND SIMILAR TEMPORARY MEASURES SHALL BE REMOVED AND THE IMPACTED AREAS RESTORED WITHIN THE TIMEFRAME

3. RESTORATION OF DISTURBED AREAS, TEMPORARY ROADS AND WORK PLATFORMS ON NON-AGRICULTURAL LANDS SHALL INCLUDE THE FOLLOWING PRE- AND POST-CONSTRUCTION

A. TOPSOIL WITHIN CONSTRUCTION AREA SUBJECT TO VEHICLE TRAFFIC, MATERIAL STOCKPILING OR

OTHER POTENTIALLY HARMFUL ACTIVITY SHALL BE STRIPPED AND STOCKPILED. B. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY ROADS AND WORK SITES SHALL BE SCARIFIED/DECOMPACTED AND STOCKPILED SOIL SPREAD AND THE AREA STABILIZED

C. APPROVED SWPPP/ESC CONTROLS, INCLUDING BIODEGRADABLE MEASURES, SHALL BE PROVIDED

AND SHALL REMAIN IN PLACE UNTIL THE RESTORED AREA HAS BEEN RE-VEGETATED. 4. ALL EXISTING DRAINAGE AND EROSION CONTROL FEATURES NOT INDICATED FOR REMOVAL SHALL BE

AVOIDED OR PROTECTED FROM DAMAGE. ANY FEATURES DISTURBED DURING CONSTRUCTION SHALL

STOCKPILED IN AREAS IMMEDIATELY ADJACENT TO WHERE IT WAS REMOVED. THE TOPSOIL SHALL BE

EROSION & SEDIMENT CONTROL NOTES

- 1. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- 3. TEMPORARY WATER DIVERSION SHOULD BE USED AS NECESSARY UNTIL DISTURBED AREAS ARE
- STABILIZED. 4. ALL CUT AND FILL SLOPES SHALL BE LOAMED/SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 5. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY, AND AFTER EVERY HALF-INCH OF RAINFALL
- 6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 7. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

WINTER CONSTRUCTION NOTES

FOR WORK PROPOSED DURING THE WINTER SEASON (TYPICALLY NOVEMBER 1 - APRIL 15), THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PRACTICES:

- 1. LIMIT THE TOTAL AREA OF EXPOSED SOIL TO THAT IN WHICH EARTH WORK CAN BE COMPLETED WITHIN 15 DAYS AND MULCHED WITHIN ONE DAY PRIOR TO A SNOW EVENT.
- 2. EXPOSED SOIL MAY BE LEFT BARE FOR NO MORE THAN 15 DAYS.
- 3. MULCH ALL EXPOSED SOIL WHERE NO ACTIVITY IS SCHEDULED WITHIN 7 DAYS AND PRIOR TO A FORECASTED SNOW EVENT OF MORE THAN 1 INCH.
- 4. WHERE PRACTICABLE, MULCH SHOULD BE APPLIED AT THE END OF EACH DAY'S WORK FOR AREAS THAT ARE FINAL GRADED. OTHERWISE, MULCH THE FOLLOWING DAY. 5. DO NOT APPLY MULCH OVER MORE THAN 1 INCH OF SNOW.
- 6. HAY OR STRAW MULCH SHALL BE APPLIED AT 140 LBS/1000 S.F. (APPROX.. 4 BALES) AND SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- 7. ECM IS THE PREFERRED MULCHING MATERIAL AND SHALL BE APPLIED AT A MINIMUM 4 INCH THICKNESS, WITH HIGHER AMOUNTS AS DESCRIBED HEREIN.
- 8. ECM IS THE PREFERRED EROSION CONTROL BARRIER. IF ECM IS NOT AVAILABLE, INSTALLATION OF SILT FENCE ON FROZEN GROUND MAY BE MODIFIED FROM ILLUSTRATIONS AND DETAIL DRAWINGS TO SUBSTITUTE SIX INCHES OF SUITABLE NON-ORGANIC MATERIAL OVER THE BOTTOM OF THE SILT FENCE IN LIEU OF TRENCHING AND BACKFILLING FABRIC.
- 9. A DOUBLE ROW OF EROSION CONTROL BARRIER WILL BE USED WHERE REQUIRED WITHIN 100 FEET OF WETLANDS AND WATER BODIES.
- 10. INSPECTION OF EROSION CONTROL MEASURES AND ANY NEEDED REPAIR/REPLACEMENT OF WHICH SHALL OCCUR EACH DAY.
- 11. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH NETTING, ELSEWHERE.
- 12. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS
- 13. AFTER OCTOBER 15, 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 PER NHDOT ITEM 304.3.

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MULCH AND SEEDING SPECIFICATIONS

	OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS
TEMPORARY	
WITHIN 100 FEET OF WETLANDS AND WATERBODIES	APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED 3 MUST BE DONE WITHIN 48 HOURS OF INITIAL SOIL DISTURBANCE AND BEFORE FORECASTED STORM EVENTS, UNLESS OTHERWISE SPECIFIED. IF FINAL RESTORAT IS NOT SCHEDULED WITHIN 30 DAYS, APPLY ANNUAL RYEGRASS AT 1LB/1000 S.F.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES LESS THAN 8% AND SOILS STOCKPILES	IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL*, UNLESS SPECIFIED OTHERWISE. E MAY BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1 LB/1000 S.F. FOR AREAS WHERE ADDITIONA ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. AN EROSION CONTROL BARRIER MUST BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES GREATER THAN 8%	IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS OR PRIOR TO A STORM EVENT, APPLY HAY OR STRAW MULCH AT THE ABOVE RATES.* HAY OR STRAW MUST ANCHORED, UNLESS SPECIFIC SITE CONDITIONS DO NOT REQUIRE USE OF ANCHOR ECM** OR MATTING MAY ALSO BE USED. TEMPORARY SEEDING WITH ANNUAL RYEG AT 1LB/1000 S.F. IS ALSO RECOMMENDED FOR AREAS WHERE FINAL STABILIZATION I NOT EXPECTED FOR SEVERAL MORE WEEKS.
TEMPORARY SEEDBED PREPARATION	APPLY LIMESTONE AND FERTILIZER (UPLANDS ONLY) ACCORDING TO SOIL TEST DAT SOIL TEST IS NOT POSSIBLE, 10-0-10 FERTILIZER MAY BE APPLIED AT A RATE OF 600 LBS/ACRE AND LIMESTONE AT 3 TONS/ACRE. LOOSEN COMPACTED SOILS.
TEMPORARY SEEDING IN WETLANDS	IF REQUIRED, APPLY ANNUAL RYEGRASS AT A RATE OF 1 LB/1000 S.F. AND COVER W STRAW MULCH. DO NOT ADD LIME OR FERTILIZER TO WETLANDS.
FINAL RESTORATION	
PERMANENT MULCHING	ECM CAN BE USED AS A TEMPORARY OR PERMANENT SLOPE REINFORCEMENT AND TO RE-VEGETATE TO NEAR NATURAL CONDITIONS. IT IS NOT USED WHERE GRASS VEGETATION IS REQUIRED. RE-VEGETATION CAN BE ENHANCED BY SEEDING, WHIC ENCOURAGED IF USED AS A PERMANENT STABILIZATION MEASURE. PERMANENT MU MUST NOT BE USED IN AREAS OF CONCENTRATED WATER FLOWS AND EVIDENCE OF GROUNDWATER SEEPAGE ON SLOPES MAY REQUIRE THE ECM TO BE REPLACED WI RIPRAP.
	 ON SLOPES THAT ARE 3H:1V OR LESS, ECM SHALL BE APPLIED AT A MINIMUM OF INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FI (E.G. 3 INCHES THICK FOR 60 FEET OF SLOPE; 4 INCHES THICK FOR 100 FEET OF SLOPE). FOR SLOPES BETWEEN 3H:1V AND 2H:1V, ECM WILL BE APPLIED 4 INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 5 INC THICK FOR 60 FEET OF SLOPE; 6 INCHES THICK FOR 100 FEET OF SLOPE) ECM MUST BE SPREAD EVENLY AND MUST PROVIDE 100 PERCENT SOIL COVERAGE
PERMANENT RE-VEGETATION	PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANEN SEEDING MIX SPECIFICATIONS ARE BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEAS ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES SHEET G-2).

* MULCH APPLICATION RATES SHALL BE DOUBLED FOR WINTER CONSTRUCTION **MINIMUM ECM THICKNESS IS 4 INCHES FOR WINTER CONSTRUCTION

PERMANEN	ERMANENT SEED MIX SPECIFICATIONS						
	SOIL AMENDMENTS	SEED MIX VARIETIES	SEED RATE, LB/ACRE	MULCH, TONS/ACRE			
UPLAND	APPLY GROUND LIMESTONE @ 3 TONS/ACRE	CREEPING RED FESCUE/(PENNLAWN, ENSYLA, WINTERGREEN)	20	1.5-2 (90-100 BALES)			
	APPLY 10-20-20 FERTILIZER @ 800 LBS/ACRE	REDTOP/(ANY NATIVE SPECIES)	2				
		TALL FESCUE/(KENTUCKY 31)	20				
WETLAND	NONE	ANNUAL RYEGRASS, IF REQUIRED (ANY NATIVE SPECIES)	40	1.5-2 (90-100 BALES)			

INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING.

 ADD WINTER RYE TO THE UPLAND MIX AT A RATE OF 120 LB/ACRE AFTER OCTOBER 1 • SEED OR MULCH WETLANDS ONLY WHERE REQUIRED BY THE EI OR 3PI, OR WHEN RESTORATION OCCURS AFTER

OCTOBER 1. TYPICALLY, REPLACING THE ORIGINAL WETLAND SOIL ON THE RESTORED SURFACE WILL PROVIDE AN ADEQUATE SEED BED. DO NOT LIME OR FERTILIZE ANY AREAS WITHIN THE WATER BODY BUFFERS OR WETLANDS.

MULCH WETLANDS WITH WEED-FREE STRAW ONLY.

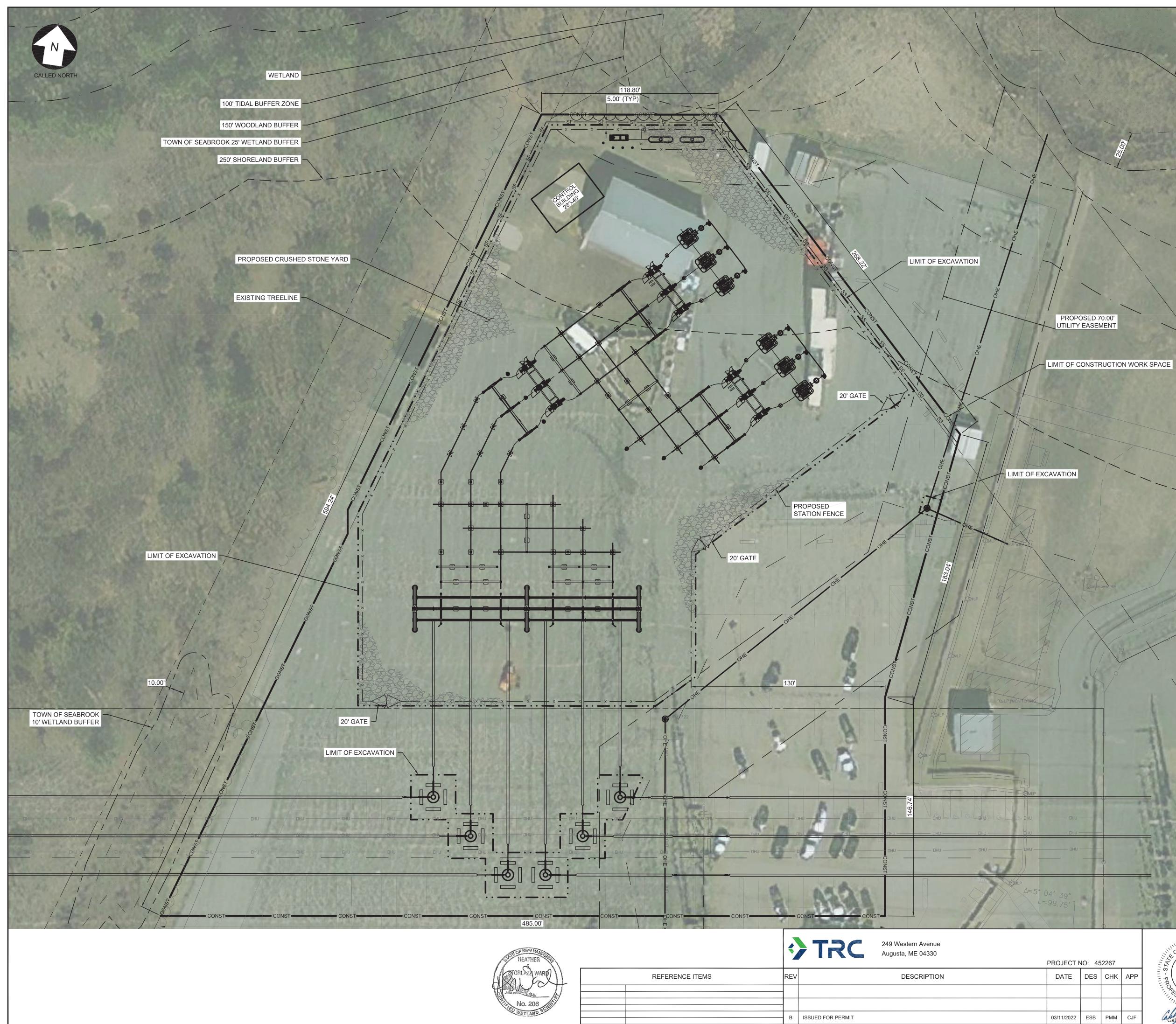
THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL RE-VEGETATED AREAS UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. FOLLOWING FINAL SEEDING THE CONTRACTOR WILL INSPECT RESTORED AREAS EVERY 30 DAYS UNTIL 90 PERCENT VEGETATIVE COVER HAS BEEN ESTABLISHED UNLESS ADJACENT. UNDISTURBED AREAS INDICATE THAT ACHIEVING THAT LEVEL OF VEGETATION IN THE AREA IS UNLIKELY. WHERE SEEDED AREAS HAVE BECOME ERODED OR DAMAGED BY CONSTRUCTION OPERATIONS, OR WHERE POOR GERMINATION IS OBSERVED, THE AFFECTED AREAS WILL BE PROMPTLY RE-GRADED, LIMED, FERTILIZED, AND RE-SEEDED AS NEEDED UNTIL THE ABOVE CRITERIA ARE MET. THE CONTRACTOR MAY BE REQUIRED TO RE-SEED DURING THE FOLLOWING SPRING IN ORDER TO ACHIEVE THE REQUIRED VEGETATIVE COVER

ES CHK APP	CALEB JAMES FREDERICK No. 16642	TRC DESIGNED ESB DRAWN PMM CHECKED CJF APPROVED	GENERAL NOTES SEABROOK CAPACITOR BANKS BROWNS RIVER STATION
SB PMM CJF	Caleb James Frederick 2022.03.25 12:39:55-04'00'	REVIEW 1	2/13/22 DATETRC452267-100REV AAS NOTED SCALESCALEA

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SHORELAND REFERENCE LINE

LEGEND

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	TOWN OF SEABROOK WETLAND BUFFER
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	150' WOODLAND BUFFER
	250' SHORELAND BUFFER
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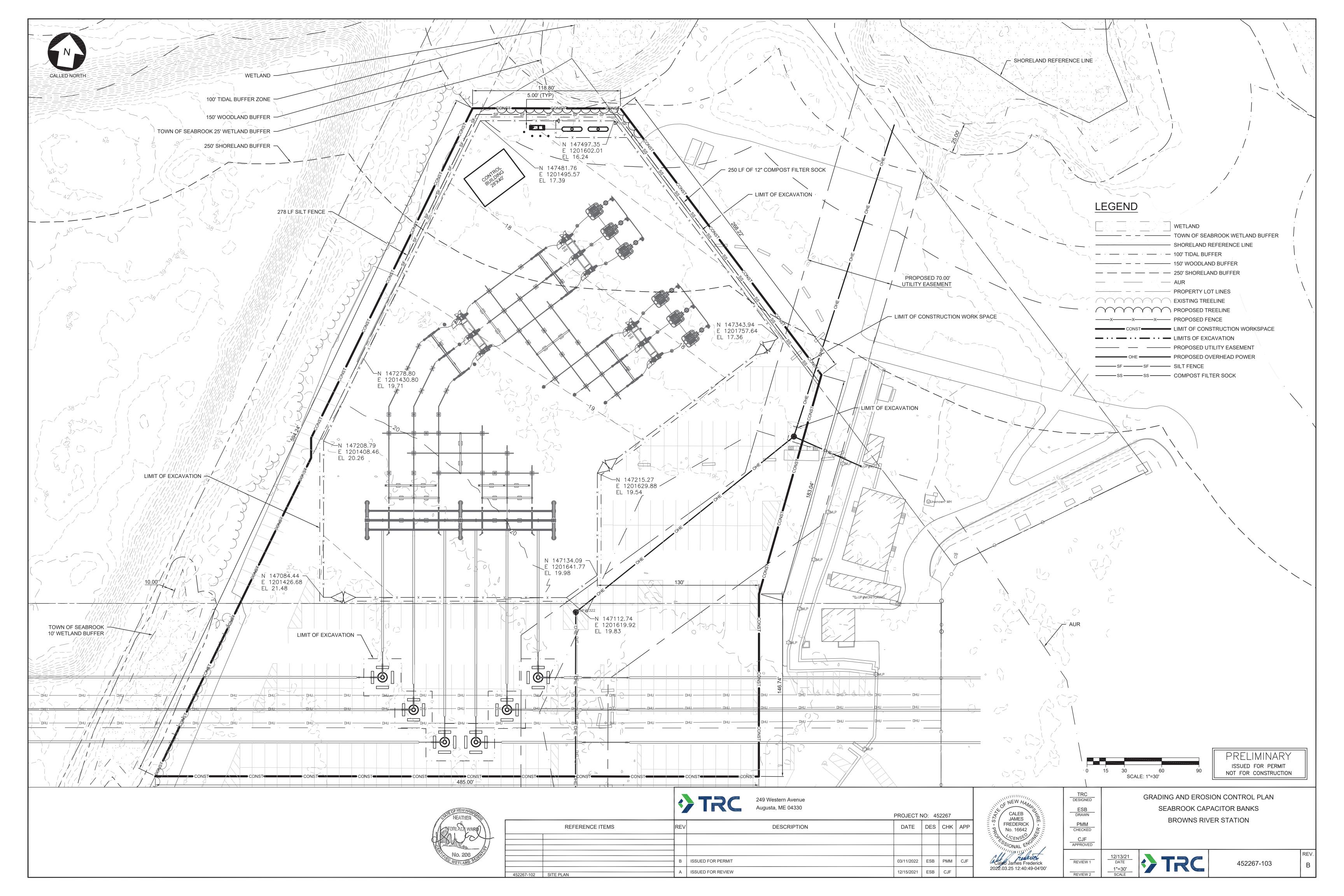
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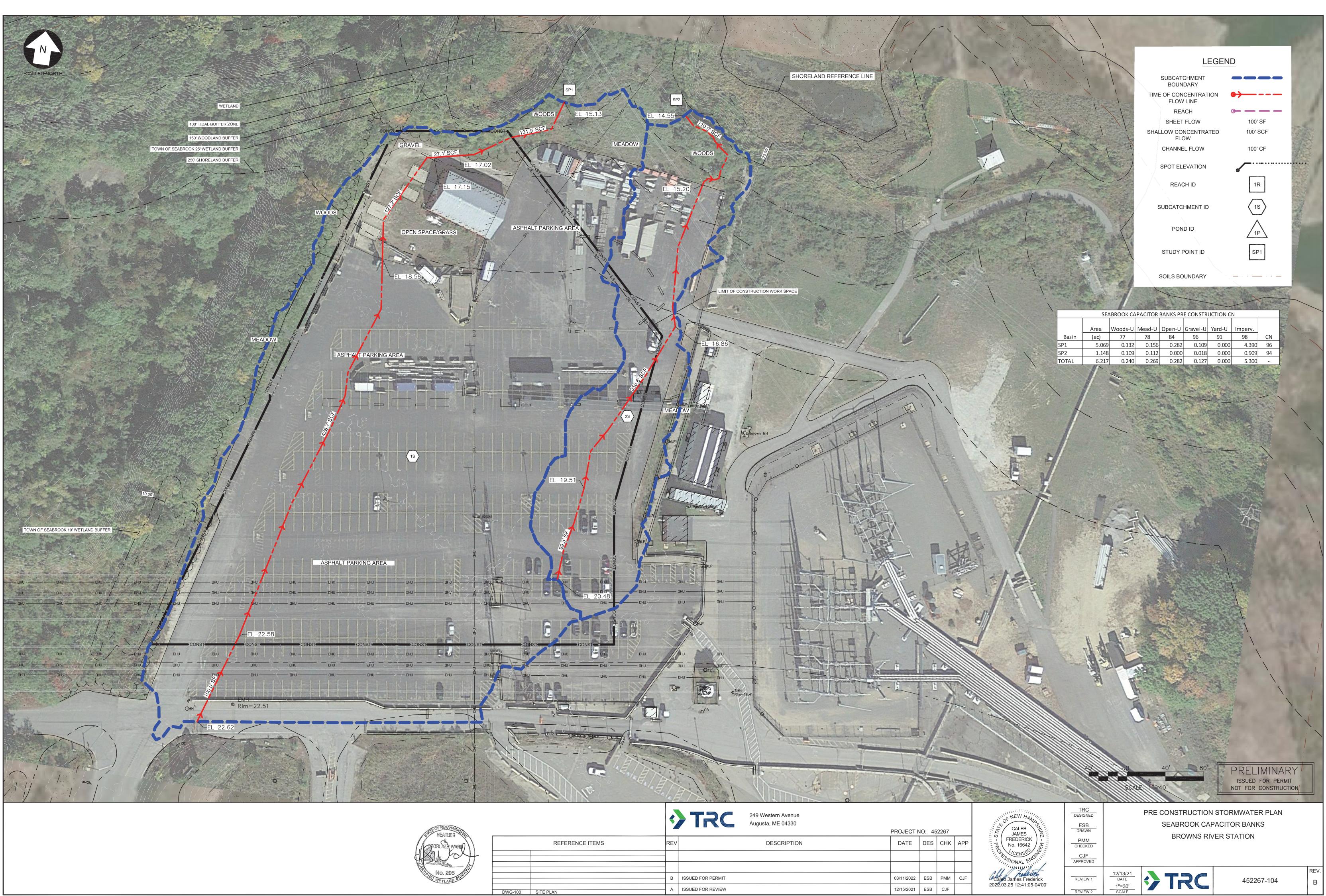
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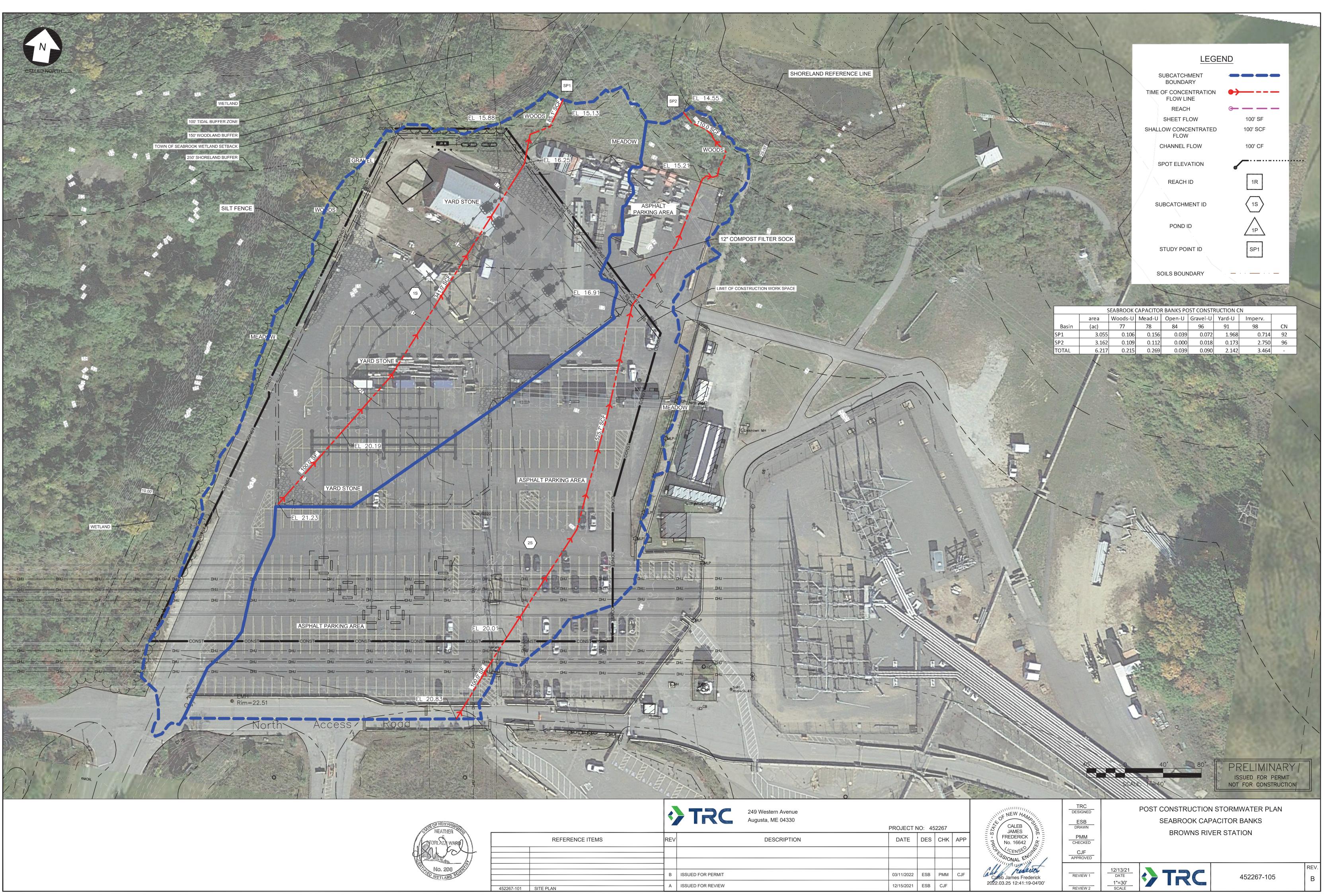
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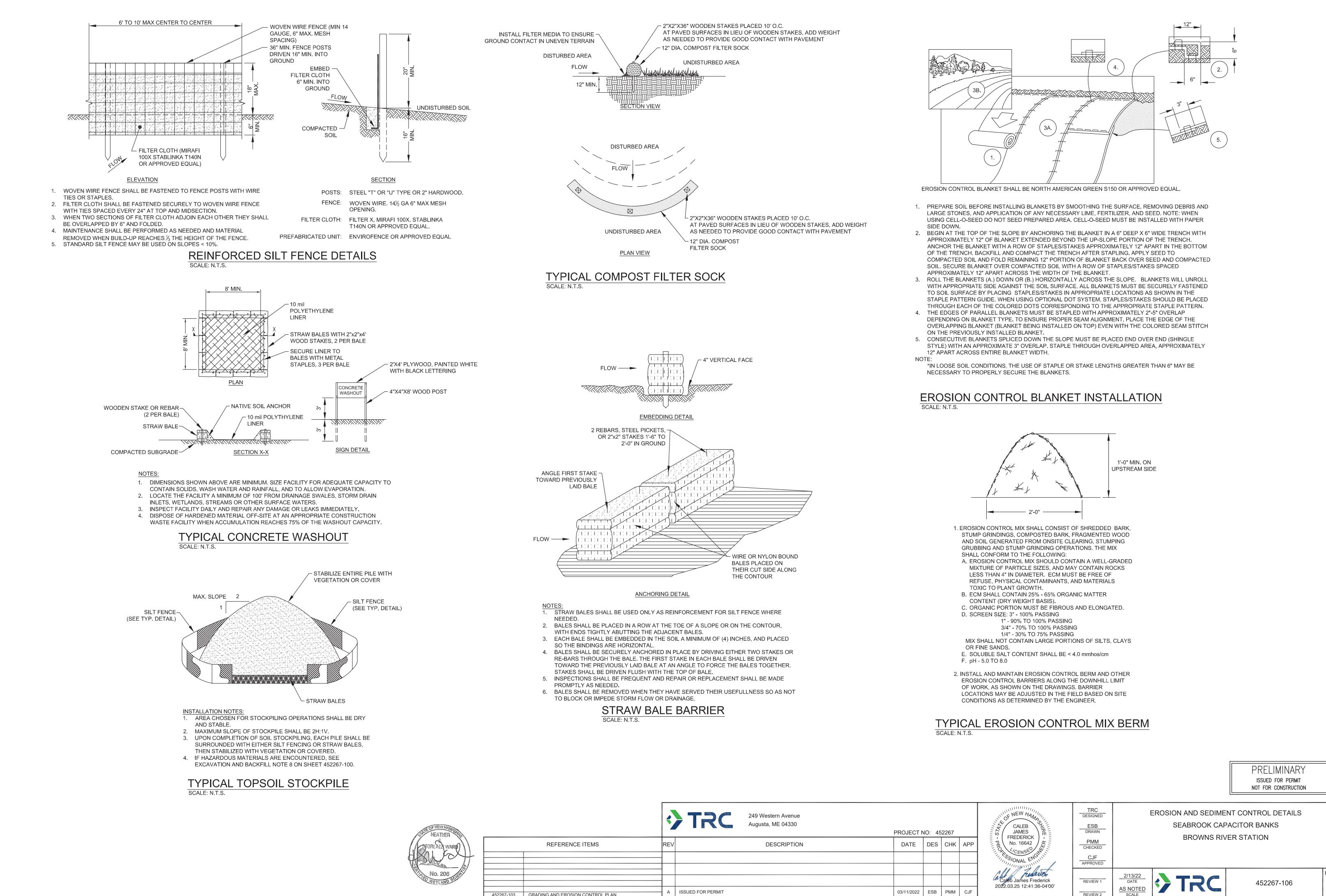


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EXHIBIT 5

Natural Heritage Bureau Documentation



NHNHB Email Response to TRC Notification of Updated Project Area, dated 2/24/2022

& TRC Notification of Updated Project Area, dated 2/23/2022

From:	DNCR: NHB Review
То:	StorlazziWard, Heather
Cc:	Corinne.didomenico@nexteraenergy.com; Austin, Kim; Valleau, Dana; Jipson, Erika; Bonta, Jen
Subject:	[EXTERNAL] RE: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project - Revised excavation area
Date:	Thursday, February 24, 2022 1:38:25 PM
Attachments:	image003.png

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hi Heather,

Thank you so much for the project transparency and considering NHB. You are correct, this does not change the NHB consultation results.

Jessica Bouchard (she/her/hers) Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 (603) 271-2834 (office)

NHB DataCheck Tool

From: StorlazziWard, Heather <HStorlazziWard@trccompanies.com>
Sent: Thursday, February 24, 2022 9:30 AM
To: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Cc: Corinne.didomenico@nexteraenergy.com; Austin, Kim <Kim.Austin@nexteraenergy.com>; Valleau, Dana <DValleau@trccompanies.com>; Jipson, Erika <EJipson@trccompanies.com>; Bonta, Jen <JBonta@trccompanies.com>
Subject: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project - Revised excavation area

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Jessica,

The Seabrook Capacitor Banks Project has undergone some relatively minor changes, with a slight expansion of the excavation area *within existing paved areas* (shown in purple shading) in the southern end of the Project Area. In the original submission (left), the two small purple squares at the southern end represent area of excavation for structures which will support the overhead electrical transmission lines. The new proposed layout changes the design from having two poles to

six poles (represented by the 6 small purple squares at the south), which increases the excavation area. The snips below compare the previously submitted disturbance area (seen on the left) with the new disturbance area (seen on the right). All expansion of the excavation area is limited to existing pavement, so I don't believe that this will change the results of NHB's consultation determination of no impact to state-listed plant species or the nearby exemplary natural communities/systems. However, as a courtesy, and to maintain transparency, we are providing these changes to NHNHB. If you need additional materials from our team, I can provide those to you. In lieu of that, I am hoping that this email correspondence will suffice. Thank you for your consideration.

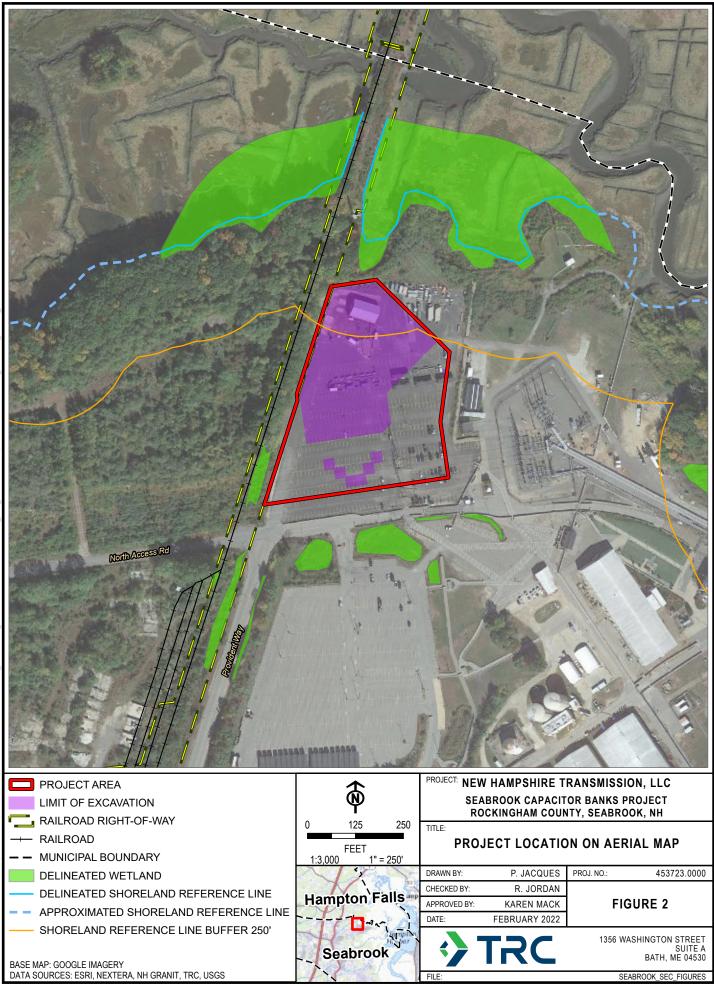
Original Proposed:

New Proposed:



Kind regards,

Heather Storlazzi Ward, NHCWS



NHNHB Email Response to TRC Response to NHNHB Request for Additional Information, dated 2/8/2022

StorlazziWard, Heather

From:	DNCR: NHB Review <nhbreview@dncr.nh.gov></nhbreview@dncr.nh.gov>
Sent:	Tuesday, February 8, 2022 11:31 AM
To:	StorlazziWard, Heather
Cc:	Corinne.didomenico@nexteraenergy.com; Austin, Kim; Valleau, Dana; Jipson, Erika; Bonta, Jen
Subject:	[EXTERNAL] RE: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project
Follow Up Flag:	Follow up
Flag Status:	Flagged

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Hi Heather,

Thank you for the report with photos and the aerial overview that shows the portion of the project within currently undisturbed areas. As the project will not encroach upon the Salt marsh, NHB has no concerns about impacts to the Salt marsh natural community system and the Salt marsh exemplary natural community types that fall within it. Additionally, as Salt marsh will not be impacted by the project, NHB has no concerns regarding potential impacts to the state-listed salt marsh species indicated on the Datacheck Letter. Finally, there are some rare upland plants on an upland peninsula within Salt marsh along the southeastern edge of the power plant. These plants are thought to be restricted to the unique habitat at that specific location, and appropriate habitat for the upland plants is not thought to be within the naturalized grassy and wooded northern end of the parking lot.

In conclusion, NHB is satisfied that the proposed project will not impact state-listed plant species indicated on the Letter or the nearby exemplary natural communities/systems.

Please let me know if you have any questions.

Thank you,

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 (603) 271-2834 (office)

NHB DataCheck Tool

From: StorlazziWard, Heather <HStorlazziWard@trccompanies.com>

Sent: Thursday, February 3, 2022 4:30 PM

To: DNCR: NHB Review <nhbreview@dncr.nh.gov>

Cc: Corinne.didomenico@nexteraenergy.com; Austin, Kim <Kim.Austin@nexteraenergy.com>; Valleau, Dana
 <DValleau@trccompanies.com>; Jipson, Erika <EJipson@trccompanies.com>; Bonta, Jen <JBonta@trccompanies.com>
 Subject: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

HI Jessica,

Thank you for your assistance thus far. Attached is additional information requested within the NHNHB datacheck review.

Please do not hesitate to contact me if I can be of further assistance.

Kind regards, Heather

Heather Storlazzi Ward, NHCWS



From: DNCR: NHB Review <<u>nhbreview@dncr.nh.gov</u>>
Sent: Tuesday, November 16, 2021 10:46 AM
To: StorlazziWard, Heather <<u>HStorlazziWard@trccompanies.com</u>>
Cc: Corinne.didomenico@nexteraenergy.com
Subject: [EXTERNAL] NHB Review: NHB21-3502

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best, Jessica

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist

NH Natural Heritage Bureau DNCR - Forests & Lands 172 Pembroke Rd Concord, NH 03301 603-271-2834

TRC Response to NHNHB Request for Additional Information, dated 2/3/2022



February 3, 2022

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 Via email: nhbreview@dncr.nh.gov

RE: Response to Review by NH Natural Heritage Bureau for Seabrook Capacitor Banks Project NHBID NHB21-3502 Town of Seabrook, Rockingham County, New Hampshire

Dear Ms. Bouchard:

On behalf of New Hampshire Transmission, LLC (Applicant), a direct subsidiary of NextEra Energy Transmission, LLC (NEET), TRC Environmental Corp. (TRC) is responding to a request for more information regarding the construction of a capacitor bank on an existing parking lot in Seabrook, NH (Attachment 1). A capacitor bank is similar to a substation, is unmanned, and will not result in an increase in traffic during operations. Overall, post-construction peak runoff rates are not expected to be higher than pre-construction peak runoff rates, thus stormwater quality and quantity are not expected to be significantly altered.

While there is a salt marsh system mapped within the northern portion of the area that was surveyed for protected natural resources by TRC, the location of the proposed project will not directly impact freshwater wetlands or tidally influenced areas associated with the salt marsh system (Attachment 2). The proposed project layout and limits of disturbance are primarily located on an existing parking lot that partially falls within the regulated 250-foot shoreland area, where it overlaps with the northern portion of the parking lot (Attachment 2). A small area of woodland and naturalized grassy area to the north, will be impacted by the proposed development and can be seen on Attachment 2. Photos of the project area and a photo locus map (Attachment 3) show the existing area where the project is being proposed.

If you have any questions or would like any additional information, please feel free to contact me at 207-317-6630 or hstorlazziward@trccompanies.com.

Sincerely,

Heather Storlazzi Ward, NHCWS Senior Scientist/Project Manager

Cc: Corinne Didomenico, NEE; Kim Austin, NEE Dana Valleau, TRC

Attachments:

Attachment 1. Seabrook Capacitor Bank NHB Response Attachment 2. Figure 1. Project Aerial with Limit of Disturbance Attachment 3. Photolog

ATTACHMENT 1

Seabrook Capacitor Bank NHB Response



Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Location:

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: Heather Storlazzi Ward, TRC 6 Ashley Dr Scarborough, ME 04074

- **From:** NHB Review, NH Natural Heritage Bureau
- **Date:** 11/12/2021 (valid until 11/12/2022)
- **Re**: Review by NH Natural Heritage Bureau

Permits: NHDES - Alteration of Terrain Permit, NHDES - Shoreland Standard Permit

NHB ID: NHB21-3502 Town: Description: Construction of a capacitor bank on an existing parking lot.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments NHB: Although the project description indicates that the capacitor bank will be constructed on an existing parking lot, a portion of the Exemplary Salt marsh system is mapped within the project area. Please indicate if salt marsh is proposed to be impacted for the project and provide a clear aerial overlaid with the full limit of disturbance. Please describe impacts proposed in any previously undisturbed area for the project, and provide photos of such locations.

F&G: No Comments At This Time

Natural Community	State ¹	Federal	Notes
Brackish marsh*			
High salt marsh			
Low salt marsh*			
Salt marsh system			Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Subtidalsystem			Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species

State¹ Federal Notes

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

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dry land sedge (Carex siccata)	Е	
dwarf glass wort (<i>Salicornia bigelovii</i>)*	E	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
hollow Joe-Pye weed (Eutrochium fistulosum)*	Е	 Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.
marsh elder (Iva frutescens)	Т	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)	Е	
perennial glasswort (Salicornia ambigua)*	E	 Primarily vulnerable to changes to the hydrology of its habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
saltmarsh agalinis (<i>Agalinis maritima ssp.</i> <i>maritima</i>)	Т	
upright knotweed (Polygonum erectum)*	Е	 Threats include direct desctuction of the plants and loss of habitat.
yellow thistle (<i>Cirsium horridulum var.</i> horridulum)*	Е	
1		

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3502



Brackish marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Imperiled due to rarity or vulnerability
Description at this Lo	ocation
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	Rank is for largest area visited (). Others were B- (three sites) or C
	Salt Marsh).
Detailed Description:	1997: A characteristic mix of graminoids includes Agrostis stolonifera var. palustris (marsh
General Area:	creeping bent-grass), <i>Spartina patens</i> (salt-meadow cord-grass), <i>Juncus gerardii</i> (salt marsh rush), <i>Solidago sempervirens</i> (seaside goldenrod), <i>Distichlis spicata</i> (spike-grass), <i>Juncus arcticus</i> var. <i>littoralis</i> (shore rush), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (fresh water cord-grass, slough-grass), <i>Carex paleacea</i> (chaffy salt sedge), <i>Hierochloe odorata</i> (sweet grass), <i>Aster novi-belgii</i> (New York aster), <i>Scirpus pungens</i> (three-square rush), and several other less frequent species. At the several other less frequent several transh in middle with <i>Quercus bicolor</i> (swamp white oak), <i>Toxicodendron radicans</i> (climbing poison ivy), and <i>Rosa virginiana</i> (Virginia rose). 1997: The several several other several extends seaward to an imaginary line drawn across and upstream and landward to where ocean-derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communi
General Comments:	and <i>low salt marsh</i> . Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh islands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the fourther area, the forest of the rail road track, and the fourther area, the forest of the rail road track, and the fourther area, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997). 1997: Tidally flooded by salt water only during spring tides and storm surges. Supports a greater diversity of plants and generally flooded less frequently than the robust forb brackish marsh. Elevationally higher, received more freshwater input, and experienced less frequent tidal flow different fresh water runoff or groundwater discharge flows onto the marsh surface. This hydrologic regime supports brackish marsh species and other species most often found in fresh or salt marshes but tolerant of brackish conditions and able to
Management	successfully compete in this environment.
Comments:	
Location	
Survey Site Name:	
Managed By:	
County:	

Town(s): Size: 34	31.4 acres Elevation:
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates docume	ented

First reported: 1997-07-05

Last reported: 1997-10-06

High salt marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Lo	cation
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank:	These ranks are for the entire estuary.
Detailed Description: General Area:	photographed. 1997: In addition to <i>Spartina patens</i> (salt meadow cordgrass) and <i>Juncus gerardii</i> (salt marsh rush), other common plants on the high marsh included smooth cordgrass (short form) and <i>Distichlis spicata</i> (spike-grass). <i>D. spicata</i> formed pure stands in wetter, more poorly drained areas, or mixed with <i>S. patens</i> , growing at similar elevations on the high marsh. <i>J. gerardii</i> dominated landward of salt meadow-grass in narrow vegetative zones with decreased tidal flooding and soil water salinity, beginning at about mean spring high water. This zone had the highest species richness within the high marsh and included <i>Solidago sempervirens</i> (seaside goldenrod), <i>Panicum virgatum</i> (switch-grass), <i>Hierochloe odorata</i> (sweet grass), <i>Carexhormathodes</i> (necklace sedge), <i>Festuca rubra</i> (red fescue), <i>Aster novi-belgii</i> (New York aster), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (freshwater cordgrass), and <i>Potentilla anserina</i> (silverweed). 2007: Mostly borders a fringe of low salt marsh seaward, but occasionally transitions directly to <i>intertidal flat</i> and/or subtidal system . Borders upland forest and developed areas landward, as well as occasional patches of <i>brackish marsh</i> and coastal sand dune system . 1997: At the mean tidal range is 8.3 feet with spring tides averaging 9.5 feet. Here, the high marsh rises from ca. 4 feet above mean sealevel at its lower end to 5 feet
	above mean sea level at the landward limit of the salt marsh rush zone. The Estuary contains the majority of the estimated 6,200 acres of salt marsh in the state. The River portion of the estuary continues south into the estuarine system extends seaward to an imaginary line drawn across Inlet and upstream and landward to where ocean -derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Subtidal communities include the undifferentiated saline/brackish subtidal channel/bay bottom and tidal creek bottom. Other intertidal flat, and low salt marsh. Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh is lands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the west of the rail road track (USDA Soil Conservation Service 1994).
General Comments:	
Management Comments:	 1997: Marsh ditched heavily; greenhead boxes present. In the last four years, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997).
Location	
Survey Site Name: Managed By:	
County: Town(s): Size: 3431.4 act	res Elevation:

Precision: Within (but not necessarily restricted to) the area indicated on the	map.
---	------

Directions:						
		·				
Dates documente	ed					
First reported:	1997-07-05	Last reported:	2006-08-17			

Low salt marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Lo	peation
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).
Comments on Rank:	These ranks are for the entire estuary.
Detailed Description:	1997: Community mostly occurs as a fringe around the seaward edge of the much more extensive <i>high salt marsh</i> .
General Area:	1997: The state of
General Comments:	
Management	
Comments:	
Location	
Survey Site Name: Managed By:	
County: Town(s): Size: 3431.4 act	res Elevation:
Precision: Within	n (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates documented	
	997-07-05 Last reported: 1997-10-08
i istropolited. I	

Salt marsh system

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this L	ocation
Conservation Rank:	Fair quality, condition and/or landscape context ('C' on a scale of A -D).
Comments on Rank:	Component communities are in fair condition. 2007 (A): Largest estuarine system in the state.
Detailed Description:	 2013, 2012, 2011: This system supports an expected array of estuarine communities, all in fair condition. The marsh has a history of ditching (New HampshireÆs salt marshes were ditched in an effort to control salt marsh mosquitoes and to improve salt marsh hay production). Brackish marshes have occasionally formed along the upland edge where wetlands and streams landward of the salt marsh drain freshwater onto the marsh. Several rare (S1 and S2) and uncommon (S3) plant species have been documented in the marsh over the years. Surveys in 2011 and 2012 documented new occurrences of saltmarsh agalinis (<i>Agalinis maritima</i>), sea-milkwort (<i>Lysimachia maritima</i>), beach umbrella sedge (<i>Cyperus filicinus</i>), seaside crowfoot (<i>Ranunculus cymbalaria</i>), and many-seeded plantain (<i>Plantago intermedia</i>). 2007: Photographs taken, from the air and the ground. 1997: Dominated by <i>high salt marsh</i> with narrow fringes and patches of <i>low saltmarsh</i>, bordered in places by <i>brackish marsh</i> and with scattered <i>salt pannes and pools</i> throughout. This system contains the majority of the estimated 6,200 acres of salt marsh in the state. Most of the estuary has unrestricted tidal flow. 2013: The system is bounded by heavy residential development on its east side. Elsewhere, it
	borders residential and commercial development or forest buffer. 2007: Mostly borders intertidal system and subtidal system below, and upland forests and developed areas above. Also borders coastal sand dune system at The Sands. Includes several islands with <i>dry Appalachian oak forest</i> within.
General Comments:	
Management Comments:	2013: Some stands of the invasive common reed (<i>Phragmites australis</i>) are being managed in the marsh, although resources to continue management may be nearing their end.
Location	
Survey Site Name:	
Managed By:	
County: Town(s):	res Elevation:
Size: 3431.4 ac	res Elevation:
Precision: Withi	n (but not necessarily restricted to) the area indicated on the map.
Directions: 1997-2	2013: Systemoccurs throughout the entire estuary.
Dates documented	
First reported:	1997-07-05 Last reported: 2013-08-12

Subtidal system

Legal Status	Conservation Status			
Federal: Not listed	Global: Not ranked (need more information)			
State: Not listed	State: Rare or uncommon			
Description at this Lo	cation			
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).			
Comments on Rank:				
Detailed Description:	A relatively short main channel to the second seco			
General Area:	Borders intertidal flat community and salt marsh system landward.			
General Comments:				
Management	-			
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s):				
Size: 870.6 acres	Elevation:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions: Subtidal creeks and bay bottoms in the Marsh estuary.				
Dates documented				
First reported: 19	997-07-05 Last reported: 2007-10-13			

dry land sedge (Carex siccata)

Legal Status		Conser	vation Sta	itus
Federal: Not listed		Global:	Demonst	trably widespread, abundant, and secure
State: Listed Enda	angered	State:	Critically	imperiled due to rarity or vulnerability
Description at this L	ocation			
Conservation Rank:	Not ranked			
Comments on Rank:	n en			
	2019: At least 200 fruiting st			
General Area:	2019: Greenbriar and poison	ivy ring t	he upland	ls and are common throughout. 1972:
ALL 12 12 13	•			
General Comments:				
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County:				
Town(s):				
Size: .4 acres		Elevatio	n:	
Precision: Withi	n (but not necessarily restricted	lto) the a	rea indica	ted on the map.
Directions: 1972:	Ledges at southwestern side of	f	", nea	end of point.
Dates documented				
First reported:	1972-06-03	Last rep	orted:	2019-07-26

dwarf glass wort (Salicornia bigelovii)

Legal Status		Conser	vation S tat	us
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure
State: Listed Enda	ngered	State:	Critically	imperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:	Sub-population of a large "A	-" popula	tion.	
Detailed Description:		1982: Plants only 1 cmtall and indistinguishable from other species of <i>Salicornia</i> (6/10). Collections made from flowering material (8/17). 1972: Specimen collected.		
General Area:	1982: Salt marsh with Salico	rnia virg	inica.	-
General Comments:		_		
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s):Image: County- Image: County- Image: County- 		Elevatio	on:	
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions: salt marsh. North of "				
Dates documented				
First reported: 1	931	Last rep	orted:	1982-08-17

hollow Joe-Pye weed (Eutrochium fistulosum)

Legal Status		Conserv	vation Stat	us
Federal: Not listed		Global:	Demonstra	ably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Critically i	mperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description:	1972: Documented as "occas	ional" in A	Area 2 by A	Ibion Hodgdon and Johonet Wicks.
General Area:				
General Comments:				
Management				
Comments:				
Location				
Survey Site Name:				
Managed By:				
County:				
Town(s):	-			
Size: 644.9 acres	8	Elevatio	n:	
Precision: Within	1.5 miles of the area indicated	d on the n	nap (locatio	n information is vague or uncertain).
Directions:				
Dates documented				
	972-06	Last rep	orted:	1972-06

marsh elder (*Iva frutescens*)

Legal Status		Conser	vation Stat	us
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure
State: Listed Threa	itened	State:	Imperiled	due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description:	2019: 4 plants observed.			
General Area:	2019: High salt marsh south	of The Ro	ocks.	
General Comments:				
Management				
Comments:				
Location Survey Site Name: Managed By:				
County:				
Town(s): Size: .4 acres		Elevatio	n:	
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions: 2019: S	Salt marsh fringe adjacent to		, east of	
Dates documented				
First reported: 20	019-07-26	Last rep	orted:	2019-07-26

orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)

Legal St	atus		Conser	ervation Status
Federal:	Not listed		Global:	l: Demonstrably widespread, abundant, and secure
State:	Listed Enda	ngered	State:	Critically imperiled due to rarity or vulnerability
Descrip	tion at this Lo	ocation		
Conserv	ation Rank:	Fair quality, condition and/c	rlandsca	cape context ('C' on a scale of A-D).
Commen	ts on Rank:	Rank does not consider the e	effects of	of the nuclear power plant.
Detailed	Description:	plant. 1997: 6 clumps with 6 and somewhat beneath shub	7 fruiting s, all stem	egetative plants. Area 2: 4 fruiting stems, 1 vegetative ng stems, scattered in small area of particular in open ems in fruit, some dropping when touched. 1982: ca. 60 ree of insect damage. 1972: Specimens at the state of the
General .	Area:	2019: Greenbriar and poisor		g the uplands and are common throughout. Area 2: dhickory. 1997:
General	Comments:			·
Manage		040		
Commen	ts:			
Location	ı I			
Survey S Manage	Site Name: d By:			
County:				
Town(s) Size:	.9 acres		Elevatio	tion:
Precision	n: Withir	n (but not necessarily restricte	dto)the a	e area indicated on the map.
Direction	ns: 1982:			. Nea
	endof			•
Dates do	cumented			
First rep	orted: 1	.972	Last rep	eported: 2019-07-26

perennial glasswort (Salicornia ambigua)

Legal Status		Conser	vation Sta	atus
Federal: Not listed		Global:	Not rank	ed (need more information)
State: Listed Enda	ngered	State:	Critically	imperiled due to rarity or vulnerability
D				
Description at this Lo			12	(7) 1 () 7)
Conservation Rank:	Poor quality, condition and/	orlandsca	ape contex	t ('D' on a scale of A-D).
Comments on Rank:	2 .			
Detailed Description: General Area:	1982: Elevated land in a core	lgrass (Sj 2: Salt m	<i>partina</i> sp arsh, amid	er. 1972: Small flowering stand. .) salt marsh. Full sun, moist, flat, but above common glasswort (<i>Salicornia depressa</i>) ens).
General Comments:	3 	0	1	
Management	-			
Comments:				
Location Survey Site Name: Managed By:				
County: Town(s): Size: 2.8 acres		Elevatio	on:	
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions: marsh. 1982: North side of ", on elevated landnext to a rock. 1972:				
Dates documented				
First reported: 1	.972-09	Last rep	orted:	1982-08-17

saltmarsh agalinis (Agalinis maritima ssp. maritima)

Legal Status	Conserva	tion Status
Federal: Not listed	Global: I	Demonstrably widespread, abundant, and secure
State: Listed Threa	tened State: I	mperiled due to rarity or vulnerability
D		
Description at this Lo		
Conservation Rank:	Notranked	
Comments on Rank:	Sub-population of a large "A-" populati	on.
Detailed Description:		982: More than 50 plants in 30 x 10 foot area. Most spot when it is not flowering and very ephemeral
General Area:		ndated. With Spartina patens (salt-meadow
General Comments:		
Management		
Comments:		
Location Survey Site Name: Managed By:		
County: Town(s): Size: .4 acres	Elevation	:
Precision: Within	(but not necessarily restricted to) the are	a indicated on the map.
		complexand The second . 1982: st of their nature trail. Along second , on north
Dates documented		
First reported: 19	982-08-17 Last report	rted: 2019-07-26

upright knotweed (Polygonum erectum)

Legal Status		Conser	vation Stat	us
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Not rankee	l (need more information)
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description:	1972: Straus specimen at Clo	Straus p	ersonalher	parium.
General Area:		1		
General Comments:				
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s):				
Size: 2.8 acres		Elevatio	n:	
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions:	. I	Edgeof		" road.
Dates documented				
First reported: 19	072	Last rep	orted:	1972-09-11

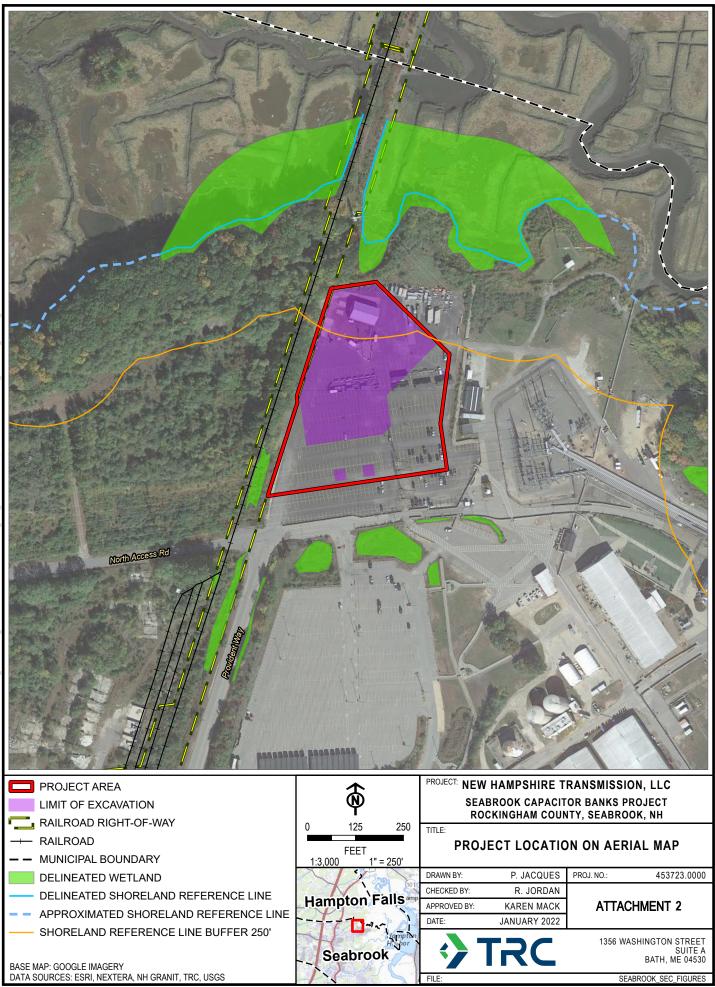
yellow this tle (Cirsium horridulum var. horridulum)

Legal Status	Conservation Status					
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure					
State: Listed Endangered	State: Not ranked (need more information)					
Description at this Location						
Conservation Rank: Not ranked						
Comments on Rank:						
Detailed Description:1982: 5 vigorous plants. Specimen of Dunlop at NHA.General Area:1982: Salt marsh; open, wet.General Comments:ManagementComments:						
Location Survey Site Name: Managed By:						
County: Town(s): Size: 2.8 acres	Elevation:					
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions: The Southeast of Site. Immediate edge of outside of fence. A second group more to the						
Dates documented						
First reported: 1982-08-17	Last reported: 1982-08-17					

ATTACHMENT 2

Project Aerial with Limit of Disturbance

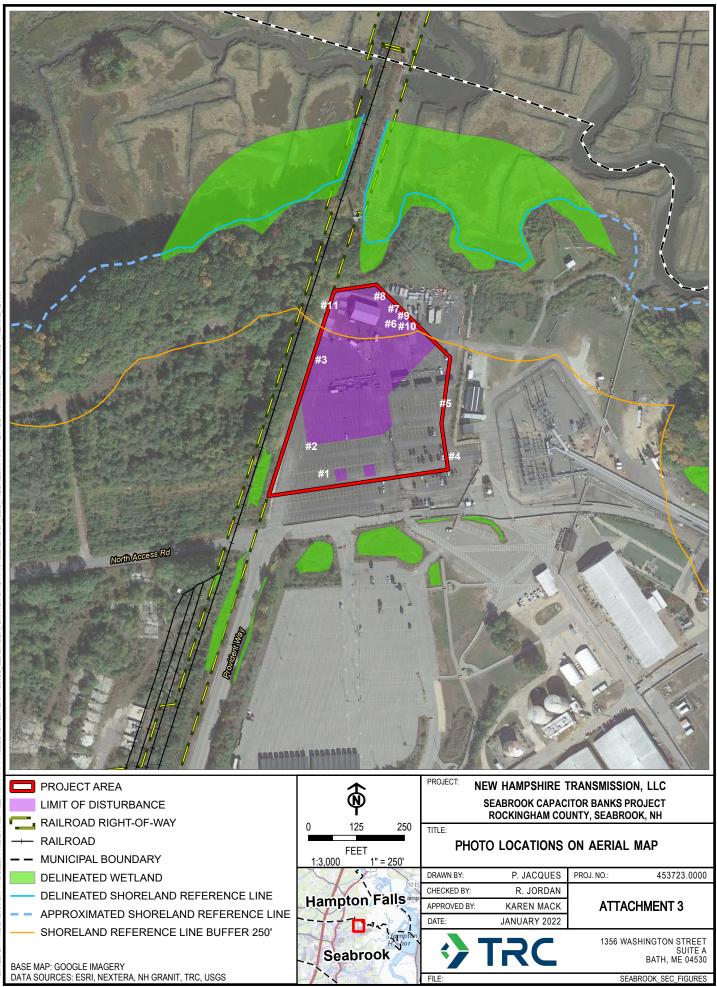




ATTACHMENT 3

Photolog









SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 3

Description:

View of northwest part of the parking lot and project boundary area, facing north. The grassy and wooded area in the background is one of the only naturalized areas to be disturbed by the Project.



Photograph: 4

Description:

View of the eastern part of the parking lot and project boundary area, facing north.





SEABROOK CAPACITOR BANKS PROJECT SEABROOK, NH Photograph: 5 Description: View of eastern part of the parking lot, looking northeast at the trailers on the edge of the project boundary. Photograph: 6 Description: View of B.5.b equipment building facing east in northern part of parking lot A, inside the shoreland buffer zone.



SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 7

Description:

View behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.



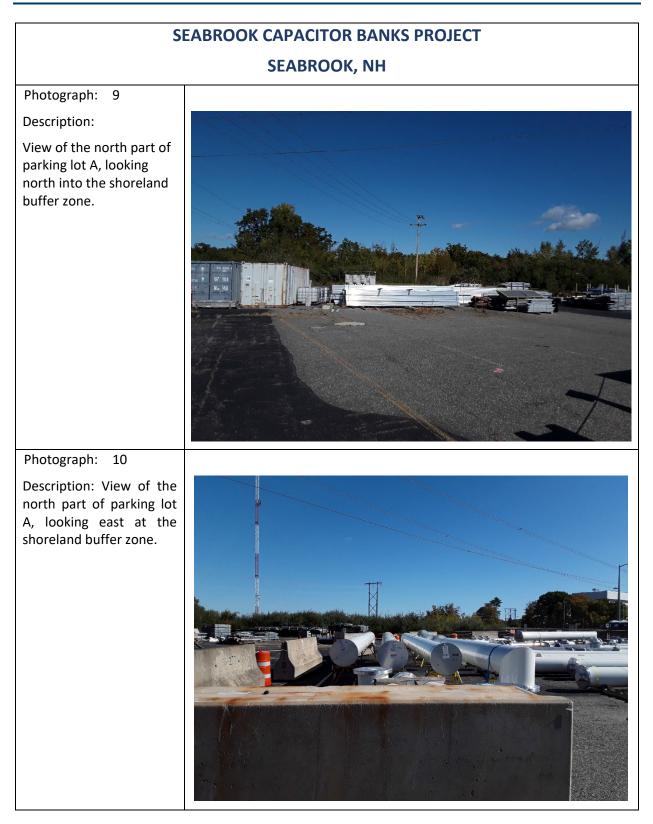
Photograph: 8

Description:

View of path behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.









SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 11

Description:

View of behind the B.5.b building looking east, inside the shoreland buffer zone.

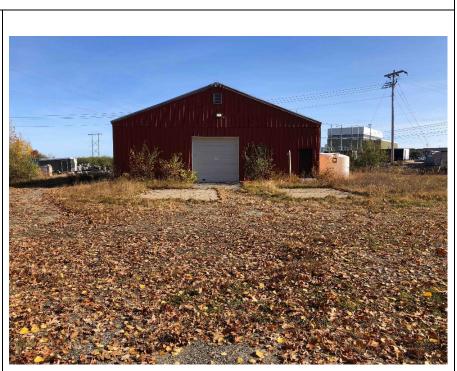
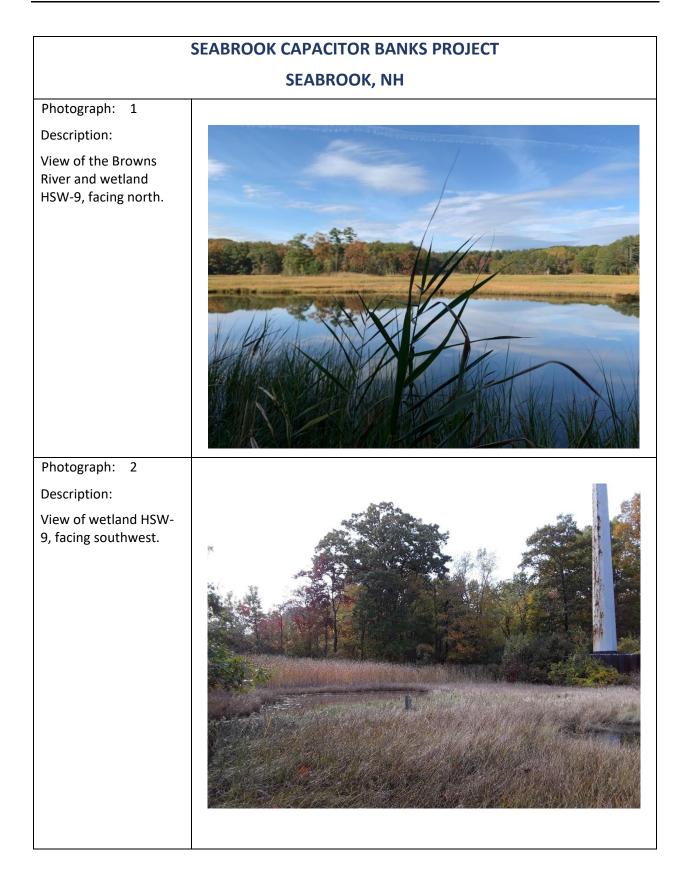




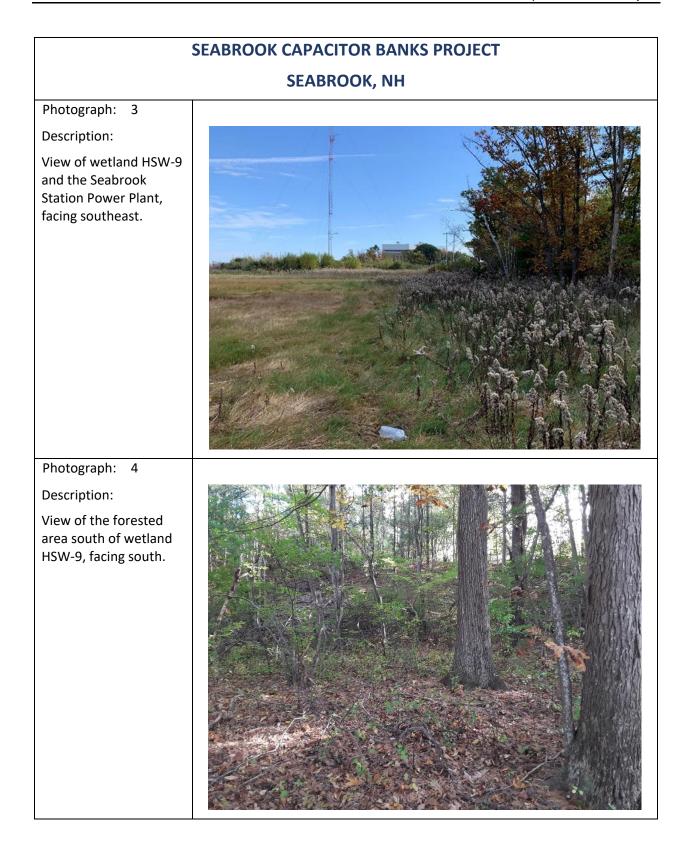
EXHIBIT 6

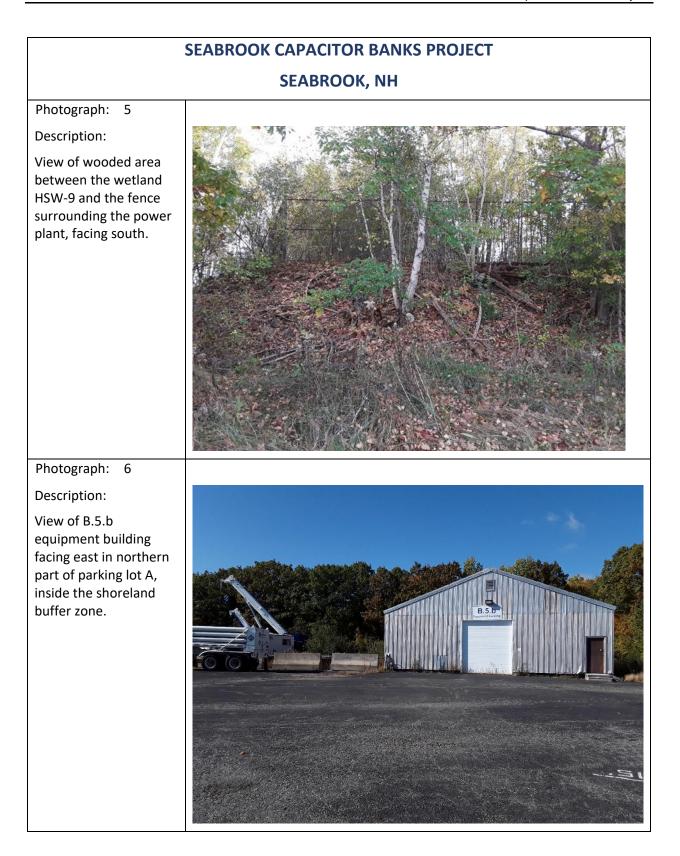
Photographs Representative of the Site



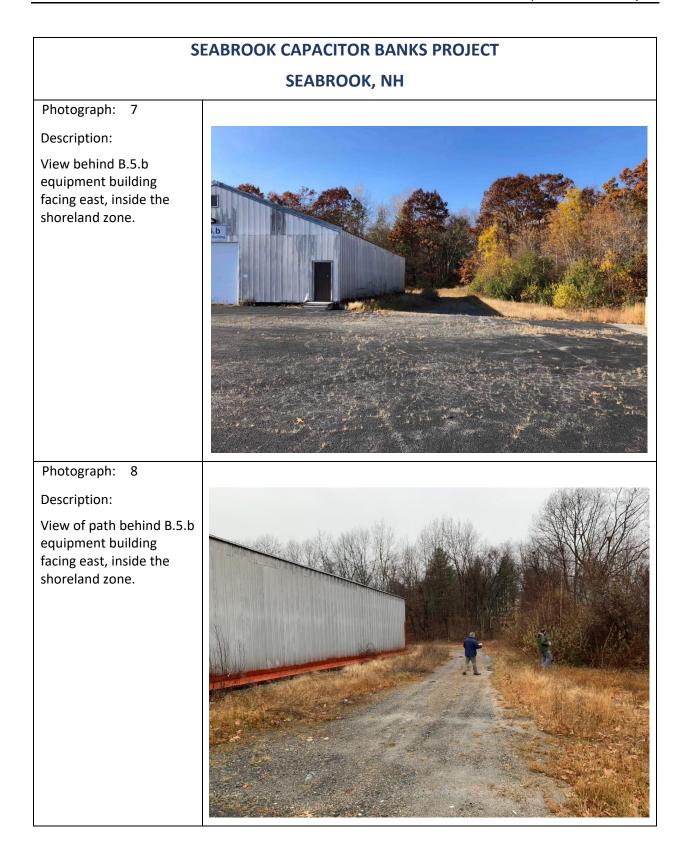




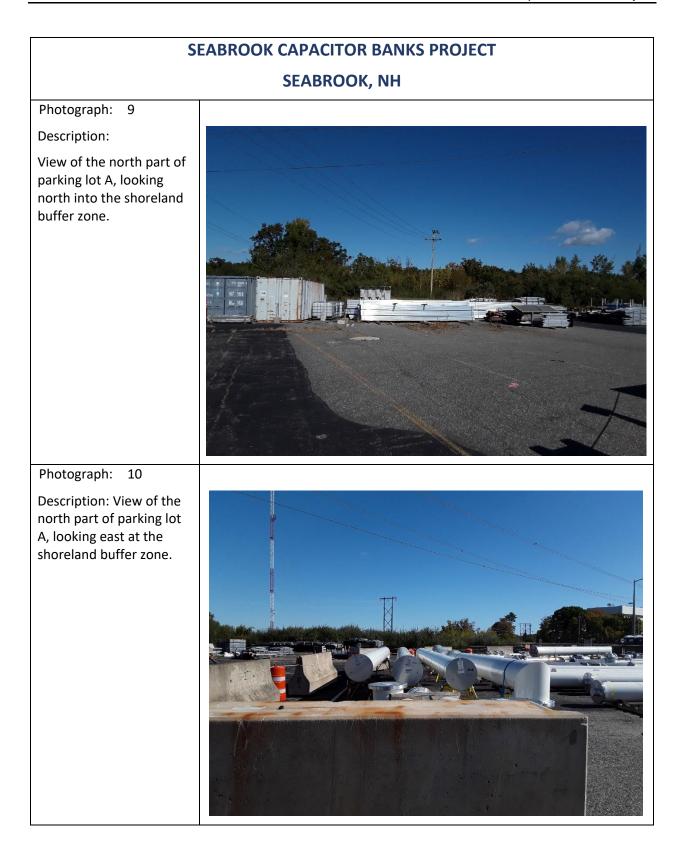














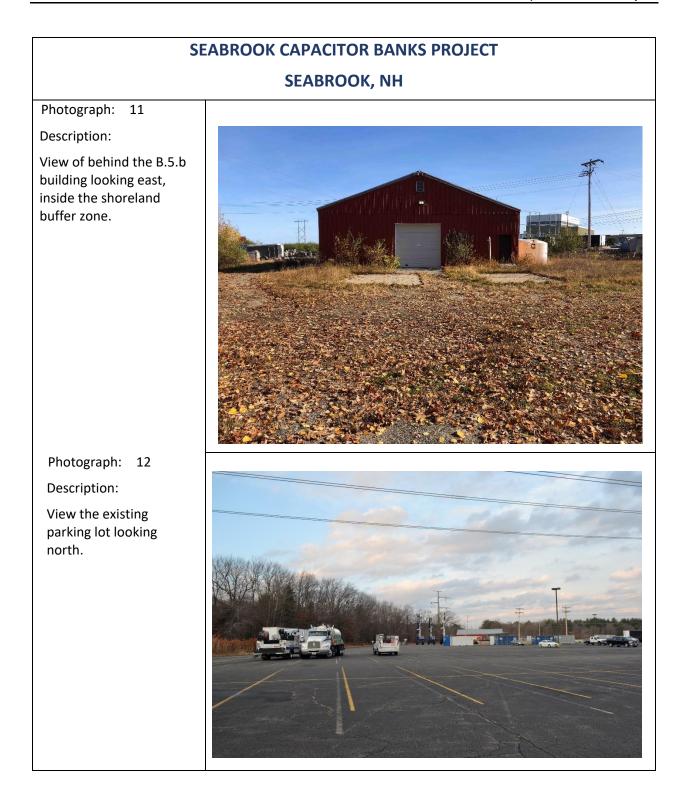




EXHIBIT 7

Site Specific Soil Survey Waiver Request



Seabrook Capacitor Banks Project Browns River Station

Waiver Request

Site Specific Soil Map

1509.03 (a) (4)

The New Hampshire code of Administrative Rules, Chapter Env-Wq 1500 "Alteration of Terrain", Part Env-Wq 1504 "Plans and Calculations", Section Env-Wq 1504.09 (b) (3)b requires that a site-specific soil map be prepared in accordance with the Society of Soil Scientists of Northern New England (SSSNNE) Special Publication No. 3, Version 7.0, Site-Specific Soil Mapping Standards for New Hampshire and Vermont, July 2021, for all proposed areas of disturbance.

1509.03 (a) (5)

The applicant is requesting a waiver of this rule as a result of a conversation with NHDES staff after the original project Alteration of Terrain (AoT) permit pre-application meeting. According to the SSSNNE document referenced above, "Site specific soil mapping is conducted for very intensive land uses requiring very detailed information about soils, generally in small areas. The information can be used in planning individual building sites, experimental agricultural plots, and other uses requiring detailed and precise knowledge of the soils and their variability."

The proposed project site lies on previously developed fill material in an existing parking lot. An examination of the Natural Resources Conservation Service (NRCS) Medium Intensity Soil Survey of Rockingham County, NH indicates that the majority of the project will be built on an unrated Hydrologic Soil Group. No infiltration BMPs are proposed for the stormwater management system. In addition, sensitive areas such as streams, wetlands, and vernal pools have been mapped and are shown on the site plans. This is not the type of project for which a site-specific soil map is intended, nor would the information produced by such a study provide any real benefit. That level of detail is not required.

1509.03 (a) (6)

The waiver will not be temporary.

1509.03 (a) (7)

As an alternative to a site-specific soil map, the site plans have been prepared using delineations from the NRCS Medium Intensity Soil Survey obtained from the Web Soil Survey website.

1509.03 (a) (8)

The applicant believes that having the waiver granted will meet the criteria in Env-Wq 1509.04 for the following reasons:

1. "Granting the request will not result in an adverse impact on the environment, public health, public safety, or abutting properties that is more significant than that which would result from complying with the rule."

Environmentally sensitive areas such as streams, wetlands, and vernal pools have been mapped in the project area, no adverse impacts to the environment are anticipated as a result of the waiver. Due to the nature of the project, the waiver will have no bearing on public health and safety. The impact on abutting properties as a result of the proposed land use will not change as a result of the intensity of the soil study.

- 2. "One or more of the following are satisfied:
 - *a. Granting the request is consistent with the intent and purpose of the rule being waived; or*
 - *b. Strict compliance with the rule will provide no benefit to the public or the environment.*"

The applicant believes that both conditions are satisfied. In particular, strict compliance with the rule will provide no benefit to the public or the environment. The purpose of the waiver request is to allow the project to be based on a less intensive soil study, not to waive the requirement completely. NRCS soil surveys are commonly used as a basis for projects of this nature. In addition, sensitive areas such as streams, wetlands, and vernal pools have already been mapped in the vicinity of the project. Therefore, a site-specific soil survey will not provide any additional benefit to the public or the environment.

EXHIBIT 8

Coastal/Great Bay Region Community Impact Statement



Coastal/Great Bay Region Community - Projected Environmental Impact Statement

The Seabrook Capacitor Banks Project is located within a Coastal/Great Bay Region community in Seabrook, NH. Per Env-Wq-1500, the project must take future sea-level rise, storm surges, and extreme precipitation into account. The project life is expected to be 30 years, therefore the 2050 data in the *Sea-level Rise, Storm Surges, and Extreme Precipitation in Coastal New Hampshire: Analysis of Past and Projected Future Trends* report is applicable. The most conservative risk level category (Highest) will be assumed, which indicates a 2.0 feet sea-level rise by 2050. Historical storm surge data shows maximum storm surge values of 15 feet.

The average elevation of the site is 20' above sea level and is located more than 1 mile from the coast. The area between the project site and the coast is tidal marsh. The site elevation is higher than the predicted sea-level rise of 2 feet and future storm surge predictions of 17 feet (sea-level rise + storm surge). The impact of storm surge is further mitigated by the geography of the surrounding terrain.

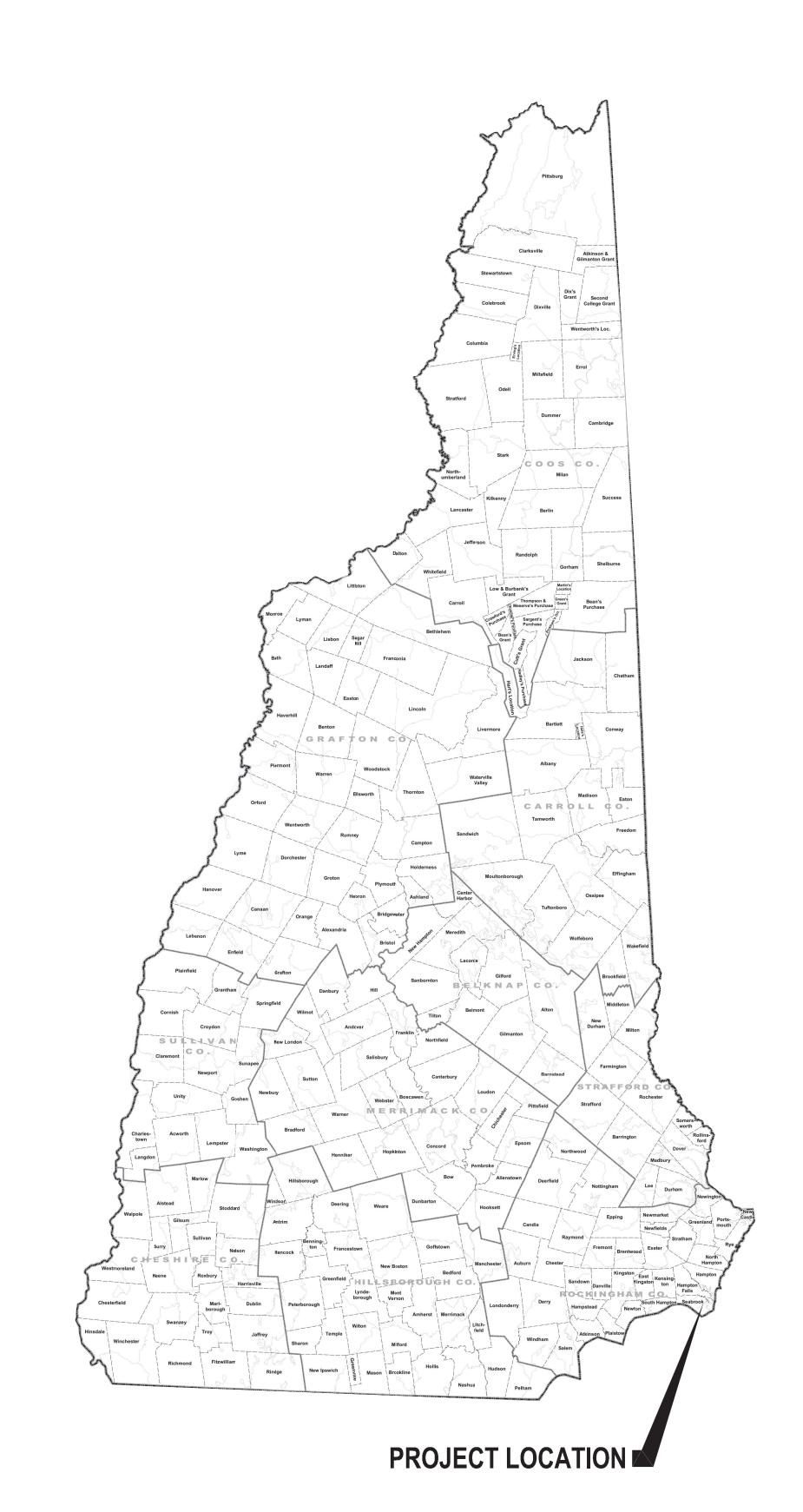


EXHIBIT 9

Civil Site Plan Set



PRELIMINARY NOT FOR CONSTRUCTION



SEABROOK CAPACITOR BANKS BROWNS RIVER STATION

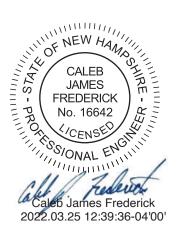
TOWN OF SEABROOK ROCKINGHAM COUNTY NEW HAMPSHIRE





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GENERAL NOTES:

SURVEY NOTES

- 1. SURVEY PERFORMED BY WESTON & SAMPSON LAND ENGINEERS, INC. IN SEPTEMBER, 2021.
- 2. THIS SURVEY IS PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM.
- 4. ELEVATIONS AND CONTOURS SHOWN REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOID12B) AND ARE BASED ON PUBLICLY AVAILABLE LIDAR.
- 5. WETLANDS, WATERBODIES, AND THE SHORELAND REFERENCE LINE WERE DELINEATED ON OCTOBER 20 AND 21, 2021 BY TRC WETLAND SCIENTIST HEATHER STORLAZZI WARD, NHCWS #206. WETLAND DELINEATIONS WERE CONDUCTED ACCORDING TO THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, V2 (USACE 2012)". THE COASTAL WATERS SHORELAND REFERENCE LINE WAS DELINEATED IN ACCORDANCE WITH NEW HAMPSHIRE'S RSA SECTION 483-B:4 XVII(B.).
- 6. SOILS INFORMATION FROM USDA-NRCS WEB SOIL SURVEY ROCKINGHAM COUNTY DATED JANUARY 2022.

REMOVAL NOTES:

- 1. TREE REMOVAL SHALL BE IN CONFORMANCE WITH THE EXISTING CONDITIONS & REMOVALS PLAN.
- 2. TREES AND OTHER VEGETATION MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND USED AS REQUIRED FOR EROSION CONTROL. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM REMOVAL OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 3. ALL EXISTING DEBRIS, RUBBISH, AND ABANDONED ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 4. ALL DEMOLITION WASTE, DEBRIS AND RUBBISH SHALL BE PROPERLY REMOVED FROM THE SITE AS IT OCCURS. ALL MATERIALS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 5. TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

EXCAVATION AND BACKFILL NOTES:

- 1. ALL THE EXCAVATION, BACKFILLING, AND COMPACTION SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SEABROOK STATION MS0517.19.
- COMPACTION TESTING SHALL BE PERFORMED ON ALL RE-COMPACTED SUBGRADE.
- 3. IF APPLICABLE, GRANULAR BACKFILL SHALL BE SELECTED FROM SUITABLE OFF-SITE SOURCES AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO TRANSPORT TO THE SITE.
- 4. THE CONTRACTOR SHALL SUBMIT GRADATION DATA FOR GRANULAR BACKFILL MATERIALS TO THE OWNER FOR REVIEW.
- 5. CONTROLLED LOW-STRENGTH MATERIAL (C.L.S.M.) FILL MAY BE USED FOR BACKFILL IN LIEU OF GRANULAR BACKFILL PER MS0517.19.
- 6. WITHIN THE AUR, IF UNANTICIPATED CONDITIONS AND POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER.
- 7. ENGINEER SHALL DESIGNATE TEMPORARY STOCKPILE AREAS WITHIN PROJECT LIMITS TO ENSURE STOCKPILE LOCATIONS ARE NOT STAGED NEAR SENSITIVE HUMAN HEALTH RECEPTORS SUCH AS PUBLIC AND PRIVATE WATER SUPPLY WELLS OR SENSITIVE ENVIRONMENTAL RECEPTORS SUCH AS
- 8. CONTRACTOR SHALL SEGREGATE AND STOCKPILE POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS AS FOLLOWS:
- 8.1. CONTRACTOR SHALL MANAGE STOCKPILES TO PREVENT DISCHARGE OF CONTAMINATES TO GROUNDWATER AND SURROUNDING SOIL.
- 8.2. CONTRACTOR SHALL ENSURE STORMWATER RUNOFF IS DIVERTED AROUND AND AWAY FROM STOCKPILED MATERIALS.
- 8.3. CONSTRUCT STOCKPILES ON A DOUBLE LAYER OF 6-MIL POLYETHYLENE SHEETING. 8.4. COVER STOCKPILES WITH A SINGLE LAYER OF 6-MIL POLYETHYLENE SHEETING AND SECURE TO PREVENT DISTURBANCE BY WIND.
- TRANSFER OF POTENTIALLY CONTAMINATED MATERIALS FROM THE EXCAVATION TO DESIGNATED 8.5.
- STOCKPILE AREAS SHALL BE CONDUCTED IN A MANNER TO LIMIT THE SPREAD OF CONTAMINATION. 8.6. CONTRACTOR SHALL IDENTIFY THE STOCKPILE WITH ORIGIN AND DATE OF GENERATION.
- 8.7. CONTRACTOR SHALL SECURE STOCKPILE AREA WITH CAUTION FLAGGING, FENCING, OR OTHER MEANS AS NECESSARY TO PREVENT UNAUTHORIZED ACCESS AND LIMIT CONTACT OF SITE WORKERS TO STOCKPILED MATERIALS.
- 9. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING AND ANALYZING SAMPLES OF POTENTIALLY CONTAMINATED MATERIAL FOR DISPOSAL CHARACTERIZATION AND PROVIDING CONTRACTOR WITH COPIES OF LABORATORY REPORTS.
- 10. CONTRACTOR SHALL DISPOSE OF CONTAMINATED MATERIAL AT AN APPROVED OFF-SITE FACILITY. DOCUMENTATION OF HANDLING, MANAGEMENT, TRANSPORTATION AND OFF-SITE DISPOSAL INCLUDING BUT NOT LIMITED TO MANIFESTS, WEIGHT-TICKETS, ANALYTICAL REPORTS OR WASTE PROFILES, SHALL BE PROVIDED TO THE OWNER.

CONTRACTOR NOTES:

- 1. UNLESS INDICATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR FOR ROAD AND BRIDGE CONSTRUCTION (2016) FOR GENERAL REQUIREMENTS, PRODUCTS AND EXECUTION RELATED TO CONSTRUCTION OF BUT NOT LIMITED TO; CLEARING, GRUBBING, ROADS, UTILITY TRENCH EXCAVATION, BORROW, SUBGRADE, SUBBASE, GRANULAR FILL, AND AGGREGATE BASE
- 2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MARK OR DELINEATE THE FOLLOWING PROJECT FEATURES USING APPROPRIATE MEANS, INCLUDING BUT NOT LIMITED TO LATH MARKERS, SURVEYORS RIBBON, PIN FLAGS, BARRIER FENCE, OR SUITABLE EQUIVALENT. A.PROPOSED FACILITY COMPONENTS DEPICTED ON THE CONSTRUCTION DRAWINGS
- **B. STREAMS AND WETLANDS**
- C. VEHICLE TRAVEL CORRIDORS, STREAM CROSSING LOCATIONS
- D.LIMITS OF CLEARING AND DISTURBANCE
- E. PROTECTED CULTURAL AND NATURAL RESOURCES
- 3. THE CONTRACTOR SHALL NOTE THE CONDITION OF ANY EXISTING FEATURES NOT INDICATED FOR REMOVAL THAT MAY BE IMPACTED BY PROJECT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE
- FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FEATURES AT THEIR EXPENSE. 4. DISRUPTION TO REGULATED WETLANDS AND PROTECTED HABITAT SHALL BE MINIMIZED. THE CONTRACTOR SHALL NOTIFY NHDES FIELD REPRESENTATIVE, AND THE APPLICANT'S REPRESENTATIVE OF ANY ACTIVITIES THAT VIOLATE OR MAY VIOLATE EITHER THE TERMS OF THE CERTIFICATE OR THE ENVIRONMENTAL CONSERVATION LAW. DES STAFFS' FIELD REPRESENTATIVES WILL WORK COOPERATIVELY TO DETERMINE WHETHER STOP WORK AUTHORITY WILL BE EXERCISED. OR WHETHER TO DIRECT THE APPLICANT TO TAKE ACTION TO FURTHER MINIMIZE IMPACTS TO STREAMS AND WETLANDS.

- INCLUDE THE FOLLOWING RESTRICTIONS:
- FEET OF WETLANDS;
- B. NO UNNECESSARY REMOVAL OF WOOD VEGETATION WITHIN WETLAND AND STREAM BUFFERS OR DEGRADATION OF STREAM BANKS;
- PROJECT DOCUMENTS;
- CONTAINERS.
- 6. AT THE END OF EACH WORK DAY ALL EQUIPMENT AND MACHINERY SHALL BE STORED AND SAFELY
- PETROLEUM PRODUCTS.
- CONTAINED AND SPILLS CLEANED UP IMMEDIATELY.
- REQUIREMENTS.
- DESIGNATED PARKING AND MATERIAL LAYDOWN AREAS.

GENERAL ENVIRONMENTAL RESTRICTIONS:

- DOCUMENTS.
- VEHICLE CONTAINING AN APPROVED CHEMICAL TREATMENT) SHALL BE MADE AVAILABLE AS NEEDED.
- NOISE BUFFER.
- LIFE IS EXPRESSLY PROHIBITED.
- (LATEST EDITION).

NON-AGRICULTURAL LAND RESTRICTIONS

- LIMITED TO, THE FOLLOWING:
- A. TOPSOIL STRIPPING AND STOCKPILING, B. USE OF CONSTRUCTION MATTING, LAYER,
- D.REGRADING AND SPREADING PREVIOUSLY STRIPPED TOPSOIL, E. DRAINAGE SYSTEM REPAIR OR ALTERATION.
- PRESCRIBED BY THE PERMIT.
- TREATMENTS: OTHER POTENTIALLY HARMFUL ACTIVITY SHALL BE STRIPPED AND STOCKPILED.
- AND ALLOWED TO RE-VEGETATE NATURALLY.
- BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.
- 5. TOPSOIL STRIPPED FROM WORK SITES SHALL BE SEGREGATED FROM OTHER SOIL PRODUCTS AND USED FOR RESTORATION OF THAT SITE.



5. RESTRICTED ACTIVITIES PERTAIN TO A BUFFER ZONE OF 100 FEET ON EITHER SIDE OF THE BOUNDARIES OF WATER-RELATED RESOURCES (STREAMS, WETLANDS, SPRINGS, WELLS, DRAINAGE, ETC.) AND

A.NO DEPOSITION OF SLASH WITHIN IDENTIFIABLE STREAM CHANNELS OR WOOD CHIPS WITHIN 25

C.NO EQUIPMENT WASHING OR REFUELING EXCEPT AS SPECIFICALLY PERMITTED BY THE FINAL

D. AND NO STORAGE, MIXING, OR HANDLING OF ANY PETROLEUM OR CHEMICAL MATERIALS IN OPEN

CONTAINED MORE THAN 100 FEET LANDWARD OF ANY REGULATED WETLAND OR WATER BODY. 7. ALL MOBILE EQUIPMENT, EXCLUDING DEWATERING PUMPS, SHALL BE FUELED IN LOCATIONS THAT ARE A MINIMUM OF 100 FEET FROM THE TOP OF STREAM BANK, WETLAND, OR WATER BODY. DEWATERING PUMPS OPERATING CLOSER THAN 100 FEET FROM THE STREAM BANK WETLAND, OR WATER BODY MUST BE ON AN IMPERVIOUS SURFACE WITH ABSORBENTS CAPABLE OF CONTAINING ANY LEAKAGE OF

8. ALL EQUIPMENT USED WITHIN BED OR BANKS OF STREAMS OR IN REGULATED WETLANDS AND 100-FOOT WETLAND BUFFER ZONES MUST BE INSPECTED DAILY FOR LEAKS OF PETROLEUM, OTHER FLUIDS, OR CONTAMINANTS. EQUIPMENT FOUND TO BE LEAKING SHALL BE REMOVED FROM THE WORK SITE; LEAKS

9. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE SPECIFIC CUT AND FILL CONSTRUCTION

10. ALL VEHICLE TRAFFIC AND PARKING SHALL BE CONFINED TO THE DESIGNATED WORK AREAS, AND/OR

1. ALL EQUIPMENT ACCESS, STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING, AND OTHER CONSTRUCTION ACTIVITIES ARE RESTRICTED TO THE DESIGNATED ACCESS ROADS, LAYDOWN AREAS, SUBSTATION SITE, COLLECTION LINE AND TRANSMISSION LINE ROUTES AS INDICATED BY THE PROJECT

2. FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. THESE MEASURES INCLUDE THE APPLICATION OF MULCH, WATER, OR STONE ON ACCESS ROADS, EXPOSED SOILS, STOCKPILED SOILS, OR UNPAVED PUBLIC ROADS WHEN DRY, WINDY CONDITIONS EXIST. A WATERING VEHICLE (OR A

3. CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITION. ALL MOTORS AND ENGINES SHALL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH STATE ENVIRONMENTAL LAW. ANY FAULTY NOISE SUPPRESSOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EQUIPMENT SHALL NOT BE LEFT RUNNING UNNECESSARILY. EXISTING TALL GROWING VEGETATION SHALL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE, TO SERVE AS A

4. ALL FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, SAND, AND/OR GRAVEL THAT IS FREE OF THE FOLLOWING SUBSTANCES: ASPHALT, SLAG, FLY ASH, DEMOLITION DEBRIS, BROKEN CONCRETE, GARBAGE, HOUSEHOLD REFUSE, TIRES, WOODY MATERIALS, AND METAL OBJECTS. REASONABLE EFFORTS SHALL BE MADE TO USE FILL MATERIALS THAT ARE VISUALLY FREE OF INVASIVE SPECIES BASED ON ONSITE AND SOURCE INSPECTIONS. THE INTRODUCTION OF MATERIALS TOXIC TO AQUATIC

5. INDIRECT IMPACTS TO STREAMS AND WETLANDS SHALL BE CONTROLLED THROUGH THE EMPLOYMENT OF APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED STATION PROCEDURES. MEASURES TO BE EMPLOYED SHALL INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, CHECK DAMS, MULCH, TEMPORARY SEEDING, AND OTHER PRACTICES AS OUTLINED IN THE NEW HAMPSHIRE STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

6. IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS, HUMAN REMAINS, OR EVIDENCE OF HUMAN BURIALS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE VICINITY OF THE FIND SHALL BE IMMEDIATELY HALTED AND THE APPROPRIATE STATION PERSONNEL SHALL BE NOTIFIED. 7. EXCESS CONCRETE AND EXCAVATION SPOILS SHALL BE PROPERLY DISPOSED OF OFF SITE.

1. NON-AGRICULTURAL LAND MITIGATION, RESTORATION, AND CLEAN UP MAY INCLUDE, BUT IS NOT

C.PLACEMENT AND COMPACTION OF STONE BEARING LAYER WITH OR WITHOUT GEOSYNTHETIC

2. TEMPORARY GRAVEL ROADS, TEMPORARY CULVERTS, TIMBER MATS, AND SIMILAR TEMPORARY MEASURES SHALL BE REMOVED AND THE IMPACTED AREAS RESTORED WITHIN THE TIMEFRAME

3. RESTORATION OF DISTURBED AREAS, TEMPORARY ROADS AND WORK PLATFORMS ON NON-AGRICULTURAL LANDS SHALL INCLUDE THE FOLLOWING PRE- AND POST-CONSTRUCTION

A. TOPSOIL WITHIN CONSTRUCTION AREA SUBJECT TO VEHICLE TRAFFIC, MATERIAL STOCKPILING OR

B. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY ROADS AND WORK SITES SHALL BE SCARIFIED/DECOMPACTED AND STOCKPILED SOIL SPREAD AND THE AREA STABILIZED

C. APPROVED SWPPP/ESC CONTROLS, INCLUDING BIODEGRADABLE MEASURES, SHALL BE PROVIDED

AND SHALL REMAIN IN PLACE UNTIL THE RESTORED AREA HAS BEEN RE-VEGETATED. 4. ALL EXISTING DRAINAGE AND EROSION CONTROL FEATURES NOT INDICATED FOR REMOVAL SHALL BE

AVOIDED OR PROTECTED FROM DAMAGE. ANY FEATURES DISTURBED DURING CONSTRUCTION SHALL

STOCKPILED IN AREAS IMMEDIATELY ADJACENT TO WHERE IT WAS REMOVED. THE TOPSOIL SHALL BE

EROSION & SEDIMENT CONTROL NOTES

- 1. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- 3. TEMPORARY WATER DIVERSION SHOULD BE USED AS NECESSARY UNTIL DISTURBED AREAS ARE
- STABILIZED. 4. ALL CUT AND FILL SLOPES SHALL BE LOAMED/SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED
- GRADE. 5. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY, AND AFTER EVERY HALF-INCH OF RAINFALL
- 6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN
- INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 7. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

WINTER CONSTRUCTION NOTES

FOR WORK PROPOSED DURING THE WINTER SEASON (TYPICALLY NOVEMBER 1 - APRIL 15), THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PRACTICES:

- 1. LIMIT THE TOTAL AREA OF EXPOSED SOIL TO THAT IN WHICH EARTH WORK CAN BE COMPLETED WITHIN 15 DAYS AND MULCHED WITHIN ONE DAY PRIOR TO A SNOW EVENT.
- 2. EXPOSED SOIL MAY BE LEFT BARE FOR NO MORE THAN 15 DAYS.
- 3. MULCH ALL EXPOSED SOIL WHERE NO ACTIVITY IS SCHEDULED WITHIN 7 DAYS AND PRIOR TO A FORECASTED SNOW EVENT OF MORE THAN 1 INCH.
- 4. WHERE PRACTICABLE, MULCH SHOULD BE APPLIED AT THE END OF EACH DAY'S WORK FOR AREAS THAT ARE FINAL GRADED. OTHERWISE, MULCH THE FOLLOWING DAY.
- 5. DO NOT APPLY MULCH OVER MORE THAN 1 INCH OF SNOW. 6. HAY OR STRAW MULCH SHALL BE APPLIED AT 140 LBS/1000 S.F. (APPROX.. 4 BALES) AND SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- 7. ECM IS THE PREFERRED MULCHING MATERIAL AND SHALL BE APPLIED AT A MINIMUM 4 INCH THICKNESS, WITH HIGHER AMOUNTS AS DESCRIBED HEREIN.
- 8. ECM IS THE PREFERRED EROSION CONTROL BARRIER. IF ECM IS NOT AVAILABLE, INSTALLATION OF SILT FENCE ON FROZEN GROUND MAY BE MODIFIED FROM ILLUSTRATIONS AND DETAIL DRAWINGS TO SUBSTITUTE SIX INCHES OF SUITABLE NON-ORGANIC MATERIAL OVER THE BOTTOM OF THE SILT FENCE IN LIEU OF TRENCHING AND BACKFILLING FABRIC.
- 9. A DOUBLE ROW OF EROSION CONTROL BARRIER WILL BE USED WHERE REQUIRED WITHIN 100 FEET OF WETLANDS AND WATER BODIES.
- 10. INSPECTION OF EROSION CONTROL MEASURES AND ANY NEEDED REPAIR/REPLACEMENT OF WHICH SHALL OCCUR EACH DAY.
- 11. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH NETTING, ELSEWHERE.
- 12. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS
- 13. AFTER OCTOBER 15, 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 PER NHDOT ITEM 304.3.

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MULCH AND SEEDING SPECIFICATIONS

	OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS
TEMPORARY	
WITHIN 100 FEET OF WETLANDS AND WATERBODIES	APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED 3 MUST BE DONE WITHIN 48 HOURS OF INITIAL SOIL DISTURBANCE AND BEFORE FORECASTED STORM EVENTS, UNLESS OTHERWISE SPECIFIED. IF FINAL RESTORAT IS NOT SCHEDULED WITHIN 30 DAYS, APPLY ANNUAL RYEGRASS AT 1LB/1000 S.F.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES LESS THAN 8% AND SOILS STOCKPILES	IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL*, UNLESS SPECIFIED OTHERWISE. E MAY BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1 LB/1000 S.F. FOR AREAS WHERE ADDITIONA ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. AN EROSION CONTROL BARRIER MUST BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES GREATER THAN 8%	IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS OR PRIOR TO A STORM EVENT, APPLY HAY OR STRAW MULCH AT THE ABOVE RATES.* HAY OR STRAW MUST ANCHORED, UNLESS SPECIFIC SITE CONDITIONS DO NOT REQUIRE USE OF ANCHOR ECM** OR MATTING MAY ALSO BE USED. TEMPORARY SEEDING WITH ANNUAL RYEG AT 1LB/1000 S.F. IS ALSO RECOMMENDED FOR AREAS WHERE FINAL STABILIZATION I NOT EXPECTED FOR SEVERAL MORE WEEKS.
TEMPORARY SEEDBED PREPARATION	APPLY LIMESTONE AND FERTILIZER (UPLANDS ONLY) ACCORDING TO SOIL TEST DAT SOIL TEST IS NOT POSSIBLE, 10-0-10 FERTILIZER MAY BE APPLIED AT A RATE OF 600 LBS/ACRE AND LIMESTONE AT 3 TONS/ACRE. LOOSEN COMPACTED SOILS.
TEMPORARY SEEDING IN WETLANDS	IF REQUIRED, APPLY ANNUAL RYEGRASS AT A RATE OF 1 LB/1000 S.F. AND COVER W STRAW MULCH. DO NOT ADD LIME OR FERTILIZER TO WETLANDS.
FINAL RESTORATION	
PERMANENT MULCHING	ECM CAN BE USED AS A TEMPORARY OR PERMANENT SLOPE REINFORCEMENT AND TO RE-VEGETATE TO NEAR NATURAL CONDITIONS. IT IS NOT USED WHERE GRASS VEGETATION IS REQUIRED. RE-VEGETATION CAN BE ENHANCED BY SEEDING, WHIC ENCOURAGED IF USED AS A PERMANENT STABILIZATION MEASURE. PERMANENT MU MUST NOT BE USED IN AREAS OF CONCENTRATED WATER FLOWS AND EVIDENCE OF GROUNDWATER SEEPAGE ON SLOPES MAY REQUIRE THE ECM TO BE REPLACED WI RIPRAP.
	 ON SLOPES THAT ARE 3H:1V OR LESS, ECM SHALL BE APPLIED AT A MINIMUM OF INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FI (E.G. 3 INCHES THICK FOR 60 FEET OF SLOPE; 4 INCHES THICK FOR 100 FEET OF SLOPE). FOR SLOPES BETWEEN 3H:1V AND 2H:1V, ECM WILL BE APPLIED 4 INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 5 INC THICK FOR 60 FEET OF SLOPE; 6 INCHES THICK FOR 100 FEET OF SLOPE) ECM MUST BE SPREAD EVENLY AND MUST PROVIDE 100 PERCENT SOIL COVERAGE
PERMANENT RE-VEGETATION	PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANEN SEEDING MIX SPECIFICATIONS ARE BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEAS ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES SHEET G-2).

* MULCH APPLICATION RATES SHALL BE DOUBLED FOR WINTER CONSTRUCTION **MINIMUM ECM THICKNESS IS 4 INCHES FOR WINTER CONSTRUCTION

PERMANEN	T SEED MIX SPECIFICATIONS			
	SOIL AMENDMENTS	SEED MIX VARIETIES	SEED RATE, LB/ACRE	MULCH, TONS/ACRE
UPLAND	APPLY GROUND LIMESTONE @ 3 TONS/ACRE	CREEPING RED FESCUE/(PENNLAWN, ENSYLA, WINTERGREEN)	20	1.5-2 (90-100 BALES)
	APPLY 10-20-20 FERTILIZER @ 800 LBS/ACRE	REDTOP/(ANY NATIVE SPECIES)	2	
		TALL FESCUE/(KENTUCKY 31)	20	
WETLAND	NONE	ANNUAL RYEGRASS, IF REQUIRED (ANY NATIVE SPECIES)	40	1.5-2 (90-100 BALES)

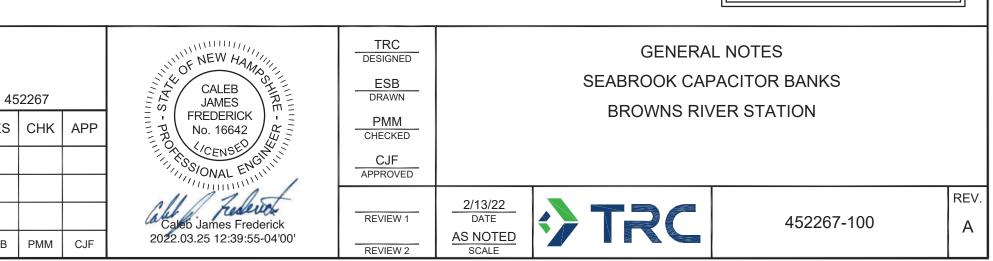
INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING.

 ADD WINTER RYE TO THE UPLAND MIX AT A RATE OF 120 LB/ACRE AFTER OCTOBER 1 SEED OR MULCH WETLANDS ONLY WHERE REQUIRED BY THE ELOR 3PI. OR WHEN RESTORATION OCCURS AFTER

OCTOBER 1. TYPICALLY, REPLACING THE ORIGINAL WETLAND SOIL ON THE RESTORED SURFACE WILL PROVIDE AN ADEQUATE SEED BED. DO NOT LIME OR FERTILIZE ANY AREAS WITHIN THE WATER BODY BUFFERS OR WETLANDS.

MULCH WETLANDS WITH WEED-FREE STRAW ONLY.

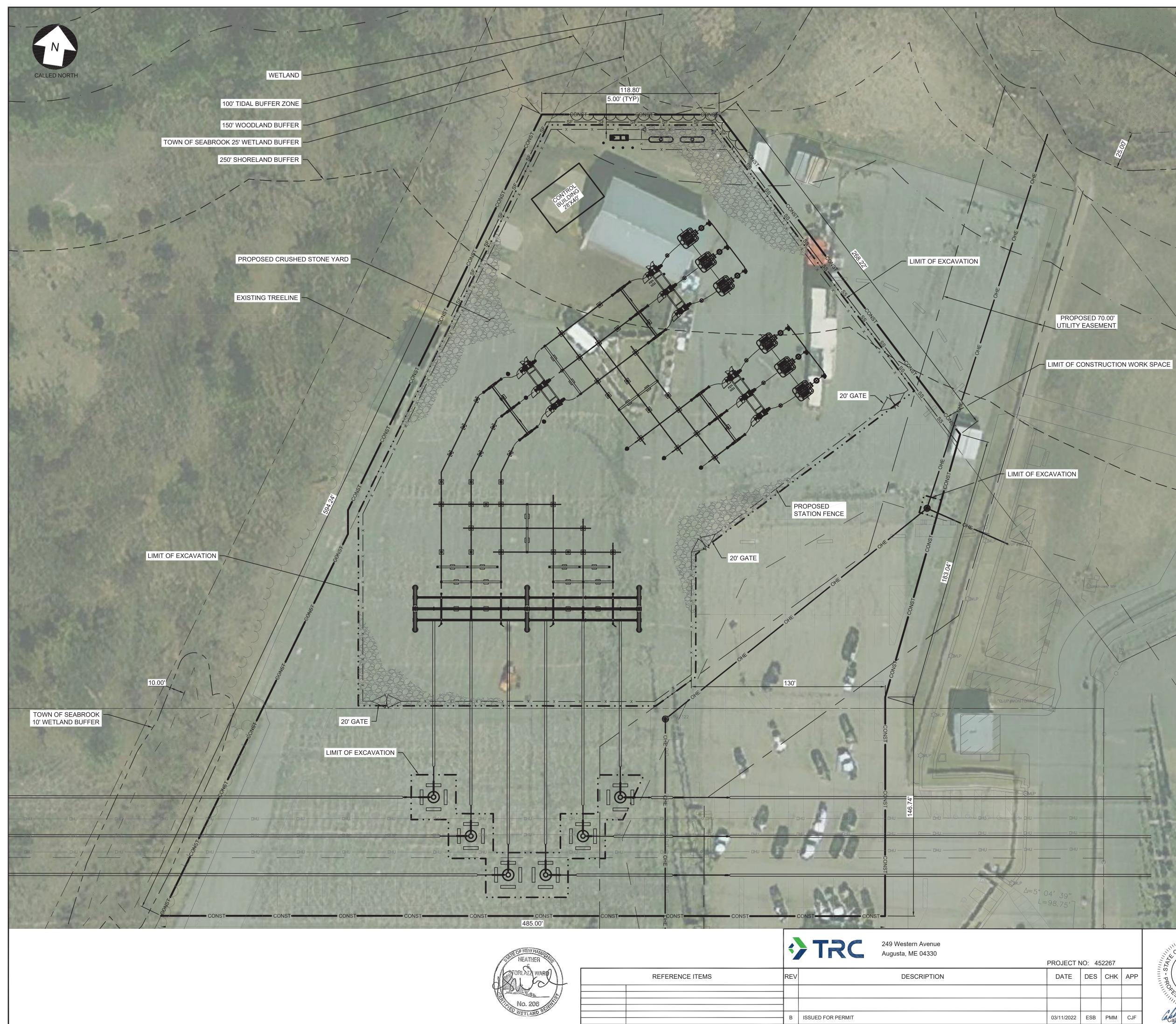
THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL RE-VEGETATED AREAS UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. FOLLOWING FINAL SEEDING THE CONTRACTOR WILL INSPECT RESTORED AREAS EVERY 30 DAYS UNTIL 90 PERCENT VEGETATIVE COVER HAS BEEN ESTABLISHED UNLESS ADJACENT. UNDISTURBED AREAS INDICATE THAT ACHIEVING THAT LEVEL OF VEGETATION IN THE AREA IS UNLIKELY. WHERE SEEDED AREAS HAVE BECOME ERODED OR DAMAGED BY CONSTRUCTION OPERATIONS, OR WHERE POOR GERMINATION IS OBSERVED, THE AFFECTED AREAS WILL BE PROMPTLY RE-GRADED, LIMED, FERTILIZED, AND RE-SEEDED AS NEEDED UNTIL THE ABOVE CRITERIA ARE MET. THE CONTRACTOR MAY BE REQUIRED TO RE-SEED DURING THE FOLLOWING SPRING IN ORDER TO ACHIEVE THE REQUIRED VEGETATIVE COVER



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	SK-OP3.1	GENERAL ARRANGEMENT PLAN	A	ISSUED FOR REVIEW	12/15/2021	ESB

SHORELAND REFERENCE LINE

LEGEND

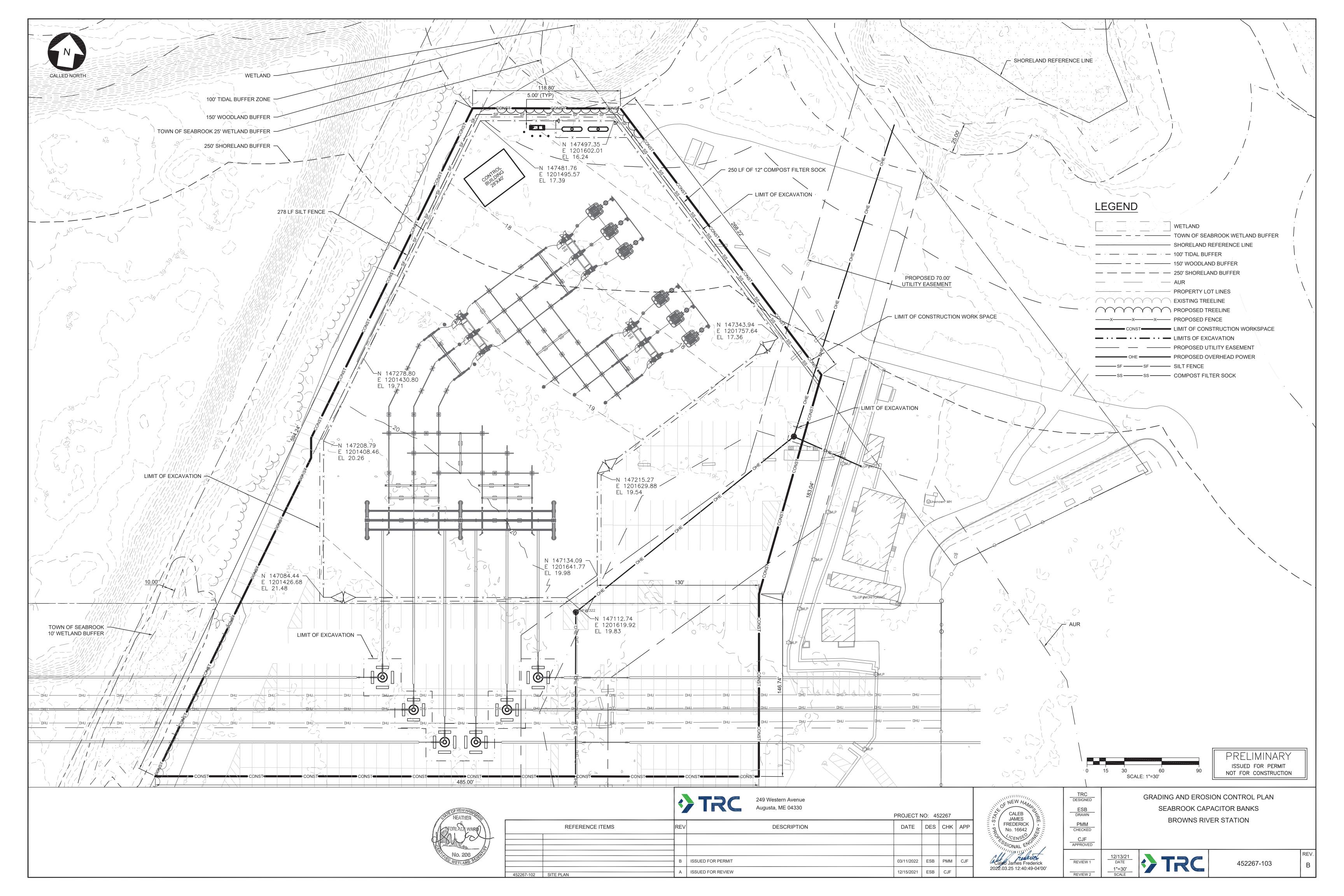
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	150' WOODLAND BUFFER
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	PROPERTY LOT LINES
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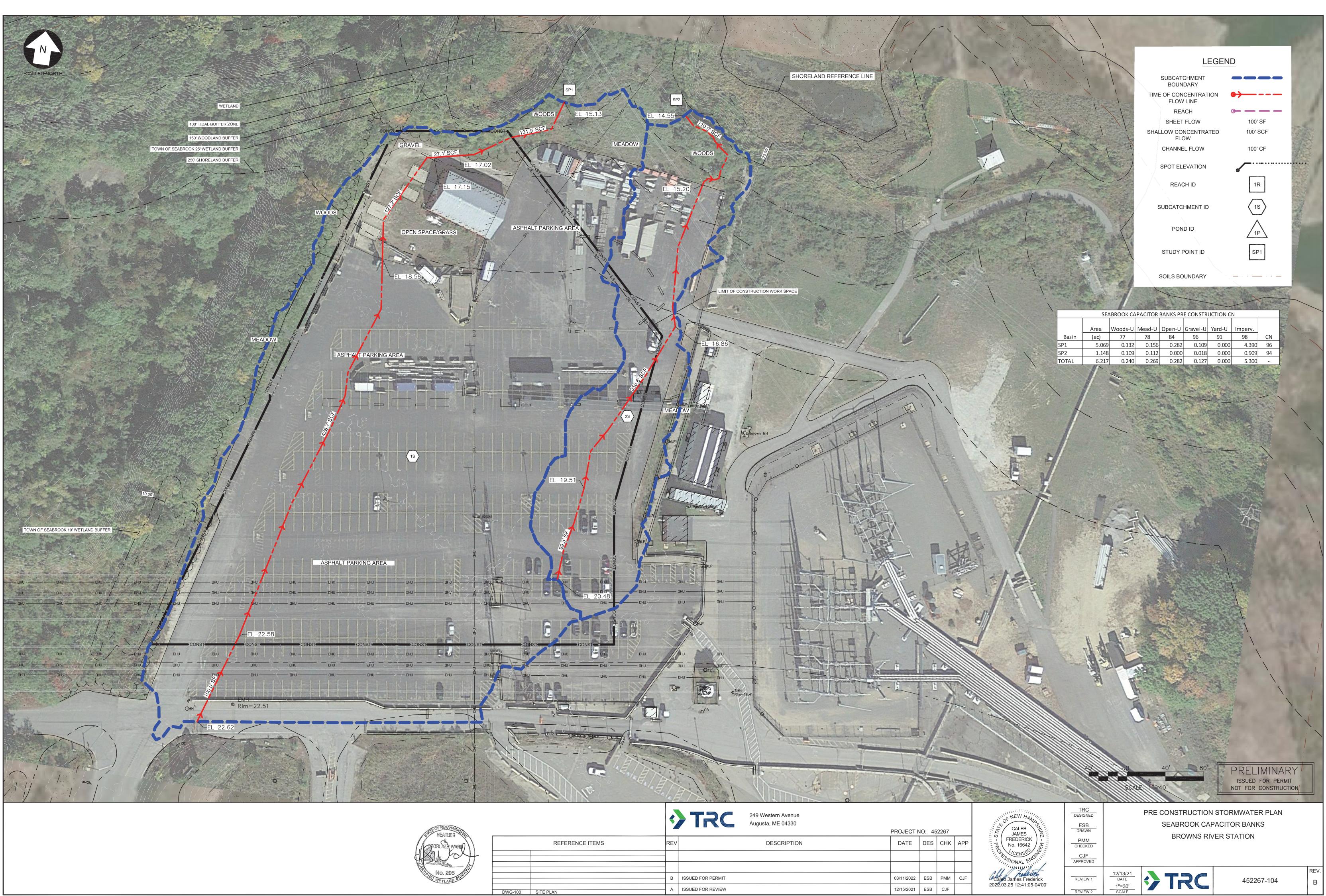
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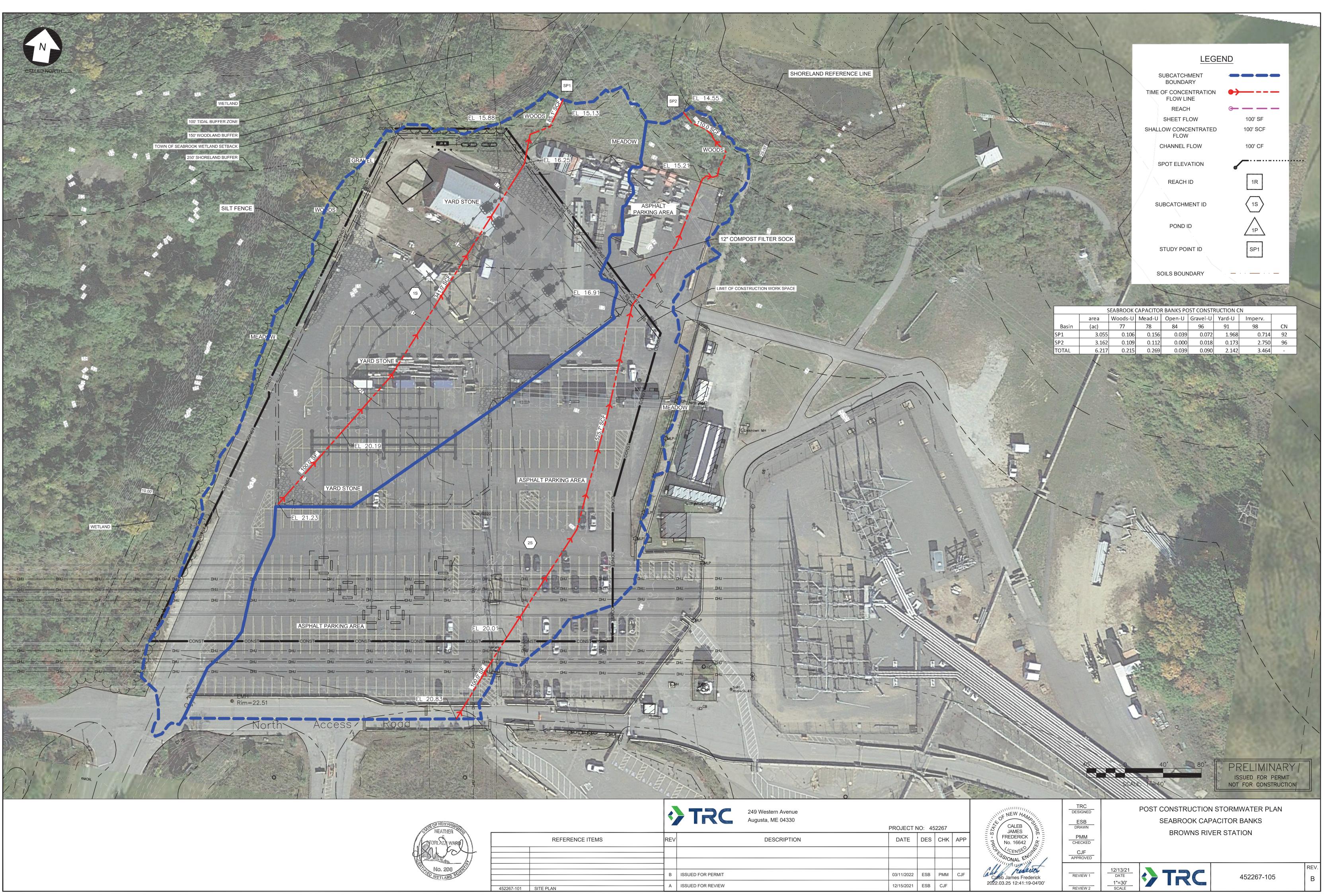
REVIEW 2





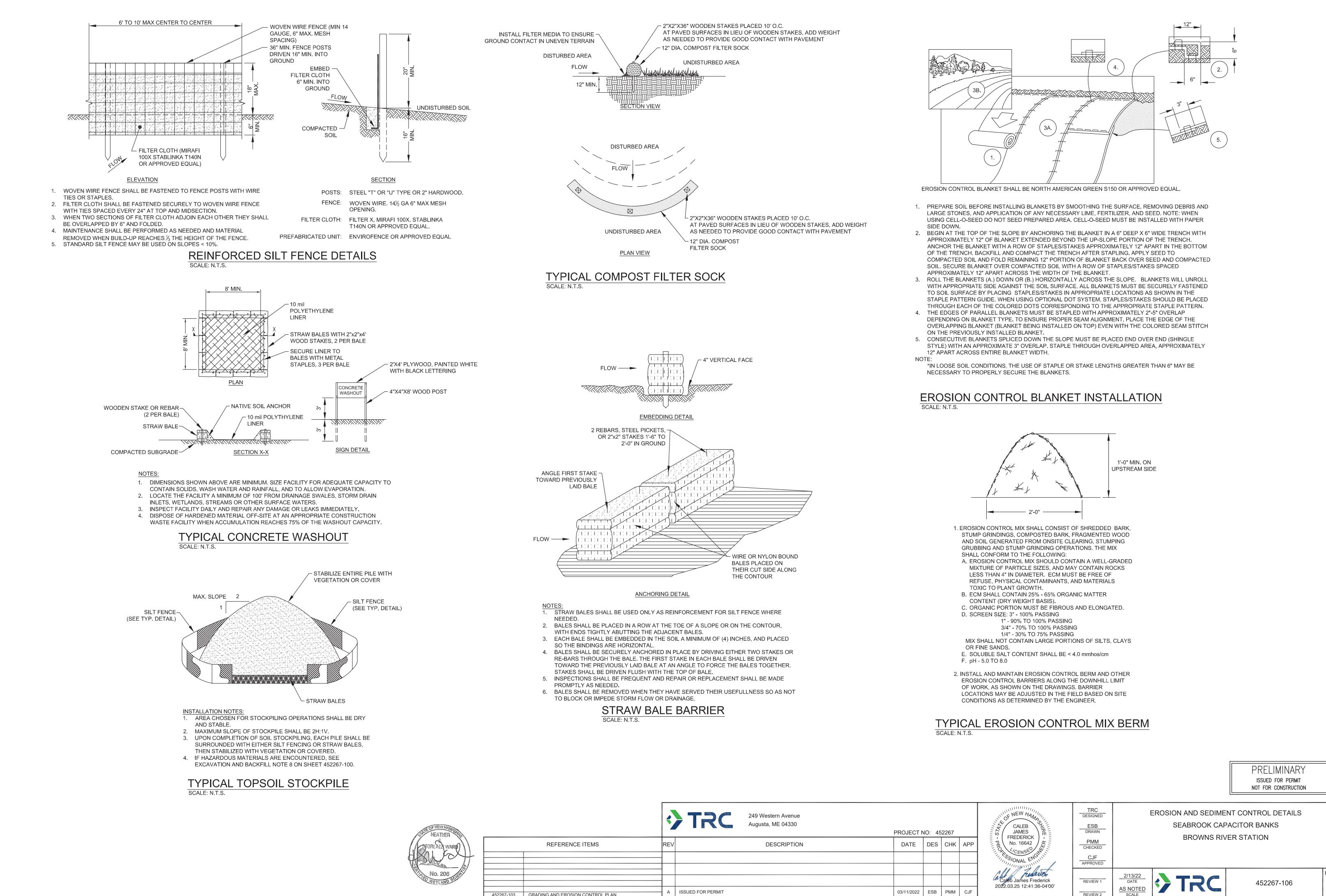


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NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES

SEABROOK CAPACITOR BANKS PROJECT

SHORELAND PERMIT APPLICATION (SEC Docket No. 2021-05)

Submitted by:



New Hampshire Transmission, LLC 700 Universe Boulevard Juno Beach, FL 33408

Prepared by:

TRC

TRC 249 Western Avenue Augusta, ME 04330

April 2022



TRANSMITTAL LETTER

TRC 249 Western Avenue Augusta, ME 04330 Telephone 207-621-7000

To:		Eben Lewis, N 29 Hazen Driv		Date:	April 1, 2022			
	Concord, NH 03302							
CC:	C: Corinne DiDomenico, NEET Kim Austin, NEE Doug Patch, Orr & Reno Dana Valleau, TRC Project File 453723.0000.0000			Project No: Project Name:	453723.0000.0000 Seabrook Capacitor Banks Project			
Via			ourier 🗌 Overnig	ht Pick-up	X Hand Delivered			
we are	enclosir	ng the following	g:					
	Shop Dra	wings	Prints	Plans	Specifications			
	Copy of L	etter	Change Order	X Permit Application	Other			
CC	PIES	DATE		DESCRIP	ΤΙΟΝ			
	1	04/1/2022	One hard copy of th	ne NHDES Shorelan	d Application			
XF	or proce	ssing	For your review and	I comment Re	turned for corrections			
X	or your	use	Approved as submit	tted Re	submit copies for approval			
/	As requested Approved as noted Return corrected prints							
Com	ments:	Hi Eben,						
	On behalf of New Hampshire Transmission, LLC (NHT or the Applicant), please find attached one copy of the Seabrook Capacitor Banks Project Shoreland Application, also submitted to you electronically on April 1, 2022.							
			ntact me at 207-317-6 or concerns. I thank y		<pre>urd@trccompanies.com with any nce!</pre>			
	Heather							

Sincerely,

ASWard



249 Western Ave. Augusta, ME 04330

April 1, 2022

Mr. Eben Lewis New Hampshire Department of Environmental Services Water Division / Land Resources Management – Shoreland Program 29 Hazen Drive PO Box 95 Concord, NH 03302-0095

RE: Application for Shoreland Permit for the Seabrook Capacitor Banks Project New Hampshire Transmission Proposed Capacitor Banks 626 Lafayette Road, Seabrook, NH TRC Project No. 453723.0000.0000

Dear Mr. Lewis:

On behalf of New Hampshire Transmission, LLC (NHT or the Applicant), TRC Companies, Inc. (TRC) is pleased to submit the enclosed Shoreland Permit application for the Seabrook Capacitor Banks Project (Project). The Project includes the construction of a capacitor bank and associated infrastructure named the Browns River Station (Facility) to be constructed on the Seabrook Station site, located at 626 Lafayette Road, in Seabrook, New Hampshire. The Project is located on a small portion of parcel 11-2. Parcel 11-2 is approximately 577 acres in size according to the Town of Seabrook publicly available GIS maps. The proposed Facility will utilize 2.06 acres (the Project Area) for the capacitor banks, circuit breakers, busswork, aboveground electric lines, control house, and other appurtenant infrastructure (e.g., security fencing, etc.). The subject Project Area is currently developed with an existing parking lot, office trailers, and equipment storage area. The Project requires a Shoreland Permit by Notification (PBN) for geotechnical investigations, an Alteration of Terrain (AoT) permit and is also applying for an exemption under the Site Evaluation Committee (SEC) Docket No. 2021-05.

The Project Area will predominantly impact previously developed, impervious areas and has been designed to avoid impacts to wetlands and the 100-foot Tidal Buffer Zone. The Project footprint within the proposed safety fence, is less than 2.06 acres, disturbs approximately 2.26 acres, and replaces existing pavement with crushed stone, reducing overall impacts to stormwater runoff. The Project is utilizing existing paved areas for construction workspace which will not be disturbed. As the post-construction peak runoff rates are not greater than the pre-construction peak runoff rates, we do not anticipate adverse effects to stormwater quantity or quality. Furthermore, the Project avoids tree clearing to the greatest extent practicable; therefore, environmental impacts associated with the Project are not significant. All associated Project work will occur within uplands that are on historic fill and are adjacent to the Seabrook Station. There are no direct impacts to Browns River and no impacts to the water quality of Browns River, or it's associated salt marsh (both located to the north of the Project Area) are expected to result from Project work.

The Project qualifies as a public utility project, and therefore the Applicant is not required to notify abutters (RSA-483-B:5-b, IV-a). However, an abutter list has been included as requested at the pre-application meeting, held via Teams on December 15, 2021. The Town of Seabrook has been notified of the application via certified mail, with a letter describing the Project, included in Attachment 8. Furthermore, NHT has met with the Town of Seabrook, providing an overview of the proposed Project. A New Hampshire Natural Heritage Bureau (NHNHB) datacheck was conducted for the Project. No

Mr. Eben Lewis April 1, 2022 Page 2 of 2

rare wildlife occurrences were reported however, several rare plant/community occurrences were noted within 0.5 miles of the Project Area. Please see correspondence in Attachment 9.

The following submissions are enclosed:

- Attachment 1: Shoreland Application Form;
- Attachment 2: Application Fee Documentation;
- Attachment 3: Copy of Recorded Deed of Current Property Owner;
- Attachment 4: USGS Map;
- Attachment 5: Photographs of the Project Area;
- Attachment 6: Tax Map;
- Attachment 7: Abutter List;
- Attachment 8: Certified Mail Receipt and Letter to Town of Seabrook;
- Attachment 9: New Hampshire Natural Heritage Bureau Consultation;
- Attachment 10: Property Interest Documentation;
- Attachment 11: Natural Woodland Overview Map; and,
- Attachment 12: Seabrook Capacitor Banks Civil Plan Set.

If you or other Department staff have any questions as you conduct your review, please do not hesitate to contact me at (207) 317-6630 or via email at <u>hstorlazziward@trccompanies.com</u>.

Respectfully submitted,

Heather Storlazzi Ward, NHCWS Senior Wetland Scientist

Enclosures

cc: Corrinne DiDomenico, NEET Kim Austin, NEE Dana Valleau, TRC TRC Project File 453723.0000.0000



ATTACHMENT 1

Shoreland Permit Application Form





SHORELAND PERMIT APPLICATION Water Division/ Land Resources Management Shoreland Program Check the Status of your Application



RSA/Rule: RSA 483-B, Env-Wq 1400

			File No.:
Administrative Use Only	Administrative Use Only	Administrative Use Only	Check No.:
			Amount:
			Initials:

This is an application for a permit to excavate, fill, construct new structures, or remove structures within the protected shoreland as regulated under RSA 483-B.

SECTION 1 - PROJECT DESCRIPTION (Env-Wg 1406.07) Provide a concise description of the proposed project: The Seabrook Capacitor Banks Project proposes to construct a capacitor bank in an existing parking lot, within the Seabrook Station. Project components include capacitors, switches, busswork, control house, aboveground electric lines, and other necessary appurtenant infrastructure (e.g., interior access road, security fencing). Capacitor banks are specifically used to improve operating efficiency of the electric power grid and help with transmission voltage stability during disturbances and/or high load conditions. SECTION 2 - PROJECT LOCATION (Env-Wq 1406.07) TOWN/CITY: Seabrook ZIP CODE: 03874 ADDRESS: 626 Lafayette Rd STATE: NH WATERBODY NAME: Browns River TAX MAP/ BLOCK/LOT NUMBER : 11-2 SECTION 3 - PROPERTY OWNER & DEED INFORMATION (Env-Wq 1406.07) The legal name of each property owner must be as it appears on the deed of record. If the owner is a trust or a company, then the name of the trust or company should be written as the owner's name. LAST NAME, FIRST NAME, M.I: Nextera Energy Seabrook, LLC attn: Lawrence Dernulc TOWN/CITY: Juno STATE: FL ZIP CODE: 33408 MAILING ADDRESS: 700 Universe Blvd Beach PHONE: 561-691-7234 EMAIL (if available): Lawrence.Dernulc@nexteraenergy.com REGISTRY OF DEED COUNTY Rockingham, BOOK NUMBER 3875 , PAGE NUMBER 2231 SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER), IF DIFFERENT THAN OWNER (Env-Wq 1406.07) If the applicant is a trust or a company, then the name of the trust or company should be written as the applicant's name. If the applicant is the owner, leave blank and check the following box: LAST NAME, FIRST NAME, M.I: New Hampshire Transmission, LLC attn: Richard W. Allen MAILING ADDRESS: 700 Universe Blvd TOWN/CITY: Juno Beach STATE: FL ZIP CODE: 33408

shoreland@des.nh.gov or (603) 271-2147

NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

PHONE: 518-522-3449 EMAIL (if available): Richard.Allen2@nexteraenergy.com								
SECTION 5 - CONTRACTOR OR AGENT (OPTIONAL)								
LAST NAME, FIRST NAME, N	1.I: TRC Compan	nies, Inc. att	n: Dana Valle	au				
ADDRESS: 249 Western Ave			TOWN/CIT	Y: Aug	usta	STATE: ME	ZIP CODE: 04330	
PHONE: 207-215-4582	E	EMAIL (if av	vailable): dval	leau@	trccompani	ies.com		
SECTION 6 - CRITERIA (Env-	Wq 1406.07)							
 Please check at least one of the following criteria: This shoreland permit application requires neither a proposal to make the property more nearly conforming nor a request for a waiver of a minimum standard. This shoreland permit application includes a proposal to make the structures and/or the property more nearly conforming in accordance with RSA 483-B:11. 							y more nearly	
This shoreland permit ap B:9, V	oplication includ	les a <u>reques</u>	<u>st for a waive</u>	r of the	e following	minimum stan	dard(s): RSA 483-	
SECTION 7 - RELATED NHDE PROJECT (Env-Wq 1406.14) Please indicate if any of the								
Permit Type	Permit Requi	ired	File Number		Permit Ap	plication Statu	IS	
Alteration of Terrain Permit per RSA 485-A:17	YES [] NO						
Individual Sewerage Disposal per RSA 485-A:29	YES 🕅	S NO				DING 🗌 DENIED		
Subdivision Approval per RSA 485-A:29	🗌 YES 📡	NO			APPR	OVED 🗌 PEN	DING 🗌 DENIED	
Wetlands Permit per RSA 482-A	🗌 YES 📡	NO			APPR	OVED 🗌 PEN	DING 🗌 DENIED	
SECTION 8 - REFERENCE LINE ELEVATION (Env-Wq 1406.07) Required for projects located on the protected shoreland of lakes or ponds. The reference line elevations for most lakes, ponds, and artificial impoundments greater than 10 acres in size are listed in the Consolidated List of Waterbodies Subject to the Shoreland Water Quality Protection Act. Please see RSA 483-B:4, XVII for the definition of reference line.								
REFERENCE LINE ELEVATION: NA feet above sea level. The Project is not located on the shoreland of a lake or pond .								
SECTION 9 - APPLICATION FEE & SUBMITTAL (RSA 483-B:5-b, I(b); RSA 483-B:5-b, X)								
A non-refundable permit application fee of \$200 plus \$0.20 per total square feet of impact for restoration of water quality improvement projects, or \$400 plus \$0.20 per total square feet of impact for all other projects is required at the time the application is submitted. Applications for projects solely funded by municipal, county, state, or federal entities shall incur a permitting fee no greater than \$3,750.								
Please mail or hand deliver this application and all required attachments to the NHDES Wetlands Bureau, PO Box 95, Concord, NH 03302-0095. Missing information will delay processing your application and may result in denial of a shoreland permit application. Please make checks payable to the Treasurer, State of NH .								
	shoreland@des.nh.gov or (603) 271-2147							

NHDES-W-06-037

NHDES-W-06-037

		APPLICATION FEE		

Total impact area is calculated by determining the sum of all areas disturbed by regrading, excavating, filling, construction, or structure removal. Impacts often include, but are not limited to: constructing new driveways, constructing new structures, areas disturbed when installing septic systems and foundations, creating temporary access roads to drill a new well, and regrading associated with landscaping activities.

TOTAL AREA IMPACTED WITHIN THE PROTECTED SHORE AND = 24,587.5

TOTALAR	TOTAL AREA IMPACTED WITHIN THE PROTECTED SHORELAND = (44,907.0 (A) square feet						
	storation of water quality improvement p ultiply line (A) by \$0.20 and add \$200. [(A)	-	nit fee ¹				
1	l other projects: 1ultiply line (A) by \$0.20 and add \$400. [(A)	× \$0.20 + \$400] = \$ ^{5,317,5}	nit fee ¹				
SECTION 1	11 - REQUIRED CERTIFICATIONS (Env-Wq 14	406.08; Env-Wq 1406.10(a))					
By initialin	g within the blank before each of the follow	wing statements, and signing below, you a	re certifying that:				
Initials:	The information provided is true, completed	te, and not misleading to the knowledge a	and belief of the signer.				
initials: BØS	 I understand that: Any permit or waiver granted based on false, incomplete, or misleading information shall be subject Initials: to revocation. 						
Initials: BOB	De la						
initials: BB	1 1 1 1 1 1 1 1 1 1						
Initials: BOJ	Initials: This project is within ¼ mile of a designated river and I have notified the Local River Management Advisory Committee (LAC) by providing the LAC with a copy of the complete application, including all						
Initials:	Initials: For any project proposing that the impervious area be at least 15% but not more than 20% within the protected shoreland, I certify that the impervious area is not more than 20%. X N/A						
	SECTION 12 - REQUIRED SIGNATURES (Env-Wq 1406.08) Both the property owner and applicant must sign the application.						
SIGNATURI	(OWNER):	PRINT NAME LEGIBLY; Brinn C. Booth	DATE: 2/28/22				
SIGNATURI	(APPLICANT) F DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY: Richard W. Allen	DATE: 3/7/22				
			1 ''				

¹ Applications for projects solely funded by municipal, county, state, or federal entities shall incur a permitting fee no greater than \$3,750.

² "Abutter" means any person who owns property that is immediately contiguous to the property on which the proposed work will take place, or who owns flowage rights on such property. The term does not include those properties separated by a public road or more than ¼ mile from the limits of the proposed work. If contiguous properties are owned by the person who is proposing the work, then the term includes the person owning the next contiguous property, subject to the ¼ mile limitation.

> shoreland@des.nh.gov or (603) 271-2147 NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095 http://www.des.nh.gov

SHORELAND APPLICATION WORKSHEET

This worksheet *must* be submitted to the NHDES Wetlands Bureau with every Shoreland Permit Application. A separate shoreland application worksheet must be submitted for each individual lot of record where impacts are proposed.

For the purposes of this worksheet, "**pre-construction**" impervious surface area³ means all human made impervious surfaces⁴ currently present within the protected shoreland of a lot, whether to be removed or to remain after the project is completed. "**Post-construction**" impervious area means all impervious surfaces that will exist within the protected shoreland of a lot upon completion of the project, including both new and any remaining pre-construction impervious surfaces. All answers shall be given in square feet.

CALCULATING THE IMPERVIOUS AREA OF A LOT WITHIN 250 FEET OF THE REFERENCE LINE (Env-Wq 1406.12)							
	POST-CONSTRUCTION IMPERVIOUS AREAS						
PRIMARY STRUCTURE(S) House and all attached decks and porches.	Building 8,701 FT ²		6,610 FT ²				
ACCESSORY STRUCTURES All other impervious surfaces	Paved	76,281 FT ²	66,903 FT ²				
excluding lawn furniture, well heads, and fences. Common	Packed Soil	41,602 FT ²	40,091 FT ²				
accessory structures include, but are not limited to:	Gravel	0 FT ²	23,553 FT ²				
driveways, walkways, patios, and sheds.		FT ²	FT ²				
		FT ²	FT ²				
		FT ²	FT ²				
	TOTAL: (A) 126,584 FT ²						
Area of the lot located within 25	(C) 2,957,743 FT ²						
Percentage of lot covered by pre reference line: [divide (A) by (C) >	(D) 4.28 %						
Percentage of lot to be covered by reference line upon completion of [divide (B) by (C) x 100]	(E) 4.64 %						

Calculating the Impervious Area of a Lot

³ "Impervious surface area" as defined in Env-Wq 1402.13 means, for purposes of the impervious surface limitation specified in RSA 483-B:9, V(g), the sum total of the footprint of each impervious surface that is located within the protected shoreland.

⁴ "Impervious Surface" as defined in RSA 483-B:4, VII-b means any modified surface that cannot effectively absorb or infiltrate water. Examples of impervious surfaces include, but are not limited to, roofs, and unless designed to effectively absorb or infiltrate water, decks, patios, and paved, gravel, or crushed stone driveways, parking areas, and walkways.

shoreland@des.nh.gov or (603) 271-2147 NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095 <u>http://www.des.nh.gov</u>

Stormwater Management Requirements

THE IMPERVIOUS AREA THRESHOLDS (RSA 483-B:9, V(g))

A net decrease or no net increase in impervious area is proposed (If **line E** is less than or equal to **line D**).

The percentage of post-construction impervious area (line E) is less than or equal to 20%.

This project **does not** require a stormwater management plan and **does not** require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.

A net increase in impervious area is proposed and the percentage of post-construction impervious area (line E) is greater than 20%, but less than 30%.

This project **requires** a stormwater management but, **does not** require a plan demonstrating that each waterfront buffer grid segment at least meets the minimum required tree and sapling point score.

See details on the Application Checklist

A net increase in impervious area is proposed and the percentage of post-construction impervious area (line E) is greater than 30%.

This project **requires** a stormwater management plan designed and certified by a professional engineer **and requires** plans demonstrating that each waterfront buffer grid segment meets at least the minimum required tree and sapling point score.

See details on the Application Checklist

Natural Woodland Area Requirement

DETERMINING THE AREA TO REMAIN AS NATURAL WOODLAND						
Total area of the lot between 50 feet and 150 feet of the reference line within which the vegetation currently exists as natural woodland ⁵ (see definition below).	(F)	1,114,231 FT ²				
Total area of the lot between 50 feet and 150 feet from the reference line.	(G)	1,241,160 FT ²				
At least 25% of area (G) must remain in as natural woodland. [0.25 x G]	(H)	310,290 FT ²				
Place the lesser of area (F) and calculation (H) on this line. In order to remain compliant with the natural woodland area requirement , this is the minimum area that must remain as natural woodland between 50 feet and 150 feet from the reference line. This area must be represented on all plans and this area, exclusive of existing lawn, must remain in an unaltered state ⁶ .	(I)	310,290 FT ²				
Name of person who prepared this worksheet: Rachel Jordan	•					
Name and date of the plan this worksheet is based upon: 1/6/2022 Google Satellite Imagery						

⁵ "Natural Woodland" means a forested area consisting of various species of trees, saplings, shrubs, and ground covers in any combination and at any stage of growth (483-B:4, XI).

⁶ "Unaltered State" means native vegetation allowed to grow without cutting, limbing, trimming, pruning, mowing, or other similar activities except as needed for renewal or to maintain or improve plant health (483-B:4, XXIV-b).

shoreland@des.nh.gov or (603) 271-2147 NHDES Shoreland Program, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095 http://www.des.nh.gov Keep this checklist for your reference; do not submit with your application.

APPLICATION CHECKLIST
Unless specified, all items listed below are required. Failure to provide the required items will delay a decision on your project and may result in the denial of your application. Please reference statute RSA 483-B, the Shoreland Water Quality Protection Act (SWQPA) and administrative rules Env-Wq 1400 et seq. of the SWQPA available online at <u>www.des.nh.gov</u> . This checklist is for your guidance only. Please submit the required items but do not submit this checklist to NHDES.
Required Attachments for All Projects (Env-Wt 1406.06, Env-Wq 1406.07; Env-Wq 1406.12; Env-Wq 1406.13)
Application fee required by RSA 483-B:5-b, I(b).
📉 A copy of the recorded deed of the current property owner.
A copy of the US Geological Survey map with the property and project located.
Photographs which clearly show the existing site conditions within the protected shoreland, including the area within 50 feet of all proposed impacts.
X A copy of the tax map showing the location and lot number of the proposed project.
A list of names and mailing addresses, as well as tax map and lot numbers, of all abutters (Env-Wq 1406.12(e)). Public infrastructure projects such as public roads, public utility lines, and associated structures and facilities, including public water access facilities, are not required to notify abutters (RSA-483-B:5-b, IV-a).
Certified mail receipts verifying that the governing body of the municipality in which the project will be located, the Local River Management Advisory Committee (LAC), if the project is within ¼ mile of a Designated River under RSA 483:15, and all abutters have been notified, as applicable (RSA-483-B:5-b, IV-a).
X A copy of the New Hampshire Natural Heritage Bureau (NHB) Report for the subject property indicating that the project has been screened for species of concern.
If the applicant is not the property owner and is not the authorized agent of the property owner for purposes of the application, documentation supporting the applicant's right to engage in the proposed activity on the property, for example a long-term lease or purchase-and-sale agreement.
I Plans and additional information, as described below.
Plans (Format)
X Plans shall have a left margin of 2 inches; the remaining margins shall be at least 1 inch (Env-Wq 1406.11(b)).
Plans which are drawn to scale shall be shown using a scale of not more than 20 feet to one inch, except that if the lot cannot be shown on a 1:20 scale, it shall be shown on a larger scale on a separate sheet (Env-Wq 1406.11(c)).
Fold oversized plans to 8.5 x 11 inches (Env-Wq 1406.11(d)).
Plans (Details)
The following information must be shown on all plans (Env-Wq 1406.09; Env-Wq 1406.10):
X An overview plan of the property within 250 feet of the reference line that shows the approximate location of all property lines, easements, and rights-of-way, clearly labeled. See Attachment 12
$\overline{\Sigma}$ The scale, if any, used on the plan, or if the plan is not to scale, the complete dimensions of all features.
X A north-pointing arrow, indicating orientation.

$\overline{\mathbf{X}}$ A legend that clearly indicates all symbols, line types, and shadings.
X The reference line, the primary building line (i.e., the 50-foot primary structure setback line), the limits of the woodland buffer, and the protected shoreland.
X All other applicable local and state setbacks.
X The dimensions and locations of all existing structures, impervious areas, disturbed areas, and all other relevant features necessary to clearly define existing conditions.
The dimensions and locations of all proposed structures, impervious areas, and all other relevant features necessary to clearly define the proposed project.
X A delineation of all existing and proposed cleared areas, such as, lawns, fields, paths, gardens, and beaches.
The dimensions, locations, and descriptions of all proposed temporary impacts associated with completion of the project.
X The locations of all areas between 50 feet and 150 feet of the reference line that will remain as natural woodland (as determined on <i>Line (I)</i> of the shoreland application worksheet). SEE ATTACHMENT 11
Proposed methods of erosion and siltation controls indicated graphically and labeled, or otherwise annotated as needed for clarity, as specified by Env-Wq 1404.
If the topography is to be permanently altered, the existing and proposed topography, including a reference elevation.
A plan of any planting(s) proposed in the waterfront buffer, showing the proposed location(s) and scientific names or common names of proposed species. NOT APPLICABLE
If applicable, the location of an existing or proposed 6-foot-wide foot path to the waterbody or temporary access path, as allowed by RSA 483-B:9, V(a)(2)(D)(viii) and (ix). NOT APPLICABLE
X The date of plan and the preparer's name.
Required Additional Information
1. Projects Within the Waterfront Buffer (RSA 483-B:9, V(a)(2)(D); Env-Wq 1405.03; Env-Wq 1406.10)
A plan delineating each waterfront buffer grid segment that will be impacted by the project. NOT APPLICABLE
The location and diameter of all trees and saplings, at least up to that which is sufficient to meet the minimum point requirement specified in RSA 483-B:9, V(a)(2)(D) within each grid segment to be impacted.
A designation of the trees and/or saplings to be cut during the project, if any, including:
The diameter of all trees and saplings at 4½ feet from the ground.
The names of the existing species, using either scientific names or common names.
For any project proposing new or modification to the footprint of accessory structures within the waterfront buffer, provide the shoreland frontage of the lot, which is required to determine compliance with Env-Wq 1405.03.
2. Subdivision Projects and Projects Requiring New Septic Systems (RSA 483-B:9) NOT APPLICABLE
Location and description of any on-site or proposed septic system including approval number, if known, to provide evidence of compliance with RSA 483-B:9, V(c).
For subdivisions only: shoreland frontage of the lot, to provide evidence of compliance with RSA 483-B:9, V(e) & (f).

3. Projects Involving an Increase in Impervious Area (Env-Wq 1404.02; Env-Wq 1406.10; RSA 483-B:9, V(g))
Projects that propose a net increase in impervious area may be required to incorporate a stormwater management plan and enhance the waterfront buffer with additional vegetation: NOT APPLICABLE
• For projects that propose a net increase in impervious area and the percentage of post-construction impervious area will be greater than 20%, but less than 30% (as determined on <i>Line (E)</i> of the shoreland application worksheet) within the protected shoreland, as specified in RSA 483-B:9, V(g)(2), please provide:
Plans for a stormwater management system that will infiltrate increased stormwater from development in accordance with Env-Wq 1500.
• For projects that propose a net increase in impervious area and the percentage of post-construction impervious area will be greater than 30% (as determined on <i>Line (E)</i> of the shoreland application worksheet) within the protected shoreland, as specified in RSA 483-B:9, V(g)(1) and (3), please provide:
Plans for a stormwater management system that is designed and certified by a professional engineer. Such system design shall demonstrate that the post-development volume and peak flow rate based on the 10-year, 24-hour storm event, shall not exceed the pre-development volume and peak flow rate for flow off the property within the protected shoreland.
Evidence that each grid segment of the waterfront buffer at least meets the minimum required tree and sapling point score and/ or a planting plan in accordance with PART Env-Wq 1413, with the locations and species of all native plantings proposed to at least bring each deficient grid segment up to the required minimum point score. An explanation of how to score grid segments and a native species planting list is available in the NHDES fact sheet: "Vegetation Management for Water Quality".
4. Pervious Technology Use (Env-Wq 1406.10) NOT APPLICABLE
For any project that proposes the use of pervious surface technologies such as pervious asphalt or porous concrete, or to maintain existing pervious surfaces, please provide:
A plan with the dimensions and locations of all proposed pervious surfaces.
A cross-section of each type of pervious surface that shows the construction method and details. And
Specifications indicating how the pervious technologies will be installed and maintained.
5. Nonconforming Structures in accordance with RSA 483-B:11 (Env-Wq 1408.05) NOT APPLICABLE
For projects that propose expansions of non-conforming primary structures, please provide a completed <u>More</u> <u>Nearly Conforming Request Form</u> or your own request explaining how the project meets the requirements of RSA 483-B:11 and Env-Wq 1408.05.
6. Waiver from the Minimum Standards (Env-Wq 1406.10; Env-Wq 1409) NOT APPLICABLE
For projects that request a waiver from the minimum standards of RSA 483-B:9, please provide a completed <u>Request</u> <u>Waiver from the Minimum Standards Request Form</u> or your own request explaining how the project meets the requirements of RSA 483-B:9,V(i) and PART Env-Wq 1409.01.
7. Waiver from the Rules (Env-Wq 1413) NOT APPLICABLE
For projects that request a waiver from the rules (Env-Wq 1400 et seq.), please provide a completed <u>Request Waiver</u> <u>from the Shoreland Rules Form</u> or your own request explaining how the project meets the requirements of PART Env-Wq 1413.

ATTACHMENT 2

Application Fee Documentation



1232351



Citizens Bank CONNECTICUT 51-7011/2111

CHECK DATE

February 22, 2022

Security Check Features Included Data Ison Back

AMOUNT

\$ 5,317.50

PAY Five Thousand Three Hundred Seventeen and 50/100 Dollars

PAY TO THE ORDER OF Treasurer State Of New Hampshire NHDES Wetlands Bureau 29 Hazen Drive PO Box 95 Concord, NH 03302-0095

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micrelle Rubino VOID AFTER 90 DAYS

BY.

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MP AUTHORIZED SIGNATURE

1

EMILY BUSINESS FORMS 800.392.6018 DELTER VISION



21 Griffin Road North Windsor, CT 06095 860.289.9692

		123235
1111111111		
nt Discounts	Previous Pav	Net Amount

Invoice Number	Date	Voucher	Amount	Discounts	Previous Pay	Net Amount
PO-200038984	2/21/2022	007757573592	5,317.50			5,317.50
Treasurer State Of New Ha	ampshire	TOTAL	5,317.50			5,317.50
Citizen Bank - Disburseme	nt 11	028264		and the state of the second		

Check Date:

ATTACHMENT 3

Copy of Recorded Deed of Current Property Owner



DEED

Know All Persons By These Presents, That NORTH ATLANTIC ENERGY CORPORATION, a New Hampshire corporation having its principal place of business at Lafayette Road, Seabrook, New Hampshire 03874 ("NAEC"); THE UNITED ILLUMINATING COMPANY, a Connecticut corporation having its principal place of business at 157 Church Street, P.O. Box 1564, New Haven, Connecticut 06506-0901("UI"); GREAT BAY POWER CORPORATION, formerly known as EUA Power Corporation, a New Hampshire corporation having its principal place of business at 222 International Drive, Portsmouth, New Hampshire 03801-6817 ("GBP"); NEW ENGLAND POWER COMPANY, a Massachusetts corporation having its principal place of business at 25 Research Drive, Westborough, Massachusetts 01582-0099 ("NEP"); THE CONNECTICUT LIGHT AND POWER COMPANY, a Connecticut corporation having its principal place of business at 107 Selden Street, Berlin, Connecticut 06037 ("CL&P"); CANAL ELECTRIC COMPANY, a Massachusetts corporation having its principal place of business at c/o NSTAR, 800 Boylston Street, Boston, Massachusetts 02199 ("Canal"); LITTLE BAY POWER CORPORATION, a New Hampshire corporation having its principal place of business at 222 International Drive #125, Portsmouth, New Hampshire 03801-6817 ("LBP"); and NEW HAMPSHIRE ELECTRIC COOPERATIVE, INC., a New Hampshire electric cooperative having its principal place of business at 579 Tenney Mountain Highway, Plymouth, New Hampshire 03264 ("NHEC") (hereinafter each of NAEC, UI, GBP, NEP, CL&P, Canal, LBP and NHEC referred to as "Grantor" and collectively as "Grantors"), for consideration paid, grant to FPL ENERGY SEABROOK, LLC, a Delaware limited liability company having its principal place of business and mailing address at 700 Universe Boulevard, Juno Beach, Florida 33408 (hereinafter referred to as "Grantee"), and its successors and assigns, the property hereinafter described located in the Towns of Hampton, Hampton Falls and Seabrook, in the County of Rockingham and State of New Hampshire:

Each and all of the Grantors' respective Ownership Shares, being in the aggregate an undivided 88.22889% interest, each respective undivided interest being held as a tenant in common, in the Units and Property Interests, as such terms are defined in a certain Agreement for Joint Ownership, Construction and Operation of New Hampshire Nuclear Units dated as of May 1, 1973, as from time to time amended, relating to Seabrook Nuclear Generating Station Units 1 and 2, by and among the Grantors and certain other utilities (hereinafter referred to as the "Seabrook Agreement"), as Participants under and as defined in the Seabrook Agreement, a copy 41364219

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of which Seabrook Agreement, including all amendments thereof, is not recorded but is on file both with the New Hampshire Public Utilities Commission in Concord, New Hampshire, and at the offices of North Atlantic Energy Service Corporation (hereinafter referred to as "NAESCO"), Lafayette Road, in Seabrook, New Hampshire (capitalized terms used herein having the meanings set forth in the Seabrook Agreement unless otherwise defined herein), together with all right, title and interest of the Grantors, as Participants, (i) in and under the Seabrook Agreement and all easements and licenses relating to the Units and Property Interests and the rights of the Participants therein, and (ii) in and to all other real and tangible personal property, or rights in such property, owned or leased by the Participants jointly, or by NAESCO, as successor managing agent to Public Service Company of New Hampshire (hereinafter referred to as "PSNH") and PSNH's New Hampshire Yankee division under an Assignment and Assumption Agreement dated as of June 29, 1992, and recorded in the Rockingham County Registry of Deeds at Book 2933, Page 1313, on behalf of all of the Participants under the Seabrook Agreement; said granted property to include, without limitation, all of the Grantors' right, title and interest in and to the following:

I. That certain tract of land, together with all of the buildings, structures, improvements, facilities and installations thereon, located in the Town of Seabrook, in the County of Rockingham and State of New Hampshire, more particularly described in Schedule A attached hereto and made a part hereof (hereinafter referred to as the "First and Second Unit Site").

II. Together with all rights, easements and permissions appurtenant to the First and Second Unit Site and the Grantors' said undivided interests therein, including, without limitation:

1. The right and easement in common with the other Participants, and their respective successors and assigns, to pass and repass to and from the First and Second Unit site with vehicles and equipment and on foot over and across the South Access Road, so-called, on the First and Second Unit Site and on other land formerly of PSNH and now of NAEC in said Town of Seabrook adjoining the First and Second Unit Site (the "NAEC Site"), as more particularly described in Schedule B attached hereto and made a part hereof, or such other replacement access roads as the Grantors and the other Participants, or their predecessors, may previously have located and designated or as the Grantee, its successors or assigns, may hereafter from time to time locate and designate for such purposes, leading from the public highway known as U.S. Route 1, so-called, to the First and Second Unit Site.

2. The right and easement in common with the other Participants, and their respective successors and assigns, to construct, repair, rebuild, operate, maintain, patrol and remove underground and underwater cooling water tunnels under and across the NAEC Site at such locations as the Grantors and the other Participants, or their predecessors, may previously have designated or as the Grantee, its successors or assigns, may hereafter from time to time designate for such purposes in accordance with the Seabrook Agreement, and under and across certain public waters of the State of New Hampshire, namely, Brown's River, Hampton River and/or Hampton Harbor and the Atlantic Ocean, and through the land beneath New Hampshire Highway 1A and beneath Hampton Beach State Park, including interests in common and undivided in and to the rights conveyed by the State of New Hampshire to PSNH through and

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under a deed of license dated December 29, 1976, and recorded in the Rockingham County Registry of Deeds at Book 2347, Page 1312.

3. The right and easement in common with the other Participants, and their respective successors and assigns, to construct, install, reconstruct, replace, repair, maintain, use and operate, above or below the surface of the earth, electric utility lines, consisting of poles, pipes, ducts or conduits with wires and cable attached to or installed within the same (but excluding high voltage electric transmission lines) and pipes or mains for water, sewerage, drainage, or any other necessary utility service, including the right to construct such lines, pipes or mains or any of them, at any time hereafter and at the same time or different times, in all cases to and for the benefit of the First and Second Unit Site, in and over the First and Second Unit Site and the NAEC Site at such locations as the Grantors and the other Participants, or their predecessors, may previously have designated or as the Grantee, its successors or assigns, may hereafter from time to time designate for such purposes in accordance with the Seabrook Agreement.

4. The right, privilege and easement to use and operate, in common with the other Participants, and their respective successors and assigns, the buildings, structures, improvements, facilities and installations heretofore constructed, now under construction or hereafter constructed, owned in common by the Participants in accordance with the terms of the Seabrook Agreement and located or to be located upon the NAEC Site with the consent of the owner of the NAEC Site, including without limitation the buildings, structures, improvements, facilities and installations identified in Schedule A of the deed of PSNH and Properties, Inc. to the Grantors and the other Participants, or their respective predecessors, dated September 12, 1979, recorded in the Rockingham County Registry of Deeds at Book 2348, Page 287.

5. Each and all of the Grantors' undivided interests, as Participants, in and to all buildings, structures, improvements, facilities and installations heretofore constructed, now under construction or hereafter constructed, owned in common by the Participants in accordance with the terms of the Seabrook Agreement and used and operated under any of the above-described rights, easements and permissions.

III. Together also with each and all of the Grantors' undivided interests, as Participants, (i) in and to all other rights and interests in real property, wherever located, including all easements, leases, licenses and agreements with respect to the use of real property, acquired or held by the Participants jointly, as Participants, or by NAESCO, as successor managing agent, on behalf of all the Participants under the Seabrook Agreement, and (ii) in and to all buildings, structures, improvements, facilities and installations thereon used and operated under any of such easements, leases, licenses and agreements, and all related rights of access and of ingress and egress thereto.

The conveyance of the above described property is made SUBJECT TO the following:

1. All of the terms, conditions and provisions of the Seabrook Agreement, it being the intention of the Grantors and the Grantee to expressly set forth herein that the benefits and burdens of the Seabrook Agreement benefit and burden the undivided interests in common of the Participants, their respective successors and assigns, in and to the above described property, to the extent of the Participants' interests therein as Participants.

2. All easements, covenants, agreements, restrictions, rights-of-way and other interests, to the extent that the same are now in force and applicable to the above described property (inclusive of the First and Second Unit Site, those portions of the NAEC Site with respect to which appurtenant rights, easements and permissions are conveyed herein, and all other real property, wherever located, with respect to which rights and interests are conveyed herein), including but not limited to the following easements and use restrictions affecting the First and Second Unit Site:

- Easement to New England Telephone and Telegraph Company, dated August 30, 1977, recorded in the Rockingham County Registry of Deeds at Book 2292, Page 762.
- (b) Easements and other rights set forth in deed of Robert-W. Meserve and Benjamin H. Lacy, as Trustees of the property of the Boston & Maine Corporation, dated September 11, 1979, recorded in said Rockingham Registry at Book 2348, Page 255.
- (c) Easements to Exeter & Hampton Electric Company, dated September 15, 1978, and May 12, 1992, recorded in said Rockingham Registry at Book 2321, Page 590, and at Book 2927, Page 2505, respectively.
- (d) Activity and Use Restrictions covering "AUR Area A", AUR Area B" and "AUR Area C", as more fully described in that certain Notice of Activity and Use Restriction for Seabrook Station, dated May 10, 2002 and recorded in the Rockingham Registry of Deeds at Book 3772, Page 2765, and as shown on a plan entitled "AUR Areas Former Landfills Seabrook Nuclear Power Station", dated May 7, 2002 prepared by URS Corporation AES and recorded as Plan #D-29834.
- (e) Notification of Existence of Landfill, dated February 2, 1995, and recorded in the Rockingham Registry at Book 3089, Page 1387.

3. The rights and easements granted to PSNH under, and the terms, covenants, conditions and restrictions set forth in, that certain Easement Agreement between the Grantors and PSNH, dated as of October 31, 2002, and recorded or to be recorded herewith in the Rockingham County Registry of Deeds.

4. All rights and authority of NAESCO, as successor managing agent to PSNH and PSNH's New Hampshire Yankee division, on behalf of all of the Participants under the Seabrook Agreement, to determine all activities (including exclusion and removal of personnel and property) as is required to qualify land within the First and Second Unit Site, and the NAEC Site with respect to which appurtenant rights, easements and permissions are conveyed herein, as an "exclusion area" as defined in the regulations of the Nuclear Regulatory Commission with respect to Seabrook Station, and to exercise control over and to exclude any and all persons and

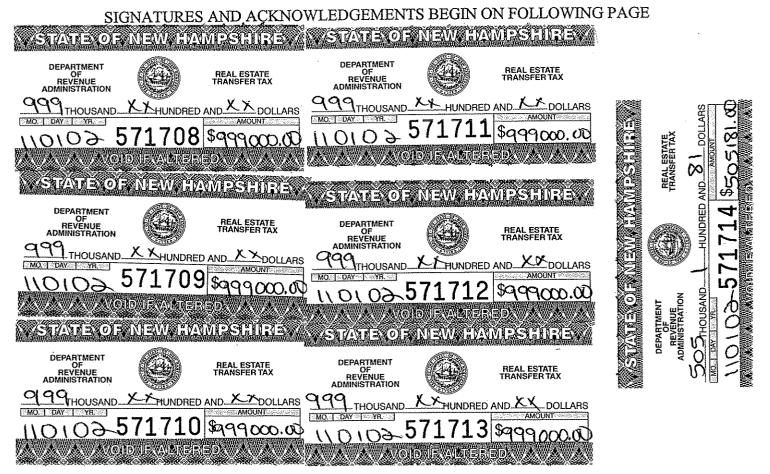
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property from such exclusion area, if so required, pursuant to the Atomic Energy Act of 1954, as amended (or other comparable legislation) and regulations of the Nuclear Regulatory Commission (or other comparable regulations) to protect the public health and safety thereunder.

By its acceptance and recording of this conveyance, the Grantee, on behalf of itself and its successors and assigns, waives any right to partition the Units and the Property Interests or any part thereof (whether by partition in kind or by sale and disposition of the proceeds thereof) so long as the Property Interests are used or useful for an electric generating unit, or for the term set forth in Paragraph 31.1 of the Seabrook Agreement, whichever is less, and agrees not to commence during such period any action of any kind seeking any form of partition with respect thereto whether pursuant to a remedy at common law or under any statute, and waives the benefit of all laws and decisions now or hereafter enacted or decided authorizing such partition.

Grantors hereby make this deed without any representation, warranty or covenant by Grantors, except as expressly provided in that certain Purchase and Sale Agreement for the Seabrook Nuclear Power Station by and among the Grantors, as Sellers, and FPL Energy Seabrook, LLC dated April 13, 2002.

EXECUTED by the undersigned duly authorized representatives of each of the Grantors as of the /sr day of November, 2002.



EXECUTED by the undersigned duly authorized representative of North Atlantic Energy Corporation as of the _____ day of November, 2002.

NORTH ATLANTIC ENERGY CORPORATION

By: Name: Gregory B

Title: Vice President, Secretary and General Counsel of Northeast Utilities Service Company, As Agent for North Atlantic Energy Corporation

STATE OF CONNECTICUT

Berlin, ss.

October 12, 2002

On this $\frac{22 \sqrt{3}}{100}$ day of October, 2002 before me personally appeared Gregory B. Butler, who, being by me duly sworn, did say that he is the Vice President, Secretary and General Counsel of Northeast Utilities Service Company, As Agent for North Atlantic Energy Corporation, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such Vice President, Secretary and General Counsel and the free act and deed of said corporation.

Barlow

Notary Public My commission expires: 3/3/66



BK3875PG2211

EXECUTED by the undersigned duly authorized representative of The United Illuminating Company as of the | day of November, 2002.

THE UNITED ILLUMINATING COMPANY

By:

helda

Name: Nathaniel D. Woodson Title: Chairman of the Board of Directors and Chief Executive Officer

STATE OF CONNECTICUT

New Haven, ss.

October 25, 2002

On this 25th day of October, 2002 before me personally appeared Nathaniel D. Woodson who, being by me duly sworn, did say that he is the Chairman of the Board of Directors and Chief Executive Officer of The United Illuminating Company, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such Chairman of the Board of Directors and Chief Executive Officer and the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

Notary Public My commission expires: (0/30/2007



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BK 3875 PG 2212

EXECUTED by the undersigned duly authorized representative of Great Bay Power Corporation as of the <u>1</u> day of November, 2002.

GREAT BAY POWER CORPORATION

By:

Name: Frank W. Getman Jr. Title: President and CEO

STATE OF MAINE

County of York, ss.

October 252002

On this \mathcal{J} day of October, 2002 before me personally appeared Frank W. Getman Jr., who, being by me duly sworn, did say that he is the President and CEO of Great Bay Power Corporation, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such President and CEO and the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.



Hartford

Notary Public My commission expires:

PATRICIA L. HARTFORD Notary Public, Maine My Commission Expires January 24, 2009

41364219

EXECUTED by the undersigned duly authorized representative of New England Power Company as of the <u>I</u> day of November, 2002.

NEW ENGLAND POWER COMPANY

Torry L. Schwennesen Title: Vice President

STATE OF Massachusetts

October 31, 2002

On this <u>3</u> day of October, 2002 before me personally appeared <u>evry L. Schwennesen</u> who, being by me duly sworn, did say that he is the <u>VICe President</u> New England Power Company, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such <u>VICE President</u> and the free act and deed of said corporation.

otary Public My commission expires

EXECUTED by the undersigned duly authorized representative of The Connecticut Light and Power Company as of the 1 day of November, 2002.

THE CONNECTICUT LIGHT AND POWER COMPANY By: Nam

Name: Gregory B/Butler Title: Vice President, Secretary and General Counsel of Northeast Utilities Service Company, As Agent for The Connecticut Light and Power Company

STATE OF CONNECTICUT

Berlin, ss.

October 22, 2002

On this <u>Alrek</u> day of October, 2002 before me personally appeared Gregory B. Butler, who, being by me duly sworn, did say that he is the Vice President, Secretary and General Counsel of Northeast Utilities Service Company, As Agent for The Connecticut Light and Power Company, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such Vice President, Secretary and General Counsel and the free act and deed of said corporation.

Notary Public My commission expires: 3/31/06



BK3875PG2215

EXECUTED by the undersigned duly authorized representative of Canal Electric Company as of the <u>I</u> day of November, 2002.

CANAL ELECTRIC COMPANY

By: Name: Ellen K. Angley

Title: Vice President, Energy Supply and Transmission

STATE OF Massachusells

Suffolk, ss.

October <u>31</u>, 2002

On this 31^{s+} day of October, 2002 before me personally appeared $\mathcal{E}[1_{en} K Arg[ey]$, who, being by me duly sworn, did say that he is the <u>wp-Encysop Atoms</u> of Canal Electric Company, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such $\underline{Wp-Encysop} + \underline{Tnons}$ and the free act and deed of said corporation.

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Notary Public My commission expires: 1

EXECUTED by the undersigned duly authorized representative of Little Bay Power Corporation as of the <u>1</u> day of November, 2002.

LITTLE BAY POWER CORPORATION

By:

Nåme: Frank W. Getman Jr. Title: President and CEO

STATE OF MAINE

County of York, ss.

October 2002

On this $\cancel{5}$ day of October, 2002 before me personally appeared Frank W. Getman Jr., who, being by me duly sworn, did say that he is the President and CEO of Little Bay Power Corporation, that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such President and CEO and the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.



Harford

Notary Public My commission expires:

PATRICIA L. HARTFORD Notary Public, Maine My Commission Expires January 24, 2009 EXECUTED by the undersigned duly authorized representative of New Hampshire Electric Cooperative, Inc. as of the <u>1</u> day of November, 2002.

NEW HAMPSHIRE ELECTRIC COOPERATIVE, INC.

Name: Stephen E-Kaninski Title: VP, Poors Resources, Accessed Ancins By:

STATE OF Massacluse &

October 3() 2002

On this <u>30</u> day of October, 2002 before me personally appeared <u>Skplune Kamins</u> Ki who, being by me duly sworn, did say that he is the $\frac{1}{100} \frac{1}{100} \frac{1}{100$ Electric Cooperative, Inc., that he executed this instrument under seal pursuant to authority duly conferred upon him, and acknowledged said instrument to be his free act and deed as such V_Q Preside and the free act and deed of said corporation.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.



Suffalk, ss.

Notary Public My commission expires:

SCHEDULE A

FIRST AND SECOND UNIT SITE DESCRIPTION

That certain tract of land, together with all of the buildings, structures, improvements, facilities and installations thereon, located on the easterly side of U.S. Route 1, also called Lafayette Road, in the Town of Seabrook, in the County of Rockingham and State of New Hampshire (hereinafter also referred to as the "First and Second Unit Site"), bounded and described as follows:

Beginning at the westerly end of a stone wall at the easterly side of U.S. Route 1, Lafayette Road, so-called, and at the southwesterly corner of land now or formerly of Paul Dichter; thence running North 83°37'30" East, 170.34 feet along said stone wall to a drill hole; thence North 80°37'15"East, 225.37 feet along said stone wall to a drill hole; thence North 79°08'45"East, 128.34 feet along said stone wall to a drill hole at a corner of stone walls; thence South 5°28'25"East, 75.71 feet, along a stone wall to a drill hole at the easterly end of said stone wall; thence South 79°09'35" East, 48.94 feet; thence North 74°08'45"East, 279.38 feet to a hub; thence South 11°49'10"East, 123.70 feet; thence North 81°34'05"East, 437.11 feet; thence North 56° 41'40" East, 184.58 feet; thence North 61° 29'30" East, 37.22 feet; thence North 60°27'10" East, 147.31 feet to an iron pipe; thence North 56°55'25" East, 452.19 feet; thence North 13°08'05" West, 597.30 feet to land now or formerly of Leonard J. Nangle, et ux, the last thirteen courses being along said land now or formerly of Dichter; thence North 76°51'50" East, 408.60 feet: thence North 81°06'15" East, 56.30 feet; thence North 77°01'05" East, 481.00 feet; thence Northeasterly by a curve to the right with a radius of 3,000 feet, a distance of 745.98 feet to the Seabrook-Hampton Falls Town Line, the last four courses being along land now or formerly of said Nangle; thence South 15°02'15" East, 8.74 feet; thence South 75° 10'15" East, 752.18 feet to land now or formerly of the Trustees of the Boston & Maine Corporation, Debtor, the last two courses being along said Town line; thence South 17°41'55" West, 48.91; thence South 89°18'00" East, 17.25 feet; thence South 17°41'55" West, 414.90 feet; thence South 86°29'10" East, 17.02 feet; thence South 17°41'55" West, 839.26 feet; thence North 81°37'45" East, 73.50 feet, the last six courses being along land now or formerly of said Trustees; thence North 81°37'45" East, 541.40 feet; thence Easterly by a curve to the right with a radius of 1,114.25 feet, a distance of 774.44 feet; thence South 58°32'50" East, 100.00 feet; thence North 69°13'45" East, 551.99 feet; thence South 71°03'04" East, 374.64 feet; thence North 82°14'50" East, 538.00 feet; thence South 17°00'10" East, 583.73 feet; thence South 55°27'10" West, 1,190.67 feet; thence South 63°07'45" West, 414.01 feet; thence North 34°00'45" West, 1,126.30 feet; thence North 55°59'15" East, 377.50 feet; thence North 35°43'45" East, 33.71 feet; thence North 58°32'50" West, 90.65 feet; thence Westerly by a curve to the left with a radius of 989.25 feet, a distance of 687.56 feet; thence South 81°37'45" West, 602.56 feet to the northeasterly corner of land now or formerly of said Trustees; thence South 81°37'45" West, 73.50 feet by land now or formerly of said Trustees; thence South 82°02'00" West, 1,994.29 feet to the northeasterly corner of land now or formerly of Edmond R. Marshall, et ux; thence South 81°34'05" West, 664.69

feet, along land now or formerly of said Marshall to land now or formerly of John Cairo, et ux; thence North 4°35'45" West 10.49 feet; thence South 81°34'05" West, 458.50 feet; thence South 70°03'45"West, 52.44 feet; thence South 81°34'05" West, 463.42 feet to the easterly side of said U.S. Route 1, the last four courses being along land now or formerly of said Cairos; thence Northerly by a curve to the right with a radius of 1,643.49 feet, a distance of 195.55 feet; thence North 4°07'35" East, 85.21 feet to the point of beginning, the last two courses being along said U.S. Route 1.

The above described tract is shown as Lot 1 on a plan entitled "Subdivision Plan of Land, Properties, Inc. & Public Service Co. of N.H., Seabrook, N.H., Public Service Co. of New Hampshire Engineering Division Scale 1"=200', dated December 5, 1978", R700-17-51.17A, R700-17-51.17B and R700-17-51.17C, Sheets 1,2 and 3 of 3, recorded in the Rockingham County Registry of Deeds (hereinafter the "Registry") as Plan No. D-8560.

Also, that certain tract of land, together with all of the buildings, structures, improvements, facilities and installations thereon, shown as Lot T on a plan entitled "Property Survey Seabrook Nuclear Power Station Seabrook, Hampton Falls & Hampton, New Hampshire Surveying and Mapping by: URS Corporation AES ... Scale: 1"=1000" Date: October 2002...Project # 36912693... Map File # T143-54D" Sheets 1 through 16 of 16 to be recorded herewith in the Registry (the "Plan") to the extent not described above, which premises are also described as follows:

Beginning at a monument on the easterly highway line of Lafayette Road, U.S. Route 1, said point being on the division line between the piece or parcel of land hereinafter described on the north and land now or formerly of Ruth F. Cairo, Trustee (2811/2411) on the south;

Thence running northerly on a curve to the right having a radius of 1,643.49 feet and an arc length of 195.53 feet, and thence North 04° 07' 35" East, 85.21 feet, both courses along said easterly highway line of Lafayette Road, U.S. Route 1, to land now or formerly of Demoulas Super Markets, Inc. (2693/1766);

Thence running North 83° 37' 30" East, 170.34 feet, North 80° 37' 15" East, 225.37 feet, North 79° 08' 45" East, 128.34 feet, South 05° 28' 25" East, 75.71 feet, South 79° 09' 35" East, 48.94 feet, North 74° 08' 45" East, 279.38 feet and South 11° 49' 10" East, 123.70 feet, all courses along land now or formerly of Demoulas Super Markets, Inc.;

Thence running North 81° 34' 05" East, 437.11 feet along land now or formerly of Demoulas Super Markets, Inc. and land now or formerly of David Benoit (2465/1596), partly by each;

Thence running North 56° 41' 40" East, 184.58 feet, North 61° 29' 30" East, 37.22 feet, North 60° 27' 10" East, 147.31 feet, North 56° 55' 25" East, 452.19 feet and North 13° 08' 05" West, 597.30 feet, all courses along land now or formerly of David Benoit (2465/1596) to land now or formerly of T. Park Realty Trust (2653/623);

,

Thence running North 76° 51' 50" East, 408.60 feet, North 81° 06' 15" East, 56.30 feet, North 77° 01' 05" East, 480.99 feet and, thence northeasterly on a curve to the right having a radius of 3,000.00 feet and an arc length of 746.03 feet along land now or formerly of T. Park Realty Trust (2653/623) to land now or formerly of North Atlantic Energy Corporation, being the NAEC Site and Lot 2 on the Plan;

Thence running South 15° 02' 15" East, 8.75 feet and South 75° 10' 15" East, 752.18 feet along Lot 2 on the Plan to land now or formerly of the State of New Hampshire, D.O.T.;

Thence running South 17° 41' 55" West, 48.91 feet, South 89° 18' 00" East, 17.25 feet, South 17° 41' 55" West, 414.90 feet, South 86° 29' 10" East, 17.02 feet, South 17° 41' 55" West, 839.26 feet and North 81° 37' 45" East, 73.50 feet, all courses along land now or formerly of the State of New Hampshire, D.O.T., to the NAEC Site and Lot 2 on the Plan;

Thence running North 81° 37' 45" East, 541.40 feet, thence on a curve to the right having a radius of 1,114.25 feet and arc length of 774.46 feet, thence South 58° 32' 50" East, 100.00 feet, North 69° 13' 45" East, 551.99 feet, South 71° 03' 04" East, 374.64 feet, North 82° 14' 50" East, 538.00 feet, South 17° 00' 10" East, 583.73 feet, South 55° 27' 10" West, 1,190.67 feet, South 63° 07' 45" West, 414.01 feet, North 34° 00' 45" West, 1,126.30 feet, North 55° 59' 15" East, 377.50 feet, North 35° 43' 45" East, 33.70 feet, North 58° 32' 50" West, 90.63 feet, thence on a curve to the left having a radius of 989.25 feet and an arc length of 687.58 feet, and thence South 81° 37' 45" West, 602.58 feet, all courses along land now or formerly of North Atlantic Energy Corporation, being the NAEC Site and Lot 2 on the Plan, to land now or formerly of the State of New Hampshire, D.O.T.;

Thence running South 81° 37' 45" West, 73.48 feet along land now or formerly of the State of New Hampshire, D.O.T. to the NAEC Site and Lot 2 on the Plan;

Thence running South 82° 02' 02" West, 1,994.30 feet along land now or formerly of North Atlantic Energy Corporation, being the NAEC Site and Lot 2 on the Plan to land now or formerly of Edmund & Charlotte Marshal (1778/218);

Thence running South 81° 34' 05" West, 664.69 feet along land now or formerly of Edmund & Charlotte Marshal (1778/218) to land now or formerly of Ruth F. Cairo, Trustee (2811/2411);

Thence running North 04° 35' 45" West, 10.49 feet, South 81° 34' 05" West, 458.50 feet, South 70° 03' 10" West, 52.40 feet and South 81° 34' 05" West, 463.42 feet along land now or formerly of Ruth F. Cairo, Trustee (2811/2411), to the place and point of beginning.

For the title of each of the Grantors to the First and Second Unit Site, see the following deeds:

- 1. Grantor NAEC, as to an undivided 35.98201% interest, by deed and bill of sale of Public Service Company of New Hampshire (hereinafter "PSNH") dated June 3, 1992, recorded in the Registry at Book 2928, Page 1003, and by deed and bill of sale of Vermont Electric Generation and Transmission Cooperative, Inc., dated February 14, 1994, recorded in the Registry at Book 3037, Page 2233.
- Grantor UI, as to an undivided 17.50% interest, by deed of PSNH and Properties, Inc., dated September 12, 1979, recorded in the Registry at Book 2348, Page 287, less and excepting therefrom the percentage interest conveyed by UI to Central Maine Power Company by deed dated October 17, 1980, recorded in the Registry at Book 2375, Page 631.
- 3. Grantor GBP (formerly EUA Power Corporation), as to an undivided 12.1324% interest, by deed of Central Maine Power Company dated November 21, 1986, recorded in the Registry at Book 2645, Page 601, by deed of Bangor Hydro-Electric Company dated November 21, 1986, recorded in the Registry at Book 2645, Page 651, by deed of Central Vermont Public Service Corporation dated November 21, 1986, recorded in the Registry at Book 2645, Page 688, by deed of Maine Public Service Company dated November 21, 1986, recorded in the Registry at Book 2645, Page 723, and by deed of Fitchburg Gas and Electric Light Company dated November 25, 1986, recorded in the Registry at Book 2645, Page 758. See also the following deeds conveying all interest in the transformation and transmission facilities as described therein, recorded in the Registry at Book 2775, Pages 1392, 1417, 1442, 1467 and 1492. See also confirmatory deed of EUA Power Corporation, dated December 8, 1987, recorded in the Registry at Book 2723, Page 285, and name change amendment recorded in the Registry at Book 3005, Page 104.
- 4. Grantor NEP, as to an undivided 9.95766% interest, by deed of PSNH and Properties, Inc., dated September 12, 1979, recorded in the Registry at Book 2348, Page 287.
- Grantor CL&P, as to an undivided 4.05985% interest, by deed of PSNH and Properties, Inc., dated September 12, 1979, recorded in the Registry at Book 2348, Page 287, less and excepting therefrom the percentage interest conveyed by CL&P to Fitchburg Gas and Electric Light Company dated January 30, 1981, recorded in the Registry at Book 2382, Page 1005.
- 6. Grantor Canal, as to an undivided 3.52317% interest, by deed of Commonwealth Electric Company f/k/a New Bedford Gas and Edison Light

BK 3875 PG 2222

Company dated August 25, 1982, recorded in the Registry at Book 2430, Page 922.

- Grantor LBP, as to an undivided 2.89989% interest, by deed of Montaup Electric Company dated November 19, 1999, recorded in the Registry at Book 3438, Page 1675.
- 8. Grantor NHEC, as to an undivided 2.17391% interest, by deed of PSNH dated October 16, 1981, recorded in the Registry at Book 2400, Page 117.

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SCHEDULE B

NAEC SITE DESCRIPTION

Land and rights in land (except the land described as the "First and Second Unit Site"), hereinafter sometimes referred to as the "Adjacent Property", together with all of the buildings, structures, improvements, facilities and installations thereon, situated on the easterly side of U.S. Route 1, also called Lafayette Road, in the Towns of Seabrook and Hampton Falls, in the County of Rockingham and State of New Hampshire, within that area bounded as follows:

Westerly by said U.S. Route 1; northerly by a line of latitude passing through a point 1,000 feet due north of the intersection of U.S. Route 1 with Brimmer Lane, also known as Brimers Lane, in Hampton Falls; easterly by the Hampton Falls-Hampton town line, the Seabrook-Hampton town line, and the Seabrook coastline extending to the south of the latter town line; and southerly by a line of latitude passing through a point 1,000 feet due south of the intersection of U.S. Route 1 with Railroad Avenue, also known as Depot Road, in Seabrook; including, without limitation, all right, title and interest in and to:

A. A certain piece, parcel or tract of land situated on the easterly side of U.S. Route 1, Lafayette Road, so-called, in said Seabrook, and shown as Lot 2 on the plan entitled "Subdivision Plan of Land, Properties Inc. & Public Service Co. of N.H., Seabrook, N.H.", Public Service Co. of New Hampshire Engineering Division, Scale 1"= 200', dated December 5, 1978, R 700-17-51.17A, R 700-17-51.17B and R 700-17-51.17C, Sheets 1, 2 and 3 of 3, recorded in the Rockingham County Registry of Deeds as Plan No. D-8560, and all parcels lying entirely within said Lot 2, but excepting Lot 1 as shown on said plan and also excepting the land conveyed by Properties, Inc. and Public Service Company of New Hampshire (hereinafter "PSNH") to the Town of Seabrook by deed dated February 8, 1980 recorded in said Registry at Book 2358, Page 590;

B. A certain piece, parcel or tract of land situated in said Seabrook, as described and conveyed in a deed from Antonio and Louise Santasucci to PSNH dated March 27, 1983, recorded in said Rockingham Registry at Book 2439, Page 855;

C. Those certain pieces, parcels or tracts of land situated in said Hampton Falls and Seabrook and shown as Parcels 153 through 156 on a plan entitled "Exhibit D, Seabrook Nuclear Station Area of Proposed Intake & Discharge Cooling Tunnels, Seabrook, Hampton and Hampton Falls, New Hampshire", Scale: As Shown, dated March 26, 1974, prepared for PSNH by Thomas F. Moran Inc., Civil Engineers & Surveyors, Bedford, N.H., recorded in said Rockingham Registry as Plan No. D-5064; and

D. All those certain pieces, parcels or tracts of land situated easterly of but not adjacent to said U.S. Route 1 in said Hampton Falls and shown as Parcels 101

through 103, 105 through 112, 115 through 132, 134, 135 through 138, 140, and 143 through 145 on a plan entitled "Exhibit C, Seabrook Nuclear Station Proposed Exclusion Area, Seabrook and Hampton Falls, New Hampshire", Scale: As Shown, dated March 30, 1974, prepared for PSNH by Thomas F. Moran Inc., Civil Engineers & Surveyors, Bedford, N.H., recorded in said Rockingham Registry as Plan No. D-4494.

For Grantor NAEC's title to the Adjacent Property described above, see deed and bill of sale of PSNH to Grantor NAEC dated June 3, 1992, recorded in said Rockingham Registry at Book 2928, Page 1003.

LESS AND EXCEPTING from the Adjacent Property described above so much as was conveyed by the following deeds of Grantor NAEC recorded in said Registry: deed to the Town of Seabrook, dated March 20, 1995, recorded at Book 3096, Page 2201; deed to Arnold D. Knowles and Joan E. Knowles, as Trustees of the Knowles Family Trust, dated July 2, 1997, recorded at Book 3225, Page 2413; deëd to Bailey Manufacturing Corporation, dated September 26, 1997, recorded at Book 3243, Page 1140; deed to Robert Flanagan and Ruth Flanagan, dated September 30, 1999, recorded at Book 3428, Page 2800; and deed to the State of New Hampshire, dated February 13, 2001, recorded at Book 3555, Page 2331.

Also, certain pieces or parcels of land located in the Towns of Seabrook and Hampton Falls, County of Rockingham and State of New Hampshire being shown as "Lot 2" on a map entitled "Property Survey Seabrook Nuclear Power Station Seabrook, Hampton Falls & Hampton, New Hampshire Surveying and Mapping by: URS Corporation AES ... Scale 1"=1000' Date: October 2002 ... Project # 36912693" Sheets 1 of 16 through 16 of 16 which map is to be recorded with the Rockingham County Registry of Deeds, together with all of the buildings, structures, improvements, facilities and installations thereon, to the extent not described above, which premises are more particularly bounded and described as follows:

Parcel One:

Beginning at a monument northerly from North Access Road on the westerly line of land now or formerly of the State of New Hampshire, D.O.T., said point being on the division line between land now or formerly of North Atlantic Energy Corporation, et al, being the First and Second Unit Site, on the south and the herein described parcel on the north;

Thence running North 75° 10' 15" West, 752.18 feet along said land now or formerly of North Atlantic Energy Corporation, et al;

Thence running North 15° 02' 15" West, 223.46 feet along said land now or formerly of North Atlantic Energy Corporation, et al, and along land now or formerly of T. Park Realty Trust (2653/623), partly by each;

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Thence running North 63° 19' 55" East, 222.50 feet and North 73° 10' 45" West, 523.20' feet along land now or formerly of T. Park Realty Trust to land now or formerly of Kenneth S. Pelton, Trustee and Ruth E. Pelton, Trustee (3428/892);

Thence running North 6° 35' 25" East, 598.85 feet along land now or formerly of Kenneth S. Pelton, Trustee and Ruth E. Pelton, Trustee (3428/892) to land now or formerly of Jay M. & Priscilla S. Lord (2893/1982);

Thence running South 83° 24' 35" East, 520.36 feet along land now or formerly of Jay M. & Priscilla S. Lord (2893/1982) and land now or formerly of Hubert R. & Betty L. Brown (2159/137), partly by each;

Thence running South 82° 07' 50" East, 278.21 feet along land now or formerly of Hubert R. & Betty L. Brown (2159/137) and land now or formerly of Alan H. & Alice H. Brown (3098/1868, 2158/382), partly by each;

Thence running South 82° 01' 01" East, 483.64 feet along land now or formerly of Alan H. & Alice H. Brown (3098/1868, 2158/382), land now or formerly of John & Georgianna Swain (2247/1089), and land now or formerly of Paul T. & Amy Mcavoy (3490/321), partly by each;

Thence running South 82° 21' 22" East, 125.02 feet along land now or formerly of Paul T. & Amy Mcavoy (3490/321) to land now or formerly of the State of New Hampshire, D.O.T. (3449/335);

Thence running South 17° 41' 55" West, 754.57 feet, North 59° 42' 10" West, 33.81 feet, and South 17° 41' 55" West, 389.51 feet along land now or formerly of the State of New Hampshire, D.O.T. to the place and point of beginning.

Parcel Two:

Beginning at a monument located on the northerly street line of Rocks Road, said point being on the division line between other land now or formerly of North Atlantic Energy Corporation on the east and land now or formerly of Ronald Murray (3125/1207) on the west;

Thence running North 00° 49' 45" East, 615.19 feet along land now or formerly of Ronald Murray (3125/1207), and land now or formerly of Edmund & Charlotte Marshal (1778/218), partly by each to land now or formerly of North Atlantic Energy Corporation, et al, being the First and Second Unit Site ("Lot 1");

Thence running North 82° 02' 02" East, 1,994.30 feet along land now or formerly of North Atlantic Energy Corporation, et al, being the First and Second Unit Site to land now or formerly of the State of New Hampshire, D.O.T.;

Thence running South 17° 41' 55" West, 369.63 feet, South 83° 37' 05" West, 36.15 feet, South 17° 41' 55" West, 165.00 feet, South 83° 37' 05" West, 123.53 feet, South 87° 42' 00" East, 219.67 feet and North 17° 41' 55" East, 573.74 feet along land now or formerly of the State of New Hampshire, D.O.T. to land now or formerly of North Atlantic Energy Corporation, et al, being the First and Second Unit Site;

Thence running North 81° 37' 45" East, 602.58 feet, thence on a curve to the right having a radius of 989.25 feet and an arc length of 687.58 feet, thence South 58° 32' 50" East, 90.63 feet, South 35° 43' 45" West, 33.70 feet, South 55° 59' 15" West, 377.50 feet, South 34° 00' 45" East, 1126.30 feet, North 63° 07' 45" East, 414.01 feet, North 55° 27' 10" East, 1,190.67 feet, North 17° 00' 10" West, 583.73 feet, South 82° 14' 50" West, 538.00 feet, North 71° 03' 04" West, 374.64 feet, South 69° 13' 45" West, 551.99 feet, North 58° 32' 50" West, 100.00 feet, thence on a curve to the left having a radius of 1,114.25 feet and an arc length of 774.46 feet, and thence South 81° 37' 45" West, 541.40 feet, all courses along land now or formerly of North Atlantic Energy Corporation, et al, being the First and Second Unit Site, to land now or formerly of the State of New Hampshire, D.O.T.;

Thence running North 17° 41' 55" East, 824.66 feet, South 81° 24' 05" East, 16.69 feet, North 17° 41' 55" East, 797.95 feet, South 59° 42' 10" East, 16.91 feet, North 17° 41' 55" East, 794.25 feet, North 82° 21' 22" West 33.40 feet and North 17° 41' 55" East, 562.49 feet along land now or formerly of the State of New Hampshire, D.O.T. to Brimmer Lane in the Town of Hampton Falls;

Thence running North 85° 09' 00" East, 146.39 feet, South 86° 51' 30" East, 243.82 feet, thence on a curve to the right having a radius of 275.00 feet and an arc length of 105.62 feet, and thence South 64° 51' 10" East, 555 feet, more or less, all courses along Brimmer Lane to the easterly terminus of Brimmer Lane near Point A on the Plan, which Point A is located North 18° 56' 49" West 2696.00 feet from Point B on the Plan at the northeasterly corner of Lot 1;

Thence running northerly along the terminus of Brimmer Lane and land now or formerly of William & Faye Somerby (2892/472), partly by each, to land now or formerly of Huldah & Grace Fogg (2638/2255);

Thence running generally easterly and southerly along various courses through the salt marsh all as shown on the Plan to the thread of the creek;

Thence running southerly along the thread of the creek as shown on the Plan;

Thence running generally westerly, southerly, easterly and southerly through the salt marsh to the thread of Browns River all as shown on the Plan;

Thence southerly and easterly along the thread of Browns River and thence from a point easterly from the thread of Browns River through the salt marsh to Hampton Harbor all as shown on the Plan;

Thence southerly along Hampton Harbor and from a point westerly through the salt marsh to the thread of Browns River all as shown on the Plan;

Thence generally southerly and westerly all as shown on the Plan along the thread in parts and through the salt marsh in parts of Hunt's Island Creek and tributaries thereof to a point southwesterly of Littlefield Island;

Thence generally westerly through the salt marsh as shown on the Planto a monument at Point D on the Plan at land now or formerly of Ronald H. Lund, Sr. & Tasesa L. Perkins-Lund, Trustees (3530/1986), which Point D is located South 06° 09' 03" East 3088.92 feet from Point C on the Plan at the most easterly corner of Lot 1;

Thence running South 73° 30' 13" West, 350.46 feet along land now or formerly of Ronald H. Lund, Sr. & Tasesa L. Perkins-Lund, Trustees (3530/1986) to land now or formerly of Emerald N. Eaton (1218/146);

Thence running South 79° 09' 54" West, 216.11 feet along land now or formerly of Emerald N. Eaton (1218/146) to land now or formerly of Warner B. Knowles (3512/1429);

Thence running South 83° 00' 48" West, 196.84 feet along land now or formerly of Warner B. Knowles (3512/1429) to land of Richard J. & Cora M.F. Cahoon (3123/2173);

Thence running South 87° 57' 52" West, 291.19 feet, North 86° 58' 47" West, 442.60 feet and South 07° 13' 02" West, 376.88 feet, all courses along land of Richard J. & Cora M.F. Cahoon (3123/2173) to land now or formerly of Ellen M. & Francis G. Chase (3855/1052);

Thence running North 83° 35' 00" West, 161.31 feet along land now or formerly of Ellen M. & Francis G. Chase (3855/1052) and land now or formerly of Anthony J. & Karen M. Richards (3479/630), partly by each to land now or formerly of Kim-E Development Lot #4 (3256/2165);

Thence running North 09° 20' 38" East, 397.98 feet along land now or formerly of Kim-E Development Lot #4 (3256/2165) and land now or formerly of Kim-E Condominium #5 (3319/2697), partly by each;

Thence running North 77° 25' 02" West, 170.92 feet, thence running westerly and southerly on an irregular line, 260 feet, more or less, along land now or formerly of Kim-

E Condominium #5 (3319/2697) to land now or formerly of Kim-E Condominium #6 (3091/869);

Thence running westerly on an irregular line, 232 feet, more or less, and thence South 05° 49' 37" East, 44.95 feet along land now or formerly of Kim-E Condominium #6 (3091/869) to land now or formerly of Henry H. Boyd, Jr. (3233/1197);

Thence running South 68° 17' 58" West, 56.42 feet along land now or formerly of Henry H. Boyd, Jr. (3233/1197);

Thence running South 02° 06' 33" West, 652.92 feet along land now or formerly of Henry H. Boyd, Jr., land now or formerly of Arthur B. & Antoinette L. Adams (3226/2130), land now or formerly of Richard R. & Tracy Clocher (3841/2227), land now or formerly of Steven C. & Denise M. Rita (3331/1958) and land now or formerly of Montgomery M. & Malisa Smith (3368/2322), partly by each, to land now or formerly of Arnold D. & Joan E. Knowles, Trustees (3225/2413);

Thence running North 86° 47' 27" West, 134.00 feet, and South 02° 06' 33" West, 190.83 feet along land now or formerly of Arnold D. & Joan E. Knowles, Trustees (3225/2413) to Farm Lane;

Thence running North 86° 56' 17" West, 115.29 feet along Farm Lane to land now or formerly of Tracy A. Roberts (3170/106);

Thence running North 01° 51' 42" East 852.24 feet along land now or formerly of Tracy A. Roberts (3170/106);

Thence running North 81° 26' 33" West, 362.93 feet along land now or formerly of Tracy A. Roberts and land now or formerly of Robert & Ruth Flanagan (3428/2800), partly by each, to land now or formerly of Donald B. Felch (3495/707);

Thence running North 02°11'30" East, 35 feet, more or less, and thence westerly on an irregular line 464 feet, more or less, along land now or formerly of Donald B. Felch (3495/707) to land now or formerly of Kathryn S. Williams, Successor Trustee ET. AL. (3183/253);

Thence running North 04° 13' 41" West, 616 feet, more or less, along land now or formerly of Kathryn S. Williams, Successor Trustee, et al. (3183/253), land now or formerly of Lori Kelleher & Daniel Calderwood (2786/1829), land now or formerly of Salvatore J. & Elleen D. Anzalone (3272/425) and land now or formerly of Michael A., Sr. & Kelly J. O'Connor (3203/1341), partly by each, to land now or formerly of Wayne D. & Minabell M. Bowden (2038/189);

Thence running North 23° 07' 56" West, 187.17 feet, and North 78° 32' 36" West, 353.25 feet along land now or formerly of Wayne D. & Minabell M. Bowden (2038/189, 2408/1358) to land now or formerly of the State of New Hampshire, D.O.T.;

Thence running North 17° 37' 40" East, 1,852.15 feet, North 17° 41" 55" East, 365.81 feet, North 86° 21' 35" East, 139.74 feet, North 87° 42' 01" West, 326.46 feet, South 80° 46' 15" East, 119.89 feet, South 17° 41" 55" West, 347.49 feet and South 17° 37' 40" West, 1,696.13 feet, all courses along land now or formerly of the State of New Hampshire, D.O.T., to land now or formerly of James W. Sanborn (3802/905);

Thence running North 66° 37' 38" West, 95.66 feet and South 17° 36' 14" West, 349.91 feet along land now or formerly of James W. Sanborn (3802/905), to land now or formerly of Mervin A. Locke & Anna May Balukonis (2435/1499);

Thence running North 64° 07' 41" West, 194.26 feet and South 17° 36' 14" West, 385.75 feet along land now or formerly of Mervin A. Locke & Anna May Balukonis (2435/1499) to land now or formerly of George I. Hanna, Trustee (3442/2321);

Thence running North 72° 22' 46" West, 168.19 feet, South 02° 52' 40" West, 468.88 feet, North 82° 18' 55" West, 106.57 feet and North 02° 49' 53" West 503.84 feet along land now or formerly of George I. Hanna, Trustee (3442/2321);

Thence running North 57° 04' 45" West, 346.93 feet along land now or formerly of George I. Hanna, Trustee and land now or formerly of the Estate of Harry E. Chase (1456/224), partly by each;

Thence South 63°28'55" West, 153.19 feet along land now or formerly of Estate of Harry E. Chase (1456/224) to land now or formerly of the Seabrook Housing Authority (2805/1087);

Thence running North 10° 30' 40" East, 42.91 feet and thence on a curve to the right having a radius of 732.71 feet and an arc length of 650.38 feet along land now or formerly of the Seabrook Housing Authority (2805/1087) to land now or formerly of GRA Real Estate Holdings, LLC (3027/2643);

Thence running North 09° 20' 37" East, 3.50 feet along land now or formerly of GRA Real Estate Holdings, LLC (3027/2643);

Thence North 68° 41' 25" West, 738.83 feet along land now or formerly of GRA Real Estate Holdings, LLC (3027/2643) and the northerly street line of Chevy Chase Road, partly by each to land now or formerly of the State of New Hampshire (3555/2331);

Thence running North 21° 46' 11" East, 60.01 feet along land now or formerly of the State of New Hampshire (3555/2331) to land now or formerly of Bailey Corporation (2421/269);

Thence running South 68° 41' 24" East, 107.24 feet, South 84° 12' 50" East, 18.68 feet, South 68° 41' 25" East, 565.85 feet, thence on a curve to the left having a radius of 662.71 feet and an arc length of 702.61 feet, and thence North 10° 28' 31" East, 491.90 feet along land now or formerly of Bailey Corporation (2421/269) to land now or formerly of the Town of Seabrook (2358/590, 3096/2201);

Thence running North 73° 01' 20" East, 725.00 feet, North 14° 14' 00" West, 148.20 feet, North 28° 50' 05" East, 72.28 feet, North 14° 35' 45" West, 147.90 feet, North 47° 40' 40" West, 87.20 feet, North 46° 22' 43" West, 60.09 feet, North 04° 13' 09" West, 399.69 feet, South 89° 28' 50" West, 196.93 feet, North 07 °54' 10" West, 87.64 feet, and North 43° 13' 30" West, 326.17 feet along land now or formerly of the Town of Seabrook (2358/590, 3096/2201) to Rocks Road;

Thence running easterly on a curve to the right having a radius of 357.79 feet and an arc length of 19.60 feet, thence North 84° 45' 18" East, 115.95 feet, thence on a curve to the left having a radius of 563.97 feet and an arc length of 216.54 feet, and thence North 62° 45' 20" East, 213.50 feet along Rocks Road;

Thence running North 27° 14' 40" West, 49.50 feet along the easterly terminus of Rocks Road;

Thence running South 62° 45' 20" West, 213.50 feet, thence on a curve to the right having a radius of 514.47 feet and an arc length of 197.54 feet, thence South 84° 45' 18" West, 115.95 feet and thence on a curve to the left having a radius of 407.29 feet and an arc length of 170.99 feet along Rocks Road to the place and point of beginning.

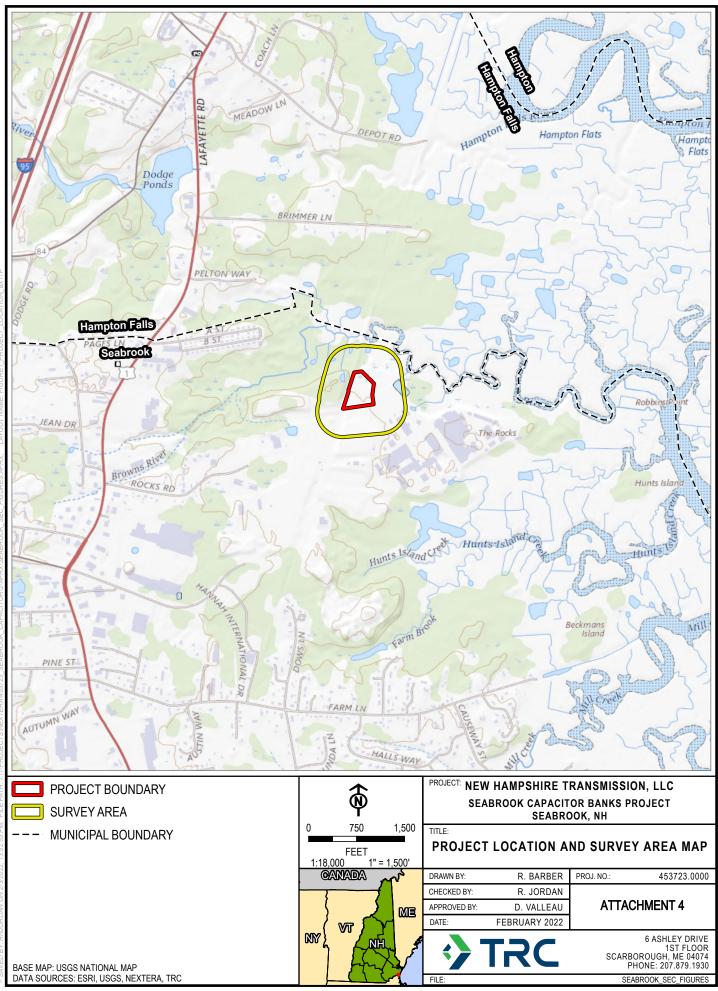
Parcel Three:

The land conveyed in deed from the Town of Seabrook to Properties, Inc. dated February 27, 1976 and recorded in the Rockingham County Registry of Deeds in Book 2254, Page 404, being a portion of Commons Island in the Town of Seabrook and as shown on the Plan.

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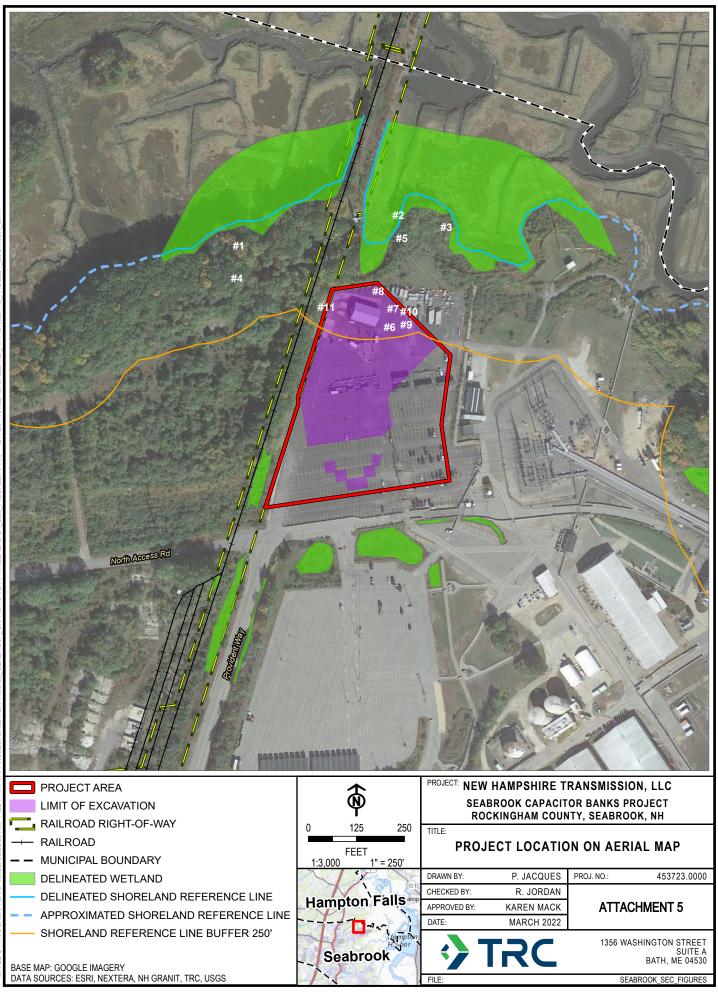
USGS Map

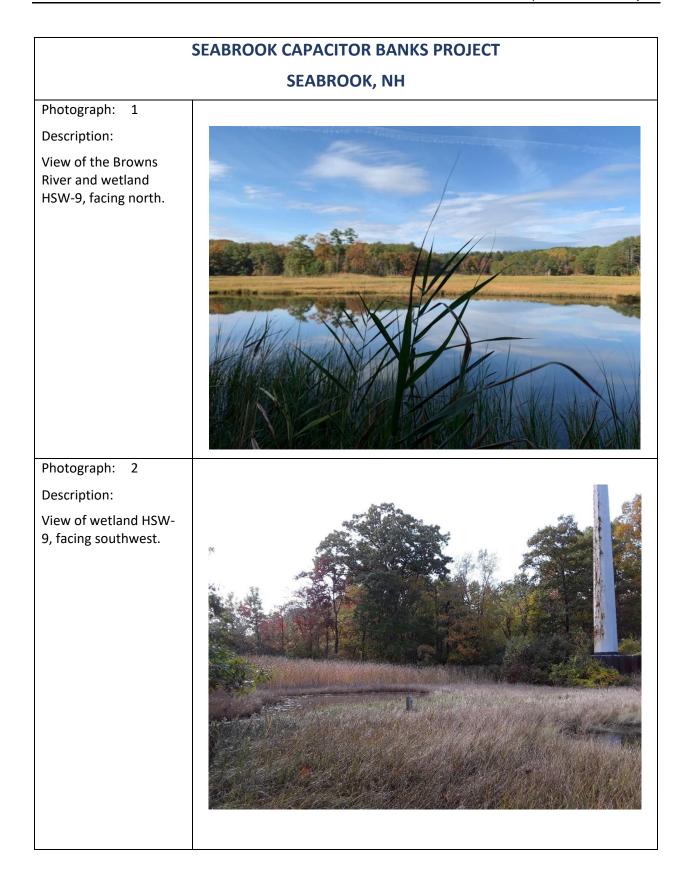




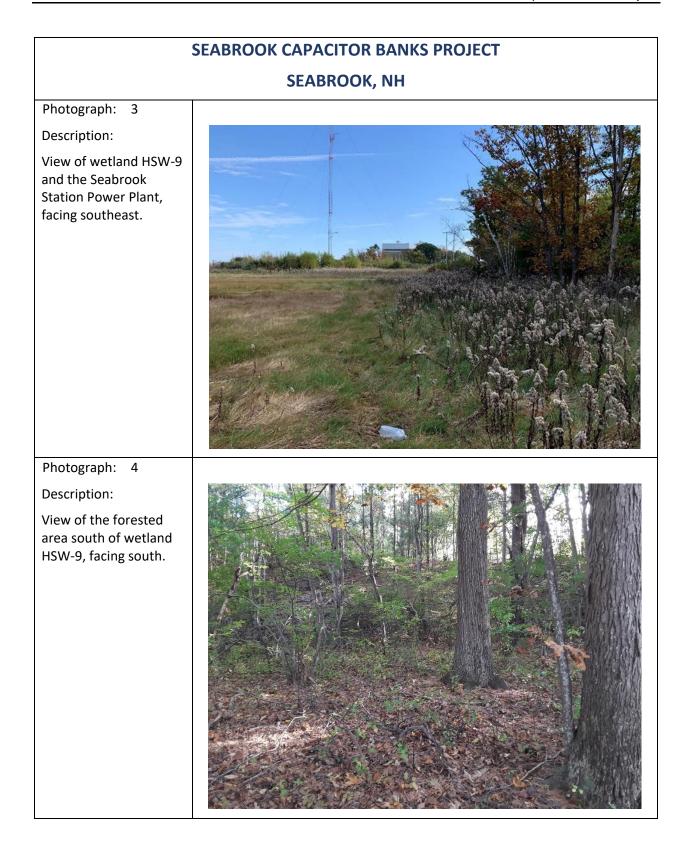
Photographs of the Project Area







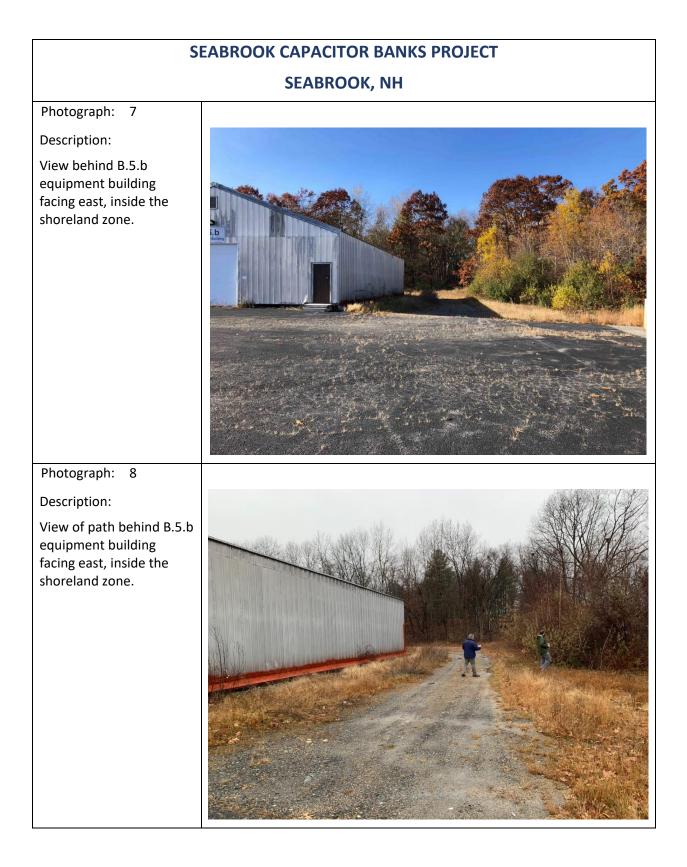




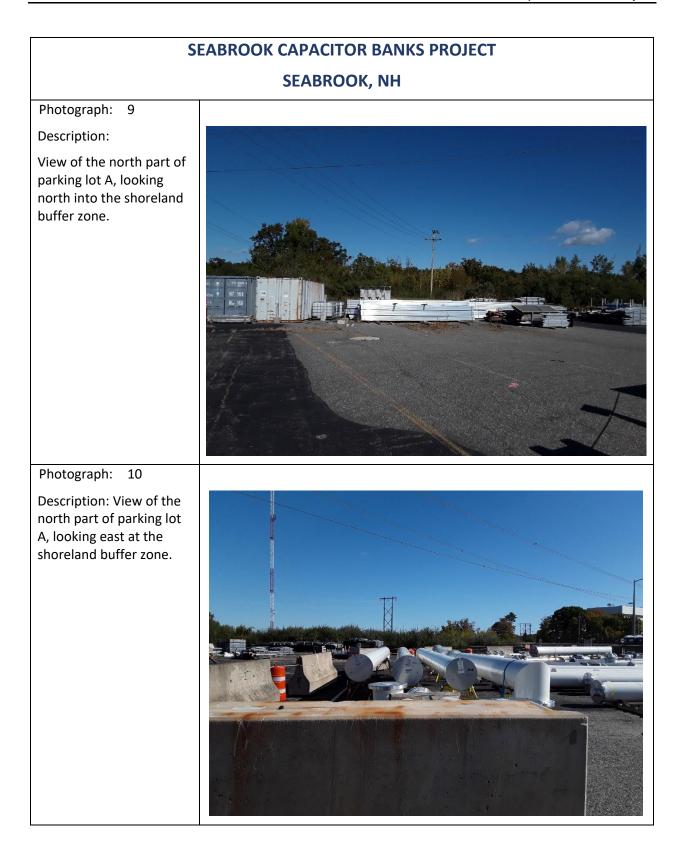


SEABROOK CAPACITOR BANKS PROJECT **SEABROOK, NH** Photograph: 5 Description: View of wooded area between the wetland HSW-9 and the fence surrounding the power plant, facing south. Photograph: 6 Description: View of B.5.b equipment building facing east in northern part of parking lot A, inside the shoreland buffer zone.











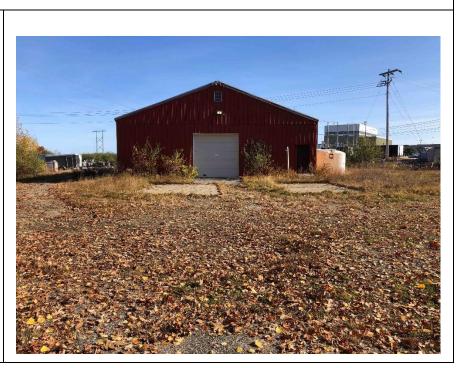
SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 11

Description:

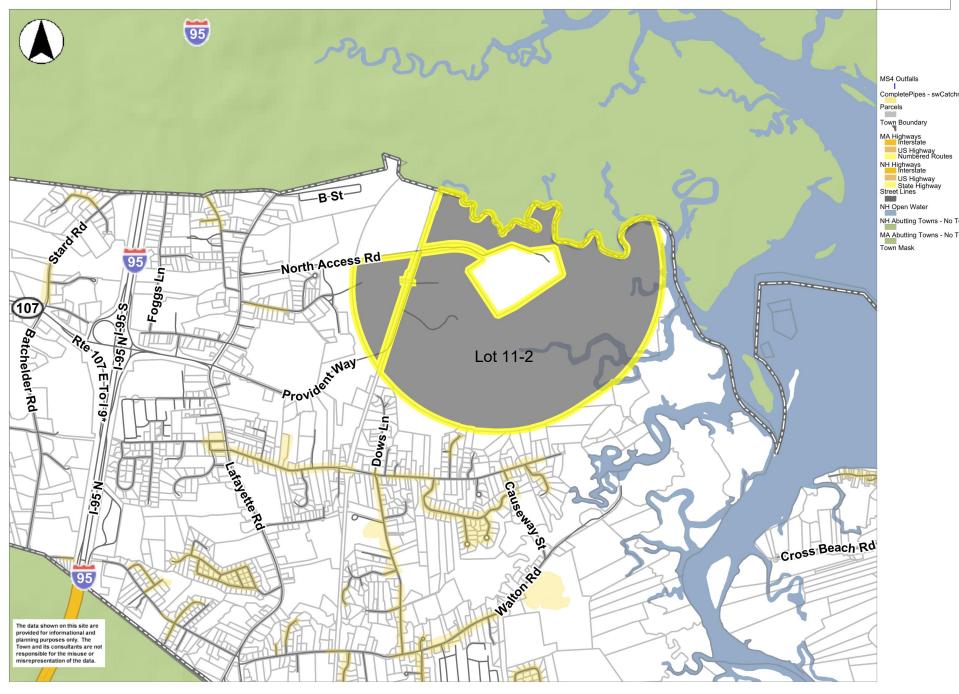
View of behind the B.5.b building looking east, inside the shoreland buffer zone.





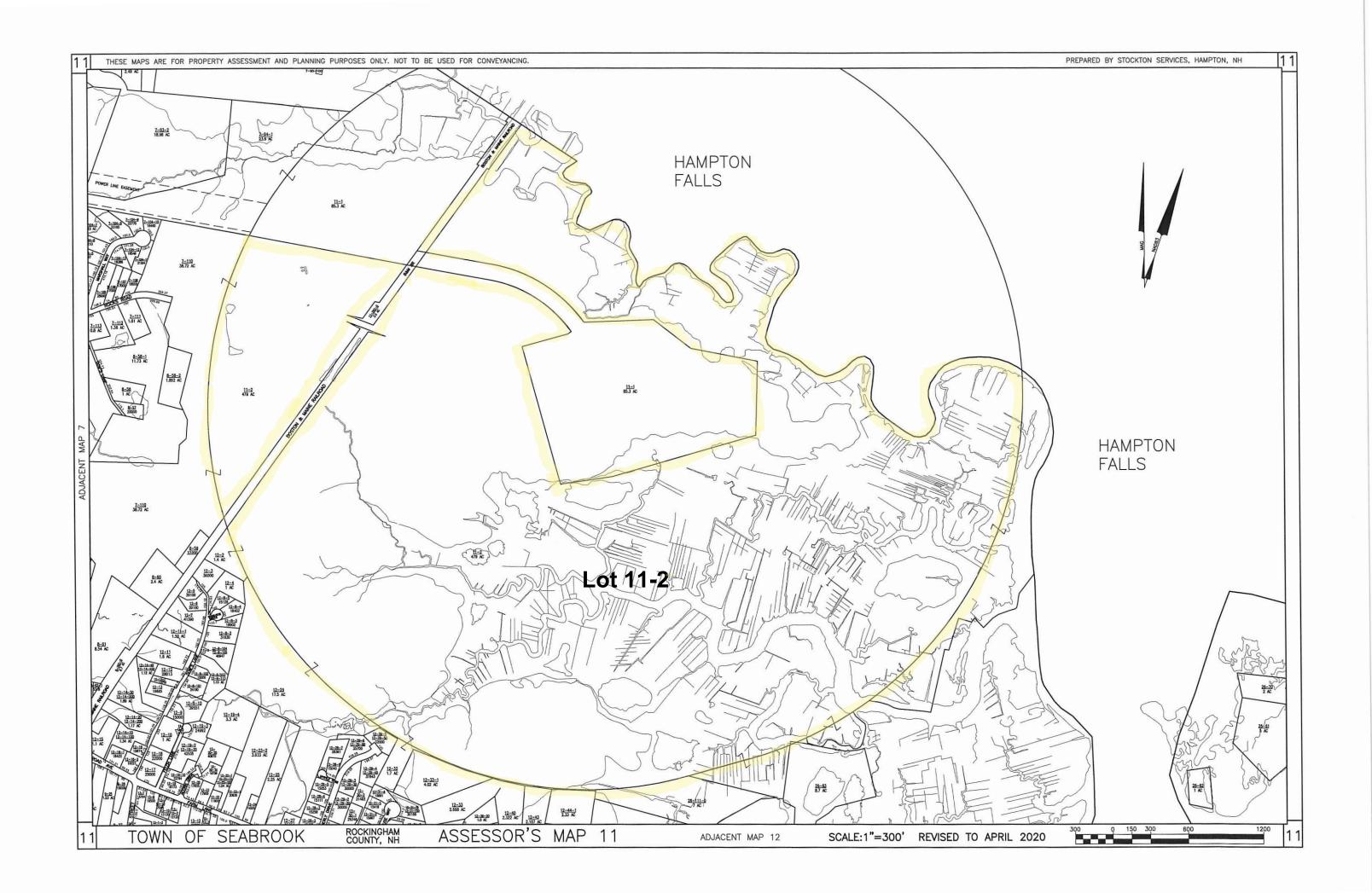
Тах Мар





Seabrook NH Map

5200 ft



Abutter List



Seabrook (Adams Village Trailer Park) Abutter's Mailing List

NO.	PARCEL ID	LANDOWNER	MAIL ADDRESS	TOWN	STATE	ZIP
1.	7-90	T PARK REALTY TRUST, BENOIT DAVID TRUSTEE	PO BOX 359	HAMPTON FALLS	NH	03844
2.	7-90-1	WOOD JAY	944 LAFAYETTE RD #1	SEABROOK	NH	03874
3.	7-90-2	WHOLLEY PAUL D	944 LAFAYETTE RD #2 A ST	SEABROOK	NH	03874
4.	7-90-3	COLE GERALD W	944 LAFYETTE RD #3	SEABROOK	NH	03874
5.	7-90-4	FILIPPONE JOHN & ANGELA	13 DOCK LN	SALISBURY	MA	01952
6.	7-90-5	SIMONEAU ROBERT J	5 A STREET	SEABROOK	NH	03874
7.	7-90-6	DALEY ELIZABETH	6 A ST	SEABROOK	NH	03874
8.	7-90-7	COOPER FAMILY REVOCABLE TRUST, COOPER BARBARA TTEE	944 LAFAYETTE RD #7	SEABROOK	NH	03874
9.	7-90-8	SILVA JOSEPH J SR & MAILINDA M	944 LAFAYETTE RD #8A	SEABROOK	NH	03874
10.	7-90-9	CALABRESE ANTHONY & TAMARA JEAN	944 LAFAYETTE #9	SEABROOK	NH	03874
11.	7-90-10	REDA SUSAN M	944 LAFAYETTE RD #10	SEABROOK	NH	03874
12.	7-90-11	CONNOR JOAN E TRUST, CONNOR JOAN E TTEE	944 LAFAYETTE RD LOT 11A	SEABROOK	NH	03874
13.	7-90-12	PRICE DEBRA M	944 LAFAYETTE RD #12	SEABROOK	NH	03874
14.	7-90-13	MEUNIER EDWARD R	944 LAFAYETTE #12	SEABROOK	NH	03874
15.	7-90-14	SLEEPER BRUCE W	944 LAFAYETTE RD #14	SEABROOK	NH	03874
16.	7-90-15	SILVARIA JOHN B & MILDRED H	944 LAFAYETTE RD #15A	SEABROOK	NH	03874
17.	7-90-16	SULLIVAN LORI	944 LAFAYETTE RD #16A	SEABROOK	NH	03874
18.	7-90-17	HILTZ JANICE	944 LAFAYETTE RD UNIT#17	SEABROOK	NH	03874
19.	7-90-18	DENEUMOUSTIER JOHN A	944 LAFAYETTE RD #18	SEABROOK	NH	03874
20.	7-90-19	FILIPPONE JOHN & ANGELA	13 DOCK LANE	SALISBURY	MA	01952

Seabrook (Adams Village Trailer Park) Abutter's Mailing List

21.	7-90-20	DOHERTY PAMELA B & WILLIAM J	1 INDAN HILL RD	WOBURN	MA	01801
22.	7-90-21	MONDELLO JOHN F JR & MARIETTA A	944 LAFAYETTE RD #21 A ST	SEABROOK	NH	03874
23.	7-90-22	FROST KEVIN	PO BOX 2572	SEABROOK	NH	03874
24.	7-90-23	MURPHY JAMES A & MOYA A	8 SAVOY RD	SOUTH HAMILTON	MA	01982
25.	7-90-24	BOWE CLARENCE & STACEY NICKERSON-	24 A ST	SEABROOK	NH	03874
26.	7-90-25	GELLO JOSEPH F JR	56 HEMLOCK HAVEN	HAMPTON	NH	03842
27.	7-90-26	MELO MARIA	944 LAFAYETTE RD #26A	SEABROOK	NH	03874
28.	7-90-27	BERRY MELISSA A	27 A STREET	SEABROOK	NH	03874
29.	7-90-28	EATON GRAHAM S	944 LAFAYETTE RD UNIT 28A	SEABROOK	NH	03874
30.	7-90-29	SIU KEVIN	944 LAFAYETTE RD #29A	SEABROOK	NH	03874
31.	7-90-30	COMTOIS DEBORAH	944 LAFAYETTE ROAD #30B	SEABROOK	NH	03874
32.	7-90-31	FILIPPONE JOHN & ANGELA	13 DOCK LANE	SALISBURY	MA	01952
33.	7-90-32	MACDONALD BRENDA	944 LAFAYETTE RD #32	SEABROOK	NH	03874
34.	7-90-33	KILROY KEVIN M	944 LAFAYETTE RD #33	SEABROOK	NH	03874
35.	7-90-34	LOUF STEPHEN SR & BEATRICE	944 LAFAYETTE RD #34	SEABROOK	NH	03874
36.	7-90-35	DAMATO AMY	944 LAFAYETTE RD #35	SEABROOK	NH	03874
37.	7-90-36	TESSICINI MELINDA M	944 LAFAYETTE RD #36	SEABROOK	NH	03874
38.	7-90-37	BRENNAN THOMAS & SCARAFONE ELIZABETH A	944 LAFAYETTE RD #37	SEABROOK	NH	03874
39.	7-90-38	KELLEY KATHLEEN	944 LAFAYETTE RD #38B	SEABROOK	NH	03874
40.	7-90-39	ATCHUE GEORGE J III & JOAN	944 LAFAYETTE RD UNIT #39	SEABROOK	NH	03874
41.	7-90-40	MCDONOUGH MARIE F	944 LAFAYETTE RD #40	SEABROOK	NH	03874

Seabrook (Adams Village Trailer Park) Abutter's Mailing List

42.	7-90-41	T PARK REALTY TRUST, BENOIT DAVID P TRUSTEE	PO BOX 359	HAMPTON FALLS	NH	03844
43.	7-90-42	T PARK REALTY TRUST, BENOIT DAVID P TRUSTEE	PO BOX 359	HAMPTON FALLS	NH	03844
44.	7-90-43	POKORSKI JENNIFER A & CLULEY LAWRENCE B	43 B ST	SEABROOK	NH	03874
45.	7-90-44	RALPHS KAREN M	944 LAFAYETTE RD #44 B	SEABROOK	NH	03874
46.	7-90-45	T PARK REALTY TRUST, BENOIT DAVID & GARRANT ALEXIS TTEES	PO BOX 359	HAMPTON FALLS	NH	03844
47.	7-90-46	BUBAR DONNA L & BUBAR VERNON	PO BOX 785	SEABROOK	NH	03874
48.	7-90-47	MEROLA GLORIA REVOC TRUST, MEROLA GLORIA L TTEE	83 HEMLOCK HAVEN	HAMPTON	NH	03842
49.	7-90-48	LEBEL STEPHEN J	944 LAFAYETTE RD #48	SEABROOK	NH	03874
50.	7-90-49	MEISNER THOMAS G & JANET & DONAHUE SUSAN A	944 LAFAYETTE RD UNIT 49B	SEABROOK	NH	03874
51.	7-90-50	BURKE ROBERT S & TERESA E	944 LAFAYETTE RD #50	SEABROOK	NH	03874
52.	7-90-51	REBIDUE REBECCA & WARREN TIANA	944 LAFAYETTE RD UNIT 51B	SEABROOK	NH	03874
53.	7-90-52	BENOIT DAVID P	PO BOX 359	HAMPTON FALLS	NH	03844
54.	7-90-53	BALDWIN LUCY	944 LAFAYETTE RD #53	SEABROOK	NH	03874
55.	7-90-54	SOUTHER ALAN L	944 LAFAYETTE RD #54	SEABROOK	NH	03874
56.	7-90-55	CADELL SHERRY A	20 PERKINS AVE	SEABROOK	NH	03874
57.	7-90-56	BROWN NATALIE S	56 B ST	SEABROOK	NH	03874
58.	7-90-57	LAFLAMME MARGARET S REVOC TRUST, LAFLAMME MARGARET S TTEE	15 OAK DR	NORTH HAMPTON	NH	03862
59.	7-90-58	FRECHETTE ELAINE M REVOCABLE TR, FRECHETTE ELAINE M TRUSTEE	58 B ST	SEABROOK	NH	03874
60.	7-90-59	MCNEFF MATTHEW J & CHRISTINA & HAWKINS MARIA	117 IRVING ST	WATERTOWN	МА	02472
61.	7-90-100	TOWN OF SEABROOK, SEWER PUMP STATION #1	PO BOX 456	SEABROOK	NH	03874

Certified Mail Receipt to Town of Seabrook



StorlazziWard, Heather

From:	Blair, Michelle A.
Sent:	Thursday, February 3, 2022 3:20 PM
То:	StorlazziWard, Heather
Subject:	Fwd: [EXTERNAL] USPS eReceipt

As promised!

Get Outlook for iOS

From: DoNotReply@ereceipt.usps.gov <DoNotReply@ereceipt.usps.gov>
Sent: Thursday, February 3, 2022 3:17 PM
To: Blair, Michelle A.
Subject: [EXTERNAL] USPS eReceipt

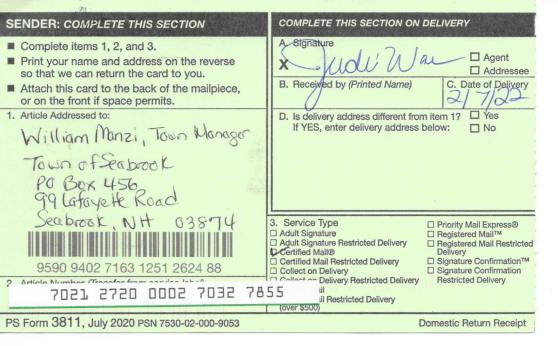
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33 COL WATERVILLE,	RVILLE LEGE AVE ME 04901-9998 75-8777		03:16 PM
Product	Qty	Unit Price	Price
First-Class Mail® Letter Seabrook, NH 03874 Weight: 0 lb 0.90 oz Estimated Delivery Date Mon 02/07/2022	1		\$0.58
Certified Mail® Tracking #: 70212720000270327855			\$3.75
Return Receipt Tracking #: 9590 9402 7163 1251 2624	88		\$3.05
Total			\$7.38
Grand Total:		\$7.38	
			\$7.38

Account #: XXXXXXXXXXX1004 Approval #: 801353 Transaction #: 215 AID: A00000025010801 Chip AL: AMERICAN EXPRESS PIN: Not Required ********** USPS is experiencing unprecedented volume increases and limited employee availability due to the impacts of COVID-19. We appreciate your patience. Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit www.usps.com USPS Tracking or call 1-800-222-1811. Preview your Mail Track your Packages Sign up for FREE @ https://informeddelivery.usps.com All sales final on stamps and postage. Refunds for guaranteed services only. Thank you for your business. Tell us about your experience. Go to: https://postalexperience.com/pos?mt=9 or call 1-800-410-7420. UFN: 229120-0901 Receipt #: 840-50400327-4-6976443-2 Clerk: 11 Privacy Act Statement: Your information will be used to provide you with an electronic receipt for your purchase transaction via email. Collection is authorized by 39 USC 401, 403, and 404. Providing the information is voluntary, but if not provided, we will be unable to process your request to receive an electronic receipt. We do not disclose your information to third parties without your consent, except to facilitate the transaction, to act

on your behalf or request, or as legally required. This includes the following limited circumstances: to a congressional office on your behalf; to financial entities regarding financial transaction issues; to a U.S. Postal Service auditor; to entities, including law enforcement, as required by law or in legal proceedings; to contractors and other entities aiding us to fulfill the service (service providers); to process servers; to domestic government agencies if needed as part of their duties; and to a foreign government agency for violations and alleged violations of law. For more information on our privacy policies visit www.usps.com/privacypolicy.

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Via Certified mail & email: wmanzi@seabrooknh.org

February 3, 2022

William Manzi, Town Manager Town of Seabrook 99 Lafayette Road PO Box 456 Seabrook, NH 03874

Dear Mr. Manzi,

On behalf of New Hampshire Transmission, LLC (NHT), a direct wholly-owned subsidiary of NextEra Energy Transmission, LLC (NEET), TRC provides this notice that the applicant, NHT, is filing a Shoreland Permit application on or about February 28, 2022 as required under Chapter 483-B of the Shoreland Water Quality Protection Act (SWQPA), for the proposed Seabrook Capacitor Banks Project (the Project). The proposed Project is to be built in an existing paved parking lot at the Seabrook Station Power Plant, located at 626 Lafayette Road in Seabrook.

The proposed Project will be operated by NHT on an approximately 2.2-acre site located north of the existing North Access Road on the Seabrook Station property, which is currently being used as a parking lot for Seabrook Station (Attachment-Figure 1). The site is bordered to the south by an existing approximately 245-foot wide Eversource easement, to the west by an existing abandoned Boston & Maine railroad right of way, to the north by existing emergency response infrastructure, and to the east by an approximately 70-foot wide Unitil easement. To the north of the proposed Project site is an approximate 10-foot drop down to the Browns River and its associated salt marsh system.

The Project components include capacitor banks, circuit breakers, busswork, aboveground electric lines, a control house, and other necessary appurtenant infrastructure (e.g., interior access road, security fencing). Capacitor banks are specifically used to improve operating efficiency of the electric power grid and help with transmission voltage stability during disturbances and/or high load conditions. Portions of the Project area are located within 250 feet of the Shoreland reference line, triggering the need for the Shoreland Permit.

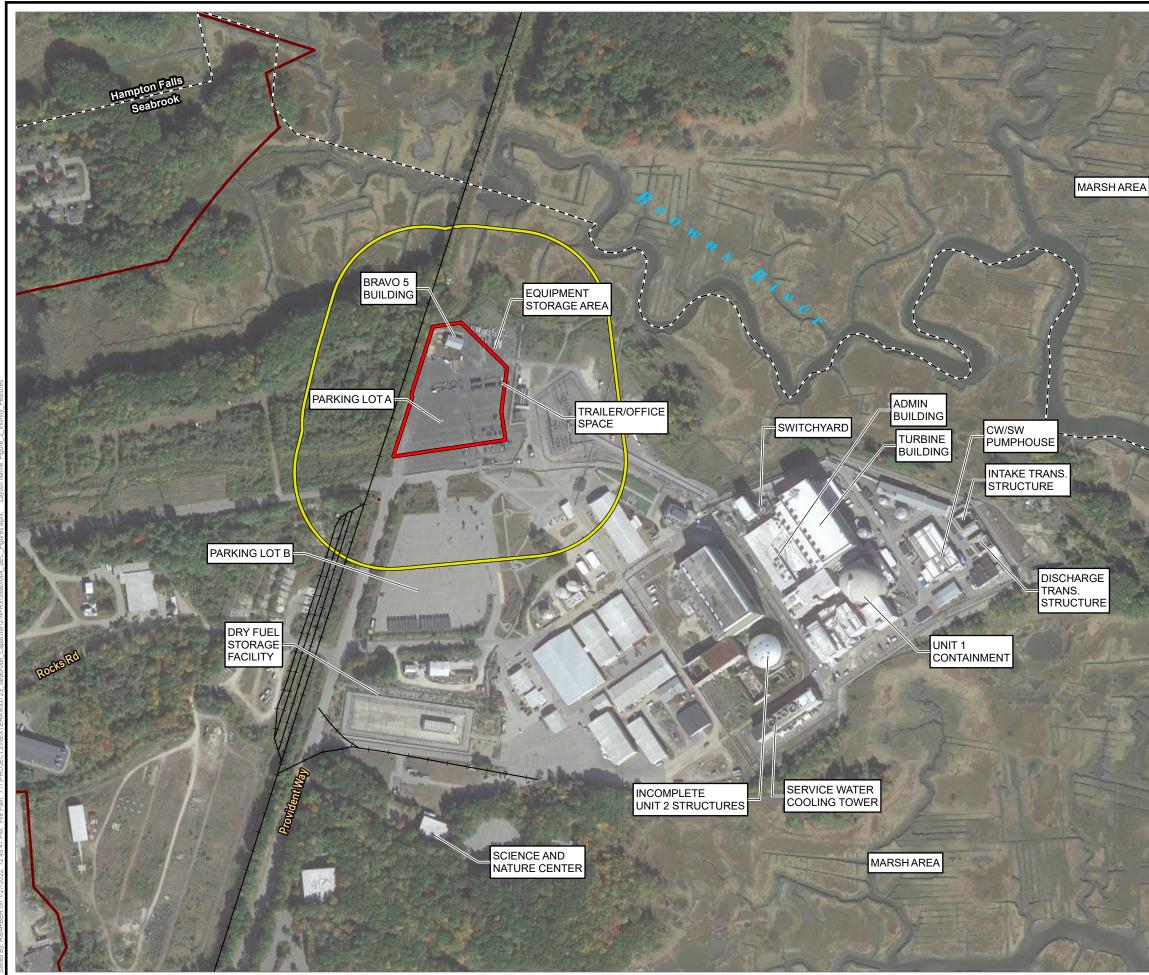
NHT shall provide a copy of the Shoreland Application, at your request. If you have any questions or would like any additional information, please feel free to contact me at (207) 317-6630 or hstorlazziward@trccompanies.com.

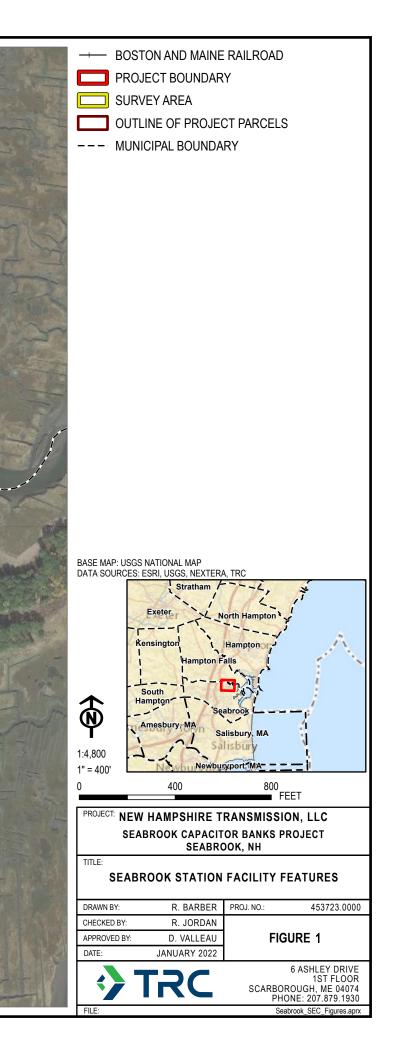
Sincerely,

Heather Storlazzi Ward Senior Scientist/Project Manager

cc: Tom Morgan, Seabrook Town Planner (tzm7@mac.com) Lacey Fowler, Seabrook CEO (lfowler@seabrooknh.org) Corinne DiDomenico, NEE; Kim Austin, NEE Dana Valleau, TRC

Attachment – Figure 1. Project Location on Aerial Map





New Hampshire Natural Heritage Bureau Consultation



NHNHB Email Response to TRC Notification of Updated Project Area, dated 2/24/2022

& TRC Notification of Updated Project Area, dated 2/23/2022

From:	DNCR: NHB Review
То:	StorlazziWard, Heather
Cc:	Corinne.didomenico@nexteraenergy.com; Austin, Kim; Valleau, Dana; Jipson, Erika; Bonta, Jen
Subject:	[EXTERNAL] RE: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project - Revised excavation area
Date:	Thursday, February 24, 2022 1:38:25 PM
Attachments:	image003.png

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ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

Hi Heather,

Thank you so much for the project transparency and considering NHB. You are correct, this does not change the NHB consultation results.

Jessica Bouchard (she/her/hers) Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 (603) 271-2834 (office)

NHB DataCheck Tool

From: StorlazziWard, Heather <HStorlazziWard@trccompanies.com>
Sent: Thursday, February 24, 2022 9:30 AM
To: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Cc: Corinne.didomenico@nexteraenergy.com; Austin, Kim <Kim.Austin@nexteraenergy.com>; Valleau, Dana <DValleau@trccompanies.com>; Jipson, Erika <EJipson@trccompanies.com>; Bonta, Jen <JBonta@trccompanies.com>
Subject: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project - Revised excavation area

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Jessica,

The Seabrook Capacitor Banks Project has undergone some relatively minor changes, with a slight expansion of the excavation area *within existing paved areas* (shown in purple shading) in the southern end of the Project Area. In the original submission (left), the two small purple squares at the southern end represent area of excavation for structures which will support the overhead electrical transmission lines. The new proposed layout changes the design from having two poles to

six poles (represented by the 6 small purple squares at the south), which increases the excavation area. The snips below compare the previously submitted disturbance area (seen on the left) with the new disturbance area (seen on the right). All expansion of the excavation area is limited to existing pavement, so I don't believe that this will change the results of NHB's consultation determination of no impact to state-listed plant species or the nearby exemplary natural communities/systems. However, as a courtesy, and to maintain transparency, we are providing these changes to NHNHB. If you need additional materials from our team, I can provide those to you. In lieu of that, I am hoping that this email correspondence will suffice. Thank you for your consideration.

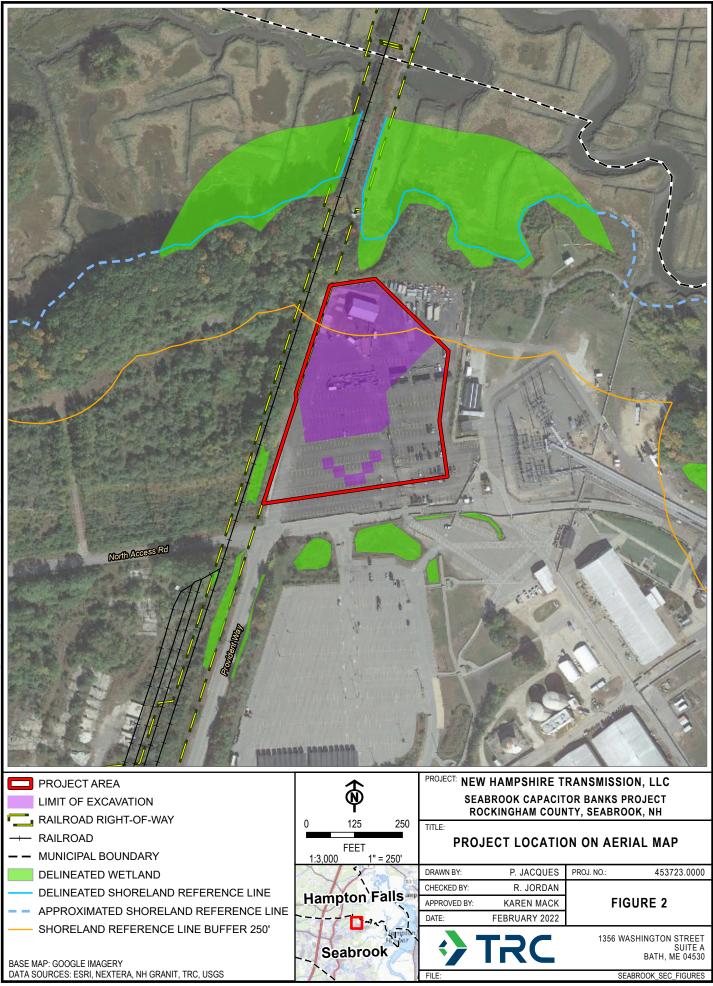
Original Proposed:

New Proposed:



Kind regards,

Heather Storlazzi Ward, NHCWS



NHNHB Email Response to TRC Response to NHNHB Request for Additional Information, dated 2/8/2022

StorlazziWard, Heather

From:	DNCR: NHB Review <nhbreview@dncr.nh.gov></nhbreview@dncr.nh.gov>
Sent:	Tuesday, February 8, 2022 11:31 AM
To:	StorlazziWard, Heather
Cc:	Corinne.didomenico@nexteraenergy.com; Austin, Kim; Valleau, Dana; Jipson, Erika; Bonta, Jen
Subject:	[EXTERNAL] RE: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project
Follow Up Flag:	Follow up
Flag Status:	Flagged

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Hi Heather,

Thank you for the report with photos and the aerial overview that shows the portion of the project within currently undisturbed areas. As the project will not encroach upon the Salt marsh, NHB has no concerns about impacts to the Salt marsh natural community system and the Salt marsh exemplary natural community types that fall within it. Additionally, as Salt marsh will not be impacted by the project, NHB has no concerns regarding potential impacts to the state-listed salt marsh species indicated on the Datacheck Letter. Finally, there are some rare upland plants on an upland peninsula within Salt marsh along the southeastern edge of the power plant. These plants are thought to be restricted to the unique habitat at that specific location, and appropriate habitat for the upland plants is not thought to be within the naturalized grassy and wooded northern end of the parking lot.

In conclusion, NHB is satisfied that the proposed project will not impact state-listed plant species indicated on the Letter or the nearby exemplary natural communities/systems.

Please let me know if you have any questions.

Thank you,

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 (603) 271-2834 (office)

NHB DataCheck Tool

From: StorlazziWard, Heather <HStorlazziWard@trccompanies.com>

Sent: Thursday, February 3, 2022 4:30 PM

To: DNCR: NHB Review <nhbreview@dncr.nh.gov>

Cc: Corinne.didomenico@nexteraenergy.com; Austin, Kim <Kim.Austin@nexteraenergy.com>; Valleau, Dana
 <DValleau@trccompanies.com>; Jipson, Erika <EJipson@trccompanies.com>; Bonta, Jen <JBonta@trccompanies.com>
 Subject: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

HI Jessica,

Thank you for your assistance thus far. Attached is additional information requested within the NHNHB datacheck review.

Please do not hesitate to contact me if I can be of further assistance.

Kind regards, Heather

Heather Storlazzi Ward, NHCWS



From: DNCR: NHB Review <<u>nhbreview@dncr.nh.gov</u>>
Sent: Tuesday, November 16, 2021 10:46 AM
To: StorlazziWard, Heather <<u>HStorlazziWard@trccompanies.com</u>>
Cc: Corinne.didomenico@nexteraenergy.com
Subject: [EXTERNAL] NHB Review: NHB21-3502

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best, Jessica

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist

NH Natural Heritage Bureau DNCR - Forests & Lands 172 Pembroke Rd Concord, NH 03301 603-271-2834

TRC Response to NHNHB Request for Additional Information, dated 2/3/2022



February 3, 2022

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 Via email: nhbreview@dncr.nh.gov

RE: Response to Review by NH Natural Heritage Bureau for Seabrook Capacitor Banks Project NHBID NHB21-3502 Town of Seabrook, Rockingham County, New Hampshire

Dear Ms. Bouchard:

On behalf of New Hampshire Transmission, LLC (Applicant), a direct subsidiary of NextEra Energy Transmission, LLC (NEET), TRC Environmental Corp. (TRC) is responding to a request for more information regarding the construction of a capacitor bank on an existing parking lot in Seabrook, NH (Attachment 1). A capacitor bank is similar to a substation, is unmanned, and will not result in an increase in traffic during operations. Overall, post-construction peak runoff rates are not expected to be higher than pre-construction peak runoff rates, thus stormwater quality and quantity are not expected to be significantly altered.

While there is a salt marsh system mapped within the northern portion of the area that was surveyed for protected natural resources by TRC, the location of the proposed project will not directly impact freshwater wetlands or tidally influenced areas associated with the salt marsh system (Attachment 2). The proposed project layout and limits of disturbance are primarily located on an existing parking lot that partially falls within the regulated 250-foot shoreland area, where it overlaps with the northern portion of the parking lot (Attachment 2). A small area of woodland and naturalized grassy area to the north, will be impacted by the proposed development and can be seen on Attachment 2. Photos of the project area and a photo locus map (Attachment 3) show the existing area where the project is being proposed.

If you have any questions or would like any additional information, please feel free to contact me at 207-317-6630 or hstorlazziward@trccompanies.com.

Sincerely,

Heather Storlazzi Ward, NHCWS Senior Scientist/Project Manager

Cc: Corinne DiDomenico, NEE; Kim Austin, NEE Dana Valleau, TRC

Attachments:

Attachment 1. Seabrook Capacitor Banks NHB Response Attachment 2. Figure 1. Project Aerial with Limit of Disturbance Attachment 3. Photolog

ATTACHMENT 1

Seabrook Capacitor Banks NHB Response



Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Location:

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: Heather Storlazzi Ward, TRC 6 Ashley Dr Scarborough, ME 04074

- **From:** NHB Review, NH Natural Heritage Bureau
- **Date:** 11/12/2021 (valid until 11/12/2022)
- **Re**: Review by NH Natural Heritage Bureau

Permits: NHDES - Alteration of Terrain Permit, NHDES - Shoreland Standard Permit

NHB ID: NHB21-3502 Town: Description: Construction of a capacitor bank on an existing parking lot.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments NHB: Although the project description indicates that the capacitor bank will be constructed on an existing parking lot, a portion of the Exemplary Salt marsh system is mapped within the project area. Please indicate if salt marsh is proposed to be impacted for the project and provide a clear aerial overlaid with the full limit of disturbance. Please describe impacts proposed in any previously undisturbed area for the project, and provide photos of such locations.

F&G: No Comments At This Time

Natural Community	State ¹	Federal	Notes
Brackish marsh*			
High salt marsh			
Low salt marsh*			
Salt marsh system			Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Subtidalsystem			Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species

State¹ Federal Notes

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

1 1 0		1
dry land sedge (Carex siccata)	Е	
dwarf glass wort (<i>Salicornia bigelovii</i>)*	E	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
hollow Joe-Pye weed (Eutrochium fistulosum)*	Е	 Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.
marsh elder (Iva frutescens)	Т	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)	Е	
perennial glasswort (Salicornia ambigua)*	E	 Primarily vulnerable to changes to the hydrology of its habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
saltmarsh agalinis (<i>Agalinis maritima ssp.</i> <i>maritima</i>)	Т	
upright knotweed (Polygonum erectum)*	Е	 Threats include direct desctuction of the plants and loss of habitat.
yellow thistle (<i>Cirsium horridulum var.</i> horridulum)*	Е	
1		

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3502



Brackish marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Imperiled due to rarity or vulnerability
Description at this Lo	ocation
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	Rank is for largest area visited (). Others were B- (three sites) or C
	Salt Marsh).
Detailed Description:	1997: A characteristic mix of graminoids includes Agrostis stolonifera var. palustris (marsh
General Area:	creeping bent-grass), <i>Spartina patens</i> (salt-meadow cord-grass), <i>Juncus gerardii</i> (salt marsh rush), <i>Solidago sempervirens</i> (seaside goldenrod), <i>Distichlis spicata</i> (spike-grass), <i>Juncus arcticus</i> var. <i>littoralis</i> (shore rush), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (fresh water cord-grass, slough-grass), <i>Carex paleacea</i> (chaffy salt sedge), <i>Hierochloe odorata</i> (sweet grass), <i>Aster novi-belgii</i> (New York aster), <i>Scirpus pungens</i> (three-square rush), and several other less frequent species. At the several other less frequent several transh in middle with <i>Quercus bicolor</i> (swamp white oak), <i>Toxicodendron radicans</i> (climbing poison ivy), and <i>Rosa virginiana</i> (Virginia rose). 1997: The several mathematic several extends seaward to an imaginary line drawn across and upstream and landward to where ocean-derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communitie
General Comments:	and <i>low salt marsh</i> . Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh islands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the fourther area, the forest of the rail road track, and the fourther area, the forest of the rail road track, and the fourther area, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997). 1997: Tidally flooded by salt water only during spring tides and storm surges. Supports a greater diversity of plants and generally flooded less frequently than the robust forb brackish marsh. Elevationally higher, received more freshwater input, and experienced less frequent tidal flow of plants and generally for groundwater discharge flows onto the marsh surface. This hydrologic regime supports brackish marsh species and other species most often found in fresh or salt marshes but tolerant of brackish conditions and able to
Management	successfully compete in this environment.
Comments:	
Location	
Survey Site Name:	
Managed By:	
County:	

Town(s): Size: 34	31.4 acres Elevation:
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates docume	ented

First reported: 1997-07-05

Last reported: 1997-10-06

High salt marsh

Legal Status	Conservation Status						
Federal: Not listed	Global: Not ranked (need more information)						
State: Not listed	State: Rare or uncommon						
Description at this Lo	Description at this Location						
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).						
Comments on Rank:	These ranks are for the entire estuary.						
Detailed Description: General Area:	photographed. 1997: In addition to <i>Spartina patens</i> (salt meadow cordgrass) and <i>Juncus gerardii</i> (salt marsh rush), other common plants on the high marsh included smooth cordgrass (short form) and <i>Distichlis spicata</i> (spike-grass). <i>D. spicata</i> formed pure stands in wetter, more poorly drained areas, or mixed with <i>S. patens</i> , growing at similar elevations on the high marsh. <i>J. gerardii</i> dominated landward of salt meadow-grass in narrow vegetative zones with decreased tidal flooding and soil water salinity, beginning at about mean spring high water. This zone had the highest species richness within the high marsh and included <i>Solidago sempervirens</i> (seaside goldenrod), <i>Panicum virgatum</i> (switch-grass), <i>Hierochloe odorata</i> (sweet grass), <i>Carexhormathodes</i> (necklace sedge), <i>Festuca rubra</i> (red fescue), <i>Aster novi-belgii</i> (New York aster), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (freshwater cordgrass), and <i>Potentilla anserina</i> (silverweed). 2007: Mostly borders a fringe of low salt marsh seaward, but occasionally transitions directly to <i>intertidal flat</i> and/or subtidal system . Borders upland forest and developed areas landward, as well as occasional patches of <i>brackish marsh</i> and coastal sand dune system . 1997: At the mean tidal range is 8.3 feet with spring tides averaging 9.5 feet. Here, the high marsh rises from ca. 4 feet above mean sealevel at its lower end to 5 feet						
	above mean sea level at the landward limit of the salt marsh rush zone. The Estuary contains the majority of the estimated 6,200 acres of salt marsh in the state. The River portion of the estuary continues south into the estuarine system extends seaward to an imaginary line drawn across Inlet and upstream and landward to where ocean -derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Subtidal communities include the undifferentiated saline/brackish subtidal channel/bay bottom and tidal creek bottom. Other intertidal flat, and low salt marsh. Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh is lands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the west of the rail road track (USDA Soil Conservation Service 1994).						
General Comments:							
Management Comments:	 1997: Marsh ditched heavily; greenhead boxes present. In the last four years, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997).						
Location							
Survey Site Name: Managed By:							
County: Town(s): Size: 3431.4 act	res Elevation:						

Precision: Within (but not necessarily restricted to) the area indicated on the	map.
---	------

Directions:				
		·		
Dates documente	ed			
First reported:	1997-07-05	Last reported:	2006-08-17	

Low salt marsh

Legal Status	Conservation Status					
Federal: Not listed	Global: Not ranked (need more information)					
State: Not listed	State: Rare or uncommon					
Description at this Lo	peation					
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).					
Comments on Rank:	These ranks are for the entire estuary.					
Detailed Description:	1997: Community mostly occurs as a fringe around the seaward edge of the much more extensive <i>high salt marsh</i> .					
General Area:	1997: The state of salt marsh in the state. The stuary contains the majority of the estimated 6200 acres of salt marsh in the state. The portion of the estuary continues south into the estuary continues system extends seaward to an imaginary line drawn across Inlet and upstream and landward to where ocean-derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Subtidal communities include the undifferentiated <i>saline/brackish subtidal channel/bay bottom</i> and <i>tidal creek bottom</i> . Other intertidal flat, and high salt marsh. Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh islands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the salt of the rail road track (USDA Soil Conservation Service 1994). In the last four years, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm, 1997).					
General Comments:						
Management						
Comments:						
Location						
Survey Site Name: Managed By:						
County: Town(s): Size: 3431.4 act	res Elevation:					
Precision: Within	n (but not necessarily restricted to) the area indicated on the map.					
Directions:						
Dates documented						
	997-07-05 Last reported: 1997-10-08					
i istropolited. I						

Salt marsh system

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this L	ocation
Conservation Rank:	Fair quality, condition and/or landscape context ('C' on a scale of A -D).
Comments on Rank:	Component communities are in fair condition. 2007 (A): Largest estuarine system in the state.
Detailed Description:	 2013, 2012, 2011: This system supports an expected array of estuarine communities, all in fair condition. The marsh has a history of ditching (New HampshireÆs salt marshes were ditched in an effort to control salt marsh mosquitoes and to improve salt marsh hay production). Brackish marshes have occasionally formed along the upland edge where wetlands and streams landward of the salt marsh drain freshwater onto the marsh. Several rare (S1 and S2) and uncommon (S3) plant species have been documented in the marsh over the years. Surveys in 2011 and 2012 documented new occurrences of saltmarsh agalinis (<i>Agalinis maritima</i>), sea-milkwort (<i>Lysimachia maritima</i>), beach umbrella sedge (<i>Cyperus filicinus</i>), seaside crowfoot (<i>Ranunculus cymbalaria</i>), and many-seeded plantain (<i>Plantago intermedia</i>). 2007: Photographs taken, from the air and the ground. 1997: Dominated by <i>high salt marsh</i> with narrow fringes and patches of <i>low saltmarsh</i>, bordered in places by <i>brackish marsh</i> and with scattered <i>salt pannes and pools</i> throughout. This system contains the majority of the estimated 6,200 acres of salt marsh in the state. Most of the estuary has unrestricted tidal flow. 2013: The system is bounded by heavy residential development on its east side. Elsewhere, it
	borders residential and commercial development or forest buffer. 2007: Mostly borders intertidal system and subtidal system below, and upland forests and developed areas above. Also borders coastal sand dune system at The Sands. Includes several islands with <i>dry Appalachian oak forest</i> within.
General Comments:	
Management Comments:	2013: Some stands of the invasive common reed (<i>Phragmites australis</i>) are being managed in the marsh, although resources to continue management may be nearing their end.
Location	
Survey Site Name:	
Managed By:	
County: Town(s):	res Elevation:
Size: 3431.4 ac	res Elevation:
Precision: Withi	n (but not necessarily restricted to) the area indicated on the map.
Directions: 1997-2	2013: Systemoccurs throughout the entire estuary.
Dates documented	
First reported:	1997-07-05 Last reported: 2013-08-12

Subtidal system

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Rare or uncommon
Description at this Lo	cation
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	
Detailed Description:	A relatively short main channel to the second seco
General Area:	Borders intertidal flat community and salt marsh system landward.
General Comments:	
Management	-
Comments:	
Location	
Survey Site Name: Managed By:	
County: Town(s):	
Size: 870.6 acres	Elevation:
Precision: Within	(but not necessarily restricted to) the area indicated on the map.
Directions: Subtida	alcreeks and bay bottoms in the Marsh estuary.
Dates documented	
First reported: 19	997-07-05 Last reported: 2007-10-13

dry land sedge (Carex siccata)

Legal Status	s Conservation Status					
Federal: Not listed		Global:	Demonst	trably widespread, abundant, and secure		
State: Listed Enda	State: Listed Endangered			Critically imperiled due to rarity or vulnerability		
Description at this L	ocation					
Conservation Rank:	Not ranked					
Comments on Rank:	n en					
	2019: At least 200 fruiting st					
General Area:	2019: Greenbriar and poison	ivy ring t	he upland	ls and are common throughout. 1972:		
ALL 12 12 13	•					
General Comments:						
Management						
Comments:						
Location						
Survey Site Name: Managed By:						
County:						
Town(s):						
Size: .4 acres		Elevatio	n:			
Precision: Withi	n (but not necessarily restricted	lto)the a	rea indica	ted on the map.		
Directions: 1972:	Ledges at southwestern side of	f	", nea	end of point.		
Dates documented						
First reported:	1972-06-03	Last rep	orted:	2019-07-26		

dwarf glass wort (Salicornia bigelovii)

Legal Status		Conser	vation S tat	us
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure
State: Listed Enda	ngered	State:	Critically	imperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:	Sub-population of a large "A	-" popula	tion.	
Detailed Description:	1982: Plants only 1 cmtall and indistinguishable from other species of <i>Salicornia</i> (6/10). Collections made from flowering material (8/17). 1972: Specimen collected.			
General Area:	1982: Salt marsh with Salico	rnia virg	inica.	-
General Comments:		_		
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s):Image: County- Image: County- Image: County- 		Elevatio	on:	
Precision: Within	(but not necessarily restricted	lto)the a	rea indicate	ed on the map.
Directions:	salt marsh. North of "		."	
Dates documented				
First reported: 1	931	Last rep	orted:	1982-08-17

hollow Joe-Pye weed (Eutrochium fistulosum)

Legal Status		Conserv	vation Stat	us
Federal: Not listed		Global:	Demonstra	ably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Critically i	mperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description: General Area:	1972: Documented as "occas	ional" in .	Area2by A	Ibion Hodgdon and Johonet Wicks.
General Comments:				
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s): Size: 644.9 acres		Elevatio	n:	
	, ,	210 / 4010		
Precision: Within	1.5 miles of the area indicated	d on the n	nap (locatio	n information is vague or uncertain).
Directions:				
Dates documented				
First reported: 19	972-06	Last rep	orted:	1972-06

marsh elder (*Iva frutescens*)

Legal Status		Conser	vation S tat	us	
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure	
State: Listed Threa	tened	State:	Imperiled	due to rarity or vulnerability	
Description at this Lo	cation				
Conservation Rank:	Not ranked				
Comments on Rank:					
	2019: 4 plants observed.				
General Area:	2019: High salt marsh south	of The Ro	ocks.		
General Comments:					
Management Comments:					
Comments.					
Location Survey Site Name: Managed By:					
County:					
Town(s):	•				
Size: .4 acres		Elevatio	n:		
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions: 2019: Salt marsh fringe adjacent to a set of the set o					
Dates documented					
First reported: 20)19-07-26	Last rep	orted:	2019-07-26	

orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)

Legal St	atus		Conserv	ation Status
Federal:	Not listed	(Global:	Demonstrably widespread, abundant, and secure
State:	Listed Enda	ngered S	State:	Critically imperiled due to rarity or vulnerability
Descript	tion at this Lo	ocation		
Conserva	ation Rank:	Fair quality, condition and/or l	andscap	e context ('C' on a scale of A-D).
Commen	ts on Rank:	Rank does not consider the eff	fects of t	ne nuclear power plant.
Detailed	Description:	plant. 1997: 6 clumps with 67 f and somewhat beneath shubs,	fruiting s all stems	etative plants. Area 2: 4 fruiting stems, 1 vegetative stems, scattered in small area of provide in open in fruit, some dropping when touched. 1982: ca. 60 of insect damage. 1972: Specimens at
General A	Area:	2019: Greenbriar and poison is		he uplands and are common throughout. Area 2: ickory. 1997:
General (Comments:			
Manager		()		
Commen	ts:			
Location	L.			
Survey S Manage	ite Name: 1 By:			
County:				
Town(s)		1.1		
Size:	.9 acres	I	Elevatio	1:
Precision	n: Withir	n (but not necessarily restricted t	o) the ar	ea indicated on the map.
Direction	ns: 1982:			. Near
	end of			
Dates do	cumented			
First repo		.972 I	Last rep	orted: 2019-07-26

perennial glasswort (Salicornia ambigua)

Legal Status	Conservation Status				
Federal: Not listed	Global: Not ranked (need more information)				
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability				
Description at this Location					
•	and/anlandscore context (D) on a costs of (D)				
Comments on Rank:	and/or landscape context ('D' on a scale of A-D).				
Comments on Rank					
Detailed Description: 1982: 10-15 stalks, one	e plant beginning to flower. 1972: Small flowering stand.				
	a cordgrass (Spartina sp.) salt marsh. Full sun, moist, flat, but above				
	n. 1972: Salt marsh, amid common glasswort (Salicornia depressa)				
	cordgrass (Spartina patens).				
General Comments:					
Management					
Comments:					
Location					
Survey Site Name:					
Managed By:					
County:					
Town(s):					
Size: 2.8 acres	Elevation:				
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions: marsh, 1982:	North side of "North side				
rock. 1972:					
Dates documented					
First reported: 1972-09	Last reported: 1982-08-17				

saltmarsh agalinis (Agalinis maritima ssp. maritima)

Federal: Not listed Global: Demonstrably widespread, abundant, and secure State: Listed Threatened State: Imperiled due to rarity or vulnerability Description at this Location Conservation Rank: Not ranked Comments on Rank: Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Description at this Location Conservation Rank: Not ranked Comments on Rank: Not ranked Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Comments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
flowering, but plant is very difficult to spot when it is not flowering and very ephemeral when it is.					
General Area: 1982: Flat, full sun. Damp but not innundated. With Spartina patens (salt-meadow cordgrass).					
General Comments:					
Management					
Comments:					
Location Survey Site Name: Managed By:					
County: Town(s): Town(s): Elevation:					
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions: 2019: High marsh south of complex and The south of marsh. Directly south of the sout					
Dates documented					
First reported: 1982-08-17 Last reported: 2019-07-26					

upright knotweed (Polygonum erectum)

Legal Status		Conser	ervation Status
Federal: Not listed		Global:	l: Demonstrably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Not ranked (need more information)
T			
Description at this Lo			
Conservation Rank:	Not ranked		
Comments on Rank:			
	1070 0	C.	11 1 1
General Area:	1972: Straus specimen at Clo	Straus p	personal neroarium.
General Comments:			
Management Comments:			
Comments:			
Location			
Survey Site Name:			
Managed By:			
0,			
County:			
Town(s):	_		
Size: 2.8 acres		Elevatio	tion:
D W//1	<i>/</i> 1 / / / / / / / / /		
Precision: Within	(but not necessarily restricted	to) the a	area indicated on the map.
Directions:	The second se	Edgeof	" road.
Directions.	• •	Lige of	1044.
Dates documented			
First reported: 19	972	Last rep	eported: 1972-09-11

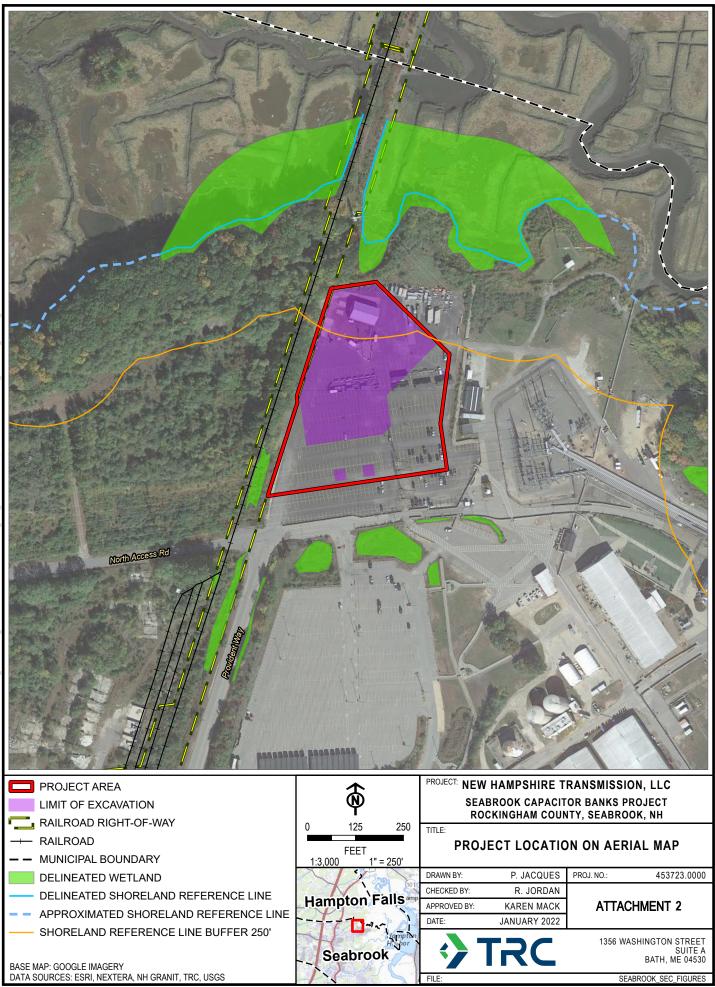
yellow this tle (Cirsium horridulum var. horridulum)

Legal Status	Conservation Status			
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure			
State: Listed Endangered	State: Not ranked (need more information)			
Description at this Location				
Conservation Rank: Not ranked				
Comments on Rank:				
Detailed Description:1982: 5 vigorous plants. Specimen of Dunlop at NHA.General Area:1982: Salt marsh; open, wet.General Comments:ManagementComments:				
Location Survey Site Name: Managed By:				
County: Town(s): Size: 2.8 acres	Elevation:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.				
Directions: The Southeast of Site. Immediate edge of outside of fence. A second group more to the				
Dates documented				
First reported: 1982-08-17	Last reported: 1982-08-17			

ATTACHMENT 2

Project Aerial with Limit of Disturbance

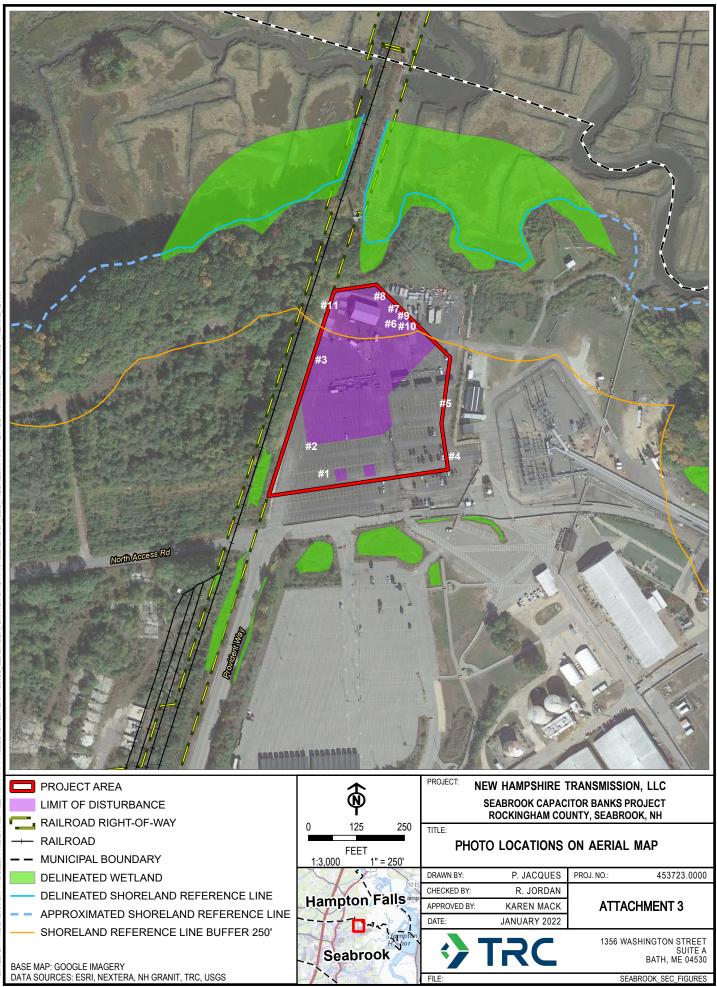




ATTACHMENT 3

Photolog









SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 3

Description:

View of northwest part of the parking lot and project boundary area, facing north. The grassy and wooded area in the background is one of the only naturalized areas to be disturbed by the Project.



Photograph: 4

Description:

View of the eastern part of the parking lot and project boundary area, facing north.





SEABROOK CAPACITOR BANKS PROJECT SEABROOK, NH Photograph: 5 Description: View of eastern part of the parking lot, looking northeast at the trailers on the edge of the project boundary. Photograph: 6 Description: View of B.5.b equipment building facing east in northern part of parking lot A, inside the shoreland buffer zone.



SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 7

Description:

View behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.



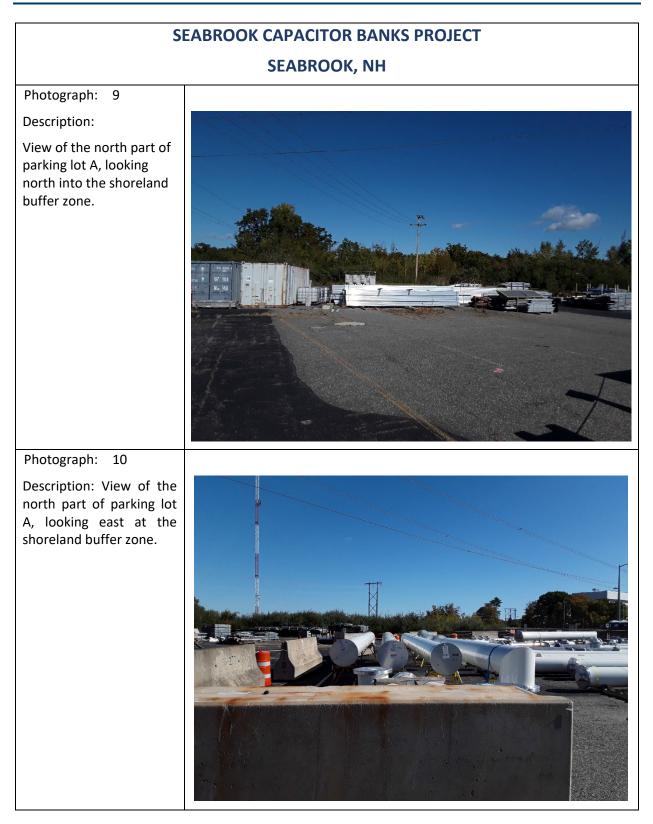
Photograph: 8

Description:

View of path behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.









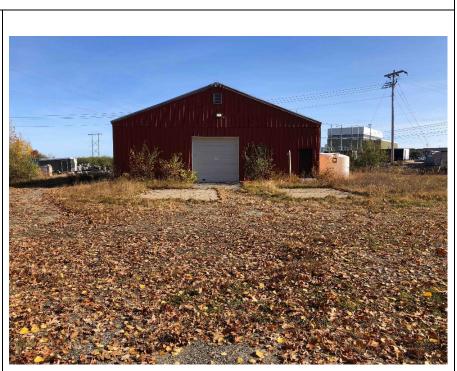
SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 11

Description:

View of behind the B.5.b building looking east, inside the shoreland buffer zone.





ATTACHMENT 10

Property Interest Documentation



SUBSTATION EASEMENT AGREEMENT

THIS SUBSTATION EASEMENT AGREEMENT ("Agreement") is hereby granted and conveyed this <u>29th</u> day of <u>March</u>, 2022 by NextEra Energy Seabrook, LLC, a Delaware limited liability company, whose mailing address is 700 Universe Blvd., Juno Beach, FL 33408, Massachusetts Municipal Wholesale Electric Company, a body politic and corporate and political subdivision of the Commonwealth of Massachusetts, whose address is 327 Moody Street, Ludlow, Massachusetts, 01056, Hudson Light & Power Department, a Massachusetts municipal light plant organized pursuant to Massachusetts General Laws, Chapter 164, §§34-69, whose address is 49 Forest Avenue, Hudson, Massachusetts 01749, and Taunton Municipal Light Plant a Massachusetts municipal light plant organized pursuant to Massachusetts 02780 (collectively, "Grantor") to New Hampshire Transmission, LLC, a Delaware limited liability company, whose mailing address is 700 Universe Boulevard, Juno Beach, Florida 33408 ("Grantee").

RECITALS

A. Grantor is the owner of a certain tract of real property located in Rockingham County, New Hampshire ("**Property**") and Public Service Company of New Hampshire, a New Hampshire corporation currently operates a transmission easement on the Property by that certain Easement dated October 31, 2002 and recorded in Rockingham County Register of Deeds ("**Registry**") at Book 3875, Page 2055 (collectively "**Transmission Easement**"); and

B. Grantor desires to grant and convey to Grantee an easement for the construction, operation and maintenance of a transmission capacitor bank on the Property as more particularly described on **Exhibit A** and depicted in the attached **Exhibit B** (collectively "**Substation Parcel**") into which electricity is delivered from the Transmission Easement; and

IN CONSIDERATION of Ten Dollars and No Cents (\$10.00) and other good and valuable consideration as well as the mutual benefits derived here from, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. <u>Grant</u>. Grantor does hereby grant and convey to Grantee, its successors and permitted assigns, a non-exclusive easement over and across the Substation Parcel. The parties hereto acknowledge and agree that the use of the Substation Parcel pursuant to this Agreement shall be limited to use by Grantee and Grantor subject to the Joint Ownership, Construction and Operation of New Hampshire Nuclear Units, by and among Grantor, originally dated May 1, 1973, as amended ("JOA").

2. <u>Use</u>.

2.1 Grantee shall have the right and privilege to use the Substation Parcel solely for the construction, operation and maintenance of a transmission capacitor bank, one or more electric transmission and distribution lines and equipment associated therewith, attachments and appurtenant equipment for an electric substation and any and all other uses consistent with the operation of an electric substation (all of the foregoing hereinafter referred to as "Facilities"), together with the right and privilege from time to time to maintain, reconstruct, inspect, alter, improve, change the voltage, as well as the nature or physical characteristics of, replace, remove or relocate such Facilities or any part of them upon, across, over or under the Substation Parcel with all rights and privileges necessary or convenient for the full enjoyment or the use thereof for the herein described purposes and solely for the use, transmission and delivery of electrical energy; and shall include the right of access, ingress and egress by Grantee, its contractors, employees, agents and invitees to the Substation Parcel in accordance with Section 5 hereof. Grantee's exercise of the rights set forth in this Section 2.1 shall not in any way interfere with, impede or otherwise be adverse to the exercise and enjoyment of the Grantor's use of the land burdened by the Transmission Easement or the easement granted in this instrument.

2.2 The use of the Substation Parcel by Grantee shall be at the sole risk and expense of Grantee. Grantee agrees to warn its employees, agents, contractors and invitees of the fact that the electrical Facilities and appurtenances installed or to be installed within the Substation Parcel are of high voltage electricity and agrees to use, or cause to be used, safety and precautionary measures in conformance with OSHA standards when working under or near the Facilities. Grantee acknowledges that Grantor is operating a nuclear facility located on the Property and that Grantor and the Property are subject to the rules, regulations and laws that are issued by the United States Nuclear Regulatory Commission ("NRC Regulations"). Where reasonably necessary or desirable to protect the public health and safety, Grantor shall have the authority and unimpeded right to determine all activities on the Substation Parcel, including the authority to exclude or remove personnel and property associated with activities conducted by Grantee on the Substation Parcel. All persons, property, or activities conducted on the Substation Parcel shall be subject to the Atomic Energy Act of 1954 (as amended), United States Nuclear Regulatory Commission Regulations and orders, and all relevant conditions of the NRC operating license for Grantor. Grantee shall notify Grantor in advance of (a) any activity that will be undertaken within the Substation Parcel, and (b) the entry upon the land within the Substation Parcel by Grantee or its agents or employees. No residences or permanent buildings (besides those already present) shall be constructed within the Substation Parcel without approval of Grantor after completion of any regulatory reviews and

approvals. Temporary structures or facilities may be constructed to the extent necessary to install the Facilities. Plans and specifications for such temporary structures shall be submitted to the Grantor for review and approval before any structures are built.

3. <u>Indemnification</u>.

3.1 Grantee agrees to indemnify and save harmless Grantor, their respective parent, subsidiaries, affiliates , and their respective officers, directors, agents, participants, commissioners, managers and employees (hereinafter referred to as "**Grantor Entities**") from all liability, loss, cost, and expense, including attorneys' fees, which may be sustained by Grantor Entities, including the death of or injury to any person or damage to any real or personal property, arising out of or in connection with the use of the Substation Parcel by Grantee, its contractors, agents, invitees or employees; and Grantee agrees to defend, at its sole cost and expense and at no cost and expense to Grantor Entities, any and all suits or actions instituted against Grantor Entities for the imposition of such liability, loss, cost and expense; provided, however, Grantee's duty to indemnify Grantor Entities under this paragraph shall not extend to any claim, cause of action, liability, loss, cost, or expense proximately caused by or arising out of the gross negligence, deliberate corporate action, or intentional or willful misconduct of Grantor Entities.

The indemnity shall include liability caused by Grantee which may be asserted 3.2 against any of the Grantor Entities by any other party or parties, including without limitation a Governmental Entity, arising out of or in connection with (i) the use, generation, manufacture, production, storage, release, threatened release, or presence of a Hazardous Substance on, under or about the Substation Parcel as a result of Grantee's acts or omissions during the term of this Agreement or (ii) any violation or claim of violation of any federal, state or local Environmental Law with respect to the Substation Parcel by Grantee during the term of this Agreement. A Governmental Entity is defined as a local, state, or federal government authority having jurisdiction over the Substation Parcel. This obligation by Grantee to indemnify and save harmless Grantor includes, without limitation, all costs incurred by the Grantor Entities in connection with any investigation of site conditions or any cleanup, remedial, monitoring, restoration or closure work required by any federal, state, or local governmental entity, agency or political subdivision, or any third party action, because of any Hazardous Substances present in the soil, air, surface or groundwater, on, under, or about the Substation Parcel as a result of any actions, inactions or activities of the Grantee and its agents employees contractors, subcontractors, subtenants assignees and invitees on or in connection with the Substation Parcel, but excluding that portion of any damages to the extent caused by the negligent acts of Grantor or Grantor Entities. This indemnity shall survive the termination or expiration of this Agreement for a period of three (3) years from the date of such termination or expiration.

3.3 For purposes of this section, "**Hazardous Substances**" shall mean all hazardous substances, hazardous wastes, hazardous materials, toxic materials, toxic wastes or toxic substances and any other substances, including asbestos, petroleum and its by-products, the remediation, disposal, storage, production, or use of which is regulated by federal, state or local

laws, ordinances, regulations, permit conditions, administrative orders and similar requirements pertaining to health, safety and the environment, including, but not limited to, substances listed under the Spill Prevention, Control and Countermeasure Rule, Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. Section 9601 <u>et seq.</u>; the Hazardous Materials Transportation Act, 42 U.S.C. Section 1801 <u>et seq.</u>; the Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 <u>et seq.</u>; the Toxic Substances Control Act, 15 U.S.C. Section 2601 <u>et seq.</u>; the Clean Water Act, 33 U.S.C. Section 1251 <u>et seq.</u>; the Safe Drinking Water Act, 42 U.S.C. Section 300f <u>et seq.</u>; the Clean Air Act, 42 U.S.C. Section 1910.1001; and the National Emission Standard for Hazardous Air Pollutants, 40 C.F.R. Part 61, Subpart M, as each may be amended from time to time (herein referred to as the "**Environmental Laws**").

4. <u>**Roads**</u>. Grantor agrees that Grantee may use the existing roads on Grantor's real property or roads Grantee may construct or improve from time to time for the purposes of access, ingress and egress to the Substation Parcel as described or shown on **Exhibit B**.

5. <u>Other Uses</u>. Grantor reserves the right and privilege to use the Substation Parcel for all purposes other than those that might substantially interfere or be inconsistent with the use, occupation, maintenance or enjoyment thereof by Grantee, or its successors or permitted assigns, as provided herein. Except as allowed hereunder for the construction of the Facilities pursuant to the Plans (defined below), Grantee expressly agrees that no portion of the Substation Parcel shall be excavated, altered, obstructed, improved, surfaced or paved without the prior written permission of Grantor, its successors or assigns, which approval shall not be unreasonably withheld, delayed, or conditioned. The cost of any such approved excavation, alteration, obstruction, improvement, surfacing pr paving, including, but not limited to relocation of existing structures on or near the Substation Parcel, shall be borne by Grantee.

6. <u>Construction Plans</u>. Grantee shall submit the plans and specifications for its use of the Substation Parcel ("Plans") to Grantor for review and approval. There shall be no material modifications, improvements, upgrades, or alterations which deviate from the Plans without written consent from Grantor. Grantor shall promptly, and within a commercially reasonable period of time, review and approve the Plans.

7. <u>Taxes</u>. Grantee shall pay any increase in the real property taxes on Substation Parcel that is directly attributable to the installation of Facilities or to a reclassification of the Substation Parcel because of creation of this Agreement. If the Facilities are subject to real property taxes, Grantee shall request that the Facilities be separately assessed and that taxing authorities bill Grantee directly for taxes attributable to the Facilities. Grantee shall not be liable for taxes attributable to facilities installed by Grantor or others on the Substation Parcel or for any increase due to any other cause. Grantee agrees to reimburse Grantor for any taxes paid by Grantor that are properly payable by Grantee under the terms of this Agreement. To receive reimbursement, Grantor must submit any real property tax bill to Grantee for reimbursement within a reasonable time after Grantee receives the bill from a taxing authority. The parties hereto agree to fully cooperate to obtain any available tax refunds or tax abatements.

8. Removal of Facilities. Upon termination of the Agreement, Grantee shall, upon written request by Grantor, prepare and place of record in Rockingham County, New Hampshire, a release of all of Grantee's right, title and interest in and to the Agreement. On the termination of the Agreement, Grantee shall peaceably and quietly leave, surrender and return the Substation Parcel to Grantor. Grantee shall have twelve (12) months to remove any and all equipment, improvements, fixtures and other property constituting the Facilities from the Substation Parcel and restore the surface of the Substation Parcel to a neat and clean condition. Failure to remove such items within said period and restore the surface of the Substation Parcel as provided above shall be deemed an abandonment of such items to Grantor and Grantor shall have the right, but not the obligation, to remove, or to cause removal of, any property deemed to be abandoned and to receive reimbursement from Grantee for the actual and reasonable cost of such removal, and for restoration of the surface of the Substation Parcel, and Grantor shall be entitled to the salvage value of any such items removed. If Grantee discontinues the use of the Facilities for a period greater than twenty four uninterrupted months and such discontinuance is not due to an act of force majeure, (not defined) then after receiving a written request from Grantor, Grantee shall remove all of the Facilities installed on the Substation Parcel in accordance with this paragraph.

9. <u>Warranties & Representations</u>. Grantor represents and warrants to Grantee that it has sufficient right, title and interest in and to the Substation Parcel and to convey the rights and interests conveyed and granted herein.

10. <u>Assignment: Mortgage Rights</u>. Grantee may, upon notice to Grantor, but without Grantor's consent, (i) assign this Agreement, or any interest herein, or (ii) encumber, by one or more mortgage, security interest or otherwise, Grantee's interest, or any portion thereof, in this Agreement or the Facilities (each, a "Mortgage") to any mortgage or secured party of or under any Mortgage (each, a "Mortgagee"). Any Mortgagee shall be required to exercise or perform any and all of Grantee's rights and obligations in this Agreement and Grantor shall accept such exercise and performance by Mortgagee as if the Mortgagee executed this Agreement as Grantee.

11. **Governing Law**. This Agreement shall be governed by and construed in accordance with the laws of the State of New Hampshire, without reference to the conflict of laws principles thereof. The parties hereto agree that any rule of construction to the effect that ambiguities are to be resolved in favor of any particular party shall not be employed in the interpretation hereof and is hereby waived.

[Signatures on Next Pages]

IN WITNESS WHEREOF, Grantor and Grantee have executed this Substation Easement on the date set forth above.

Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

Buch C. Ba By: e President

ACKNOWLEDGMENT

STATE OF

)) ss:)

COUNTY OF

The foregoing instrument was acknowledged before me by means of \boxtimes physical presence or \square online notarization, this <u>28</u>th day of <u>FEBRUARY</u>, 2022 by Brian C. Booth, as Site Vice President of NextEra Energy Seabrook, LLC, a Delaware limited liability company, on behalf of the company, who is personally known to me or has produced a driver's license as identification.

MUNICA RO (notary seal) MMISSION EXPIRES "minimum"

Cand Q. Colomon'

My commission expires: <u>June 21 2022</u>

12

AFTER RECORDING RETURN TO Orin Shakerdge, Esq. NextEra Energy Resources, LLC 700 Universe Blvd. Juno Beach, FL 33408 (561) 694-4678 Grantor:

Massachusetts Municipal Wholesale Eleetric Company
By:

Ronald C. DeCurzio, Chief Executive Officer

ACKNOWLEDGMENT

COMMONWEALTH OF MASSACHUSETTS) :ss. COUNTY OF HAMPder)

On the 29th day of MATCA, in the year, 2022, before me, the undersigned, personally appeared Ronald C. DeCurzio, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

lea

Notary Public



Grantor:

Hudson Light & Power Department

Bing Choxer By: Brian Choquette, General Manager

ACKNOWLEDGMENT

COMMONWEALTH OF MASSACHUSETTS				
COUNTY OF	Middlesex	:ss.)		

On the 24 day of March, in the year, 2022, before me, the undersigned, personally appeared Brian Choquette, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public (

HOLLY E. CONRY Notary Public Commonwealth of Massachusetts My Commission Expires March 20, 2026 Grantor:

Taunton Municipal Lighting Plant

Kim Holmes, General Manager By:

ACKNOWLEDGMENT

COMMONWEA	ALTH OF MASSACHUSETTS)
		:ss.
COUNTY OF	BRISTOL)

On the 28 day of MARCH, in the year, 2022, before me, the undersigned, personally appeared Kim Holmes, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that she executed the same in her capacity, and that by her signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Merisi M. Tavarece Notary Public

DENISE M. TAVARES Notary Public Commonwealth of Massachusetts My Commission Expires June 3, 2022

Grantee:

New Hampshire Transmission, LLC, a Delaware limited liability company

By:

Richard W. Allen, President

ACKNOWLEDGMENT

)

STATE OF NEW YORK) :ss.

COUNTY OF Schenectady

On the <u>25</u> day of <u>March</u>, in the year, 2022, before me, the undersigned, personally appeared Richard W. Allen, personally known to me or proved to me on the basis of satisfactory evidence to be the individual whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his capacity, and that by his signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Cen Notary Public

PAULA A MADIA Notary Public - State of New York NO. 01MA6424871 Qualified in Schenectady County My Commission Expires Nov 8, 2025

EXHIBIT A

Legal Description of Substation Parcel

A certain easement located in the Town of Seabrook, County of Rockland and State of New Hampshire containing 2.126 acres and being shown as "Proposed Capacity Bank Easement" on a map entitled "Capacity Bank Easement Map New Hampshire Transmission, LLC Lafayette Road Town of Seabrook Rockland County New Hampshire", by KCI Technologies, Inc., scale 1"=40', dated January 2022, said easement being more particularly bounded and described as follows:

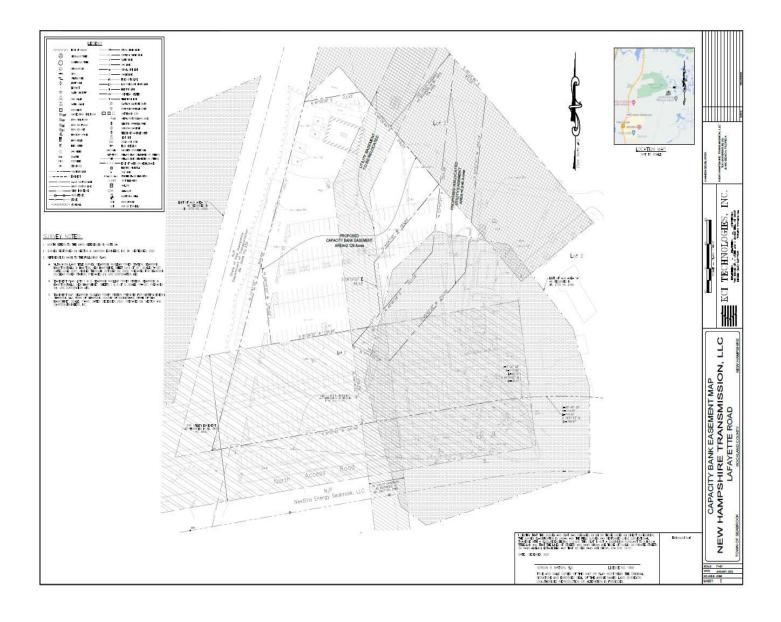
Beginning at a point on the property line between land of NextEra Energy Seabrook, LLC and land now or formerly of the State of New Hampshire, said point being located North 17°41'55" East, 326.16 feet from the northerly line of North Access Road when measured along said property line;

Thence continuing North 17°41'55" East, 282.31 feet along said property line between land of NextEra Energy Seabrook, LLC and land now or formerly of the State of New Hampshire;

Thence running North 81°40'05" East, 113.43 feet, South 45°24'46" East, 218.52 feet, South 44°47'45" West, 183.83 feet, South 08°19'55" East, 84.53 feet, South 45°40'28" West, 33.45 feet, South 81°36'55" West, 194.96 feet and North 08°19'55" West, 135.33 feet through land of NextEra Energy Seabrook, LLC to the point and place of beginning.

EXHIBIT B

Depiction of Substation Parcel



In consideration for granting a Substation Easement Agreement to New Hampshire Transmission, LLC, a Delaware limited liability company ("Grantee"), NextEra Energy Seabrook, LLC, a Delaware limited liability company ("Grantor") shall receive a payment of \$79,000.00 which will be allocated as follows:

88.22889% to NextEra Energy Seabrook, LLC
11.59340% to Massachusetts Municipal Wholesale Electric Company
00.10034% to Taunton Municipal Lighting Plant
00.07737% to Hudson Light & Power Department
Signed and completed W-9 form required from each payee before payment is due from Grantee.

Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Brian C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By:

Kim Holmes, General Manager

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Grantor:

NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Bria C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

Taunton Municipal Lighting Plant

By:

Kim Holmes, General Manager

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By:

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Hudson Light & Power Department

By: Brian Choquette, General Manager

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NextEra Energy Seabrook, LLC, a Delaware limited liability company,

By:

Bria C. Booth, Site Vice President

Massachusetts Municipal Wholesale Electric Company

By:

Ronald C. DeCurzio, Chief Executive Officer

Hudson Light & Power Department

By:

Brian Choquette, General Manager

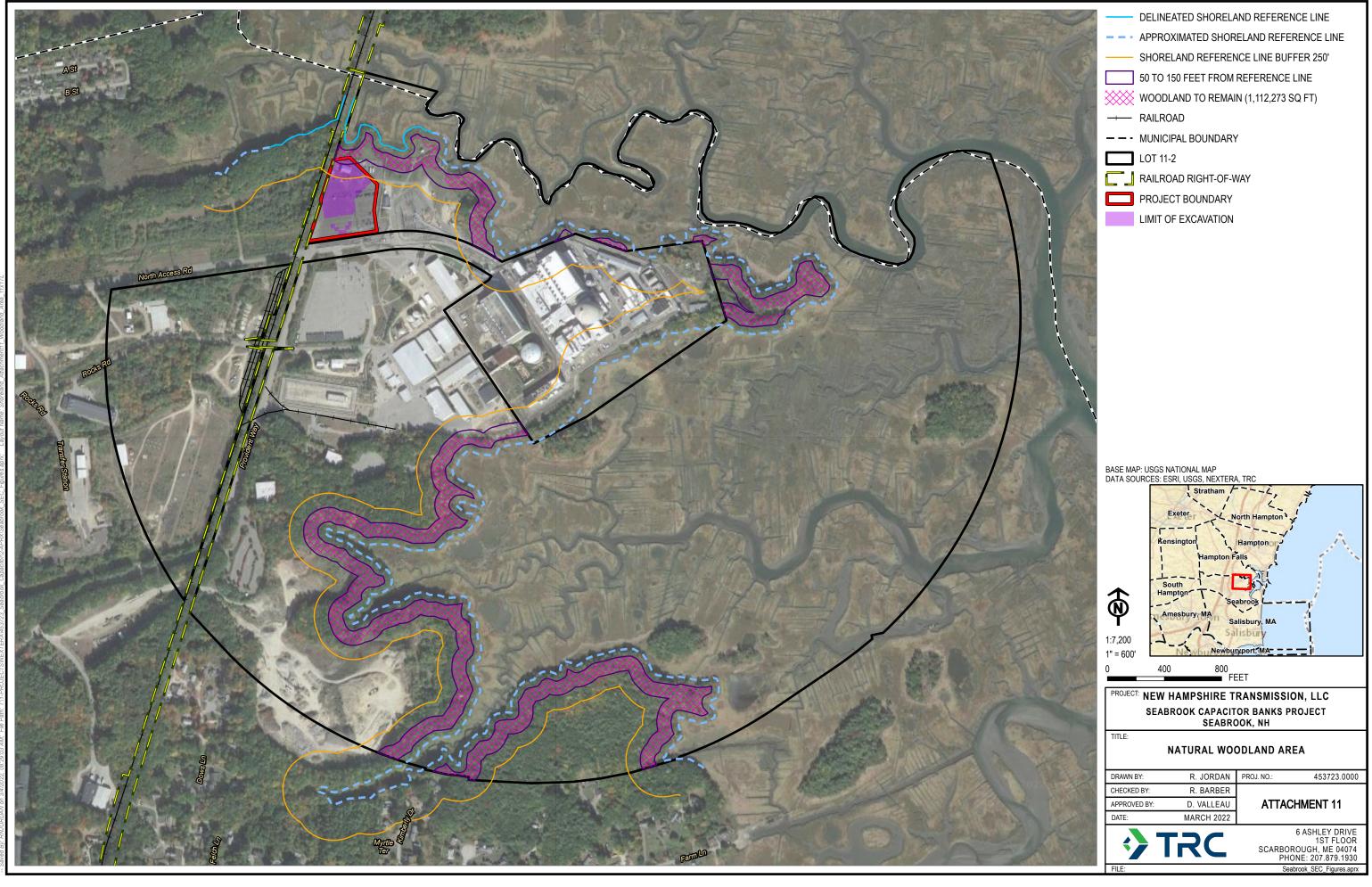
Taunton Municipal Lighting Plant

By: Kim Holmes, General Manager

ATTACHMENT 11

Natural Woodland Overview Map



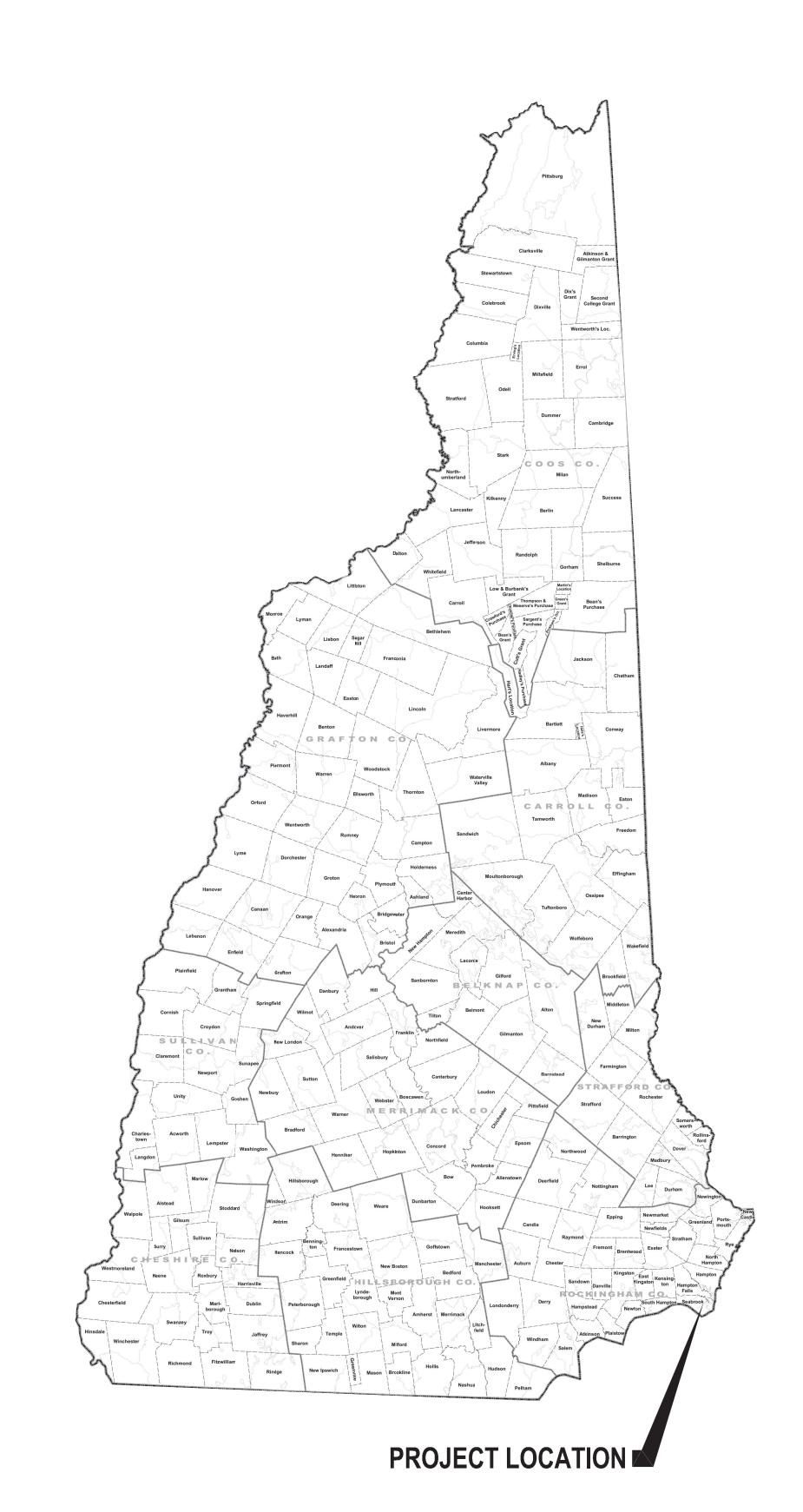


ATTACHMENT 12

Seabrook Capacitor Banks Civil Plan Set



PRELIMINARY NOT FOR CONSTRUCTION



SEABROOK CAPACITOR BANKS BROWNS RIVER STATION

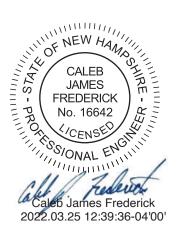
TOWN OF SEABROOK ROCKINGHAM COUNTY NEW HAMPSHIRE





	DRAWING INDEX					
NO.	REV.	TITLE				
452267-100	А	GENERAL NOTES				
452267-101	В	SITE PLAN				
452267-102	В	EXISTING CONDITIONS AND REMOVALS PLAN				
452267-103	В	GRADING AND EROSION CONTROL PLAN				
452267-104	В	PRE CONSTRUCTION STORMWATER PLAN				
452267-105	В	POST CONSTRUCTION STORMWATER PLAN				
452267-106	А	EROSION AND SEDIMENT CONTROL DETAILS				





PRELIMINARY ISSUED FOR PERMIT NOT FOR CONSTRUCTION

GENERAL NOTES:

SURVEY NOTES

- 1. SURVEY PERFORMED BY WESTON & SAMPSON LAND ENGINEERS, INC. IN SEPTEMBER, 2021.
- 2. THIS SURVEY IS PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM.
- 4. ELEVATIONS AND CONTOURS SHOWN REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOID12B) AND ARE BASED ON PUBLICLY AVAILABLE LIDAR.
- 5. WETLANDS, WATERBODIES, AND THE SHORELAND REFERENCE LINE WERE DELINEATED ON OCTOBER 20 AND 21, 2021 BY TRC WETLAND SCIENTIST HEATHER STORLAZZI WARD, NHCWS #206. WETLAND DELINEATIONS WERE CONDUCTED ACCORDING TO THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, V2 (USACE 2012)". THE COASTAL WATERS SHORELAND REFERENCE LINE WAS DELINEATED IN ACCORDANCE WITH NEW HAMPSHIRE'S RSA SECTION 483-B:4 XVII(B.).
- 6. SOILS INFORMATION FROM USDA-NRCS WEB SOIL SURVEY ROCKINGHAM COUNTY DATED JANUARY 2022.

REMOVAL NOTES:

- 1. TREE REMOVAL SHALL BE IN CONFORMANCE WITH THE EXISTING CONDITIONS & REMOVALS PLAN.
- 2. TREES AND OTHER VEGETATION MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND USED AS REQUIRED FOR EROSION CONTROL. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM REMOVAL OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 3. ALL EXISTING DEBRIS, RUBBISH, AND ABANDONED ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 4. ALL DEMOLITION WASTE, DEBRIS AND RUBBISH SHALL BE PROPERLY REMOVED FROM THE SITE AS IT OCCURS. ALL MATERIALS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 5. TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

EXCAVATION AND BACKFILL NOTES:

- 1. ALL THE EXCAVATION, BACKFILLING, AND COMPACTION SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SEABROOK STATION MS0517.19.
- COMPACTION TESTING SHALL BE PERFORMED ON ALL RE-COMPACTED SUBGRADE.
- 3. IF APPLICABLE, GRANULAR BACKFILL SHALL BE SELECTED FROM SUITABLE OFF-SITE SOURCES AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO TRANSPORT TO THE SITE.
- 4. THE CONTRACTOR SHALL SUBMIT GRADATION DATA FOR GRANULAR BACKFILL MATERIALS TO THE OWNER FOR REVIEW.
- 5. CONTROLLED LOW-STRENGTH MATERIAL (C.L.S.M.) FILL MAY BE USED FOR BACKFILL IN LIEU OF GRANULAR BACKFILL PER MS0517.19.
- 6. WITHIN THE AUR, IF UNANTICIPATED CONDITIONS AND POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER.
- 7. ENGINEER SHALL DESIGNATE TEMPORARY STOCKPILE AREAS WITHIN PROJECT LIMITS TO ENSURE STOCKPILE LOCATIONS ARE NOT STAGED NEAR SENSITIVE HUMAN HEALTH RECEPTORS SUCH AS PUBLIC AND PRIVATE WATER SUPPLY WELLS OR SENSITIVE ENVIRONMENTAL RECEPTORS SUCH AS
- 8. CONTRACTOR SHALL SEGREGATE AND STOCKPILE POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS AS FOLLOWS:
- 8.1. CONTRACTOR SHALL MANAGE STOCKPILES TO PREVENT DISCHARGE OF CONTAMINATES TO GROUNDWATER AND SURROUNDING SOIL.
- 8.2. CONTRACTOR SHALL ENSURE STORMWATER RUNOFF IS DIVERTED AROUND AND AWAY FROM STOCKPILED MATERIALS.
- 8.3. CONSTRUCT STOCKPILES ON A DOUBLE LAYER OF 6-MIL POLYETHYLENE SHEETING. 8.4. COVER STOCKPILES WITH A SINGLE LAYER OF 6-MIL POLYETHYLENE SHEETING AND SECURE TO PREVENT DISTURBANCE BY WIND.
- TRANSFER OF POTENTIALLY CONTAMINATED MATERIALS FROM THE EXCAVATION TO DESIGNATED 8.5.
- STOCKPILE AREAS SHALL BE CONDUCTED IN A MANNER TO LIMIT THE SPREAD OF CONTAMINATION. 8.6. CONTRACTOR SHALL IDENTIFY THE STOCKPILE WITH ORIGIN AND DATE OF GENERATION.
- 8.7. CONTRACTOR SHALL SECURE STOCKPILE AREA WITH CAUTION FLAGGING, FENCING, OR OTHER MEANS AS NECESSARY TO PREVENT UNAUTHORIZED ACCESS AND LIMIT CONTACT OF SITE WORKERS TO STOCKPILED MATERIALS.
- 9. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING AND ANALYZING SAMPLES OF POTENTIALLY CONTAMINATED MATERIAL FOR DISPOSAL CHARACTERIZATION AND PROVIDING CONTRACTOR WITH COPIES OF LABORATORY REPORTS.
- 10. CONTRACTOR SHALL DISPOSE OF CONTAMINATED MATERIAL AT AN APPROVED OFF-SITE FACILITY. DOCUMENTATION OF HANDLING, MANAGEMENT, TRANSPORTATION AND OFF-SITE DISPOSAL INCLUDING BUT NOT LIMITED TO MANIFESTS. WEIGHT-TICKETS, ANALYTICAL REPORTS OR WASTE PROFILES, SHALL BE PROVIDED TO THE OWNER.

CONTRACTOR NOTES:

- 1. UNLESS INDICATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR FOR ROAD AND BRIDGE CONSTRUCTION (2016) FOR GENERAL REQUIREMENTS, PRODUCTS AND EXECUTION RELATED TO CONSTRUCTION OF BUT NOT LIMITED TO; CLEARING, GRUBBING, ROADS, UTILITY TRENCH EXCAVATION, BORROW, SUBGRADE, SUBBASE, GRANULAR FILL, AND AGGREGATE BASE
- 2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MARK OR DELINEATE THE FOLLOWING PROJECT FEATURES USING APPROPRIATE MEANS, INCLUDING BUT NOT LIMITED TO LATH MARKERS, SURVEYORS RIBBON, PIN FLAGS, BARRIER FENCE, OR SUITABLE EQUIVALENT. A.PROPOSED FACILITY COMPONENTS DEPICTED ON THE CONSTRUCTION DRAWINGS
- **B. STREAMS AND WETLANDS**
- C. VEHICLE TRAVEL CORRIDORS, STREAM CROSSING LOCATIONS
- D.LIMITS OF CLEARING AND DISTURBANCE
- E. PROTECTED CULTURAL AND NATURAL RESOURCES
- 3. THE CONTRACTOR SHALL NOTE THE CONDITION OF ANY EXISTING FEATURES NOT INDICATED FOR REMOVAL THAT MAY BE IMPACTED BY PROJECT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FEATURES AT THEIR EXPENSE.
- 4. DISRUPTION TO REGULATED WETLANDS AND PROTECTED HABITAT SHALL BE MINIMIZED. THE CONTRACTOR SHALL NOTIFY NHDES FIELD REPRESENTATIVE, AND THE APPLICANT'S REPRESENTATIVE OF ANY ACTIVITIES THAT VIOLATE OR MAY VIOLATE EITHER THE TERMS OF THE CERTIFICATE OR THE ENVIRONMENTAL CONSERVATION LAW. DES STAFFS' FIELD REPRESENTATIVES WILL WORK COOPERATIVELY TO DETERMINE WHETHER STOP WORK AUTHORITY WILL BE EXERCISED. OR WHETHER TO DIRECT THE APPLICANT TO TAKE ACTION TO FURTHER MINIMIZE IMPACTS TO STREAMS AND WETLANDS.

- INCLUDE THE FOLLOWING RESTRICTIONS:
- FEET OF WETLANDS;
- B. NO UNNECESSARY REMOVAL OF WOOD VEGETATION WITHIN WETLAND AND STREAM BUFFERS OR DEGRADATION OF STREAM BANKS;
- PROJECT DOCUMENTS;
- CONTAINERS.
- 6. AT THE END OF EACH WORK DAY ALL EQUIPMENT AND MACHINERY SHALL BE STORED AND SAFELY
- PETROLEUM PRODUCTS.
- CONTAINED AND SPILLS CLEANED UP IMMEDIATELY.
- REQUIREMENTS.
- DESIGNATED PARKING AND MATERIAL LAYDOWN AREAS.

GENERAL ENVIRONMENTAL RESTRICTIONS:

- DOCUMENTS.
- VEHICLE CONTAINING AN APPROVED CHEMICAL TREATMENT) SHALL BE MADE AVAILABLE AS NEEDED.
- NOISE BUFFER.
- LIFE IS EXPRESSLY PROHIBITED.
- (LATEST EDITION).

NON-AGRICULTURAL LAND RESTRICTIONS

- LIMITED TO, THE FOLLOWING:
- A. TOPSOIL STRIPPING AND STOCKPILING, B. USE OF CONSTRUCTION MATTING, LAYER,
- D. REGRADING AND SPREADING PREVIOUSLY STRIPPED TOPSOIL, E. DRAINAGE SYSTEM REPAIR OR ALTERATION.
- PRESCRIBED BY THE PERMIT.
- TREATMENTS:
- AND ALLOWED TO RE-VEGETATE NATURALLY.
- BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.
- 5. TOPSOIL STRIPPED FROM WORK SITES SHALL BE SEGREGATED FROM OTHER SOIL PRODUCTS AND USED FOR RESTORATION OF THAT SITE.



5. RESTRICTED ACTIVITIES PERTAIN TO A BUFFER ZONE OF 100 FEET ON EITHER SIDE OF THE BOUNDARIES OF WATER-RELATED RESOURCES (STREAMS, WETLANDS, SPRINGS, WELLS, DRAINAGE, ETC.) AND

A.NO DEPOSITION OF SLASH WITHIN IDENTIFIABLE STREAM CHANNELS OR WOOD CHIPS WITHIN 25

C.NO EQUIPMENT WASHING OR REFUELING EXCEPT AS SPECIFICALLY PERMITTED BY THE FINAL

D. AND NO STORAGE, MIXING, OR HANDLING OF ANY PETROLEUM OR CHEMICAL MATERIALS IN OPEN

CONTAINED MORE THAN 100 FEET LANDWARD OF ANY REGULATED WETLAND OR WATER BODY. 7. ALL MOBILE EQUIPMENT, EXCLUDING DEWATERING PUMPS, SHALL BE FUELED IN LOCATIONS THAT ARE A MINIMUM OF 100 FEET FROM THE TOP OF STREAM BANK, WETLAND, OR WATER BODY. DEWATERING PUMPS OPERATING CLOSER THAN 100 FEET FROM THE STREAM BANK WETLAND, OR WATER BODY MUST BE ON AN IMPERVIOUS SURFACE WITH ABSORBENTS CAPABLE OF CONTAINING ANY LEAKAGE OF

8. ALL EQUIPMENT USED WITHIN BED OR BANKS OF STREAMS OR IN REGULATED WETLANDS AND 100-FOOT WETLAND BUFFER ZONES MUST BE INSPECTED DAILY FOR LEAKS OF PETROLEUM, OTHER FLUIDS, OR CONTAMINANTS. EQUIPMENT FOUND TO BE LEAKING SHALL BE REMOVED FROM THE WORK SITE; LEAKS

9. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE SPECIFIC CUT AND FILL CONSTRUCTION

10. ALL VEHICLE TRAFFIC AND PARKING SHALL BE CONFINED TO THE DESIGNATED WORK AREAS, AND/OR

1. ALL EQUIPMENT ACCESS, STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING, AND OTHER CONSTRUCTION ACTIVITIES ARE RESTRICTED TO THE DESIGNATED ACCESS ROADS, LAYDOWN AREAS, SUBSTATION SITE, COLLECTION LINE AND TRANSMISSION LINE ROUTES AS INDICATED BY THE PROJECT

2. FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. THESE MEASURES INCLUDE THE APPLICATION OF MULCH, WATER, OR STONE ON ACCESS ROADS, EXPOSED SOILS, STOCKPILED SOILS, OR UNPAVED PUBLIC ROADS WHEN DRY, WINDY CONDITIONS EXIST. A WATERING VEHICLE (OR A

3. CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITION. ALL MOTORS AND ENGINES SHALL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH STATE ENVIRONMENTAL LAW. ANY FAULTY NOISE SUPPRESSOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EQUIPMENT SHALL NOT BE LEFT RUNNING UNNECESSARILY. EXISTING TALL GROWING VEGETATION SHALL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE, TO SERVE AS A

4. ALL FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, SAND, AND/OR GRAVEL THAT IS FREE OF THE FOLLOWING SUBSTANCES: ASPHALT, SLAG, FLY ASH, DEMOLITION DEBRIS, BROKEN CONCRETE, GARBAGE, HOUSEHOLD REFUSE, TIRES, WOODY MATERIALS, AND METAL OBJECTS. REASONABLE EFFORTS SHALL BE MADE TO USE FILL MATERIALS THAT ARE VISUALLY FREE OF INVASIVE SPECIES BASED ON ONSITE AND SOURCE INSPECTIONS. THE INTRODUCTION OF MATERIALS TOXIC TO AQUATIC

5. INDIRECT IMPACTS TO STREAMS AND WETLANDS SHALL BE CONTROLLED THROUGH THE EMPLOYMENT OF APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED STATION PROCEDURES. MEASURES TO BE EMPLOYED SHALL INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, CHECK DAMS, MULCH, TEMPORARY SEEDING, AND OTHER PRACTICES AS OUTLINED IN THE NEW HAMPSHIRE STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

6. IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS, HUMAN REMAINS, OR EVIDENCE OF HUMAN BURIALS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE VICINITY OF THE FIND SHALL BE IMMEDIATELY HALTED AND THE APPROPRIATE STATION PERSONNEL SHALL BE NOTIFIED. 7. EXCESS CONCRETE AND EXCAVATION SPOILS SHALL BE PROPERLY DISPOSED OF OFF SITE.

1. NON-AGRICULTURAL LAND MITIGATION, RESTORATION, AND CLEAN UP MAY INCLUDE, BUT IS NOT

C.PLACEMENT AND COMPACTION OF STONE BEARING LAYER WITH OR WITHOUT GEOSYNTHETIC

2. TEMPORARY GRAVEL ROADS, TEMPORARY CULVERTS, TIMBER MATS, AND SIMILAR TEMPORARY MEASURES SHALL BE REMOVED AND THE IMPACTED AREAS RESTORED WITHIN THE TIMEFRAME

3. RESTORATION OF DISTURBED AREAS, TEMPORARY ROADS AND WORK PLATFORMS ON NON-AGRICULTURAL LANDS SHALL INCLUDE THE FOLLOWING PRE- AND POST-CONSTRUCTION

A. TOPSOIL WITHIN CONSTRUCTION AREA SUBJECT TO VEHICLE TRAFFIC, MATERIAL STOCKPILING OR

OTHER POTENTIALLY HARMFUL ACTIVITY SHALL BE STRIPPED AND STOCKPILED. B. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY ROADS AND WORK SITES SHALL BE SCARIFIED/DECOMPACTED AND STOCKPILED SOIL SPREAD AND THE AREA STABILIZED

C. APPROVED SWPPP/ESC CONTROLS, INCLUDING BIODEGRADABLE MEASURES, SHALL BE PROVIDED

AND SHALL REMAIN IN PLACE UNTIL THE RESTORED AREA HAS BEEN RE-VEGETATED. 4. ALL EXISTING DRAINAGE AND EROSION CONTROL FEATURES NOT INDICATED FOR REMOVAL SHALL BE

AVOIDED OR PROTECTED FROM DAMAGE. ANY FEATURES DISTURBED DURING CONSTRUCTION SHALL

STOCKPILED IN AREAS IMMEDIATELY ADJACENT TO WHERE IT WAS REMOVED. THE TOPSOIL SHALL BE

EROSION & SEDIMENT CONTROL NOTES

- 1. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- 3. TEMPORARY WATER DIVERSION SHOULD BE USED AS NECESSARY UNTIL DISTURBED AREAS ARE
- STABILIZED. 4. ALL CUT AND FILL SLOPES SHALL BE LOAMED/SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE.
- 5. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY, AND AFTER EVERY HALF-INCH OF RAINFALL
- 6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 7. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

WINTER CONSTRUCTION NOTES

FOR WORK PROPOSED DURING THE WINTER SEASON (TYPICALLY NOVEMBER 1 - APRIL 15), THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PRACTICES:

- 1. LIMIT THE TOTAL AREA OF EXPOSED SOIL TO THAT IN WHICH EARTH WORK CAN BE COMPLETED WITHIN 15 DAYS AND MULCHED WITHIN ONE DAY PRIOR TO A SNOW EVENT.
- 2. EXPOSED SOIL MAY BE LEFT BARE FOR NO MORE THAN 15 DAYS.
- 3. MULCH ALL EXPOSED SOIL WHERE NO ACTIVITY IS SCHEDULED WITHIN 7 DAYS AND PRIOR TO A FORECASTED SNOW EVENT OF MORE THAN 1 INCH.
- 4. WHERE PRACTICABLE, MULCH SHOULD BE APPLIED AT THE END OF EACH DAY'S WORK FOR AREAS THAT ARE FINAL GRADED. OTHERWISE, MULCH THE FOLLOWING DAY. 5. DO NOT APPLY MULCH OVER MORE THAN 1 INCH OF SNOW.
- 6. HAY OR STRAW MULCH SHALL BE APPLIED AT 140 LBS/1000 S.F. (APPROX.. 4 BALES) AND SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- 7. ECM IS THE PREFERRED MULCHING MATERIAL AND SHALL BE APPLIED AT A MINIMUM 4 INCH THICKNESS, WITH HIGHER AMOUNTS AS DESCRIBED HEREIN.
- 8. ECM IS THE PREFERRED EROSION CONTROL BARRIER. IF ECM IS NOT AVAILABLE, INSTALLATION OF SILT FENCE ON FROZEN GROUND MAY BE MODIFIED FROM ILLUSTRATIONS AND DETAIL DRAWINGS TO SUBSTITUTE SIX INCHES OF SUITABLE NON-ORGANIC MATERIAL OVER THE BOTTOM OF THE SILT FENCE IN LIEU OF TRENCHING AND BACKFILLING FABRIC.
- 9. A DOUBLE ROW OF EROSION CONTROL BARRIER WILL BE USED WHERE REQUIRED WITHIN 100 FEET OF WETLANDS AND WATER BODIES.
- 10. INSPECTION OF EROSION CONTROL MEASURES AND ANY NEEDED REPAIR/REPLACEMENT OF WHICH SHALL OCCUR EACH DAY.
- 11. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH NETTING, ELSEWHERE.
- 12. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS
- 13. AFTER OCTOBER 15, 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 PER NHDOT ITEM 304.3.

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MULCH AND SEEDING SPECIFICATIONS

	OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS
TEMPORARY	
WITHIN 100 FEET OF WETLANDS AND WATERBODIES	APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED 3 MUST BE DONE WITHIN 48 HOURS OF INITIAL SOIL DISTURBANCE AND BEFORE FORECASTED STORM EVENTS, UNLESS OTHERWISE SPECIFIED. IF FINAL RESTORAT IS NOT SCHEDULED WITHIN 30 DAYS, APPLY ANNUAL RYEGRASS AT 1LB/1000 S.F.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES LESS THAN 8% AND SOILS STOCKPILES	IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL*, UNLESS SPECIFIED OTHERWISE. E MAY BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1 LB/1000 S.F. FOR AREAS WHERE ADDITIONA ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. AN EROSION CONTROL BARRIER MUST BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES GREATER THAN 8%	IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS OR PRIOR TO A STORM EVENT, APPLY HAY OR STRAW MULCH AT THE ABOVE RATES.* HAY OR STRAW MUST ANCHORED, UNLESS SPECIFIC SITE CONDITIONS DO NOT REQUIRE USE OF ANCHOR ECM** OR MATTING MAY ALSO BE USED. TEMPORARY SEEDING WITH ANNUAL RYEG AT 1LB/1000 S.F. IS ALSO RECOMMENDED FOR AREAS WHERE FINAL STABILIZATION I NOT EXPECTED FOR SEVERAL MORE WEEKS.
TEMPORARY SEEDBED PREPARATION	APPLY LIMESTONE AND FERTILIZER (UPLANDS ONLY) ACCORDING TO SOIL TEST DAT SOIL TEST IS NOT POSSIBLE, 10-0-10 FERTILIZER MAY BE APPLIED AT A RATE OF 600 LBS/ACRE AND LIMESTONE AT 3 TONS/ACRE. LOOSEN COMPACTED SOILS.
TEMPORARY SEEDING IN WETLANDS	IF REQUIRED, APPLY ANNUAL RYEGRASS AT A RATE OF 1 LB/1000 S.F. AND COVER W STRAW MULCH. DO NOT ADD LIME OR FERTILIZER TO WETLANDS.
FINAL RESTORATION	
PERMANENT MULCHING	ECM CAN BE USED AS A TEMPORARY OR PERMANENT SLOPE REINFORCEMENT AND TO RE-VEGETATE TO NEAR NATURAL CONDITIONS. IT IS NOT USED WHERE GRASS VEGETATION IS REQUIRED. RE-VEGETATION CAN BE ENHANCED BY SEEDING, WHIC ENCOURAGED IF USED AS A PERMANENT STABILIZATION MEASURE. PERMANENT MU MUST NOT BE USED IN AREAS OF CONCENTRATED WATER FLOWS AND EVIDENCE OF GROUNDWATER SEEPAGE ON SLOPES MAY REQUIRE THE ECM TO BE REPLACED WI RIPRAP.
	 ON SLOPES THAT ARE 3H:1V OR LESS, ECM SHALL BE APPLIED AT A MINIMUM OF INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FI (E.G. 3 INCHES THICK FOR 60 FEET OF SLOPE; 4 INCHES THICK FOR 100 FEET OF SLOPE). FOR SLOPES BETWEEN 3H:1V AND 2H:1V, ECM WILL BE APPLIED 4 INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 5 INC THICK FOR 60 FEET OF SLOPE; 6 INCHES THICK FOR 100 FEET OF SLOPE) ECM MUST BE SPREAD EVENLY AND MUST PROVIDE 100 PERCENT SOIL COVERAGE
PERMANENT RE-VEGETATION	PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANEN SEEDING MIX SPECIFICATIONS ARE BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEAS ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES SHEET G-2).

* MULCH APPLICATION RATES SHALL BE DOUBLED FOR WINTER CONSTRUCTION **MINIMUM ECM THICKNESS IS 4 INCHES FOR WINTER CONSTRUCTION

PERMANEN	T SEED MIX SPECIFICATIONS			
	SOIL AMENDMENTS	SEED MIX VARIETIES	SEED RATE, LB/ACRE	MULCH, TONS/ACRE
UPLAND	APPLY GROUND LIMESTONE @ 3 TONS/ACRE	CREEPING RED FESCUE/(PENNLAWN, ENSYLA, WINTERGREEN)	20	1.5-2 (90-100 BALES)
	APPLY 10-20-20 FERTILIZER @ 800 LBS/ACRE	REDTOP/(ANY NATIVE SPECIES)	2	
		TALL FESCUE/(KENTUCKY 31)	20	
WETLAND	NONE	ANNUAL RYEGRASS, IF REQUIRED (ANY NATIVE SPECIES)	40	1.5-2 (90-100 BALES)

INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING.

 ADD WINTER RYE TO THE UPLAND MIX AT A RATE OF 120 LB/ACRE AFTER OCTOBER 1 • SEED OR MULCH WETLANDS ONLY WHERE REQUIRED BY THE EI OR 3PI, OR WHEN RESTORATION OCCURS AFTER

OCTOBER 1. TYPICALLY, REPLACING THE ORIGINAL WETLAND SOIL ON THE RESTORED SURFACE WILL PROVIDE AN ADEQUATE SEED BED. DO NOT LIME OR FERTILIZE ANY AREAS WITHIN THE WATER BODY BUFFERS OR WETLANDS.

MULCH WETLANDS WITH WEED-FREE STRAW ONLY.

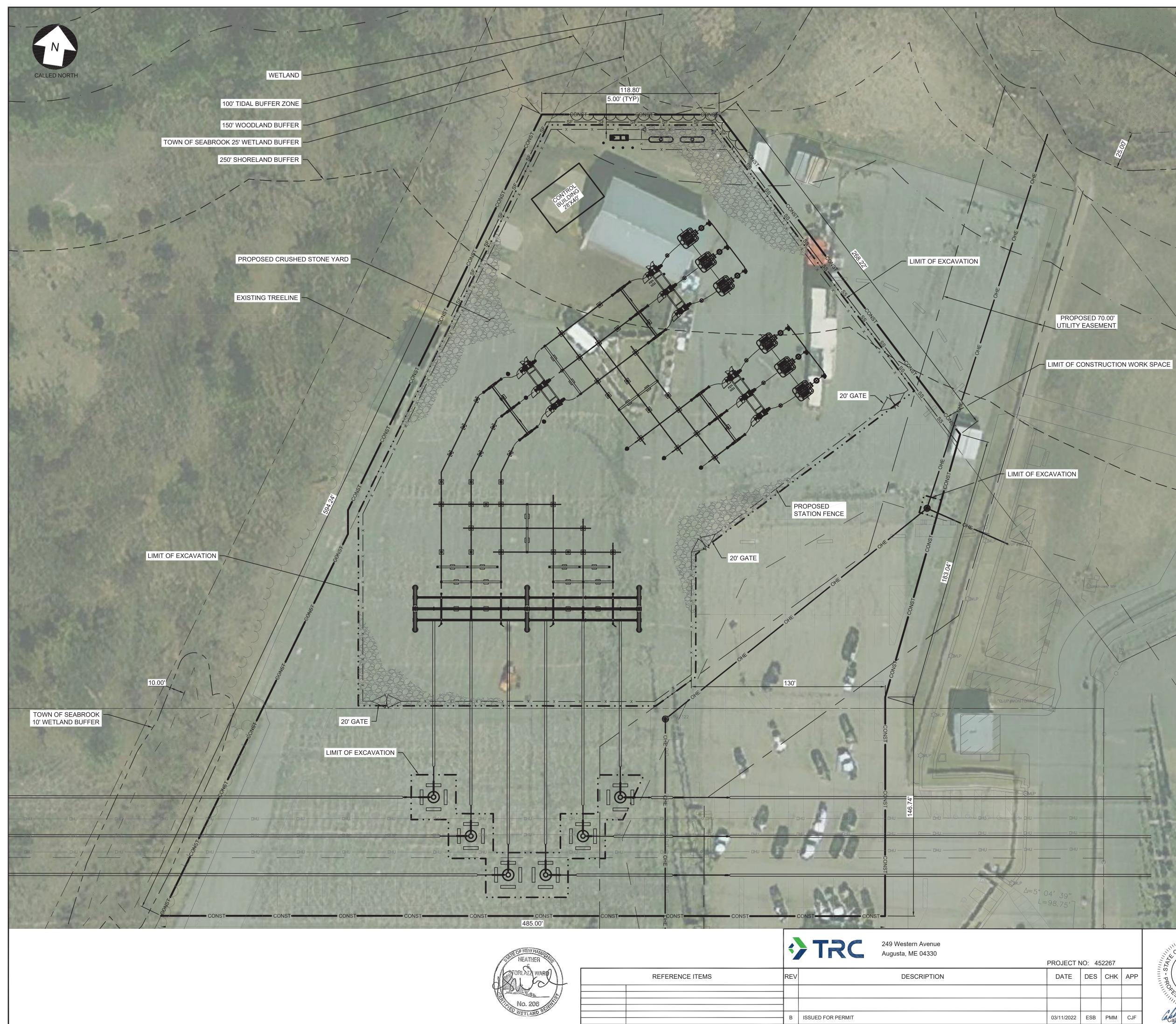
THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL RE-VEGETATED AREAS UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. FOLLOWING FINAL SEEDING THE CONTRACTOR WILL INSPECT RESTORED AREAS EVERY 30 DAYS UNTIL 90 PERCENT VEGETATIVE COVER HAS BEEN ESTABLISHED UNLESS ADJACENT. UNDISTURBED AREAS INDICATE THAT ACHIEVING THAT LEVEL OF VEGETATION IN THE AREA IS UNLIKELY. WHERE SEEDED AREAS HAVE BECOME ERODED OR DAMAGED BY CONSTRUCTION OPERATIONS, OR WHERE POOR GERMINATION IS OBSERVED, THE AFFECTED AREAS WILL BE PROMPTLY RE-GRADED, LIMED, FERTILIZED, AND RE-SEEDED AS NEEDED UNTIL THE ABOVE CRITERIA ARE MET. THE CONTRACTOR MAY BE REQUIRED TO RE-SEED DURING THE FOLLOWING SPRING IN ORDER TO ACHIEVE THE REQUIRED VEGETATIVE COVER

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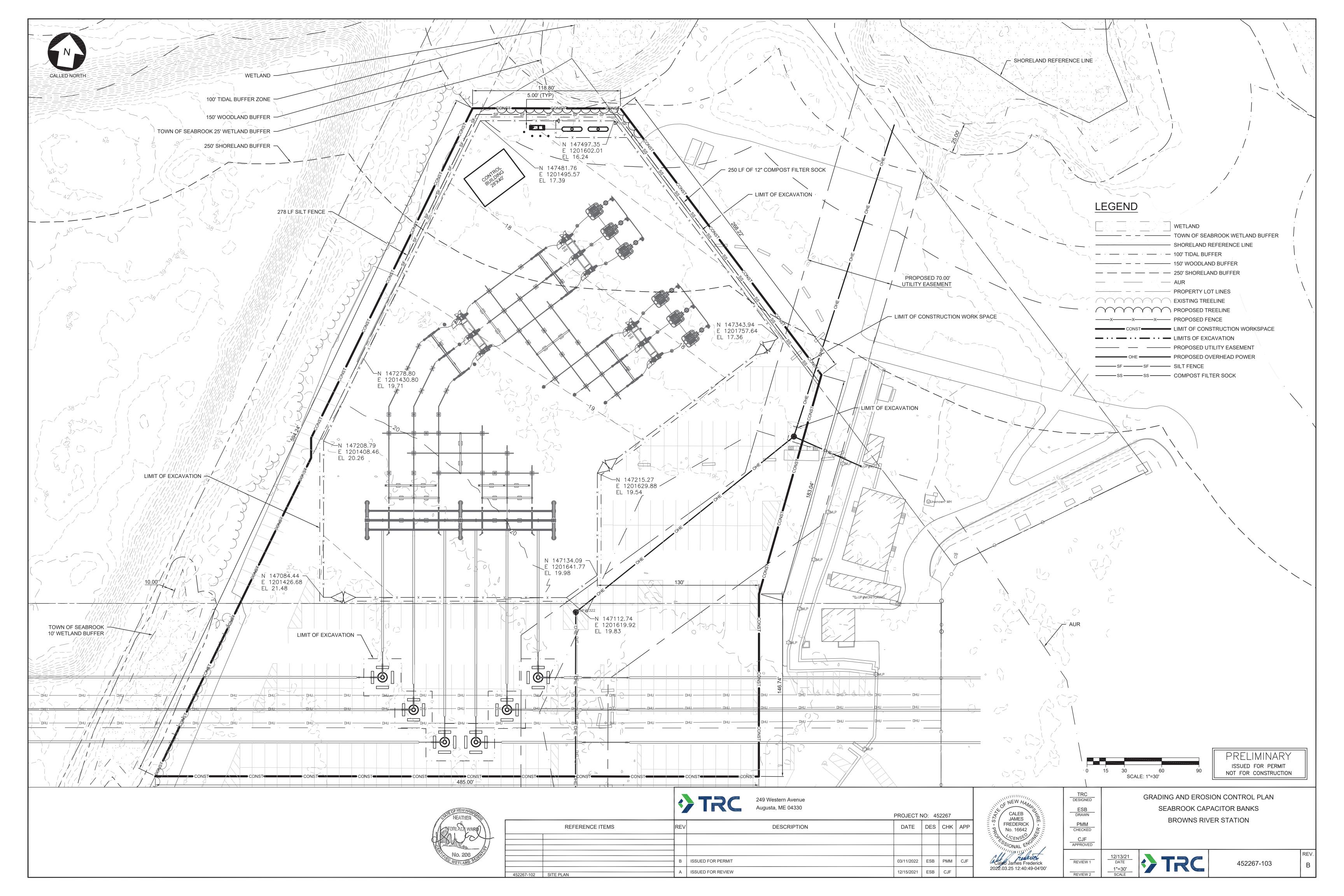
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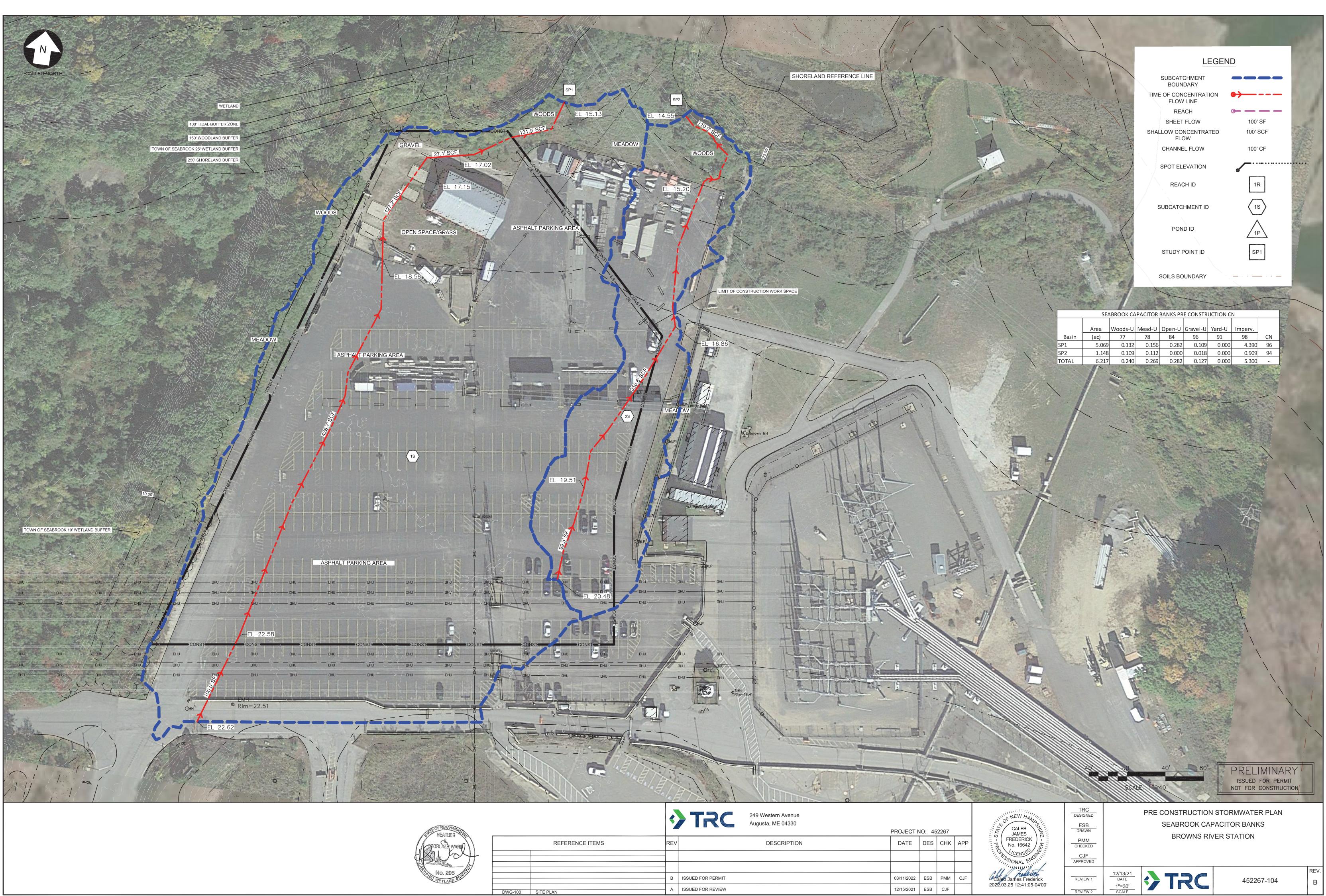
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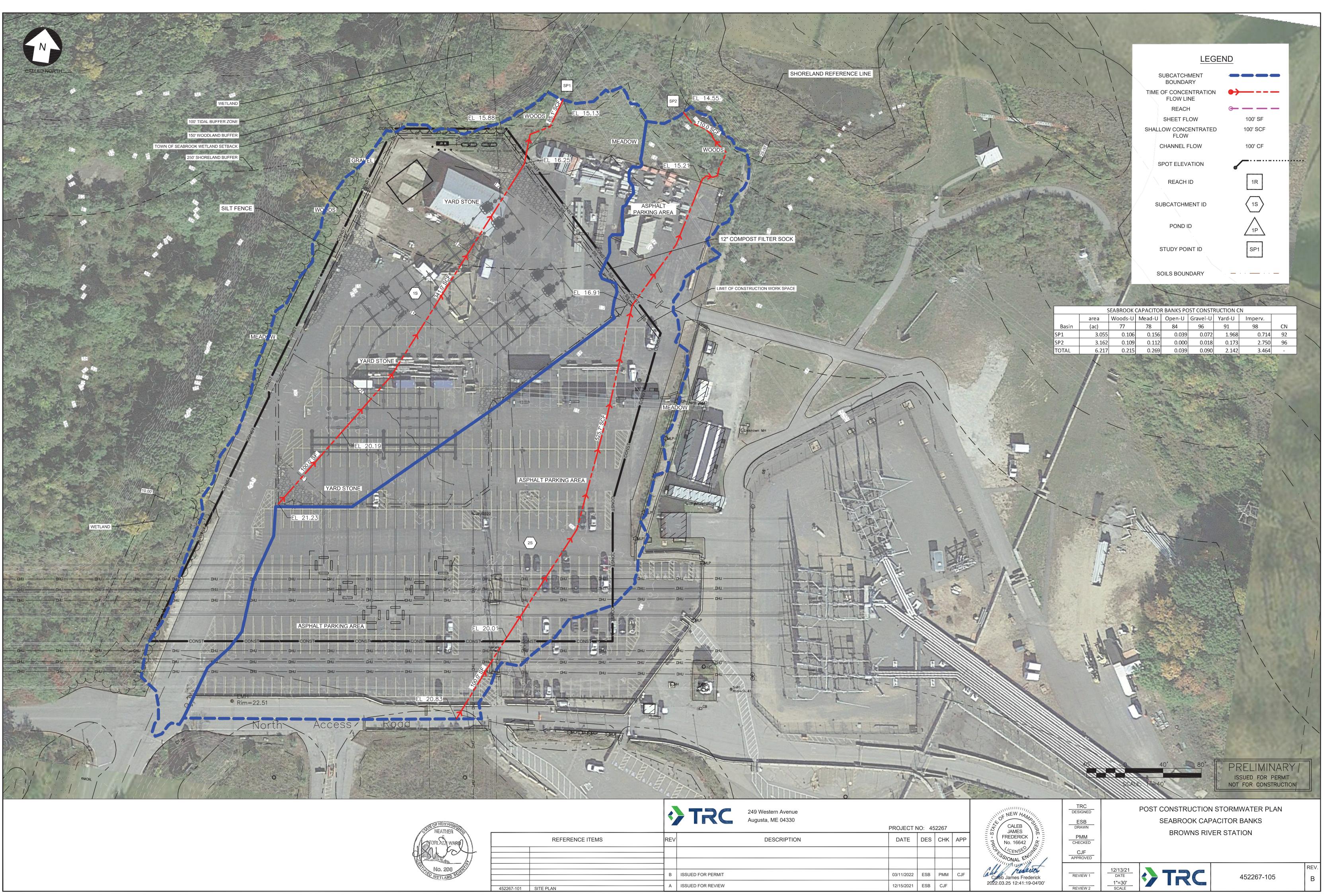
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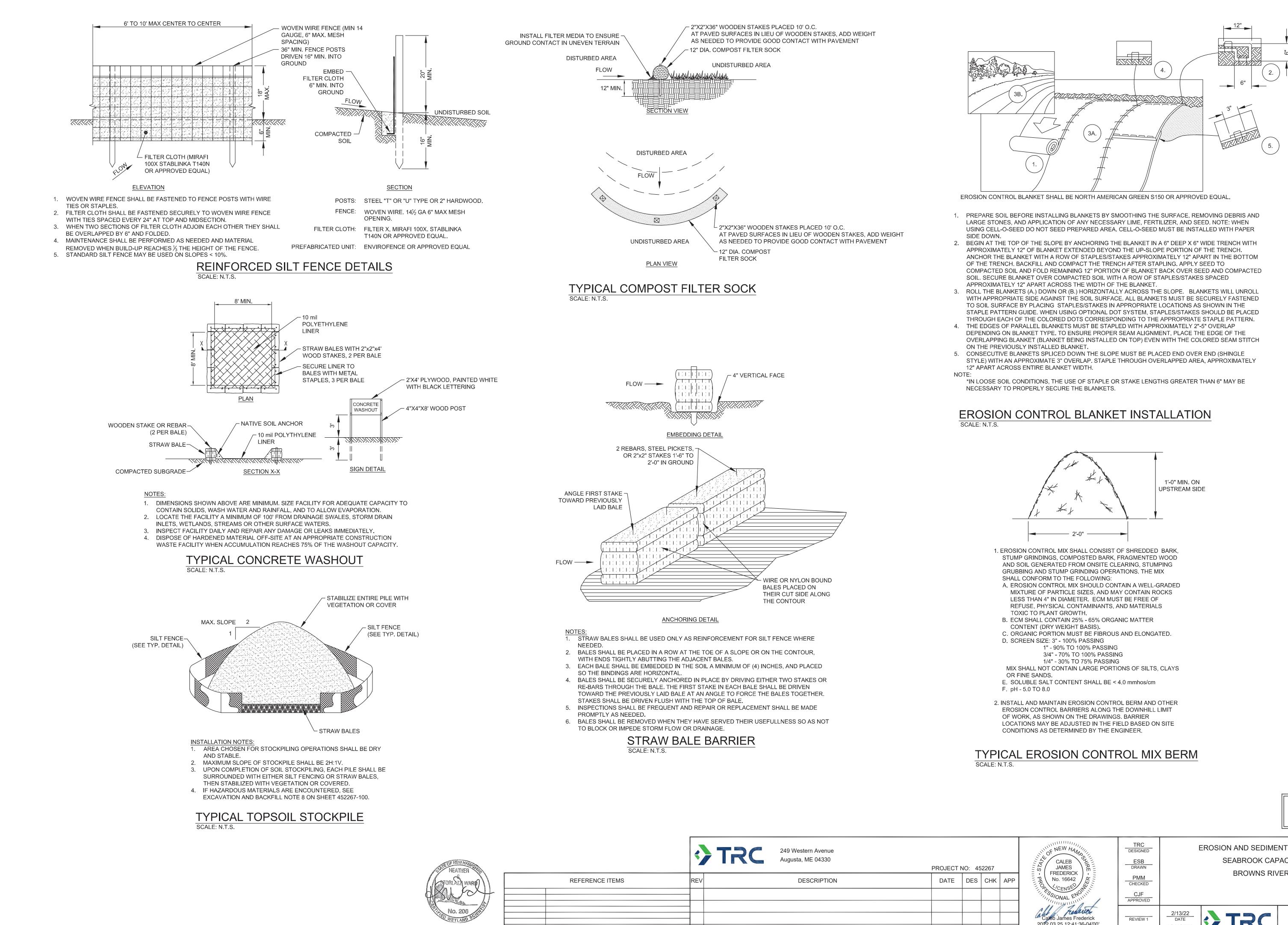


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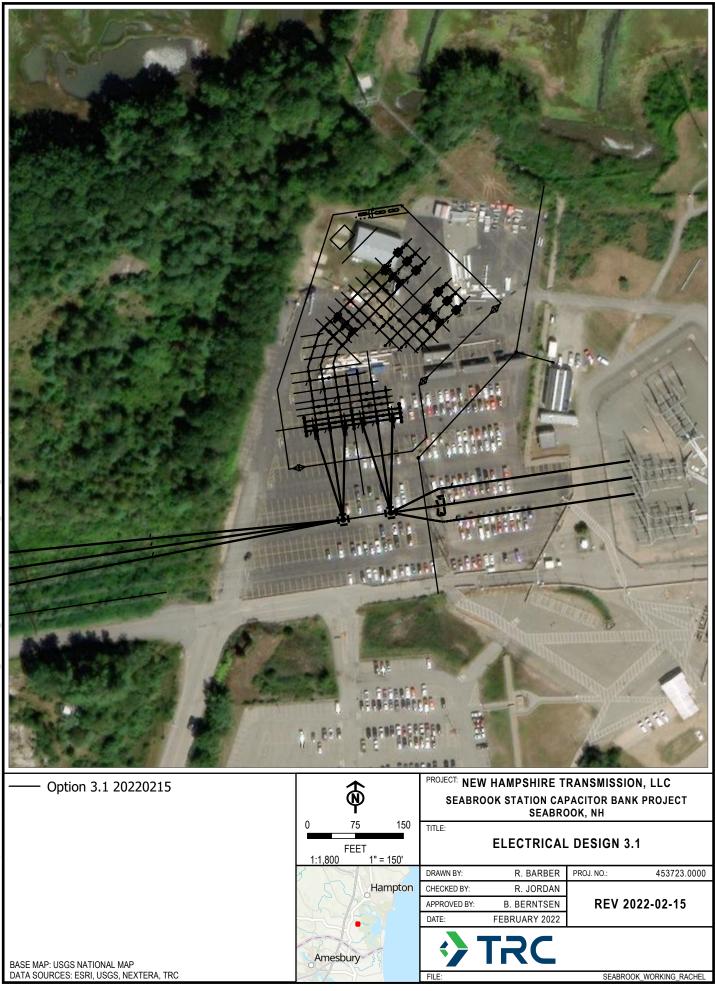


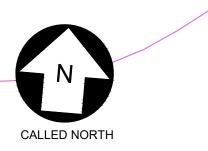
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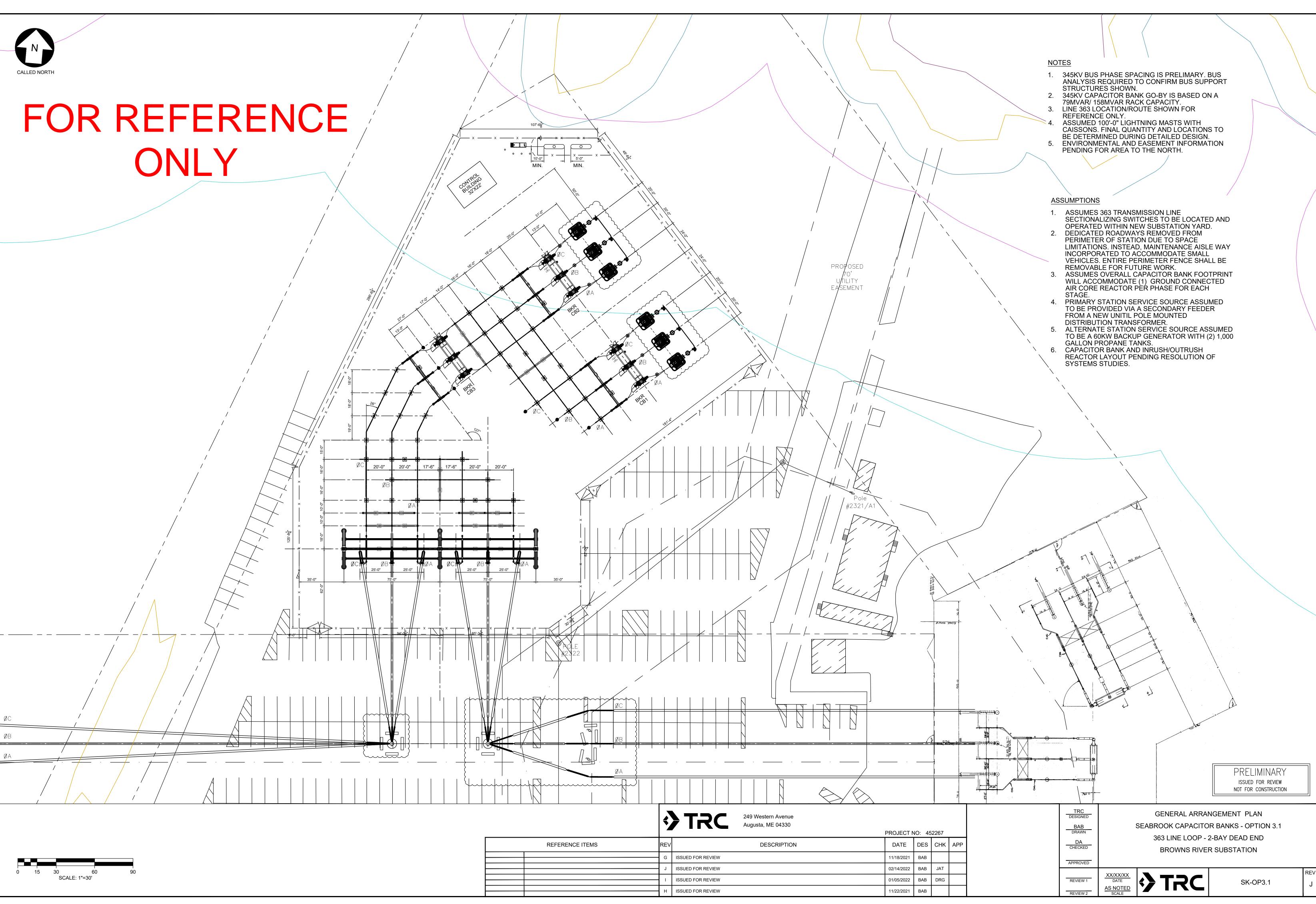
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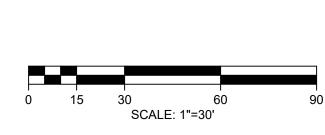
APPENDIX 5: ELECTRICAL DRAWINGS

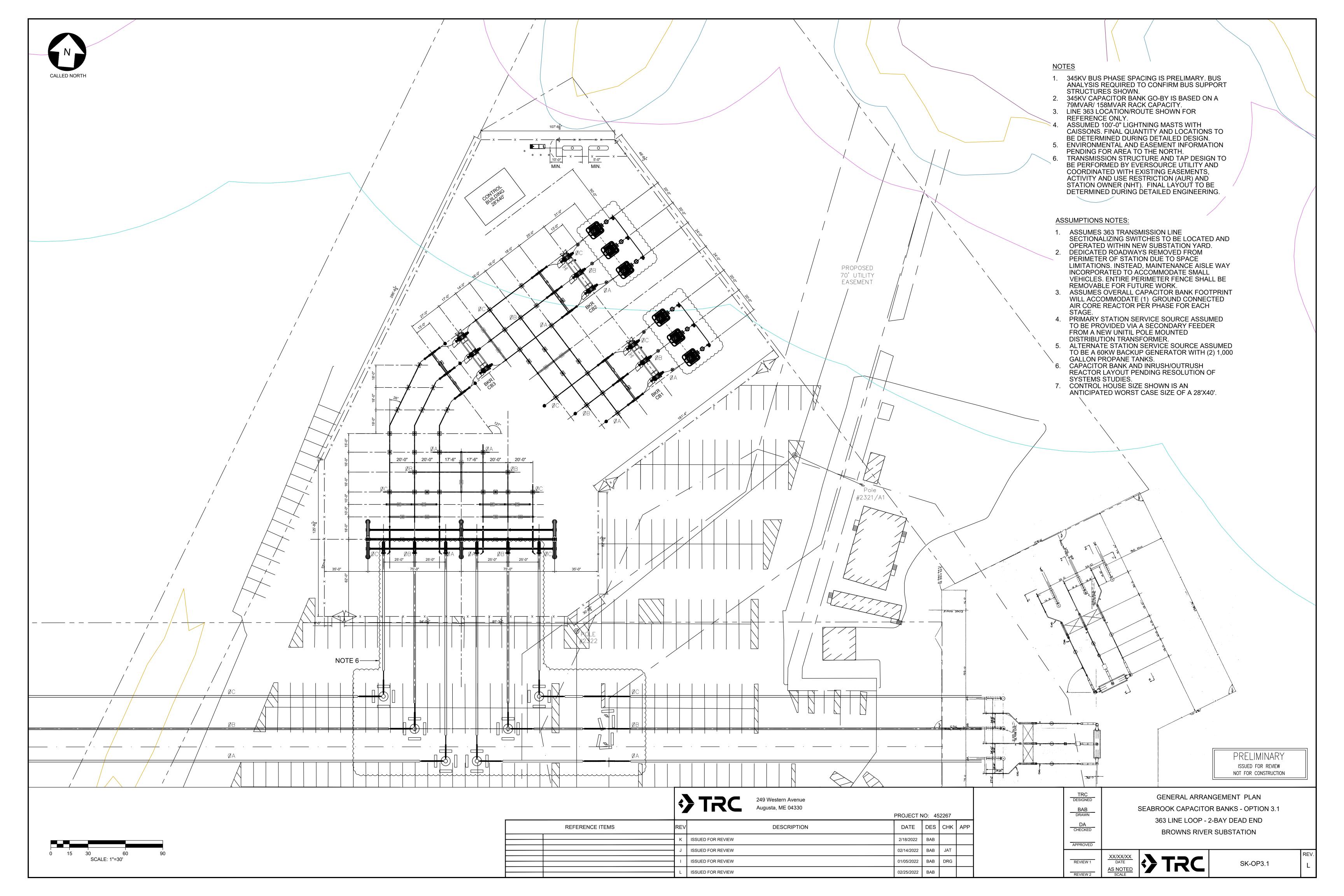




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APPENDIX 6: SYSTEM STUDY REQUEST SUBMITTED TO ISO-NE



REDACTED VERSION

REPORT REVISION 3 JANUARY 6, 2022

SEABROOK 345 KV CAPACITORS PROPOSED PLAN APPLICATION STUDY

Installation of 2 x 50 Mvar 345 kV Capacitors adjacent to Seabrook Substation

For New Hampshire Transmission LLC.

Project #22371

EMPOWERING ENERGY SOLUTIONS for the future ..today

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0	12/09/2021	Original Draft
1	12/17/21	Revision 1
2	12/23/21	Revision 2
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Executive Summary

RLC Engineering, LLC (RLC) conducted a Level III Proposed Plan Application (PPA) Study (the "Study") on behalf of New Hampshire Transmission LLC (NHT) for the installation of two 50 Mvar 345 kV capacitors adjacent to the Seabrook 345 kV Substation (the "Project"). This reliability upgrade is one of the preferred solutions from the ISO-NE New Hampshire 2029 Solutions Study, dated May 2021 to address the reliability needs that were identified in the ISO-NE New Hampshire 2029 Needs Assessment, dated December 2019. The proposed in-service date for this Project is November of 2023.

Project Description

The Project will consist of the following system upgrades:

- A tap on the adjacent to Seabrook Substation,
 Installation of two 345 kV motor operated line disconnect switches
- Installation of three 345 kV circuit breakers,² and
- Installation of two 50 Mvar 345 kV capacitors.

Steady-State Analysis

Steady-State N-1 and N-1-1 voltage analysis showed that the Project has no significant adverse impact on the 115 kV and above transmission system.

<u>Stability</u>

Stability analysis included design contingency testing, extreme contingency testing, and BPS testing. The Project showed no significant adverse impact. BPS testing failed criteria and the new station shall be built to NPCC A-10 BPS specifications.

Conclusion

The Project does not cause a significant adverse impact on the steady-state or stability characteristics of the Transmission Owner's transmission facilities, the transmission facilities of another Transmission Owner, or the system of a Market Participant.

¹ Two motor controlled switches are installed at the Seabrook capacitor station so that the switches could be switched remotely by system operators

² NHT's design of the proposed capacitor banks will include automatic voltage-sensing controls for circuit breakers at the Seabrook capacitor station for energizing and de-energizing the capacitor banks as required to maintain the voltage requirements at the Seabrook 345 kV bus within the range of 1.00-1.05 per unit.



1 Background

RLC Engineering, LLC (RLC) conducted a Level III Proposed Plan Application (PPA) Study (the "Study") on behalf of New Hampshire Transmission LLC (NHT) for the installation of two 50 Mvar 345 kV capacitors adjacent to the Seabrook 345 kV Substation (the "Project"). This reliability upgrade is one of the preferred solutions from the ISO-NE New Hampshire 2029 Solutions Study, dated May 2021 to address the reliability needs that were identified in the ISO-NE New Hampshire 2029 Needs Assessment, dated December 2019.

This study was performed in accordance with Section I.3.9 of the ISO New England Inc. Transmission, Markets, and Services Tariff, the NERC TPL-001-4 Transmission System Planning Standard, the NPCC Directory D-1 - Design and Operation of the Bulk Power System, ISO New England Planning Procedure 3 (PP3) - Reliability Standards for the New England Area Pool Transmission Facilities and ISO New England Planning Procedure 5-3 (PP5-3) - Guidelines for Conducting and Evaluating Proposed Plan Application Analyses.

This study included steady-state, stability, and transient voltage analyses to demonstrate that the Project will not have significant adverse impacts on the reliability and operating characteristics of the NHT transmission system, the transmission facilities of another Transmission Owner, or the system of a Market Participant.

The New Hampshire 2029 Needs Assessment identified low voltage violations

The New Hampshire 2029 Solutions Study recommended the following components to address the Seabrook 345 kV low voltage violations:

"Installation of two 50 Mvar, 345 kV capacitors adjacent to the Seabrook 345 kV Substation (the "Project"). The proposed in-service date for this Project is November of 2023."

1.1 Study Objective

The primary objective of this Study is to show that interconnecting the Project has no significant adverse impacts on the reliability and operating characteristics of the NHT transmission system, the transmission facilities of another Transmission Owner, or the system of a Market Participant, and if it does to recommend system improvements that would eliminate the adverse impacts.

The purpose of the Study is to:

(*i*) Determine any upgrades to the transmission system that would be required to eliminate any adverse impacts that the Project could otherwise pose on the reliability and operating characteristics of the New England transmission system.

Thermal overload and short circuit analysis is not required for this study because the Project is not expected to significantly change real power flow and has no impact to circuit breaker duty.

A Transient Recovery Voltage (TRV), Rate-of-Rise Recovery Voltage (RRRV), and Harmonics assessment of the three new 345 kV circuit breakers and air insulated switchyard as well as the nine existing 345 kV circuit breakers and the 25 kV generator circuit breaker at Seabrook Substation will be performed at a later date, and is not a condition for the PPA approval.

1.2 Project Description

The Project will consist of the following system upgrades:

• A tap on the adjacent to Seabrook Substation,



- Installation of two 345 kV motor operated line disconnect switches configured for remote operation, $\frac{3}{3}$
- Installation of three 345 kV circuit breakers,⁴ and
- Installation of two 50 Mvar 345 kV capacitors.

Figure 1-1 below shows the proposed interconnection of the Project.

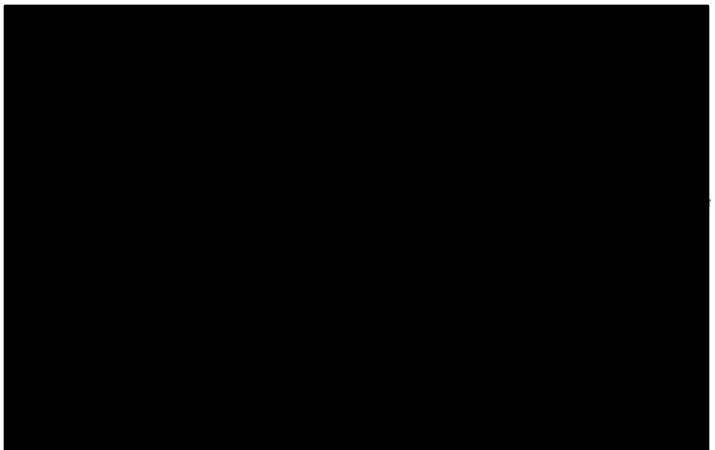


Figure 1-1 Area One line Diagram

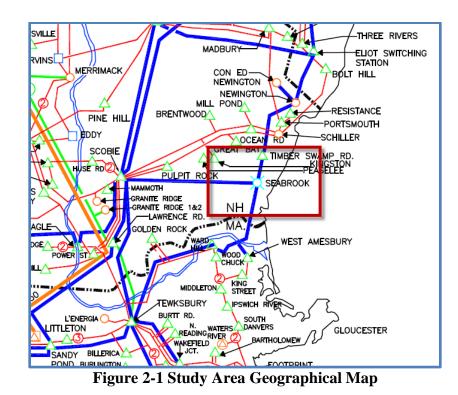
2 Study Area

The primary area of concern for this Study is 345 kV system at and nearby Seabrook 345 kV Substation. A geographic map of the study area is shown in Figure 2-1.

³ Two motor controlled switches are installed at the Seabrook capacitor station so that the switches could be switched remotely by system operators

⁴ NHT's design of the proposed capacitor banks will include automatic voltage-sensing controls for circuit breakers at the Seabrook capacitor station for energizing and de-energizing the capacitor banks as required to maintain the voltage requirements at the Seabrook 345 kV bus within the range of 1.00-1.05 per unit.





3 Base Case Development

- 3.1 Base Case Origin and Year
- 3.1.1 Steady-State and Stability Cases

The steady-state and stability cases and contingency files for this analysis were developed using the cases and ISO-NE basecase DB that will be used for the Eversource New Hampshire PPA Study. Those cases have been used for the study of ISO New England Interconnection Queue proposal QP1034. The QP1034 project was removed from the cases due to its withdrawal from the Queue.

3.1.1.1 Delta V Testing Generation Dispatch Scenario

A steady-state peak load case with the Seabrook generator off-line was used to reduce the electrical strength of the transmission system when the capacitor banks will be switched on. The dispatch, "2024_PK_4_PRE-CAP.sav", was used to perform this analysis.

3.2 Area Load

The steady-state analysis examined the impact of the capacitor bank operation during peak load conditions. The stability analysis examined impact of the capacitor bank operation during the light load conditions.

- 3.3 Planned Projects
- 3.3.1 Transmission and Generation Projects Included in Steady-State and Stability Cases

These cases represent a system topology for 2024 and include the current, active ISO-NE queued generator interconnection proposals within the study area. The study network model also includes representation of the PPA approved New Hampshire transmission line rebuild project. The following projects and their associated upgrades were modeled in the steady-state base cases:



Queue	Description
QP501	1000 MW HVDC Project connecting HQ's Monteregie Substation to VELCO's Coolidge Substation
QP543	28.4 MW Wind Project connecting to Eversource's Tuttle Hill Substation
QP565	20 MW Solar Project connecting to VELCO's Coolidge 115 kV Substation
QP568	11.25 MW Solar Project connecting to Unitil's 34.5 kV W. Portsmouth substation
QP592	Bear Swamp uprate
QP639	1200 MW HVDC ETU connecting to Avangrid's 345 kV Larrabee Road substation
QP674	20 MW Solar Project connecting to GMP's 46 kV line between South Shaftsbury tap and E. Arlington
QP676	20 MW Solar Project connecting to the GMP's line 107 between High Bridge and Windsor
QP680	20 MW Solar Project connecting to GMP's 46 kV line between Fair Haven and Carver Falls
QP727	20 MW Solar Project connecting to National Grid's 115 kV line between Vernon Rd tap and Vernon
	Road
QP754	30 MW Solar Project connecting to the115 kV line between National Grid's Fitzwilliam and Eversource's
	Flagg Pond substations
QP763	20 MW Solar Project tapping on GMP's 46 kV line between Florence and Middlebury approximately 4
	miles from the Florence Substation in Vermont)
QP785	20 MW Solar Project connecting to the 34.5 kV Webster Substation in New Hampshire
QP807	50 MW Solar Project connecting to the 115 kV Vergennes Substation
QP868	15 MW Solar Project connecting to the 34.5 kV line 3410 out of the North Road Substation
QP889	Elective transmission upgrade to increase the Surowiec-South interface to 2600 MW
QP932	110 MW Solar Project connecting to the Eversource 115 kV line K1214 line between Saco Valley in New
	Hampshire and Lovell in Maine
QP934	17.5 MW Solar Project connecting to the Eversource 34.5 kV line 334/201 between the Garvins &
	Rimmon Substations in New Hampshire
QP936	45 MW Solar Project connecting to the Eversource 115 kV Paris Substation in New Hampshire
QP956	10 MW Solar Project connecting to the Eversource line 3103 out of the Brentwood Substation
QP1016	16 MW Solar Project connecting to the Eversource 34.5 kV line 314 out of the South Milford Substation
	in New Hampshire
QP1038	76 MW solar project connecting to the NGRID 230 kV Line B202, between Comerford and Dunbarton
	tap
QP1103	39 MW BESS uprate Project connecting to the Eversource 22 kV Berlin Hydro system
QP1135	109 MW DC coupled Solar and Battery Storage Project connecting to the 115kV line W-179-1 between
	Berlin and Pontook Hydro Substation in New Hampshire
QP1136	38 MW solar project connecting to the 34.5kV line 3174 between Farmington and Tasker Farm
	Substations in New Hampshire

Table 3-1: Relevant Projects

3.4 Power Flow and Transient Stability Simulation Tools

Steady-State analysis was performed using the Siemens PTI's PSS[®]E software package, Version 33.12 and Power Gem TARA version 2002 software package. Stability analysis was performed using the Siemens PTI's PSS[®]E load flow and dynamics software package, Version 33.12.

4 Steady-State Analysis Methodology

Steady-State voltage analyses examined system performance without the proposed Project in order to establish a baseline for comparison. System performance was then re-evaluated with the Project and compared with the baseline performance to demonstrate the impact of the Project on area transmission reliability. Sensitivity analysis was performed to account for QP1101 since the proposed upgrade for QP1101 is close to the proposed two 50 Mvar 345 kV capacitors.



4.1 Planning Standards and Criteria

The applicable standards and criteria for evaluation comprise the reference list from Section 1 of this report. A list of the NERC, NPCC and ISO standard contingency tests that were used for this study to assess steady-state system performance is provided in Appendix B.

4.2 Steady-State Performance Criteria

The Study was performed in accordance with reliability standards as set forth in the ISO-NE Transmission Planning Technical Guide⁵, ISO New England Planning Procedure No. 3⁶, "Reliability Standards for the New England Area Pool Transmission Facilities"

4.3 Steady-State Solution Parameters

The steady-state voltage contingency analysis analyzed before and after equipment adjustments according to Table 4-1. The results of the two separate post contingency conditions were analyzed based on voltage criteria applicable to each condition.

Analysis prior to equipment adjustments ensures there are no instantaneous voltage concerns that may cause voltage collapse. Analysis after equipment adjustments ensures that LTC adjustments are sufficient to maintain system voltages within applicable criteria.

Pre/Post Contingency	Area Interchange	LTC Taps	Discrete Switched Shunts	Continuous Control Shunts	Phase Angle Regulators	DC Taps
Pre-Contingency	Enabled	Stepping	Enabled	Enabled	Enabled	Enabled
Post-Contingency (Prior to Equipment Adjustment)	Disabled	Locked	Disabled	Enabled	Disabled	Disabled
Post-Contingency (After Equipment Adjustment)	Disabled	Stepping	Disabled	Enabled	Disabled	Disabled

 Table 4-1 Steady-State Solution Parameters

4.4 Steady-State Voltage Limits

Transmission voltage levels must be maintained within a prescribed bandwidth to ensure proper operation of electrical equipment at both the transmission and customer voltage levels. Equipment damage and widespread power outages are more likely to occur when transmission-level voltages are not maintained within pre-defined limits. Table 4-2 identifies the voltage criteria that will be applied for the steady-state voltage assessment.

⁵ Transmission Planning Technical Guide, Revision 7.0, 09/30/2021

⁶ ISO New England Planning Procedure No. 3, Revision 9, 03/20/2020 https://www.iso-ne.com/static-assets/documents/2017/10/pp3_r8.pdf



Steady-State Voltage Criteria						
	Voltage Level	Bus Voltage Limits (p.u.)				
Facility Owner		Normal Conditions	Emergency Conditions (Post-contingency)			
		(Pre-contingency)	Prior to LTC Adjustment	Following LTC Adjustment		
Avangrid	115 kV and above	0.95 to 1.05	0.90 to 1.05	0.95 to 1.05		
Eversource	115 kV and above	0.95 to 1.05	0.90 to 1.05	0.95 to 1.05		
National Grid	115 kV and above	0.95 to 1.05	0.90 to 1.05	0.95 to 1.05		
New Hampshire Transmission	345 kV and above	0.95 to 1.05	0.90 to 1.05	0.95 to 1.05		
Millstone / Seabrook	345 kV	1.00 to 1.05	1.00 to 1.05	1.00 to 1.05		

 Table 4-2 Steady-State Voltage Criteria

4.5 Steady-State Contingencies

N-1 contingency testing is included in the steady-state analysis. Contingency analysis utilizes a contingency list generated from the ISO MOD process and includes single element loss of lines, transformers, and generators; as well as multiple element bus faults, double circuit tower, and breaker failure simulations. A complete list of the N-1 contingencies to be evaluated for this study can be found in Appendix B.

Since the need for some components of the Project were based on N-1-1 system conditions, N-1-1 testing is included in the analysis. The list of initial outages are show in Table 4-3.

N-1-1 Initial Outage List				
345 kV Lines				
Line	Description			
363	Seabrook - Scobie			
369	Seabrook – Timber Swamp			
394	Seabrook – West Amesbury – Ward Hill			
TT -				

Table 4-3 N-1-1 Initial Outage List

4.6 Steady-State Base Case Dispatch and Interface Conditions

Steady-State analysis evaluated the impact of the Project on transmission system reliability performance at the peak load level.

One dispatch scenario, PK-4, was developed for the steady-state analyses. Four cases were created from that dispatch:

- Peak Load 2024 PK-4 dispatch:
 - New Brunswick exporting 1,050 MW to New England
 - o Maine-New Hampshire interface stressed to 2,000 MW
 - Seabrook Off-Line
- 1. Pre-Project (Seabrook 345 kV Capacitor out-of-service)
- 2. Post-Project (Seabrook 345 kV Capacitors in-service)
- 3. Pre-Project with QP1101 (Seabrook 345 kV Capacitors out-of-service and QP1101 in-service)



4. Post-Project with QP1101 (Seabrook 345 kV Capacitor in-service and QP1101 in-service)

Table 4-4 and Table 4-5 contain summaries of generation dispatch and interface transfer conditions for the steady-state cases that were used for this analysis. Detailed interface transfer and dispatch summaries for each of the steady-state cases are included in Appendix C. Slider files representing the steady-state cases are included in Appendix D. Note that the same dispatch was used for all analyses.

	Local Dispatch
Name	Peak Load
	PRE-CAP
Interface F	lows (MW)
NB-NE	1050
Orrington South	1375
Surowiec South	2613
Maine-NH	2011
NNE-Scobie+394	2214
North-South	3005
East-West	-3923
Boston Import	4020
SEMARI-NE	-3245
SEMA-NE	-1632
NY-NE	1651
Highgate	222

Table 4-4 Steady-State Peak Load Base Case Interface Transfers

	Local Dispatch - Generator Output (MW)
Generators	Peak Load
	PRE-CAP
	uine 132
Kibby Wind Wyman Hydro	60.3
Yarmouth (Wyman)	0
AEI Livermore	38.3
SEA Stratton	50.3
VERSO Riley	168.8
Rumford PA CC	181.1
Westbrook CC	0
Bucksport G4	0
Sappi Westbrook	59
VERSO Jay	84.6
Sappi Somerset	112.5
Newpage Paper (Bois Maine Independent S	128.6 524.7
-	impshire 524.7
Merrimack	542
Schiller	157.2
PSNH Newington	180
Newington Engergy C	608.1
Seabrook	0
Granite Ridge CC	704
Comerford	0
Moore	143.5
Burgess Gen	0
QP679 QP681	20 20
QP543	28.4
QP727	50
QP754	30
QP785	20
QP868	15
QP936	45
QP1016	16.2
QP1038	76.3
QP1136	38.6
West Medway Jets	chusetts 115.1
MATEP	77.4
Mystic	812.7
NEA Bellingham CC	0
Edgar (Fore River)	0
ANP Blackstone	0
Kendall	243.7
SEMASS	80
Canal	0
Dartmouth Power	87.2
TA Watson Bear Swamp	117.2
Bear Swamp Millennium CC	666 361.5
L'Energia CC	79.2
ANP Bellingham	0
Northfield	1174
Stony Brook	481.4
Berkshire Power	274.5

 Table 4-5 Steady-State Base Case Generation Dispatches



5 Delta V (Capacitor Bank Switching) Methodology

The objective of this analysis is to evaluate the change in voltage pre and post switching of the proposed 2 x 50 Mvar 345 kV capacitor bank adjacent to the Seabrook 345 kV bus.

5.1 Delta V Methodology

The methodology for performing the switching study is as follows:

The PSS/E solution activity TYSL will be used for the Delta V analysis. All lines in testing was performed by using the following steps:

(1) Start with a post-project base case and capacitor bank(s) under test off-line.

(2) Solve the case using the all-lines-in parameters and record the pre-switching bus voltages for all of the stations of interest.

(3) Use the TYSL activity to determine the post-switching instantaneous voltages.

(4) Repeat the analysis with the capacitor on in the base case and then switching it off-line.

Calculate the change in voltage percent by | Vpre–Vpost |×100. The line-out testing will be performed using the following steps:

(1) Start with a post-project base case and capacitor bank(s) under test off-line.

(2) Apply a contingency ("line out") specific to the sub-area and substation being evaluated and solve the case using the post-contingency parameters.

(3) Save the line out base case.

(4) Record the pre-switching bus voltages for all stations with cap banks within that sub-area

(5) Use the TYSL activity to determine the post-switching instantaneous voltages. Calculate the change in voltage percent by |Vpre-Vpost|×100.

(6) Repeat the analysis with the capacitor on in the base case and then switching it off-line.

5.2 Delta V Voltage Limits

The switching criteria for the Delta V testing is in the table below.

Delta V (Capacitor Bank Switching) Criteria					
		Voltage Delta-V ts (%)			
Facility Owner	All Lines In- Service Post- Contingency Switching	Line Out Post-Contingency Switching			
Avangrid	3.0%	5.0%			
Eversource/NHT*	2.5%	6.0%			
National Grid	2.0%	4.0%			

Table 5-1: Delta V Criteria

*New Hampshire Transmission (NHT) has adopted the Eversource Delta V criteria.

5.2.1 Delta V Contingencies

Ten scenarios were tested for the delta switching analysis. One scenario represents system conditions where all elements are in service. Nine additional elements were also tested reflecting line out scenarios. The table below details the line out scenarios that were tested.



345 kV Line Outs				
Line	Description			
326	Scobie – Lawrence Rd – Sandy Pond			
363-1	Seabrook – Seabrook Capacitor Tap			
363-2	Scobie – Seabrook Capacitor Tap			
369	Seabrook – Timber Swamp			
373	Scobie – Deerfield			
380	Scobie – Eagle			
391	Scobie – Buxton			
394	Seabrook – West Amesbury – Ward Hill			
3124	Scobie - Tewksbury			

Table 5-2: Delta V Line Out Scenarios

6 Stability Analysis Methodology

The ISO-NE Transmission Planning Process Guide⁷ and Transmission Planning Technical Guides were used as a guide and to identify the assumptions for the stability analysis documented for this system impact study.

Stability analyses evaluated the impact of the Project on transmission system performance on the light load level.

6.1 Stability Base Case Dispatch and Interface Conditions

6.1.1 Base Case Dispatch

Stability testing for this assessment consisted of three cases as outlined below:

- Light Load 2029 C pre-Cap dispatch
 - o Maine to New Hampshire at maximum transfers
 - East to West Power flow
 - North to South Power flow
 - New England to New York at 1200MW
 - Seabrook cap offline
- Light Load 2029 C post-Cap dispatch
 - Maine to New Hampshire at maximum transfers
 - East to West Power flow
 - North to South Power flow
 - New England to New York at 1200MW
 - Seabrook cap online
- Light Load 2029 1101 sensitivity dispatch
 - Maine to New Hampshire at maximum transfers
 - East to West Power flow
 - North to South Power flow
 - New England to New York at 1200MW
 - o QP1101 online
 - Seabrook cap online

⁷ *Transmission Planning Process Guide*, March 13, 2020, <u>https://www.iso-ne.com/static-assets/documents/2020/03/transmission planning process guide 3 13 20.pdf</u>

The two tables below contain additional detail on the generation dispatch and interface transfers for the three cases.

	Local Dispa	atches - Generator (Output (MW)	
Generators	Light Load			
	Pre-CAP 2029 NH	CAP 2029 NH	QP1101 2029 NH	
		aine		
MIS	0	0	0	
Oakfield	0	0	0	
Stetson	0	0	0	
Rollins	60	60	60	
UP5	28	28	28	
Passadumkeag	0	0	0	
Pisgah	0	0	0	
Bull Hill	34	34	34	
Hancock Weaver	0	0	0	
UP6	28	28	28	
PERC	28	28	28	
Bucksport	180	180	180	
Bingham	0	0	0	
W. ME Hydro	0	0	0	
Kibby	0	0	0	
Record Hill	0	0	0	
Spruce & Saddle	0	0	0	
RPA	281	281	281	
QP557	0	0	0	
Verso Cogen	0	0	0	
Other SUR-SO Ge	8	8	8	
Yarmouth 1-3	0	0	0	
Yarmouth 4 Casco Battery	0	0	0	
Westbrook	0	0	0	
SAPPI Westbrook	0	0	0	
Other S. ME Gen	0	0	0	
Sanford Solar	0	0	0	
	New H	ampshire		
Burgess	75	75	75	
Merrimack	545	545	545	
Newington Energy	0	0	0	
Newington CC	647	647	647	
Seabrook Granite Ridge	1309 825	1309 825	1309 825	
Schiller	0	0	825 0	
Seminer		A / RI	U	
Mystic	871	871	871	
Bear Swamp	-666	-666	-666	
Millenium	0	0	0	
Northfield	-1100	-1100	-1100	
Stony Brook	274	274	274	
Mass Power	285	285	285	
Berkshire	0	0	0	
Altresco	0	0	0	
Edgar	0	0	0	
Canal NEA Bellingham	599 0	599 0	599 0	
ANP Bellingham	0	0	0	
ANP Blackstone	626	626	626	
Ocean State Pow	602	602	602	
Manchst & Frnkl	173	173	173	
		Rips, Miller, Pejepscot &L		

* Other Sur-SO gen includes Hiram, Monty, Deer Rips, Miller, Pejepscot &Lockwood Hydro ** Other S. ME Gen includes ECO Maine, Bonny Eagle, Skelton, Cataract E., N. Gorham, Bar Mills, W. Buxton & Sanford Hydros

 Table 6-1: Stability Case Generation Dispatches



		Local Dispatche	s			
Name	Light Load D1					
name	Pre-CAP 2029 NH	Pre-CAP 2029 CAP 2029 NH				
Interface Flows (MW)						
NB-NE	1049	1049	1049			
Orrington South	1378	1378	1378			
Surowiec South	2348	2348	2348			
Maine-NH	1999	1999	1999			
S214_PAR	102	102	102			
NNE-Scobie+394	3605	3606	3600			
Seabrook South	1812	1813	1759			
North-South	5250	5250	5250			
East-West	3223	3223	3222			
Boston Import	989	989	990			
SEMARI-NE	181	181	181			
SEMA-NE	-617	-617	-617			
NY-NE	-1189	-1190	-1189			
HVDC Imports into the Region (MW)						
EEL River	-305	-305	-305			
Madawaska	-300	-300	-300			
Maratime Link	330	330	330			
Highgate	222	222	222			
Sandy Pond	53	53	53			
QP501 IMPORT	5	5	5			
D	ynamic Reactive Powe	r Devices (MVAr)				
Chester SVC	127	127	127			
Oakfield SC	0	0	0			
Bingham SC	0	0	0			
Dogtown Rd. SVC	3	3	3			
Coopers STATCOM	-33	-33	-33			

Table 6-2 Stability Interfaces, HVDC Lines & Dynamic Reactive Power Devices

Power flow summaries for these cases are included in Appendix E and sliders for these dispatches are included in Appendix F.

6.2 Fault Contingency Descriptions

Table 6-3 details the faults that were simulated with associated clearing times using the three cases outlined above.



 Table 6-3
 345 kV Stability Contingency List



7 Steady-State Analysis Results

7.1 N-0 and N-1 Analysis

The N-0 and N-1 analysis did not identify any voltage violations caused by the installation of the Project. Similarly, the sensitivity analysis with QP1101 in-service did not produce any N-0 or N-1 voltage violations. The results of the N-0 and N-1 testing are located in Appendix G.

7.2 N-1-1 Analysis

The N-1-1 analysis did not identify any voltage violations caused by the installation of the Project. Similarly, the sensitivity analysis with QP1101 in-service did not produce any N-1-1 voltage violations. The results of the N-1-1 testing are located in Appendix G.

7.1 Delta V Analysis

The testing consisted of switching one 50 Mvar capacitor on or off with the voltage measured at the proposed 345 kV Seabrook Capacitor Substation. The results of the testing did not identify any Delta V values associated with switching the capacitor banks that exceeded the limits detailed in Table 5-1. The highest Delta V percentages are detailed below.

- All Line in-service: 0.49%
- Line out-of-service: 1.38%

The results of the Delta V testing are located in Appendix G.

8 Stability Analysis Results

The objective of the stability analysis was to examine the Project's impact on transient stability performance for design contingencies in the vicinity of the Project and to identify violations of ISO-NE stability performance criteria.

The result of each stability simulation discussed below is available in the stability results spreadsheets located in Appendix E. Each spreadsheet contains hyperlinks to plotted simulation outputs. Adobe Acrobat PDFs of the fault definition files are included in the row headings, and load flow summaries are included in the column headings.

In the stability results spreadsheets, each fault simulation is labeled based on meeting performance criteria. An acceptable result indicates the response to this fault passed all criteria as defined above; otherwise, the failure is noted.

8.1 Design Contingency Testing

Local fault testing was conducted using the cases described in section 6.1.1.

Three 345 kV single element design contingencies were simulated and produced acceptable responses with no criteria violations.

One 345 kV multiple element extreme design contingencies was simulated and produced an acceptable response with no criteria violations.



One BPS contingency was simulated and resulted in violation of the BPS criteria.

. Based on this criteria violation, the Project

substation shall be built to NPCC A-10 BPS specifications.

The entire set of results along with fault definitions for this analysis are included in Appendix H-1.

9 TRV and RRRV Testing

A Transient Recovery Voltage (TRV), Rate-of-Rise Recovery Voltage (RRRV), and Harmonics assessment of the three new 345 kV circuit breakers and air insulated switchyard as well as the nine existing 345 kV circuit breakers and the 25 kV generator circuit breaker at Seabrook Substation will be performed at a later date, and is not a condition for the PPA approval.



Appendix A – Project Information

Included in Appendix A:

Appendix A-1: Seabrook 345 kV Capacitor (IDEV)



Appendix B – Steady-State Contingency List

Included in Appendix B:

Appendix B-1: ISO BCDB Contingency List



Appendix C – Steady-State Base Case Summaries

Included in Appendix C:

Peak Load

Appendix C-1: 2024_PK_4_PRE-CAP Appendix C-2: 2024_PK_4_PRE-CAP_QP1101 Appendix C-3: 2024_PK_4_POST-CAP Appendix C-4: 2024_PK_4_POST-CAP_QP1101



Appendix D – Steady-State Base Case Slider Files

Included in Appendix D:

Peak Load

Appendix D-1: 2024_PK_4_PRE-CAP Appendix D-2: 2024_PK_4_PRE-CAP_QP1101 Appendix D-3: 2024_PK_4_POST-CAP Appendix D-4: 2024_PK_4_POST-CAP_QP1101



Appendix E – Stability Base Case Summary Files

Included in Appendix E:

Light Load

Appendix E -1 345kV_PRECAP_2029_NH_PPA Appendix E -2 345kV_CAP_2029_NH_PPA Appendix E -3 345kV_QP1101_2029_NH_PPA



Appendix F – Stability Base Case Slider Files

Included in Appendix F:

Light Load

Appendix F-1: 345kV_PRECAP_2029_NH_PPA_Slider Appendix F-2: 345kV_CAP_2029_NH_PPA_Slider Appendix F-3: 345kVSeabrookCaps_QP1101_Slider



Appendix G – Steady-State Voltage Results

Included in Appendix G:

Light Load

Appendix G-1: 2024 Peak Load (N-0/N-1 Results) Appendix G-2: 2024 Peak Load (N-1-1 Results) Appendix G-3: Delta V Results



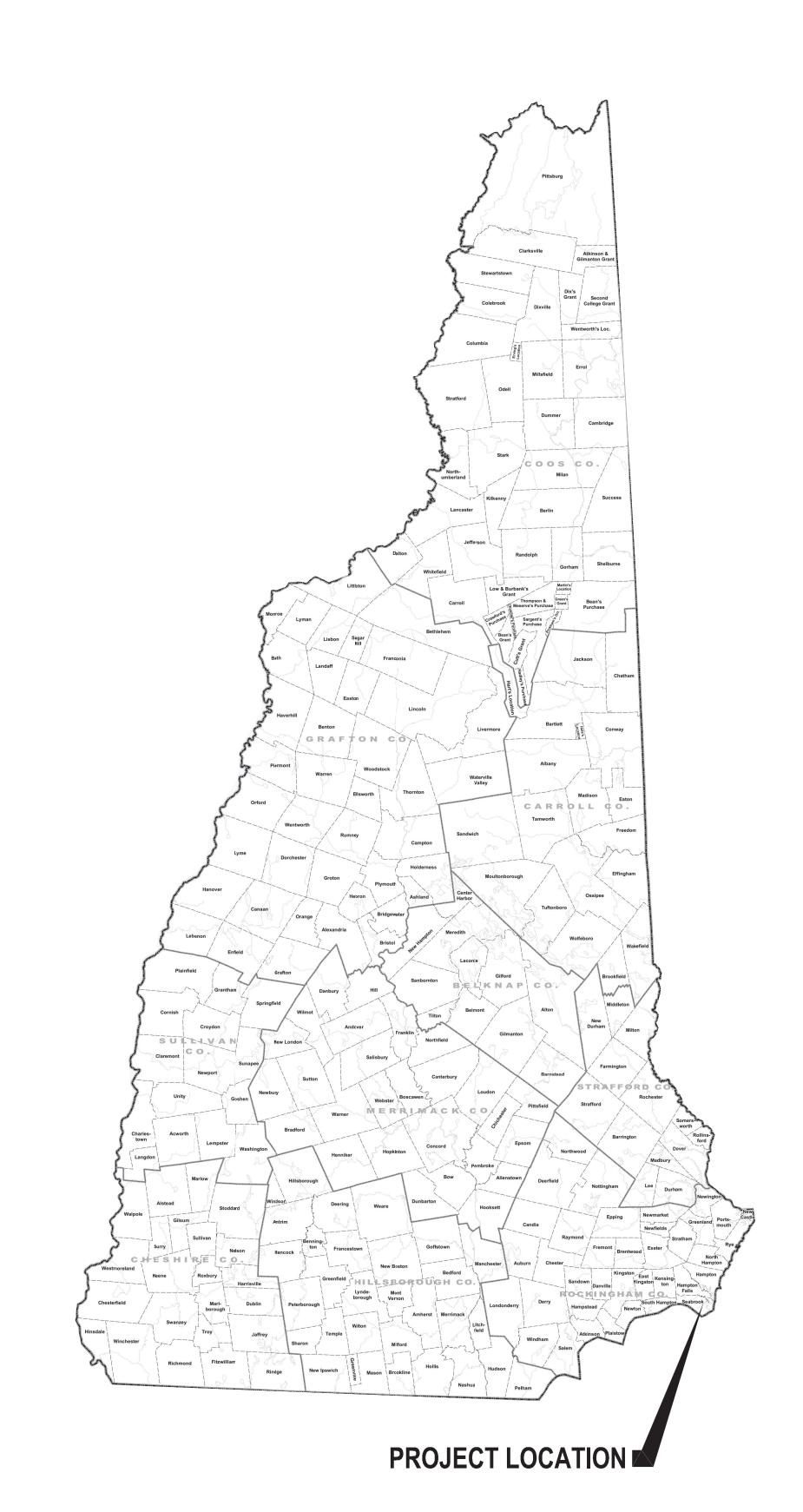
Appendix H – Stability Results Summary Spreadsheet

Included in Appendix H:

Appendix H-1: Stability Testing Results

APPENDIX 7: CIVIL DESIGN DRAWINGS

PRELIMINARY NOT FOR CONSTRUCTION



SEABROOK CAPACITOR BANKS BROWNS RIVER STATION

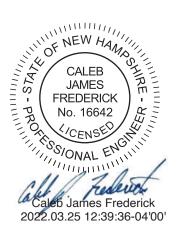
TOWN OF SEABROOK ROCKINGHAM COUNTY NEW HAMPSHIRE





DRAWING INDEX						
NO.	REV.	TITLE				
452267-100	А	GENERAL NOTES				
452267-101	В	SITE PLAN				
452267-102	В	EXISTING CONDITIONS AND REMOVALS PLAN				
452267-103	В	GRADING AND EROSION CONTROL PLAN				
452267-104	В	PRE CONSTRUCTION STORMWATER PLAN				
452267-105	В	POST CONSTRUCTION STORMWATER PLAN				
452267-106	А	EROSION AND SEDIMENT CONTROL DETAILS				





PRELIMINARY ISSUED FOR PERMIT NOT FOR CONSTRUCTION

GENERAL NOTES:

SURVEY NOTES

- 1. SURVEY PERFORMED BY WESTON & SAMPSON LAND ENGINEERS, INC. IN SEPTEMBER, 2021.
- 2. THIS SURVEY IS PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM AND VERTICALLY TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).
- 3. NORTH ARROW AS SHOWN INDICATES GRID NORTH REFERENCED TO NAD83 AND PROJECTED ON THE NEW HAMPSHIRE STATE PLANE COORDINATE SYSTEM.
- 4. ELEVATIONS AND CONTOURS SHOWN REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88-GEOID12B) AND ARE BASED ON PUBLICLY AVAILABLE LIDAR.
- 5. WETLANDS, WATERBODIES, AND THE SHORELAND REFERENCE LINE WERE DELINEATED ON OCTOBER 20 AND 21, 2021 BY TRC WETLAND SCIENTIST HEATHER STORLAZZI WARD, NHCWS #206. WETLAND DELINEATIONS WERE CONDUCTED ACCORDING TO THE "REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, V2 (USACE 2012)". THE COASTAL WATERS SHORELAND REFERENCE LINE WAS DELINEATED IN ACCORDANCE WITH NEW HAMPSHIRE'S RSA SECTION 483-B:4 XVII(B.).
- 6. SOILS INFORMATION FROM USDA-NRCS WEB SOIL SURVEY ROCKINGHAM COUNTY DATED JANUARY 2022.

REMOVAL NOTES:

- 1. TREE REMOVAL SHALL BE IN CONFORMANCE WITH THE EXISTING CONDITIONS & REMOVALS PLAN.
- 2. TREES AND OTHER VEGETATION MAY BE REDUCED TO CHIPS BY THE USE OF CHIPPING MACHINES OR STUMP GRINDER AND USED AS REQUIRED FOR EROSION CONTROL. ALL OTHER CHIPS AND WOOD WASTE RESULTING FROM REMOVAL OPERATIONS SHALL BE DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 3. ALL EXISTING DEBRIS, RUBBISH, AND ABANDONED ITEMS SHALL BE REMOVED FROM THE SITE AND PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 4. ALL DEMOLITION WASTE, DEBRIS AND RUBBISH SHALL BE PROPERLY REMOVED FROM THE SITE AS IT OCCURS. ALL MATERIALS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH STATION RADIOLOGICAL PROCEDURES.
- 5. TAKE NECESSARY PRECAUTIONS TO AVOID DAMAGE TO EXISTING IMPROVEMENTS AND FACILITIES TO REMAIN IN PLACE. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND REPLACEMENT OF DAMAGED ITEMS AS A RESULT OF CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.

EXCAVATION AND BACKFILL NOTES:

- 1. ALL THE EXCAVATION, BACKFILLING, AND COMPACTION SHALL COMPLY WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND SEABROOK STATION MS0517.19.
- COMPACTION TESTING SHALL BE PERFORMED ON ALL RE-COMPACTED SUBGRADE.
- 3. IF APPLICABLE, GRANULAR BACKFILL SHALL BE SELECTED FROM SUITABLE OFF-SITE SOURCES AND SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO TRANSPORT TO THE SITE.
- 4. THE CONTRACTOR SHALL SUBMIT GRADATION DATA FOR GRANULAR BACKFILL MATERIALS TO THE OWNER FOR REVIEW.
- 5. CONTROLLED LOW-STRENGTH MATERIAL (C.L.S.M.) FILL MAY BE USED FOR BACKFILL IN LIEU OF GRANULAR BACKFILL PER MS0517.19.
- 6. WITHIN THE AUR, IF UNANTICIPATED CONDITIONS AND POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS ARE ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK AND NOTIFY THE ENGINEER.
- 7. ENGINEER SHALL DESIGNATE TEMPORARY STOCKPILE AREAS WITHIN PROJECT LIMITS TO ENSURE STOCKPILE LOCATIONS ARE NOT STAGED NEAR SENSITIVE HUMAN HEALTH RECEPTORS SUCH AS PUBLIC AND PRIVATE WATER SUPPLY WELLS OR SENSITIVE ENVIRONMENTAL RECEPTORS SUCH AS
- 8. CONTRACTOR SHALL SEGREGATE AND STOCKPILE POTENTIALLY CONTAMINATED SOIL AND/OR DEBRIS AS FOLLOWS:
- 8.1. CONTRACTOR SHALL MANAGE STOCKPILES TO PREVENT DISCHARGE OF CONTAMINATES TO GROUNDWATER AND SURROUNDING SOIL.
- 8.2. CONTRACTOR SHALL ENSURE STORMWATER RUNOFF IS DIVERTED AROUND AND AWAY FROM STOCKPILED MATERIALS.
- 8.3. CONSTRUCT STOCKPILES ON A DOUBLE LAYER OF 6-MIL POLYETHYLENE SHEETING. 8.4. COVER STOCKPILES WITH A SINGLE LAYER OF 6-MIL POLYETHYLENE SHEETING AND SECURE TO PREVENT DISTURBANCE BY WIND.
- TRANSFER OF POTENTIALLY CONTAMINATED MATERIALS FROM THE EXCAVATION TO DESIGNATED 8.5.
- STOCKPILE AREAS SHALL BE CONDUCTED IN A MANNER TO LIMIT THE SPREAD OF CONTAMINATION. 8.6. CONTRACTOR SHALL IDENTIFY THE STOCKPILE WITH ORIGIN AND DATE OF GENERATION.
- 8.7. CONTRACTOR SHALL SECURE STOCKPILE AREA WITH CAUTION FLAGGING, FENCING, OR OTHER MEANS AS NECESSARY TO PREVENT UNAUTHORIZED ACCESS AND LIMIT CONTACT OF SITE WORKERS TO STOCKPILED MATERIALS.
- 9. THE OWNER WILL BE RESPONSIBLE FOR OBTAINING AND ANALYZING SAMPLES OF POTENTIALLY CONTAMINATED MATERIAL FOR DISPOSAL CHARACTERIZATION AND PROVIDING CONTRACTOR WITH COPIES OF LABORATORY REPORTS.
- 10. CONTRACTOR SHALL DISPOSE OF CONTAMINATED MATERIAL AT AN APPROVED OFF-SITE FACILITY. DOCUMENTATION OF HANDLING, MANAGEMENT, TRANSPORTATION AND OFF-SITE DISPOSAL INCLUDING BUT NOT LIMITED TO MANIFESTS, WEIGHT-TICKETS, ANALYTICAL REPORTS OR WASTE PROFILES, SHALL BE PROVIDED TO THE OWNER.

CONTRACTOR NOTES:

- 1. UNLESS INDICATED OTHERWISE, REFER TO THE LATEST EDITION OF THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR FOR ROAD AND BRIDGE CONSTRUCTION (2016) FOR GENERAL REQUIREMENTS, PRODUCTS AND EXECUTION RELATED TO CONSTRUCTION OF BUT NOT LIMITED TO; CLEARING, GRUBBING, ROADS, UTILITY TRENCH EXCAVATION, BORROW, SUBGRADE, SUBBASE, GRANULAR FILL, AND AGGREGATE BASE
- 2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL MARK OR DELINEATE THE FOLLOWING PROJECT FEATURES USING APPROPRIATE MEANS, INCLUDING BUT NOT LIMITED TO LATH MARKERS, SURVEYORS RIBBON, PIN FLAGS, BARRIER FENCE, OR SUITABLE EQUIVALENT. A.PROPOSED FACILITY COMPONENTS DEPICTED ON THE CONSTRUCTION DRAWINGS
- **B. STREAMS AND WETLANDS**
- C. VEHICLE TRAVEL CORRIDORS, STREAM CROSSING LOCATIONS
- D.LIMITS OF CLEARING AND DISTURBANCE
- E. PROTECTED CULTURAL AND NATURAL RESOURCES
- 3. THE CONTRACTOR SHALL NOTE THE CONDITION OF ANY EXISTING FEATURES NOT INDICATED FOR REMOVAL THAT MAY BE IMPACTED BY PROJECT CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE
- FOR REPAIR OR REPLACEMENT OF ANY DAMAGED FEATURES AT THEIR EXPENSE. 4. DISRUPTION TO REGULATED WETLANDS AND PROTECTED HABITAT SHALL BE MINIMIZED. THE CONTRACTOR SHALL NOTIFY NHDES FIELD REPRESENTATIVE, AND THE APPLICANT'S REPRESENTATIVE OF ANY ACTIVITIES THAT VIOLATE OR MAY VIOLATE EITHER THE TERMS OF THE CERTIFICATE OR THE ENVIRONMENTAL CONSERVATION LAW. DES STAFFS' FIELD REPRESENTATIVES WILL WORK COOPERATIVELY TO DETERMINE WHETHER STOP WORK AUTHORITY WILL BE EXERCISED. OR WHETHER TO DIRECT THE APPLICANT TO TAKE ACTION TO FURTHER MINIMIZE IMPACTS TO STREAMS AND WETLANDS.

- INCLUDE THE FOLLOWING RESTRICTIONS:
- FEET OF WETLANDS;
- B. NO UNNECESSARY REMOVAL OF WOOD VEGETATION WITHIN WETLAND AND STREAM BUFFERS OR DEGRADATION OF STREAM BANKS;
- PROJECT DOCUMENTS;
- CONTAINERS.
- 6. AT THE END OF EACH WORK DAY ALL EQUIPMENT AND MACHINERY SHALL BE STORED AND SAFELY
- PETROLEUM PRODUCTS.
- CONTAINED AND SPILLS CLEANED UP IMMEDIATELY.
- REQUIREMENTS.
- DESIGNATED PARKING AND MATERIAL LAYDOWN AREAS.

GENERAL ENVIRONMENTAL RESTRICTIONS:

- DOCUMENTS.
- VEHICLE CONTAINING AN APPROVED CHEMICAL TREATMENT) SHALL BE MADE AVAILABLE AS NEEDED.
- NOISE BUFFER.
- LIFE IS EXPRESSLY PROHIBITED.
- (LATEST EDITION).

NON-AGRICULTURAL LAND RESTRICTIONS

- LIMITED TO, THE FOLLOWING:
- A. TOPSOIL STRIPPING AND STOCKPILING, B. USE OF CONSTRUCTION MATTING, LAYER,
- D.REGRADING AND SPREADING PREVIOUSLY STRIPPED TOPSOIL, E. DRAINAGE SYSTEM REPAIR OR ALTERATION.
- PRESCRIBED BY THE PERMIT.
- TREATMENTS: OTHER POTENTIALLY HARMFUL ACTIVITY SHALL BE STRIPPED AND STOCKPILED.
- AND ALLOWED TO RE-VEGETATE NATURALLY.
- BE RESTORED TO THEIR ORIGINAL CONDITION IMMEDIATELY.
- 5. TOPSOIL STRIPPED FROM WORK SITES SHALL BE SEGREGATED FROM OTHER SOIL PRODUCTS AND USED FOR RESTORATION OF THAT SITE.



5. RESTRICTED ACTIVITIES PERTAIN TO A BUFFER ZONE OF 100 FEET ON EITHER SIDE OF THE BOUNDARIES OF WATER-RELATED RESOURCES (STREAMS, WETLANDS, SPRINGS, WELLS, DRAINAGE, ETC.) AND

A.NO DEPOSITION OF SLASH WITHIN IDENTIFIABLE STREAM CHANNELS OR WOOD CHIPS WITHIN 25

C.NO EQUIPMENT WASHING OR REFUELING EXCEPT AS SPECIFICALLY PERMITTED BY THE FINAL

D. AND NO STORAGE, MIXING, OR HANDLING OF ANY PETROLEUM OR CHEMICAL MATERIALS IN OPEN

CONTAINED MORE THAN 100 FEET LANDWARD OF ANY REGULATED WETLAND OR WATER BODY. 7. ALL MOBILE EQUIPMENT, EXCLUDING DEWATERING PUMPS, SHALL BE FUELED IN LOCATIONS THAT ARE A MINIMUM OF 100 FEET FROM THE TOP OF STREAM BANK, WETLAND, OR WATER BODY. DEWATERING PUMPS OPERATING CLOSER THAN 100 FEET FROM THE STREAM BANK WETLAND, OR WATER BODY MUST BE ON AN IMPERVIOUS SURFACE WITH ABSORBENTS CAPABLE OF CONTAINING ANY LEAKAGE OF

8. ALL EQUIPMENT USED WITHIN BED OR BANKS OF STREAMS OR IN REGULATED WETLANDS AND 100-FOOT WETLAND BUFFER ZONES MUST BE INSPECTED DAILY FOR LEAKS OF PETROLEUM, OTHER FLUIDS, OR CONTAMINANTS. EQUIPMENT FOUND TO BE LEAKING SHALL BE REMOVED FROM THE WORK SITE; LEAKS

9. REFER TO THE PROJECT GEOTECHNICAL REPORT FOR MORE SPECIFIC CUT AND FILL CONSTRUCTION

10. ALL VEHICLE TRAFFIC AND PARKING SHALL BE CONFINED TO THE DESIGNATED WORK AREAS, AND/OR

1. ALL EQUIPMENT ACCESS, STORAGE OF EQUIPMENT, MATERIALS, EMPLOYEE PARKING, AND OTHER CONSTRUCTION ACTIVITIES ARE RESTRICTED TO THE DESIGNATED ACCESS ROADS, LAYDOWN AREAS, SUBSTATION SITE, COLLECTION LINE AND TRANSMISSION LINE ROUTES AS INDICATED BY THE PROJECT

2. FUGITIVE DUST RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICAL BY IMPLEMENTING APPROPRIATE CONTROL MEASURES. THESE MEASURES INCLUDE THE APPLICATION OF MULCH, WATER, OR STONE ON ACCESS ROADS, EXPOSED SOILS, STOCKPILED SOILS, OR UNPAVED PUBLIC ROADS WHEN DRY, WINDY CONDITIONS EXIST. A WATERING VEHICLE (OR A

3. CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN GOOD OPERATING CONDITION. ALL MOTORS AND ENGINES SHALL BE MUFFLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND SHALL COMPLY WITH STATE ENVIRONMENTAL LAW. ANY FAULTY NOISE SUPPRESSOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY. EQUIPMENT SHALL NOT BE LEFT RUNNING UNNECESSARILY. EXISTING TALL GROWING VEGETATION SHALL BE RETAINED TO THE MAXIMUM EXTENT PRACTICABLE, TO SERVE AS A

4. ALL FILL MATERIALS SHALL CONSIST OF CLEAN SOIL, SAND, AND/OR GRAVEL THAT IS FREE OF THE FOLLOWING SUBSTANCES: ASPHALT, SLAG, FLY ASH, DEMOLITION DEBRIS, BROKEN CONCRETE, GARBAGE, HOUSEHOLD REFUSE, TIRES, WOODY MATERIALS, AND METAL OBJECTS. REASONABLE EFFORTS SHALL BE MADE TO USE FILL MATERIALS THAT ARE VISUALLY FREE OF INVASIVE SPECIES BASED ON ONSITE AND SOURCE INSPECTIONS. THE INTRODUCTION OF MATERIALS TOXIC TO AQUATIC

5. INDIRECT IMPACTS TO STREAMS AND WETLANDS SHALL BE CONTROLLED THROUGH THE EMPLOYMENT OF APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH APPROVED STATION PROCEDURES. MEASURES TO BE EMPLOYED SHALL INCLUDE, BUT ARE NOT LIMITED TO, SILT FENCES, CHECK DAMS, MULCH, TEMPORARY SEEDING, AND OTHER PRACTICES AS OUTLINED IN THE NEW HAMPSHIRE STATE STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL

6. IN THE EVENT THAT ARCHAEOLOGICAL MATERIALS, HUMAN REMAINS, OR EVIDENCE OF HUMAN BURIALS ARE ENCOUNTERED DURING CONSTRUCTION, ALL WORK IN THE VICINITY OF THE FIND SHALL BE IMMEDIATELY HALTED AND THE APPROPRIATE STATION PERSONNEL SHALL BE NOTIFIED. 7. EXCESS CONCRETE AND EXCAVATION SPOILS SHALL BE PROPERLY DISPOSED OF OFF SITE.

1. NON-AGRICULTURAL LAND MITIGATION, RESTORATION, AND CLEAN UP MAY INCLUDE, BUT IS NOT

C.PLACEMENT AND COMPACTION OF STONE BEARING LAYER WITH OR WITHOUT GEOSYNTHETIC

2. TEMPORARY GRAVEL ROADS, TEMPORARY CULVERTS, TIMBER MATS, AND SIMILAR TEMPORARY MEASURES SHALL BE REMOVED AND THE IMPACTED AREAS RESTORED WITHIN THE TIMEFRAME

3. RESTORATION OF DISTURBED AREAS, TEMPORARY ROADS AND WORK PLATFORMS ON NON-AGRICULTURAL LANDS SHALL INCLUDE THE FOLLOWING PRE- AND POST-CONSTRUCTION

A. TOPSOIL WITHIN CONSTRUCTION AREA SUBJECT TO VEHICLE TRAFFIC, MATERIAL STOCKPILING OR

B. UPON COMPLETION OF CONSTRUCTION ACTIVITIES, ALL TEMPORARY ROADS AND WORK SITES SHALL BE SCARIFIED/DECOMPACTED AND STOCKPILED SOIL SPREAD AND THE AREA STABILIZED

C. APPROVED SWPPP/ESC CONTROLS, INCLUDING BIODEGRADABLE MEASURES, SHALL BE PROVIDED

AND SHALL REMAIN IN PLACE UNTIL THE RESTORED AREA HAS BEEN RE-VEGETATED. 4. ALL EXISTING DRAINAGE AND EROSION CONTROL FEATURES NOT INDICATED FOR REMOVAL SHALL BE

AVOIDED OR PROTECTED FROM DAMAGE. ANY FEATURES DISTURBED DURING CONSTRUCTION SHALL

STOCKPILED IN AREAS IMMEDIATELY ADJACENT TO WHERE IT WAS REMOVED. THE TOPSOIL SHALL BE

EROSION & SEDIMENT CONTROL NOTES

- 1. THE PROJECT SHALL BE MANAGED IN A MANNER THAT MEETS THE REQUIREMENTS AND INTENT OF RSA 430:53 AND CHAPTER AGR 3800 RELATIVE TO INVASIVE SPECIES.
- 2. ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH MOVING OPERATIONS.
- 3. TEMPORARY WATER DIVERSION SHOULD BE USED AS NECESSARY UNTIL DISTURBED AREAS ARE
- STABILIZED. 4. ALL CUT AND FILL SLOPES SHALL BE LOAMED/SEEDED WITHIN 72 HOURS OF ACHIEVING FINISHED
- GRADE. 5. ALL EROSION CONTROLS SHALL BE INSPECTED WEEKLY, AND AFTER EVERY HALF-INCH OF RAINFALL
- 6. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED.
- A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED. A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIPRAP HAS BEEN
- INSTALLED.
- EROSION CONTROL BLANKETS HAVE BEEN PROPERLY INSTALLED
- 7. ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

WINTER CONSTRUCTION NOTES

FOR WORK PROPOSED DURING THE WINTER SEASON (TYPICALLY NOVEMBER 1 - APRIL 15), THE CONTRACTOR SHALL ADHERE TO THE FOLLOWING PRACTICES:

- 1. LIMIT THE TOTAL AREA OF EXPOSED SOIL TO THAT IN WHICH EARTH WORK CAN BE COMPLETED WITHIN 15 DAYS AND MULCHED WITHIN ONE DAY PRIOR TO A SNOW EVENT.
- 2. EXPOSED SOIL MAY BE LEFT BARE FOR NO MORE THAN 15 DAYS.
- 3. MULCH ALL EXPOSED SOIL WHERE NO ACTIVITY IS SCHEDULED WITHIN 7 DAYS AND PRIOR TO A FORECASTED SNOW EVENT OF MORE THAN 1 INCH.
- 4. WHERE PRACTICABLE, MULCH SHOULD BE APPLIED AT THE END OF EACH DAY'S WORK FOR AREAS THAT ARE FINAL GRADED. OTHERWISE, MULCH THE FOLLOWING DAY.
- 5. DO NOT APPLY MULCH OVER MORE THAN 1 INCH OF SNOW. 6. HAY OR STRAW MULCH SHALL BE APPLIED AT 140 LBS/1000 S.F. (APPROX.. 4 BALES) AND SO THAT THE GROUND SURFACE IS NOT VISIBLE THROUGH THE MULCH.
- 7. ECM IS THE PREFERRED MULCHING MATERIAL AND SHALL BE APPLIED AT A MINIMUM 4 INCH THICKNESS, WITH HIGHER AMOUNTS AS DESCRIBED HEREIN.
- 8. ECM IS THE PREFERRED EROSION CONTROL BARRIER. IF ECM IS NOT AVAILABLE, INSTALLATION OF SILT FENCE ON FROZEN GROUND MAY BE MODIFIED FROM ILLUSTRATIONS AND DETAIL DRAWINGS TO SUBSTITUTE SIX INCHES OF SUITABLE NON-ORGANIC MATERIAL OVER THE BOTTOM OF THE SILT FENCE IN LIEU OF TRENCHING AND BACKFILLING FABRIC.
- 9. A DOUBLE ROW OF EROSION CONTROL BARRIER WILL BE USED WHERE REQUIRED WITHIN 100 FEET OF WETLANDS AND WATER BODIES.
- 10. INSPECTION OF EROSION CONTROL MEASURES AND ANY NEEDED REPAIR/REPLACEMENT OF WHICH SHALL OCCUR EACH DAY.
- 11. ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85% VEGETATED GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH NETTING, ELSEWHERE.
- 12. ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS
- 13. AFTER OCTOBER 15, 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 PER NHDOT ITEM 304.3.

			Augusta, ME 04330	PROJECT N	10:
	REFERENCE ITEMS	REV	DESCRIPTION	DATE	DE
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MULCH AND SEEDING SPECIFICATIONS

	OF TEMPORARY AND PERMANENT MULCH APPLICATION REQUIREMENTS
TEMPORARY	
WITHIN 100 FEET OF WETLANDS AND WATERBODIES	APPLY HAY AND/OR STRAW MULCH AT A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED 3 MUST BE DONE WITHIN 48 HOURS OF INITIAL SOIL DISTURBANCE AND BEFORE FORECASTED STORM EVENTS, UNLESS OTHERWISE SPECIFIED. IF FINAL RESTORAT IS NOT SCHEDULED WITHIN 30 DAYS, APPLY ANNUAL RYEGRASS AT 1LB/1000 S.F.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES LESS THAN 8% AND SOILS STOCKPILES	IF NO ACTIVITY IS SCHEDULED WITHIN 30 DAYS, APPLY HAY AND/OR STRAW MULCH A MINIMUM OF 70 LBS/1000 S.F. OF EXPOSED SOIL*, UNLESS SPECIFIED OTHERWISE. E MAY BE USED. HAY/STRAW MULCH MAY ALSO BE SUPPLEMENTED BY TEMPORARY SEEDING WITH ANNUAL RYEGRASS AT 1 LB/1000 S.F. FOR AREAS WHERE ADDITIONA ACTIVITY IS NOT EXPECTED FOR SEVERAL MORE WEEKS. AN EROSION CONTROL BARRIER MUST BE INSTALLED AROUND SOIL STOCKPILES THAT ARE EXPECTED TO REMAIN UNDISTURBED FOR MORE THAN 48 HOURS, OR PRIOR TO A STORM EVENT.
OTHER AREAS OF EXPOSED SOIL WITH SLOPES GREATER THAN 8%	IF FINAL RESTORATION IS NOT SCHEDULED WITHIN 30 DAYS OR PRIOR TO A STORM EVENT, APPLY HAY OR STRAW MULCH AT THE ABOVE RATES.* HAY OR STRAW MUST ANCHORED, UNLESS SPECIFIC SITE CONDITIONS DO NOT REQUIRE USE OF ANCHOR ECM** OR MATTING MAY ALSO BE USED. TEMPORARY SEEDING WITH ANNUAL RYEG AT 1LB/1000 S.F. IS ALSO RECOMMENDED FOR AREAS WHERE FINAL STABILIZATION I NOT EXPECTED FOR SEVERAL MORE WEEKS.
TEMPORARY SEEDBED PREPARATION	APPLY LIMESTONE AND FERTILIZER (UPLANDS ONLY) ACCORDING TO SOIL TEST DAT SOIL TEST IS NOT POSSIBLE, 10-0-10 FERTILIZER MAY BE APPLIED AT A RATE OF 600 LBS/ACRE AND LIMESTONE AT 3 TONS/ACRE. LOOSEN COMPACTED SOILS.
TEMPORARY SEEDING IN WETLANDS	IF REQUIRED, APPLY ANNUAL RYEGRASS AT A RATE OF 1 LB/1000 S.F. AND COVER W STRAW MULCH. DO NOT ADD LIME OR FERTILIZER TO WETLANDS.
FINAL RESTORATION	
PERMANENT MULCHING	ECM CAN BE USED AS A TEMPORARY OR PERMANENT SLOPE REINFORCEMENT AND TO RE-VEGETATE TO NEAR NATURAL CONDITIONS. IT IS NOT USED WHERE GRASS VEGETATION IS REQUIRED. RE-VEGETATION CAN BE ENHANCED BY SEEDING, WHIC ENCOURAGED IF USED AS A PERMANENT STABILIZATION MEASURE. PERMANENT MU MUST NOT BE USED IN AREAS OF CONCENTRATED WATER FLOWS AND EVIDENCE OF GROUNDWATER SEEPAGE ON SLOPES MAY REQUIRE THE ECM TO BE REPLACED WIT RIPRAP.
	 ON SLOPES THAT ARE 3H:1V OR LESS, ECM SHALL BE APPLIED AT A MINIMUM OF INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FI (E.G. 3 INCHES THICK FOR 60 FEET OF SLOPE; 4 INCHES THICK FOR 100 FEET OF SLOPE). FOR SLOPES BETWEEN 3H:1V AND 2H:1V, ECM WILL BE APPLIED 4 INCHES THICK PLUS AN ADDITIONAL ½ INCH PER 20 FEET OF SLOPE UP TO 100 FEET (E.G. 5 INC THICK FOR 60 FEET OF SLOPE; 6 INCHES THICK FOR 100 FEET OF SLOPE) ECM MUST BE SPREAD EVENLY AND MUST PROVIDE 100 PERCENT SOIL COVERAGE
PERMANENT RE-VEGETATION	PERMANENT SEEDING SHALL BE USED ON ALL EXPOSED SOIL THAT IS NOT PERMANENTLY STABILIZED BY ROCK, GRAVEL OR ECM. THE FOLLOWING PERMANEN SEEDING MIX SPECIFICATIONS ARE BETWEEN APRIL 16 AND OCTOBER 31, HOWEVER WINTER RYE WILL BE ADDED TO THE PERMANENT SEED MIX AFTER OCTOBER 1. PERMANENT SEEDING IS NOT REQUIRED DURING THE WINTER CONSTRUCTION SEAS ALTHOUGH DORMANT SEEDING MAY BE PERFORMED (SEE WINTER CONSTRUCTION NOTES SHEET G-2).

* MULCH APPLICATION RATES SHALL BE DOUBLED FOR WINTER CONSTRUCTION **MINIMUM ECM THICKNESS IS 4 INCHES FOR WINTER CONSTRUCTION

PERMANEN	T SEED MIX SPECIFICATIONS			
	SOIL AMENDMENTS	SEED MIX VARIETIES	SEED RATE, LB/ACRE	MULCH, TONS/ACRE
UPLAND	APPLY GROUND LIMESTONE @ 3 TONS/ACRE	CREEPING RED FESCUE/(PENNLAWN, ENSYLA, WINTERGREEN)	20	1.5-2 (90-100 BALES)
	APPLY 10-20-20 FERTILIZER @ 800 LBS/ACRE	REDTOP/(ANY NATIVE SPECIES)	2	
		TALL FESCUE/(KENTUCKY 31)	20	
WETLAND	NONE	ANNUAL RYEGRASS, IF REQUIRED (ANY NATIVE SPECIES)	40	1.5-2 (90-100 BALES)

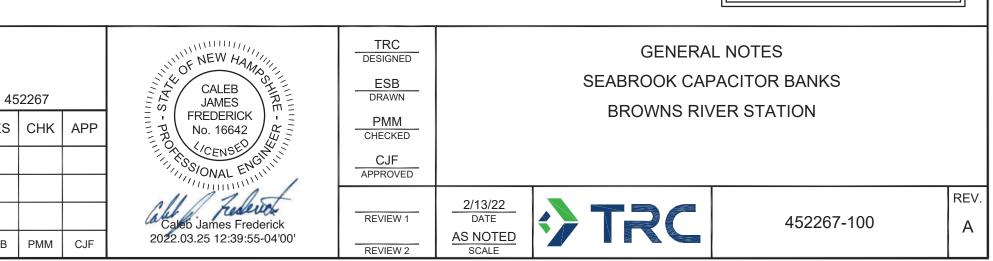
INCREASE SEEDING RATES BY 10% WHEN HYDROSEEDING.

 ADD WINTER RYE TO THE UPLAND MIX AT A RATE OF 120 LB/ACRE AFTER OCTOBER 1 SEED OR MULCH WETLANDS ONLY WHERE REQUIRED BY THE ELOR 3PI. OR WHEN RESTORATION OCCURS AFTER

OCTOBER 1. TYPICALLY, REPLACING THE ORIGINAL WETLAND SOIL ON THE RESTORED SURFACE WILL PROVIDE AN ADEQUATE SEED BED. DO NOT LIME OR FERTILIZE ANY AREAS WITHIN THE WATER BODY BUFFERS OR WETLANDS.

MULCH WETLANDS WITH WEED-FREE STRAW ONLY.

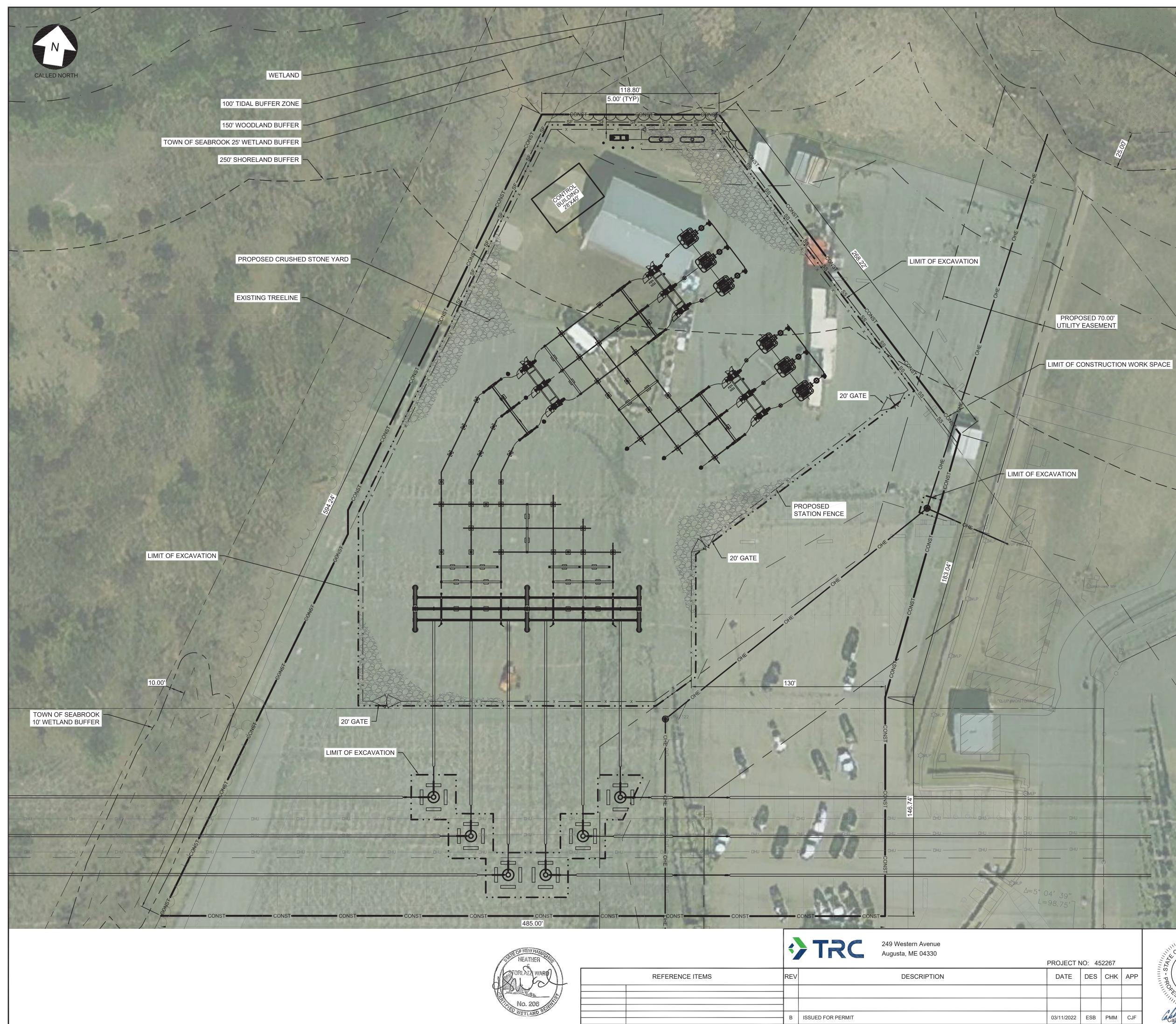
THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER MAINTENANCE OF ALL RE-VEGETATED AREAS UNTIL THE PROJECT HAS BEEN COMPLETED AND ACCEPTED. FOLLOWING FINAL SEEDING THE CONTRACTOR WILL INSPECT RESTORED AREAS EVERY 30 DAYS UNTIL 90 PERCENT VEGETATIVE COVER HAS BEEN ESTABLISHED UNLESS ADJACENT. UNDISTURBED AREAS INDICATE THAT ACHIEVING THAT LEVEL OF VEGETATION IN THE AREA IS UNLIKELY. WHERE SEEDED AREAS HAVE BECOME ERODED OR DAMAGED BY CONSTRUCTION OPERATIONS, OR WHERE POOR GERMINATION IS OBSERVED, THE AFFECTED AREAS WILL BE PROMPTLY RE-GRADED, LIMED, FERTILIZED, AND RE-SEEDED AS NEEDED UNTIL THE ABOVE CRITERIA ARE MET. THE CONTRACTOR MAY BE REQUIRED TO RE-SEED DURING THE FOLLOWING SPRING IN ORDER TO ACHIEVE THE REQUIRED VEGETATIVE COVER



PRELIMINARY

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SHORELAND REFERENCE LINE

LEGEND

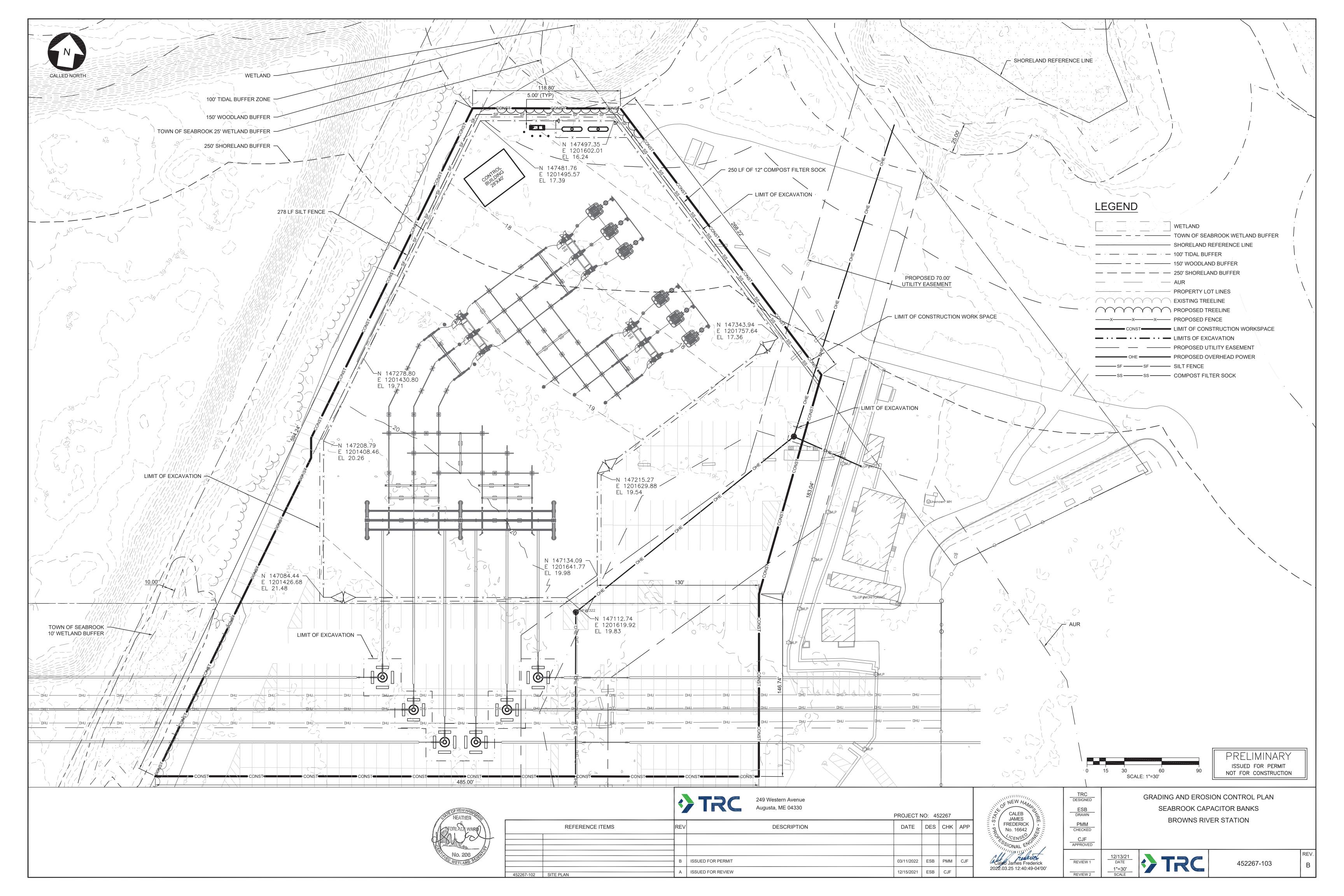
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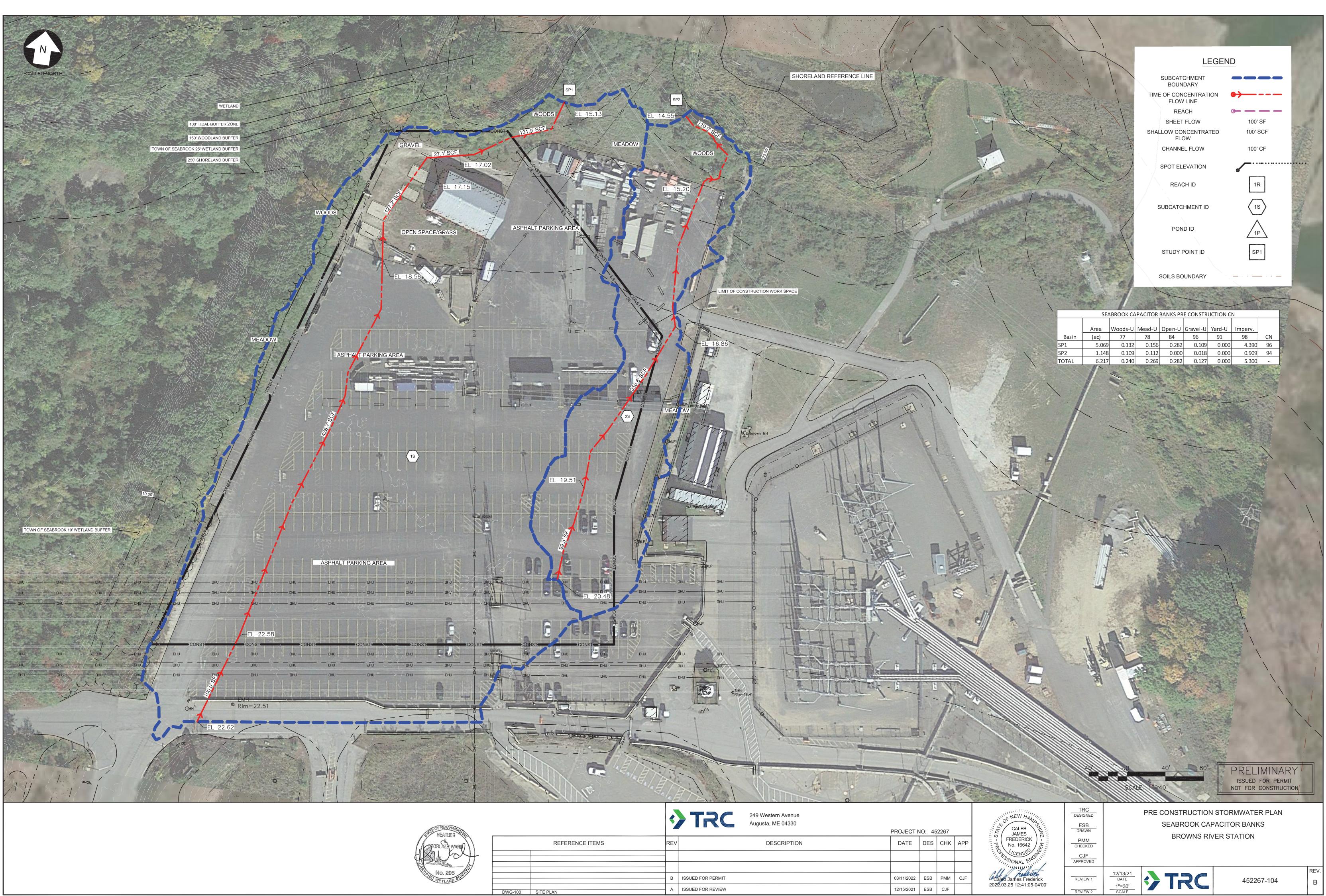
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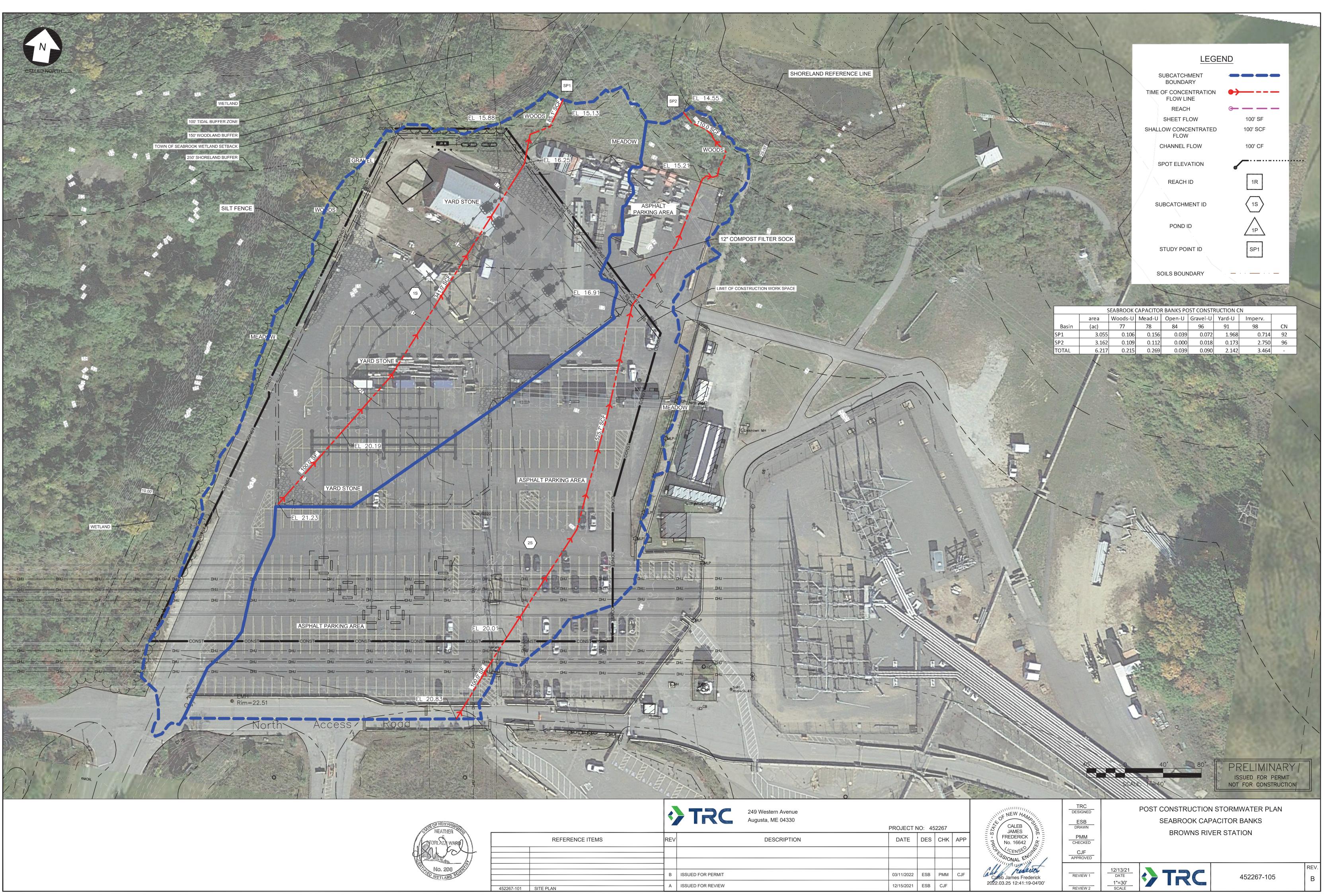
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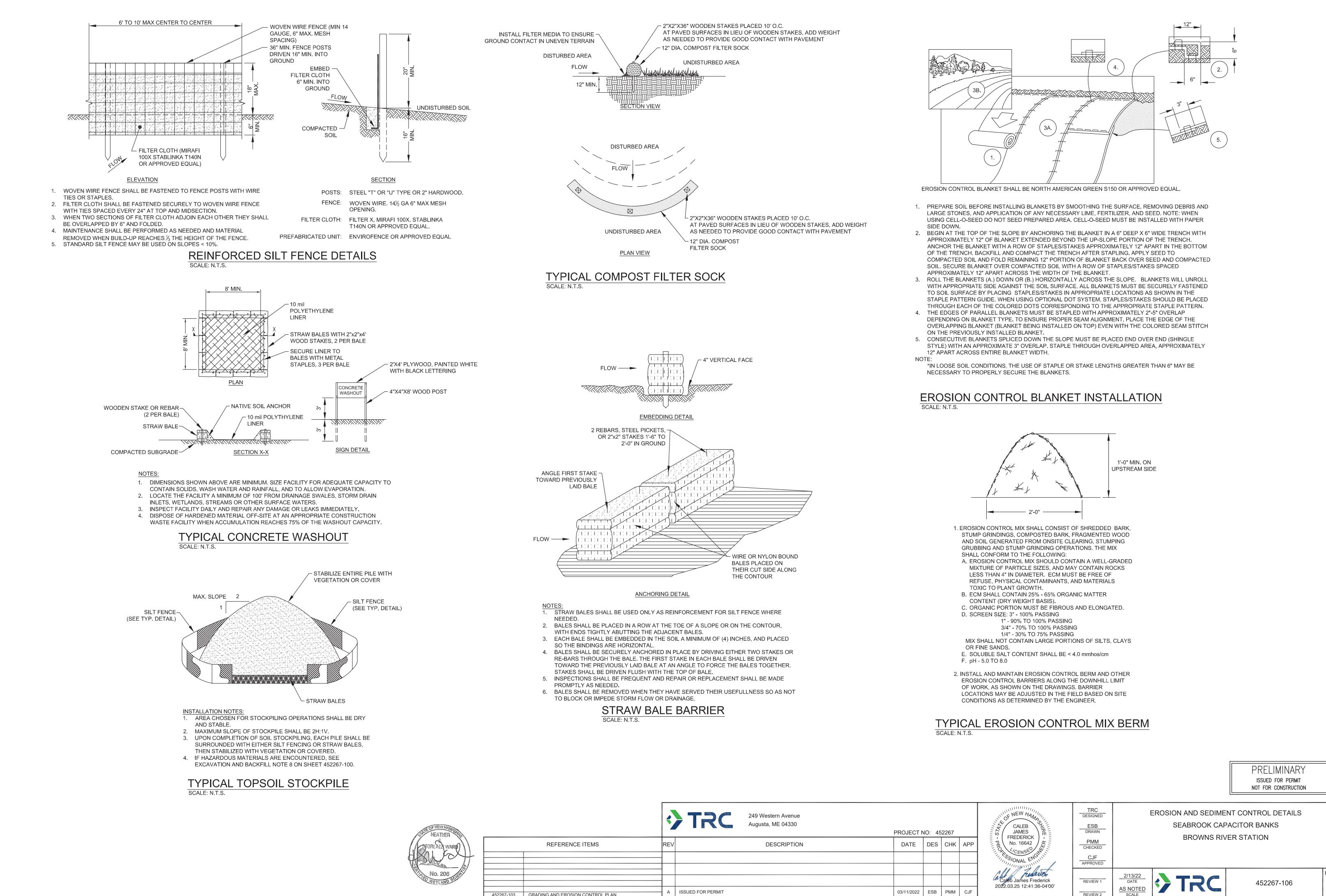


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APPENDIX 8: PERMIT AUTHORIZATION FROM EVERSOURCE



780 N. Commercial Street P.O. Box 330 Manchester, NH 03105-0330

Erik Newman Senior Counsel

603-634-2459 Erik.newman@eversource.com

March 15, 2022

<u>Via First Class Mail and Email</u> Daniel C. Goldner, Chair New Hampshire Site Evaluation Committee c/o New Hampshire Public Utilities Commission 21 South Fruit St., Suite 10 Concord, NH 03301-2429

Re: Docket No. 2021-05: Authorization of New Hampshire Transmission, LLC - Seabrook Capacitor Bank Project

Dear Chairman Goldner:

The undersigned, as the easement holder of the premises in the Town of Seabrook, Rockingham County, State of New Hampshire, described in the Easement Agreement dated October 31, 2002 and recorded November 1, 2002 in Book 3875 Page 2055 in the Rockingham County Registry of Deeds ("Easement"), hereby authorizes New Hampshire Transmission, LLC and its successors, and their employees, agents, and consultants (collectively, the "Applicant") to seek all permits and approvals necessary for the construction and installation within the Easement of new transmission tap conductors (lines) and replacement of one existing structure supporting the existing 345 kV Line 363 with two new tap structures to provide for interconnection from the Line 363 overhead transmission line to Applicant's new Capacitor Banks installation (the "Project"). Without limiting the foregoing, the undersigned specifically authorizes the Applicant in respect to matters relating to the Easement and the alterations and improvements to facilities therein arising from the Project to file and submit all applications and supporting documentation necessary to obtain: an Alteration of Terrain and a Shorelands Protection Permit from NHDES; an Exemption, Ruling that it is not a sizeable addition, or Certificate of Site and Facility from the NH Site Evaluation Committee; any local permits; and any other permits that may become necessary; and to represent at any hearing or meeting before the NH Site Evaluation Committee in connection with the Project that the undersigned has supplied this authorization.

Very truly yours,

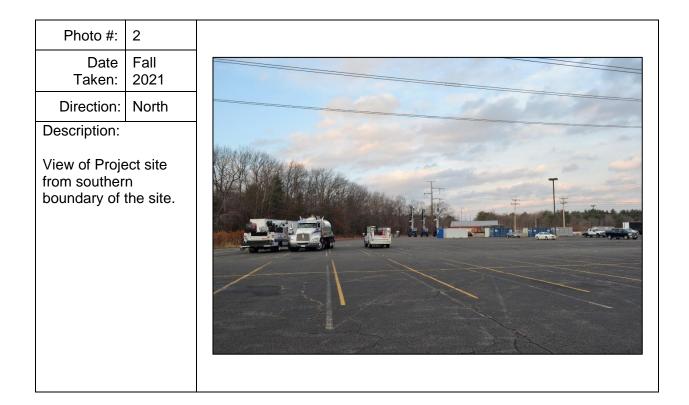
PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

D/B/A EVERSOURCE ENERGY By Its Attorney

Erik R. Newman, Senior Counsel, Legal

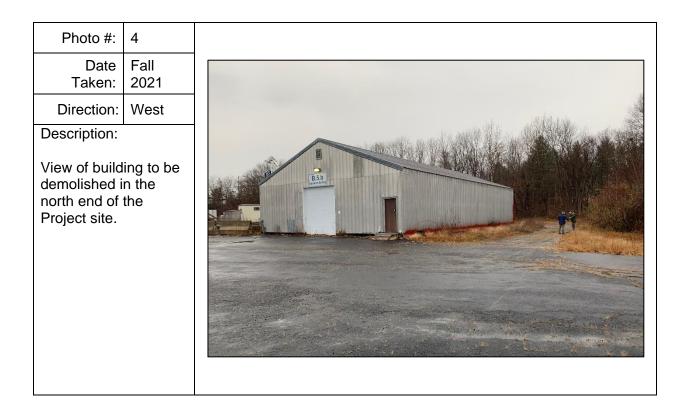
APPENDIX 9: PHOTOGRAPHS OF THE PROJECT SITE

		Seabrook Capacitor Banks Project Site Photographs
Photo #:	1	
Date Taken:	Fall 2021	
Direction:	North	and the second
Description: View of Proje from Parking (south of Pro	Lot B	





		Seabrook Capacitor Banks Project Site Photographs
Photo #:	3	
Date Taken:	Fall 2021	
Direction:	South	
Description: View of Proje from norther area.		





APPENDIX 10: VISUAL IMPACT ANALYSIS



Visual Impact Assessment

April 1, 2022

Seabrook Capacitor Banks

Town of Seabrook, New Hampshire

Prepared For:

New Hampshire Transmission, LLC 700 Universe Boulevard Juno Beach, FL 33408

Prepared By:

TRC 249 Western Avenue Augusta, ME 04330

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- Appendix A Project Site Location Maps Appendix B Viewshed Maps
- Appendix C Photographic Simulation (both options) Appendix D Photolog
- Appendix E Scenic Resource Ranking



1.0 INTRODUCTION

On behalf of New Hampshire Transmission, LLC (NHT), a direct, wholly owned subsidiary of NextEra Energy Transmission, LLC (NEET); TRC Companies, Inc. (TRC) has prepared a Visual Impact Assessment (VIA) for the proposed Seabrook Capacitor Banks Project (the Project) application to the New Hampshire Site Evaluation Committee (SEC). The Project Site ("Project Site" or "Site") consists of approximately 2.1 acres located north of the existing North Access Road on the Seabrook Station property ("Station" or "Property"), which is currently being used as a parking lot for Seabrook Station, a nuclear power plant in the Town of Seabrook (see Appendix A; Figure A-3)¹. This assessment was completed to identify and address potential visual impacts within a three-mile radius from the Project boundary (referred to as the "Study Area") to address the guidelines set forth in N.H. Administrative Rule Site 301.05².

Standard data that can help describe the landscape of the Project site and the surrounding area, and the components of the proposed Project were assembled. These data include available Project design plans and details, aerial photography, topographical maps, GIS data including digital elevation model data, water and land cover information, transportation data, and primary building data (public, commercial, residential).

2.0 **PROJECT DESCRIPTION**

NHT is proposing an electric transmission facility at the Project Site to be located within the Seabrook Station Property. The Project, also referred to as Seabrook Capacitor Banks Project, is an electric substation that includes required equipment within a secure fenced area on the Project Site. This report will outline two proposed options (Option A and Option B) for the Project. A viewshed analysis, resource inventory, and a visual simulation were conducted for both options and the methodology and results are discussed in detail in the following sections.

The Project will consist of a fenced 345,000-volt (345kV) yard containing two (2) 50MVA (voltamps) capacitor banks, which are connected in parallel of 3 phases per bank, 6 reactors (one for each of the three phases on each of the two capacitor banks), three (3) circuit breakers to provide isolation of the capacitor banks and/or yard as necessary, aluminum open-air busswork, and a 32 foot by 22 foot control house. Controls will be provided by a connection to a pad mounted transformer, that is sited adjacent to the control house, from the existing Unitil electric line. Backup power will be provided by an emergency generator, also sited adjacent to the control house. There will be a short transmission tap, approximately 300 feet in length, to connect the Project to the grid via the existing Eversource Line 363 345kV transmission line. It is expected that the total direct impact of the Project facilities, including pilings associated with the

² See <u>http://www.gencourt.state.nh.us/rules/state_agencies/site100-300.html</u> for a description of the rules.



¹ Seabrook Station consists of 76 parcels in the Town of Seabrook, NH; the largest being parcel numbers: 08193-11-2-0 and 08193-11-1-0.

capacitor bank, circuit breakers, equipment pads, grid connection, and other appurtenant facilities, will be approximately 2.1 acres.

The tallest proposed equipment includes three A-frame structures within the fence that have a maximum height of 125 feet tall; of which, the last 25 feet is a lightning mast. There are two options for connections to the existing Eversource Line 363: A) two monopole transmission tap structures (see layout in Appendix A; Figure A-1), or B) two three-pole transmission tap structures (see layout in Appendix A; Figure A-2). Both options will have a maximum pole height of 115 feet tall. This equipment is slender in shape and arranged vertically, unlike a building, and are similar to other transmission and substation structures surrounding the Site, which are 80 to 130 feet tall.

Entry to the Project Site will not require construction of a new road, as it will be from the existing entrance roads to Seabrook Station. The existing access roads, Provident Way and North Access Road, are located off U.S. Route 1.

3.0 LANDSCAPE/CHARACTER SETTING

The Project Site is located at the Seabrook Station which is located at 262 Lafayette Road in the Town of Seabrook, Rockingham County, New Hampshire, on the western shore of Hampton Harbor, two miles west of the Atlantic Ocean. The Station is approximately two miles north of the Massachusetts state line, 15 miles south of the Maine state line, and 10 miles south of Portsmouth, New Hampshire. The Project Site is bordered to the south by the existing approximately 245-foot wide Eversource easement, to the west by an existing abandoned Boston & Maine railroad right of way, to the north by existing emergency response infrastructure, and to the east by an existing 70-foot-wide utility easement.

Seabrook Station consists of 889 acres divided into two lots (see Appendix A; Figure A-3). Lot 1, approximately 109 acres owned by the Seabrook Station joint owners, is mostly developed and holds most of the operating facilities. Lot 2, which is owned by NextEra Energy Seabrook, LLC, is approximately 780 acres and consists mainly of undeveloped natural areas located on the perimeter of the facility. According to the 2015 Southeastern New Hampshire Land Use classifications³, approximately 67 acres of Lot 1 has a land use classification of Transportation, Communications, and Utilities. The remaining area is classified as Wetlands (28 acres), Forest (14 acres), and other land use types (0.7 acres). The most prominent land use on Lot 2 is classified as Wetlands, at approximately 444 acres, followed by Transportation, Communications, and Utilities and Forest, with approximately 194 and 117 acres respectively. The remainder land use classes on Lot 2 are Water (9 acres), Residential – Single Family (3 acres), Transitional (0.5 acres), and Industrial and Commercial Complexes (0.3 acres) (see Appendix A; Figure A-4). The Project Site is within the Transportation, Communications, and Utilities land use of Lot 2.



³ Available from NH GRANIT, New Hampshire's Statewide GIS Clearinghouse: <u>https://granit.unh.edu/data/downloadfreedata/downloaddata.html</u>

Character of the Study Area

Characteristics of the existing landscape may be broken down into basic features including landform, vegetation, water, and land use and development. Understanding the characteristics of the landscape is imperative to understanding how a proposed development may affect or change it.

The Study Area extends three miles around the proposed Project Site and traverses land within the Town of Seabrook (population: 8,401⁴), the Town of Hampton (population: 16,214⁵), and the Town of Hampton Falls (population: 2,414⁶). Local land uses within this Study Area include a mix of residential, utility, commercial, transportation, industrial, and open space uses. The Study Area also includes some large areas of coastal estuarine environments, forested land, and other cleared land areas located around the Project Site. Some of these cleared lands include those maintained for agricultural and recreational uses. There are two tourist beaches along the Atlantic shoreline, Hampton Beach State Park and Seabrook Dunes and Beach. The beaches are to the east of the Project Site which, at their closest point, are approximately 2.18 and 2.25 miles, respectively.

Along U.S. Route 1 and NH Route 1A, there are various shopping areas with a variety of private commercial buildings, retail businesses, and light industrial facilities. A mix of national chains (e.g., Home Depot, Staples, Starbucks, etc.), regional establishments (such as Red's Kitchen & Tavern, 99 Restaurants, etc.), and local businesses (e.g., Seacoast Powersports, Currier's Leather Furniture, Martha's Restaurant, etc.) are located along U.S. Route 1; these companies can be found on large plots of land either within individual buildings or shopping plazas. The Lafayette Road Commercial Strip, located north of the Site in the Town of Hampton Falls, includes shops for home goods, automotive repair and sales, and other commercial business. Other large commercial developments in the Study Area include, but are not limited to, Holiday Inn Express and Suites Hampton South-Seabrook (Rocks Road), Seabrook Commons shopping mall (Lafayette Road), Southgate Plaza (Lafayette Road), and Seacoast Shopping Center (Lafayette Road).

The section of NH Route 1A in the Study Area is a coastal road that runs along two peninsulas with the Atlantic Ocean on the east side and Hampton Harbor to the west, broken in the middle by the inlet to Hampton Harbor. The peninsula to the south of the inlet is part of the Town of Seabrook, whilst the northern peninsula lies in the Town of Hampton. The road caters mainly to those visiting Seabrook and Hampton Beaches with local restaurants, souvenir shops, accommodations, and entertainment venues, including the Hampton Beach Casino and Ballroom (Ocean Boulevard), Perkins Pier Clam Shack & Bar (Ashworth Avenue), and Eastman Dock's Fishing and Whale Watching (River Street). The commercial businesses are located on small lots, either in small one or two-story buildings, or on the first floor of a motel or inn. NH Route 1A splits on the Hampton side to a 2-lane northbound corridor and a 2-lane southbound corridor.



⁴ <u>https://www.census.gov/quickfacts/fact/table/seabrooktownrockinghamcountynewhampshire</u>,US

⁵ https://www.census.gov/quickfacts/fact/table/hamptontownrockinghamcountynewhampshire,US/PST045221

⁶ https://www.nhes.nh.gov/elmi/products/cp/profiles-htm/hamptonfalls.htm

The businesses are interspersed with residential buildings toward the center of the peninsula, between the northbound and southbound corridors, in Hampton; and, toward the east of the route, along the Atlantic shore, in Seabrook.

The most prominent roadways in the Study Area are Interstate 95, U.S. Route 1, and NH Route 1A. Interstate 95 is a four-lane corridor that runs in a north-south direction from the Massachusetts state border to the Maine state border. U.S. Route 1 and NH Route 1A are both north-south, two-lane corridors that connect just south of the Maine state border in the City of Portsmouth. The closest roadway to the Project Site is U.S. Route 1 at 0.54 miles away. Interstate 95 and NH Route 1A are 1.09 and 1.94 miles from the Project Site, respectively, and make up part of the Coastal Byway, one of two Scenic Byways in the Study Area. The other Scenic Byway is the American Independence Byway which is 0.84 miles from the Site. These three roadways, at their closest points, have an annual average daily traffic (AADT) volume of 36,664 vehicles for Interstate 95 North, 16,271 vehicles for U.S. Route 1, and 9,300 vehicles for NH Route 1A⁷.

Existing electric power generation, transmission and distribution infrastructure defines most of the Study Area surrounding the Project Site. This infrastructure includes the NextEra Energy Seabrook Station, in which the Project Site resides, and two Eversource Energy utility corridors. At the southern end of the Project Site, there is a 245-foot wide Eversource right-of-way (ROW) running east-west, which contains 80-to-110-foot steel H-frame transmission towers that are supporting the Eversource Line 363 345kV and 230 kV electric transmission line. The Project will interconnect to Line 363 via either two 115-foot monopole transmission tap structures (Option A), or two 3-pole transmission tap structures at 115-feet for each pole (Option B). The other Eversource ROW is a 70-foot utility easement that contains a 230 kV transmission line running on single steel poles, varying from 120 to 130 feet, across the north-east corner of the Project Site then northward toward a Unitil Corporation substation in Hampton near the junction of U.S. Route 1 and NH Route 101.

There is scattered residential development in the immediate area surrounding the Project Site. There are dwellings along Rock Road (which leads to the Seabrook Transfer Station) and Marshall Way to the west. Housing communities and individual residences may be found along roadways and in subdivisions that spur from U.S. Route 1 (Lafayette Road), Farm Lane, Centennial Road, Depot Road, and Causeway Street, amongst other locations. To the east, along roadways that spur from NH Route 1A, there is a mix of permanent residences and summer rentals. All the residential communities and dwellings are located at least a quarter of a mile away from the Project Site and in most cases at further distances.

⁷ AADT data taken from New Hampshire Public Roads; available from NH GRANIT. Data also available online from the Rockingham Planning Commission's Traffic Count Viewer: <u>https://www.therpc.org/maps-and-data/data/traffic-counts-and-volume-reports</u>



Physiographic Characteristics of the Study area

The Study Area lies in the Glaciated Coastal Region of the New England Province physiological zone. The region is characterized by coastal zones with sandy beaches, tidal wetlands, salt marshes, and rolling terrain often formed by glacial moraines. The Study Area contains broad open areas of level estuarine marsh veined with man-made linear drainage ditches and tidal creeks to the east. Wooded islands and peninsulas rise from the marsh to elevations of 20 to 30 feet above sea level. The Station is located on one of these peninsulas which is bordered to the north by Browns River and on the south by Hunts Island Creek. To the west, there are occasional rolling hills which, at the highest point, reach an elevation of 225 feet on Great Hill; located 2.2 miles from the Project Site. Great Hill is followed closely by Grape Hill at an elevation of 223 feet; located 2.81 miles from the Site. Most of the land to the east of the Study Area consists of the salt marshes of Hampton Harbor. Other natural areas include the dunes that surround Seabrook Beach, approximately 1.8 miles to the south-east of the Project Site.

The open areas and hilltops that surround the Study Area are generally well vegetated with a mix of mature vegetation. The dune areas consist of a mix of beach grassland, bayberry-beach plum shrubland, and Hudsonia shrubland. With a few exceptions, most long distant views within the Study Area are limited to the marshland areas to the east of the Site.

Water features are a major component of the Study Area. Those water resources that are most prominent include (but are not limited to) Hampton Harbor, Hampton Salt Marsh, Hampton River, Taylor River, Blackwater River, Browns River, Dodge Pond, and the Atlantic Ocean. Other wetlands, ponds, streams, and small lakes are scattered throughout the Study Area. Hampton Salt Marsh and Browns River are within close proximity to the Project Site at approximately 105 feet and 480 feet, respectively, from the north side of the Site.

4.0 STUDY METHODOLOGY

The New Hampshire Site Evaluation Committee (SEC), Organizational Rules and Rules of Practice and Procedure of the Site Evaluation Committee as adopted on December 15, 2015. These rules are collectively referred to as the "SEC Rules", and specifically referenced as "Site", followed by the relevant chapter, part, and section. This section quotes the SEC Rules and describes the methods used to fulfill the requirements. The indented 'times new roman' text in the following section are portions quoted from the SEC Rules.

There are several definitions in the SEC Rules that are central to preparing a VIA.

PART Site 102 DEFINITIONS

Site 102.26. "'Landscape' means the characteristic, visible features of an area including landforms, water forms, vegetation, historic and cultural features and all other objects and aspects of natural and human origin."

Site 102.44 "Scenic quality" means a reasonable person's perception of the intrinsic beauty of landforms, water features, or vegetation in the landscape, as well as any visible human additions or alterations to the landscape.



Scenic or visual quality is commonly understood to be the result of the landscapes intrinsic qualities, "landforms, water features, or vegetation in the landscape, as well as any visible human additions or alterations to the landscape."⁸

Site 102.45 "Scenic resources" means resources to which the public has a legal right of access that are:

- a) Designated pursuant to applicable statutory authority by national, state, or municipal authorities for their scenic quality;
- b) Conservation lands or easement areas that possess a scenic quality;
- c) Lakes, ponds, rivers, parks, scenic drives and rides, and other tourism destinations that possess a scenic quality;
- d) Recreational trails, parks, or areas established, protected, or maintained in whole or in part with public funds;
- e) Historic sites that possess a scenic quality; or
- f) Town and village centers that possess a scenic quality.

The public must have a legal right of access to all scenic resources. It is notable that most scenic resources must "possess a scenic quality," though it is not required that it be outstanding or especially significant; it would appear that a scenic resource could have even quite ordinary scenic quality. Scenic resources qualified under Site 102.45(d)—trails, parks, or areas—are the exception, and they are required to be "established, protected or maintained in whole or in part with public funds" rather than "possess a scenic quality."

This VIA has taken an expansive interpretation of this definition. The databases used to identify and classify scenic resources is described below, in Section 6.4 of this report.

Site 102.56. "Visual impact assessment' means the process for determining the degree of change in scenic quality resulting from construction of a proposed facility."

Site 301.05 describes how to prepare a VIA.

Site 301.05 Effects on Aesthetics.

a) Each application shall include a visual impact assessment of the proposed energy facility, prepared in a manner consistent with generally accepted professional standards by a professional trained or having experience in visual impact assessment procedures, regarding the effects of, and plans for avoiding, minimizing, or mitigating potential adverse effects of, the proposed facility on aesthetics.

This assessment was compiled by professionals experienced in the preparation of VIA reports. The VIA procedures, potential adverse effects, and plans for mitigating those effects are described below.

⁸ Palmer, J. F. 2019. The contribution of a GIS-based landscape assessment model to a scientifically rigorous approach to visual impact assessment. Landscape and Urban Planning 189: 80-90.



- b) The visual impact assessment shall contain the following components:
 - A description and map depicting the locations of the proposed facility and all associated buildings, structures, roads, and other ancillary components, and all areas to be cleared and graded, that would be visible from any scenic resources, based on both bare ground conditions using topographic screening only and with consideration of screening by vegetation or other factors;

The Seabrook Station Capacitor Banks Project is described in Section 2, maps showing the location of the proposed Project are contained in Appendix A, and the Project's visibility based on bare ground (i.e., terrain) and screening (i.e., obstruction from vegetation, buildings, or other structures) are included in Appendix B.

(2) A description of how the applicant identified and evaluated the scenic quality of the landscape and potential visual impacts;

The potential visual impacts to scenic resources were evaluated based on criteria from Site 301.05(b)(6) and 301.14. These criteria are described below, and the results of the evaluation are reported in Section 6 of this report.

(3) A narrative and graphic description, including maps and photographs, of the physiographic, historical and cultural features of the landscape surrounding the proposed facility to provide the context for evaluating any visual impacts;

A description of the Project site and surrounding landscape are given in Section 3 and on maps in Appendix A.

(4) A computer-based visibility analysis to determine the area of potential visual impact...

Site 301.05(b)(4) includes language (not shown here) to determine the study area radius for wind energy and transmission projects, but not other types of generation facilities. To determine the area of potential visual impact (APVI) for the proposed Project, a desktop review was conducted to determine the appropriate geographic area for a computer-based visibility analysis of the Project. Due to the proximity to the existing structures of Seabrook Station, surrounding forest cover, and level elevations of the tidal estuaries that would remain around the constructed Project, it was determined that the furthest scenic resources with significant potential visibility of the Project are along the boundaries of the tidal marshes including, but not limited to, areas near Hampton Beach and Seabrook Dunes and Beach which are approximately 2.3 miles east of the Project. Therefore, a distance of 3 miles from the Project was determined for the APVI. This distance was corroborated by the extent of potential visibility shown on the screened viewshed maps (see appendix B).

(5) An identification of all scenic resources within the area of potential visual impact and a description of those scenic resources from which the proposed facility would be visible;



All scenic resources within three miles of the Project are identified in Table 3 (Section 6.4) and can be seen on the viewshed maps (see Appendix B). This table also indicates the potential visibility based on terrain and obstruction conditions.

- (6) A characterization of the potential visual impacts of the proposed facility, and of any visible plume that would emanate from the proposed facility, on identified scenic resources as high, medium, or low, based on consideration of the following factors:
 - a. The expectations of the typical viewer;
 - b. The effect on future use and enjoyment of the scenic resource;
 - c. The extent of the proposed facility, including all structures and disturbed areas, visible from the scenic resource;
 - d. The distance of the proposed facility from the scenic resource;
 - e. The horizontal breadth or visual arc of the visible elements of the proposed facility;
 - f. The scale, elevation, and nature of the proposed facility relative to surrounding topography and existing structures;
 - g. The duration and direction of the typical view of elements of the proposed facility; and
 - h. The presence of intervening topography between the scenic resource and elements of the proposed facility;

These criteria were systematically considered in Section 6.4 and Section 8 of this report to evaluate scenic resources with potential visibility of the Project.

(7) Photosimulations from representative key observation points, from other scenic resources for which the potential visual impacts are characterized as "high" pursuant to (6) above, and, to the extent feasible, from a sample of private property observation points within the area of potential visual impact, to illustrate the potential change in the landscape that would result from construction of the proposed facility and associated infrastructure, including land clearing and grading and road construction, and from any visible plume that would emanate from the proposed facility;

The methods used to create photo simulations are described below, in Section 7 of this report. The photo simulations are included in Appendix C.

- (8) Photosimulations shall meet the following additional requirements:
 - a. Photographs used in the simulation shall be taken at high resolution and contrast, using a full frame digital camera with a 50-millimeter fixed focal length lens or digital equivalent that creates an angle of view that closely matches human visual perception, under clear weather conditions and at a time of day that provides optimal clarity and contrast, and shall avoid if feasible showing any utility poles, fences, walls, trees, shrubs, foliage, and other foreground objects and obstructions;



The original photography was taken with a Canon EOS 6D Mark II full-frame camera with a Canon EF 50 mm lens on a stationary tripod for stability and to ensure a level photograph. The photography was taken under good visibility conditions with partial clouds.

b. Photosimulations shall be printed at high resolution at 15.3 inches by10.2 inches, or 390 millimeters by 260 millimeters.

The dimensions of the original photography are 6,240-by-4,160 pixels. Hard copies of simulations should be printed with a high-quality printer with a resolution of at least 1200 dpi. Digital copies as provided should not be compressed, which will reduce the resolution of the photo simulations.

c. At least one set of photosimulations shall represent winter season conditions without the presence of foliage typical of other seasons;

The photo simulation, taken from Viewpoint 5 (see Appendix D, Figure D-1), was taken in early February and represents winter conditions with leaf-off.

- d. Field conditions in which a viewpoint is photographed shall be recorded including:
 - 1. Global Position System (GPS) location points with an accuracy of at least 3 meters for each simulation viewpoint to ensure repeatability;
 - 2. Camera make and model and lens focal length;
 - 3. All camera settings at the time the photograph is taken; and
 - 4. Date, time and weather conditions at the time the photograph is taken; and

These data are reported on the coversheets for the photo simulations.

- e. When simulating the presence of proposed wind turbines, the following shall apply:
 - 1. Turbines shall be placed with full frontal views and no haze or fog effect applied;
 - 2. Turbines shall reasonably represent the shape of the intended turbines for a project including the correct hub height and rotor diameter;
 - 3. Turbine blades shall be set at random angles with some turbines showing a blade in the 12 o'clock position; and
 - 4. The lighting model used to render wind turbine elements shall correspond to the lighting visible in the base photograph;

Not applicable

(9) If the proposed facility is required by Federal Aviation Administration regulations to install aircraft warning lighting or if the proposed facility would include other nighttime lighting, a description and characterization of the potential visual impacts of this lighting, including the number of lights visible and their distance from key observation points; and

Not applicable



(10) A description of the measures planned to avoid, minimize, or mitigate potential adverse effects of the proposed facility, and of any visible plume that would emanate from the proposed facility, and the alternative measures considered but rejected by the applicant.

Measures planned to avoid, minimize, or mitigate potential adverse effects of the proposed facility are discussed in other sections of this report.

Site 301.14 Criteria Relative to Findings of Unreasonable Adverse Effects.

- (a) In determining whether a proposed energy facility will have an unreasonable adverse effect on aesthetics, the committee shall consider:
 - (1) The existing character of the area of potential visual impact;
 - (2) The significance of affected scenic resources and their distance from the proposed facility;
 - (3) The extent, nature, and duration of public uses of affected scenic resources;
 - (4) The scope and scale of the change in the landscape visible from affected scenic resources;
 - (5) The evaluation of the overall daytime and nighttime visual impacts of the facility as described in the visual impact assessment submitted by the applicant and other relevant evidence submitted pursuant to Site 202.24;
 - (6) The extent to which the proposed facility would be a dominant and prominent feature within a natural or cultural landscape of high scenic quality or as viewed from scenic resources of high value or sensitivity; and
 - (7) The effectiveness of the measures proposed by the applicant to avoid, minimize, or mitigate unreasonable adverse effects on aesthetics, and the extent to which such measures represent best practical measures.

These criteria are addressed in later sections of this report.

5.0 DISTANCE ZONES

There are three zones that represent the distance between the Project and observer: the foreground, middleground, and background. These distance zones are based on definitions contained in The U.S. Forest Service Landscape Aesthetics – A Handbook for Scenery Management (U.S. Forest Service Handbook) (1995). Although the effects of distance are dependent on the characteristics of the landscape (topography, vegetation, etc.), each zone provides guidance to the level of visual detail and acuity of objects. Distance zones have been reasonably modified from the U.S. Forest Service Handbook to accommodate the required Study Area, as well as considerations such as the size (height) of the Project, and the level of potential visibility. For this Study Area, due to the lack of significant topographic relief, the foreground and middleground zones will be prominent. It is expected that views, especially those within the outer limits of the middleground, will likely be hampered by any vegetation or built structure protruding from the landscape that is taller than the viewer.



The following distance zones are defined as:

- Foreground (up to 0.5 miles from the viewer): This is the closest distance at which details, such as textures and color, of the landscape and the Project may potentially be seen depending on the circumstances of the specific project. Individual landscape forms are typically dominant, and individual project components may be seen. Scale of the proposed facility when compared to the immediately surrounding landscape is at its highest.
- <u>Middleground (0.5 to 3 miles from the viewer)</u>: At this distance, individual tree forms and buildings can still be distinguished. However, the middleground is defined as the point where the texture and form of individual plants are no longer visibly acute in the landscape. In some areas, atmospheric conditions can reduce visibility and shorten the distance normally covered by each zone. Project components, where visible, will lose their level of detail. Contrasts of color and texture lessen as colors take on a bluish hue and details begin to merge.
- <u>Background (3 to 5 miles from the viewer to the horizon)</u>: At the extent of background distances, texture disappears, and color flattens but large light and dark patterns of vegetation or open land due to shape or color are distinguishable and ridgelines and horizon lines are the dominant visual characteristics. Landscapes are simplified and are viewed in groups or patterns. Project components, where visible, can be detected as a distant form and color change but are not as discernible.

It is important to note that the Background distance zone is identified above for reference as it is not warranted in this assessment based on the Study Area extending to 3-miles.

6.0 VIEWSHED MAPPING AND ANALYSIS

To identify where the Project would potentially be visible from within the three-mile Study Area, a viewshed map and associated analysis was undertaken by TRC. A viewshed map is a computerized GIS analytical technique that illustrates the predicted potential visibility expected for a proposed action and allows one to determine if and where a project can geographically be seen. The results of the viewshed map can be combined with other sensitive location information such as historic places, state parks, etc. to understand potential visibility at sensitive receptors and may be used as part of an analysis of the potential amount of visibility.

6.1 VIEWSHED METHODOLOGY

Light Detection and Ranging (LiDAR) point cloud data from the 2011 LiDAR for the North East Project and the 2014 New England Coastal and Marine Geology Program (CMGP) Sandy LiDAR



Project⁹ were used for the analysis. The LiDAR datasets were combined to account for extent limitations in the 2014 CMGP Sandy dataset. LiDAR data is the best available elevation data as it contains high resolution accurate ground elevations in addition to equipment and tree heights that offer realistic physical visual impediments as they occur in the landscape.

This analysis, focused on and accounted for the tallest components of the Project for both options including:

- Three points at 125 feet representing the A-frame dead-end supports (together with lightning masts mounted at the last 25-feet),
- Six points representing the two capacitor banks, three for each bank, at 50 feet, and
- **Option A:** Two monopole interconnection structures at 115 feet, or
- **Option B:** Two 3-pole interconnection structures at 115 feet for each pole.

These elements (or "control points") are suitable in representing the shorter components contained. For each of the specified control points, GIS software (ESRI Spatial and 3D Analyst) identified where there would be an unobstructed line of sight, or potential visibility, between that point and an observer at 6 feet in height. This process was run twice, once for topography only, and once to include vegetation and structures (referred to as a "screened" viewshed); all of which are contained in the LiDAR dataset. The final resulting output identified those areas from which viewers would potentially see some part of the Project.

For the purposes of this assessment, the screened viewshed analysis was used to detect potential visibility, as it incorporates screening caused by topography, vegetation, and buildings. The results provide the reader with a more reasonable and realistic depiction of potential visibility. The topography only viewshed (see Appendix B, Figure B-2 and B-4) does not reflect a realistic presentation of visibility; this viewshed serves as one component of the baseline information for preparing the viewshed analysis.

6.2 ASSUMPTIONS AND LIMITATIONS OF THE VIEWSHED MAP AND ANALYSIS

The viewshed analysis identifies cells (raster pixels) that contain elevation information and computes the differences along the terrain surface between an observer at any point within the visual study area and a target (e.g., substation component) (ESRI 2017). Certain factors in the interpretation of map and associated analysis need to be considered:

⁹ The 2011 LiDAR for the North East was funded in large part by the American Recovery and Reinvestment Act (ARRA) of 2009 and the 2014 NE CMGP Sandy LiDAR data was intended to assist in the evaluation of coastal storm damage and erosion as part of the USGS' response to Hurricane Sandy. The LiDAR datasets were obtained from the NH GRANIT LiDAR Distribution Site at: https://lidar.unh.edu/map/.



- 1. The viewshed map, and associated analysis, because of its computerized aspect, is conservative in identifying visibility as it 1) assumes that the observer has perfect vision at all distances, and 2) identifies potential visibility where only a glimpse of a portion of the facility may be seen from a distance (as discussed below). Therefore, it is important to be cognizant of the fact that there may be limitations of human vision at greater distances; atmospheric/meteorological conditions, such as haze or other inclement weather conditions, may impair visibility. Additionally, an object will appear smaller and less detailed with increased distance, thus having less potential for perceived visual impact in most instances.
- 2. Just because an area, or specific point, may be identified as having visibility, it is important to understand that the entire Project may not be seen. In many cases, the existing tree stands, hedgerows, buildings, and landforms seen in the area provide visual impediments for all, or a portion, of the facility. Additionally, the viewshed map uses one color to identify visibility of the poles and capacitor banks, and another color to represent where the other substation components may be visible.
- 3. The viewshed map does not include visibility of other facilities in the area surrounding the Project Site. For instance, the existing Eversource Line 363 and the Seabrook Station are already seen within the same viewshed.
- 4. The viewshed map and associated analysis does not illustrate how much of each piece of equipment is visible. For example, certain visibility may only be a result of glimpsing a portion of the Project over treetops or existing buildings of Seabrook Station, between gaps of trees, or amongst other utility poles along a ROW.
- 5. A viewer would not see the Project if standing amongst trees in forested areas as the tree canopy would preclude outward-looking views.

6.3 VIEWSHED ANALYSIS RESULTS

The viewsheds for both options, as described above, were analyzed. It was determined that the overall visibility from either option would be similar in scope. Below is a description of the analysis for each option.

6.3.1 Option A – Two 115-foot Monopole Tap Structures

To put the limited amount of visibility into perspective, based on the completed screened viewshed map and Table 1, the analysis demonstrates that only 14.74% of the land within the Study Area will have a full or partial view of the Project. Of this, only 0.98% of the visibility occurs within the Foreground distance zone and 13.76% occurs within the Middleground distance zone. It is also anticipated that should visibility of the Project occur; it will likely be seen in conjunction with either the existing Seabrook Station facility or Eversource utility structures along the various rights-of-way.



Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	Percent of Square Miles With Visibility in Each Distance Zone	Percent of Visibility Within the Three Mile SA
Foreground (0-0.5 Miles)	1	0.29	29%	0.98%
Middleground (0.5-3.0 Miles)	28.5	4.06	14.2%	13.76%
Total	29.5	4.35	N/A	14.74%

Table 1. Percent Visibility Within Each Distance Zone – Option A*

* The screened viewshed analysis was used to detect visibility, as it incorporates screening caused by topography, vegetation, and buildings. The results provide the reader with the most reasonable and realistic depiction of Project visibility.

The screened viewshed map (considered to be the most realistic scenario) shows that most of the visibility is limited to the east of the Project (see appendix B, Figure B-1). Visibility is primarily contained to areas adjacent to tidal marshes, along portions of the existing Eversource transmission corridors, and cleared privately owned lands including the Project Site itself. When considering locations where there may be visibility of the Project or how accessible the areas containing visibility may be, it is important to recognize that the existing two Eversource utility easements, Seabrook Station property, and the Project Site make up 98.6% (0.28 square miles) of the total visibility within the Foreground distance zone. This means that approximately 1.4% (0.004 square miles) of the remaining potential visibility will occur on other privately held land, public land, or roadways.

Outside of the Foreground distance zone, there are patches of visibility seen along the existing Eversource ROW transmission corridors (makes up 1.2% of the visibility found within the Middleground distance zone), within the tidal marsh zones located to the east, and areas scattered throughout the Middleground distance zone. The estuarine marshes and tidal rivers make up roughly 88% of the potential visibility in the Middleground zone, although the visibility is confined to either the opposite shoreline from the Project Site or to recreational boaters, or fisherman, on the waterways. From the beaches along the Atlantic shoreline, there is limited to no visibility from the beaches. Any potential visibility is limited to views over dunes or between structures. These beaches are also oriented eastward, which means they face away from Seabrook Station and the Project Site. Nevertheless, even if a view of the Site does occur, outside of one-half mile potential visibility is even more significantly reduced.

In addition to the screened viewshed analysis, a topographic or "bare-earth" viewshed was also developed. The viewshed and associated analysis identified that 74.6% (22 square miles) of the Study Area (see Appendix B, Figure B-2) would have visibility of some portion of the Project. While the bare-earth viewshed should not be perceived as a realistic representation of visibility



and is not the focus of this report, it is still a useful tool in understanding the influence of the terrain and its screening potential. This viewshed does not reflect a realistic presentation of visibility; this viewshed serves as one component of the baseline information for preparing the viewshed analysis.

6.3.2 Option B – Two 3-pole Tap Structures at 115-feet per Pole

To put the limited amount of visibility into perspective, based on the completed screened viewshed map and Table 2, the analysis demonstrates that only 14.56% of the land within the Study Area will have a full or partial view of the Project. Of this, only 1% of the visibility occurs within the Foreground distance zone and 13.56% occurs within the Middleground distance zone. It is also anticipated that should visibility of the Project occur; it will likely be seen in conjunction with either the existing Seabrook Station facility or Eversource utility structures along the various rights-of-way.

Distance Zone	Total Area Comprising Distance Zone Square Miles	Visibility Within Distance Zone Square Miles	Percent of Square Miles With Visibility in Each Distance Zone	Percent of Visibility Within the Three Mile SA	
Foreground (0-0.5 Miles)	1	0.3	30%	1.00%	
Middleground (0.5-3.0 Miles)	28.5	4	14.04%	13.56 %	
Total	29.5	4.3	N/A	14.56 %	
* The screened viewshed analysis was used to detect visibility, as it incorporates screening caused by topography, vegetation, and buildings. The results provide the reader with the most reasonable and realistic depiction of Project visibility.					

Table 2. Percent Visibility Within Each Distance Zone – Option B*

The screened viewshed map (considered to be the most realistic scenario) shows that most of the visibility is limited to the east of the Project (see appendix B, Figure B-3). Visibility is primarily contained to areas adjacent to tidal marshes, along portions of the existing Eversource transmission corridors, and cleared privately owned lands including the Project Site itself. When considering locations where there may be visibility of the Project or how accessible the areas containing visibility may be, it is important to recognize that the existing two Eversource utility easements, Seabrook Station property, and the Project Site make up 98.8% (0.29 square miles) of the total visibility within the Foreground distance zone. This means that approximately 1.2% (0.004 square miles) of the remaining potential visibility will occur on other privately held land, public land, or roadways.

Outside of the Foreground distance zone, there are patches of visibility seen along the existing Eversource ROW transmission corridors (makes up 1.2% of the visibility found within the



Middleground distance zone), within the tidal marsh zones located to the east, and areas scattered throughout the Middleground distance zone. The estuarine marshes and tidal rivers make up roughly 90% of the potential visibility in the Middleground zone, although the visibility is confined to either the opposite shoreline from the Project Site or to recreational boaters, or fisherman, on the waterways. From the beaches along the Atlantic shoreline, there is limited to no visibility from the beaches. Any potential visibility is limited to views over dunes or between structures. These beaches are also oriented eastward, which means they face away from Seabrook Station and the Project Site. Nevertheless, even if a view of the Site does occur, outside of one-half mile potential visibility is even more significantly reduced.

In addition to the screened viewshed analysis, a topographic or "bare-earth" viewshed was also developed. The topographic viewshed and associated analysis identified that 66.4% (20 square miles) of the Study Area (see Appendix B, Figure B-4) would have visibility of some portion of the Project. While the bare-earth viewshed should not be perceived as a realistic representation of visibility and is not the focus of this report, it is still a useful tool in understanding the influence of the terrain and its screening potential. This viewshed does not reflect a realistic presentation of visibility; this viewshed serves as one component of the baseline information for preparing the viewshed analysis.

6.4 SCENIC RESOURCE INVENTORY

An important part of this assessment is identification and classification of scenic resources, as defined by Site 102.45. TRC obtained existing databases to document the various types of scenic resources. It is assumed that all or nearly all the resources identified in these databases "possess a scenic quality," as Site 102.45 requires for some types of scenic resources. Field investigation found that almost all locations documented by TRC possessed at least a minimum level of scenic quality. Some scenic resources qualify under more than one Site 102.45 class—for instance, scenic byways qualify under 'A. Designated Scenic Resources' and under 'C.2 Scenic Drives'; similarly, recreation areas (i.e., Recreation: Polygon database) qualify under 'D.2 Parks and Other Recreation Areas', but this polygon database is a subset of and therefore also qualifies under the 'B. Conservation Lands or Easements'. The following section briefly describes these databases, and the source of this information.

A. Designated Scenic Resources

 Scenic Byways are line features that TRC assembled from various files showing federal and state scenic byways obtained from the New Hampshire Department of Transportation ("NH DOT") Scenic and Cultural Byways Program.¹⁰ The NH DOT's Public Roads database (see C.2.1) was used for these features to maintain locational accuracy.



¹⁰ Available by request from: <u>https://www.nh.gov/dot/programs/scbp</u>

2. **Designated Rivers** are managed and protected for their outstanding natural and cultural resources in accordance with RSA 483, The Rivers Management & Protection Act.¹¹ While there is not a "scenic" designation category, scenic quality generally played a role in their nomination report and management plan.

However, none of these resources fell within the Study Area.

B. Conservation Lands or Easements

- Conservation/Public Lands are parcels of land of two or more acres that are mostly undeveloped and are protected from future development, which includes lands conserved through fee ownership, easements, and deed restrictions. Conservation lands identified as not accessible to the public were excluded. Unique or adjoining smaller parcels, as well as selected state-owned parcels may also be included.¹²
- 2. **Beaches** are landforms alongside a body of water which consist of loose particles, such as sand or pebbles. According to the New Hampshire Conservation Land Standards, they include public land having, or expected to have, developed infrastructure on more than 50% of its area. These areas were taken from the conservation/public lands features as they were identified as having both conservation and tourism value.

C.1 Lakes, Ponds and Rivers

- Public Lakes and Ponds are natural waterbodies of 10 acres or more in size. By law, the state holds public waters in trust for the people of New Hampshire. The New Hampshire Department of Environmental Services ("NH DES"), Water Quality Assessment Program, maintains an Official List of Public Waters.¹³
- Public Rivers and streams are also public waters. The New Hampshire Department of Environmental Services ("NH DES"), Water Quality Assessment Program, maintains an Official List of Public Waters.¹⁴ The list primarily shows rivers that fall under the jurisdiction of the Comprehensive Shoreland Protection Act (RSA 483-B:4), but there are many other public rivers in New Hampshire that are not on the list.
- 3. **Tidal waters** include coastal waters of New Hampshire and rivers that are affected by the ebb and flow of the tide. The New Hampshire Department of Environmental Services ("NH DES"), Water Quality Assessment Program, maintains an Official List of Public Waters.¹⁵

C.2 Scenic Drives

 Public Roads were obtained from the NH DOT dataset containing the location of state and local roads and their associated attributes.¹⁶ The file is composed of road segments, typically the line between two road intersections. Within each town, the road segments with the same name are merged into a single scenic



¹¹ Available from NH GRANIT, New Hampshire's Statewide GIS Clearinghouse: <u>https://granit.unh.edu/data/downloadfreedata/downloaddata.html</u>

¹² Available from NH GRANIT.

¹³ Available from <u>https://www.des.nh.gov//sites/g/files/ehbemt341/files/documents/olpw.pdf</u>

¹⁴ Available from https://www.des.nh.gov//sites/g/files/ehbemt341/files/documents/olpw.pdf

¹⁵ Available from https://www.des.nh.gov//sites/g/files/ehbemt341/files/documents/olpw.pdf

¹⁶ Available from NH GRANIT.

resource to reduce duplication. Driving for pleasure is one of America's most popular recreation activities, and most of these publicly accessible roads "possess a scenic quality." Private roads were excluded. Public roads are also listed as scenic resources under D.2.4 recreation areas established or maintained with public funds.

C.3 Other Tourist Destinations

An existing spatial database has not been specifically identified for these resources other than the tourist destinations otherwise included in this list. Tourism destinations are also listed as scenic resources under B.2, D.1, and D.2 areas with conservation and/or recreational value that are open to the public.

D.1 Recreation Trails

 Recreational Trails data are compiled by the NH Office of Energy and Planning and NH Fish and Game Department from multiple public information sources.¹⁷ This dataset is intended to give an approximation of recreational trail locations for planning use only. Positional accuracy will vary. Coverage and attributes should not be construed as complete.

There were no recreational trails identified within the Study Area. The majority of these scenic resources are confined to inland areas of New Hampshire.

D.2 Parks and Other Recreation Areas

- 1. Access Sites to Public Waters includes point locations of public access sites to water bodies.¹⁸
- 2. **Recreation Inventory: Polygons** includes polygons representing recreation sites.¹⁹ These locations are a subset of the B.1 Conservation/Public Lands database.
- Recreation Inventory: Points includes points representing recreation sites (parks, playing fields, water, recreation, etc.).²⁰ These locations are distinct from the D.2.2 Recreation Inventory: Polygons and typically represent smaller sites such as athletic fields.
- Public Roads is the NH DOT dataset containing the location of state, local and selected private roads and their associated attributes²¹ Private roads were excluded. Public roads are also listed as scenic resources under C.2 Scenic Drives.

E. Historic Sites

1. **Listed Historic Resource: Points** are historic sites listed on the National Register of Historic Places.²² These sites are mapped as visual centroid points and do not indicate the full extent of the property.



¹⁷ Available from NH GRANIT.

¹⁸ Available from NH GRANIT.

¹⁹ Available from NH GRANIT.

²⁰ Available from NH GRANIT.

²¹ Available from NH GRANIT.

²² Available from NH GRANIT.

F. Town and Village Centers

- 1. **Community Center Areas** identifies the community centers of municipalities delineated by staff at the nine Regional Planning Agencies based on a common methodology, with input and review from staff at the NH DES.²³
- 2. **Key Destinations: Polygons** identifies significant retail areas containing numerous potential destinations. The areas were identified by staff at the nine Regional Planning Agencies based on a common methodology, with input and review from staff at the NH DES. Other destinations were identified when significant to a community. ²⁴
- 3. **Key Destinations: Points** identifies entrance locations of key destinations by staff at the nine Regional Planning Agencies based on a common methodology, with input and review from staff at the NH DES.²⁵

Table 3, below, identifies those resources and associated categories identified in the NH SEC Rules and select locations deemed as representative locations of potential local interest. Due to the similarities in Option A and B, the potential visibility as determined by the viewshed analysis was nearly identical. Results from the viewshed analysis are overlaid with the resources to determine potential visibility from each resource. The results showed no difference in potential visibility between the two options; therefore, the table below includes one column that is representative of both project options. Similarly, reviewers gave the same ratings for Site 301.05(b)(6) criteria, regarding Potential Visual Impact, for both options given the resources with Potential Visibility were identical and the photographic simulation did not show a significant change in view.

Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visibility ¹	Potential Visual Impact ²	
•	Designated Resources Per NH SEC Rules (all of which are within the Towns of Seabrook, Hampton, or Hampton Falls)				
A. Des	signated Scenic Resources				
1.	1. Scenic Byways (parts of US 1, NH 84, NH 101, NH 27, and NH 1A)				
55	American Independence Byway (NH 84)	0.84	No	None	
56	American Independence Byway (US 1)	1.74	Yes	Low	
57	Coastal Byway (NH 1A)	1.95	Yes	Low	

Table 3. Inventory of Scenic Resources Within the Three-Mile Study Area



²³ Available from NH GRANIT.

²⁴ Available from NH GRANIT.

²⁵ Available from NH GRANIT.

Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visibility ¹	Potential Visual Impact ²
B. Co	nservation Lands or Easements			
1.	Conservation/Public Lands			
13	Former Joseph Chase Marsh	0.52	No	None
14	Tamposi, et al Conservation Land	0.55	No	None
21	Beckman Woods	1	No	None
26	Governor Weare Park (Conservation Land)	1.18	No	None
36	OI Adam's Camp Land and Forest	1.88	No	None
37	Landing Road Marsh	1.94	No	None
38	Hampton Marsh - Hickman	1.95	Yes	Low
2.	Beaches			I
41	Hampton Beach	2.18	No	None
43	Seabrook Dunes and Beach	2.28	No	None
C.1 La	akes, Ponds and Rivers			
1.	Public Lakes and Ponds			
49	Dodge Pond	0.75	No	None
2.	Public Rivers			I
28	Taylor River/Hampton River	1.29	Yes	Medium
32	Blackwater River	1.52	Yes	Low
3.	Tidal Waters			1
12	Hampton Harbor	1.76	Yes	Low



Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visibility ¹	Potential Visual Impact ²				
C.2 Sc	C.2 Scenic Drives (also see Section A)							
1.	Public Roads							
9	B Street	0.28	No	None				
10	Brimmer Lane	0.44	Yes	Low				
11	Rocks Road	0.45	No	None				
15	Dows Lane	0.6	No	None				
18	U.S. Route 1 - Seabrook	0.72	Yes	Low				
23	Interstate 95 - North	1.09	No	None				
42	NH Route 1A South - Hampton	2.18	Yes	None				
44	NH Route 1A - Ocean Blvd	2.25	No	None				
D.2 Pa	arks and Other Recreation Areas	•						
1.	Access Sites to Public Waters							
5	Depot Road Boat Ramp (Hampton Falls Boat Landing)	0.7	Yes	Low				
6	Farm Lane Dock	0.93	No	None				
7	Hampton State Marina	1.88	Yes	Low				
20	Seabrook Boat Launch	1.91	Yes	None				
29	Harborside Park	1.92	No	None				
25	Seabrook Beach Parking	1.96	No	None				
8	Hampton Beach State Park Facilities and Campground	2.12	Yes	Low				
2.	Recreation Inventory: Polygons							
52	Hampton Falls Saltmarsh Wildlife Management Area	0.19	Yes	Medium				
53	Seabrook Saltmarsh Wildlife Management Area	1.05	Yes	Low				
54	Hampton Saltmarsh Wildlife Management Area	1.74	Yes	Low				



Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visibility ¹	Potential Visual Impact ²
3.	Recreation Inventory: Points			
50	Governor Weare Park (Sports Fields)	0.86	No	None
51	Hampton Falls Town Common and Community Center	1.08	No	None
E. His	toric Sites	•		
1.	Listed Historic Resource: Points			
1	Governor Meshech Weare, House (NRIS Ref# 73000174)	1.19	No	None
2	Unitarian Church (NRIS Ref# 84000558)	2.76	No	None
3	Benjamin James, House (NRIS Ref# 02000168)	2.91	No	None
4	Reuben Lamprey, Homestead (NRIS Ref# 82000624)	2.94	No	None
F. Tov	vn and Village Centers			
1.	Community Center Areas			
27	Seabrook Community Center	1.27	No	None
31	Town Hall Corner (Hampton Falls)	1.64	No	None
47	Hampton Community Center	2.81	No	None
2.	Key Destinations: Polygons			
17	U.S. Route 1 - Seabrook Shopping District - North	0.68	No	None
19	U.S. Route 1 - Seabrook Shopping District - South	1.2	No	None
22	Lafayette Road Commercial Strip - Hampton Falls	1.21	No	None



Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visibility ¹	Potential Visual Impact ²
3. Key Destinations: Points				
24	Seabrook Library	1.1	No	None
30	Seabrook Middle and Elementary School	1.37	No	None
35	Seabrook Town Hall	1.83	No	None
45	Hampton Beach Casino - Back Parking Lot	2.26	Yes	Low
46	Winnacunnet High School	2.4	No	None

¹ Potential visibility is based on LiDAR-based viewshed analysis results that include topography, trees, and buildings, as it is a more reasonable and accurate depiction of landscape conditions. Potential visibility may only be a result of glimpsing a portion of the facility over treetops or between gaps of trees, etc.

² Potential Visual Impact ratings were completed to satisfy Site 301.05(b)(6) of the NH SEC Rules and are based on the criteria set forth in that section of the rules. Reviewers gave each resource with Potential Visibility a numeric rating based on a range from 0 to 3 for each criterion. An average of each rating was then summed for a Final Ranking on each resource that had Potential Visibility. A range was determined for the final score, listed in the Potential Visual Impact column in Table 3, of None, Low, Medium, or High. Information regarding rankings and the Final Ranking Table are included in Appendix E.

7.0 PHOTOGRAPHIC SIMULATION

An analysis of existing views of the Project Site from various locations within the Study Area was conducted to identify and evaluate any potential visual impacts. Several viewpoints (see Appendix D, Figure D-1 for locations) were identified based on proximity to the Site, public access, and elevation. Reference photos (see Appendix D) were taken at each of the locations. Using the screened viewshed and the reference photos, it was determined that the viewpoint with the greatest potential visibility would be at the end of Island Path in the Town of Hampton, New Hampshire (Viewpoint 5). This site had the least obstructed view across Hampton Marsh of the Project Site and was within closer proximity to the Site than Viewpoint 4, by approximately 1400 feet.

On February 2, 2022, TRC field staff drove to the end of Island Path and photographed views from the representative location. An attempt was made to take a photograph that provided the most unobstructed view possible of the Project.

7.1 METHODOLOGY

The photograph documenting the existing visibility (or view) was taken using a Canon EOS 6D Mark II digital single lens reflex ("DSLR") 26-mega pixel camera with a lens setting of 50mm. The coordinates of the photo location were recorded using a sub-meter GNSS receiver. A tripod was used to reduce movement of the camera and to ensure a more level platform for the photograph. The tripod was set to a height of approximately 6 feet to represent the height of an observer.



A simulation was prepared to illustrate how the Project would appear from the representative location identified in Table 4.

Viewpoint ID	Simulation Location	Approximate Distance to Project/Distance Zone	Camera Orientation
5	End of Island Path	1.64 Miles/Middleground	West- Southwest

Table 4. Photographic Simulation Locations

To create the photographic simulation of the Project, Autodesk Civil 3D 2020 (CAD) was used to extract the proposed substation layout. This data was interfaced with Autodesk 3DS Max 2020 (MAX) visualization software to construct a three-dimensional (3D) model of the Project at the precise coordinate (x, y, z) location at which equipment is physically proposed.

To appropriately position the facility on the terrain or the ground surface, a 3D topographic surface was generated in GIS from publicly available LiDAR data, noted in Section 6.1, and a final 3D surface was compiled.

The 3D model was further developed to position a 3D camera at coordinates of each simulated viewpoint location, extracted from GPS data recorded during the site visit. A photograph is then overlaid into the 3D camera's perspective and a 3D environment is constructed from existing conditions using LiDAR data. Each 3D camera is then adjusted to match the identical settings of the camera used during the field effort, along with minor adjustments to the camera's target and roll, which results in the 3D environment mirroring the photograph's environment. At this point, the recorded date and time of the photograph is entered into a physical daylight system, which calculates and renders a Computer-Generated Image (CGI) with accurate placement of shadows, materials and highlights casted from the facility of true lighting conditions seen in the photograph.

The CGI is superimposed within the photograph using Adobe Photoshop. Any final editing is completed to demonstrate any proposed actions, such as removal of vegetation, in addition to the removal of Project components that fall behind existing features (e.g., removing the portion of the Project that may fall behind structures, vegetation, topography, etc.).

For the simulated location contained in Appendix C, TRC has provided the following images:

- Photo Location Map,
- Existing Conditions, and
- Proposed Conditions for both design options (A and B).



7.2 DISCUSSION OF SIMULATION

A description of the existing and proposed view of the simulated location (see Appendix C) is provided below:

<u>Viewpoint 5 – End of Island Path</u>: This west-southwest facing view from the end of Island Path demonstrates a Middleground view of the Project Site and Seabrook Station's existing infrastructure. The existing conditions capture a section of the Hampton River and Hampton Marsh, as noted by the open water and low salt marsh vegetation. The surrounding buildings of Seabrook Station, and its existing infrastructure, are clearly visible around the Site. An almost 215 foot red-and-white radio tower for Seabrook Station, that is roughly 90 feet from the Project Site, is clearly visible. Other structures surrounding the Project Site are a 136-foot steel single transmission pole, some 80-to-95-foot steel H-frame transmission towers from an existing substation and the Eversource Line 363 ROW, and 50-foot electrical distribution poles running along the shoreline. The background setting of the view is dominated by a thick forest of mixed deciduous and coniferous trees, as well as an approximately 300-foot cellular tower, that is roughly 7,600 feet beyond the Site.

The simulation for Proposed Conditions A depicts the first project option (two monopole taps) within the backdrop of existing conditions. The simulated view of the Project indicates the most noticeable components of the Project are the upper portions of the A-frame dead ends, along with the thin vertical lightning masts, and the slender interconnection poles on the Project Site. All of these components are visible among the existing vegetation and transmission structures that surround the Site (see Proposed Conditions A in Appendix C). The proposed interconnection poles are dwarfed by the distant cellular tower that is almost in line with the planned structures. Essentially, the Project would be seen within the context of the existing energy infrastructure of the surrounding Seabrook Station, as such the Project appears to be consistent with what is currently in place, thus in keeping with the existing land uses. The proposed structures would blend with the existing view such that they would be indistinguishable from the existing substation and other infrastructure surrounding the site.

Likewise, Proposed Conditions B illustrates the second project option (two 3-pole taps) surrounded by the existing conditions. The view shows that the most prominent components of the Project would remain the upper limits of the A-frame dead ends, including the thin lightning masts, and the slender poles from the tap structures, some of which may be hidden depending on the viewer's angle. The cellular tower and the red-and-white radio tower continue to be the tallest structures within this view. The interconnection structures do have a slightly greater horizontal dimension than the previous option of two monopoles. However, even with the additional poles, the proposed structures would be seen in a similar environment to the existing power infrastructure that surrounds it and would be a similar view as Option A.



8.0 **RESOURCE SUMMARY**

It was determined, based on the screened viewshed for both options, that potential visibility was available from the same resource locations for both design options. Additionally, the potential visual impact ratings, centered on the criteria from Site 301.05(b)(6), were identical for both possibilities. Therefore, this summary pertains to both Option A and Option B of this report.

Designated Scenic Resources

The Project has potential for some form of visibility from locations identified as designated scenic resources by the New Hampshire SEC Rules. These resources include specific sections of the American Independence Byway (resource number 56, which is 1.74 miles from the Project Site) and the Coastal Byway (resource number 57, which is approximately 1.95 miles from the Project Site). The screened viewshed map shows the visibility that does occur may be associated with a limited number of sections of the byways. Should there be visibility along the roadways, only the upper most limits of the tallest components on the Project Site would be seen and the views would be fleeting and short in duration.

Conservation Lands or Easements

As the screened viewshed maps (see Appendix B) show, the main area of potential visibility will be from across the saltwater marshes, such as Hampton Marsh, and rivers, such as Blackwater River (resource number 32, which is 1.52 miles from the Project Site) or Hampton River (resource number 28, which is 1.29 miles from the Project Site), toward the east side of the Project Site. Most of these resource locations would have limited access for the public. The area of Hampton Marsh, or section of Browns River, that is in proximity to the Project Site is part of private property owned by Seabrook Station. From the rankings for potential visual impacts in Table 3, visibility from both the confluence of Taylor River and Hampton River, and Hampton Falls Saltmarsh Wildlife Management Area (WMA) were classified as a potential medium adverse impact. In both instances, the rating was mainly due to the extent of the proposed facility that would be visible from those locations. In the case of the Hampton Falls Saltmarsh WMA, this was due to the proximity of the location (only 0.19 miles) to the Project Site, which was another factor for the final rating. For the Taylor and Hampton River resource location, the other contributing factors, even though the view would be from a greater distance (just over oneand-a-quarter miles away), the lack of obstructions across the marshland likely impacted the rating. However, the views from either resource, like the location used for the photographic simulation, would be seen in context to the existing power and transmission infrastructure around the Site. As previously mentioned, access to these resources would need to be by way of open water from either a boat or other small craft (e.g., a canoe, kayak, etc.), limiting the amount of public access. Hampton Falls Saltmarsh WMA is also located on private land owned by Seabrook Station which may make access to that resource even more restrictive. The views from the remaining sections of Hampton Marsh, or other saltwater marshland, would either need to be achieved from a boat, a boat launch, or an outlook. Any views not obscured by existing buildings, or other existing structures, would be at a distance where the proposed structures of the Project would blend in with the existing conditions. Potential visibility of the Project from across Hampton Marsh, and Hampton River, is depicted in the simulation. As mentioned in the



submitted "Application for a Certificate of Site and Facility: Docket No. 2021-05", New Hampshire Transmission, LLC (NHT) did not find any direct impacts to wetlands or waterbodies as part of their natural resource survey. Since the Project Site is within an existing paved parking lot, there should be no need for vegetation clearing; thus, there should be minimal to no impact on wildlife habitat. For further information refer to the Seabrook Capacitor Banks SEC Application.

Public Roads

The Project will be visible from few roadways in the Study Area, most of which currently have views of utility infrastructure along an existing Right-of-Way (ROW) or are at a considerable distance from the Project Site. These include but are not limited to Brimmer Lane (resource number 10 / 0.44 miles from the Project Site), U.S. Route 1 in Seabrook (resource number 18 / 0.72 miles from the Project Site), NH Route 1A South in Hampton (resource number 42 /, 2.18 miles from the Project Site), and Island Path. The views may vary between open and limited (e.g., caused by either encroaching vegetation, amongst existing transmission infrastructure, or screening from existing development). However, from the roads themselves any views would be fleeting and transient in nature and limited by the angle of such view and other conditions outlined in this assessment. Potential visibility of the Project from the end of Island Path, one of the identified roadways, is depicted in the simulation.

Parks and Other Recreation Areas

Of the different types of recreational resources available within the Study Area, the locations with potential visibility of the Project are positioned around the marshes and other watercourses mentioned above. These sites include, but are not limited to, Depot Road Boat Ramp (resource number 5 / 0.7 miles from the Project Site), Hampton State Marina (resource number 7 / 1.88 miles from the Project Site), Hampton Beach State Park Facilities and Campground (resource number 8 / 2.12 miles from the Project Site), and various locations within the Saltmarshes around the Project Site. The views from many of these locations will be encumbered by limited access, as outlined in other sections of this summary, or diminishing visibility due to distance from the Site. Other potential views, as is the case with Depot Road Boat Ramp, will be impeded by existing utility structures along the present transmission ROW. In such cases, the proposed Project structures will not impact on the current view.

Historic Sites

Of the three historic resources identified in Table 3, the screened viewshed shows that none of the locations would have potential visibility of any Project components due to various types of obstructions.

Other Resources of Local Interest

A limited number of potential local and community-oriented interests that are identified in Table 3 have potential partial visibility of the Project.



9.0 CONCLUSION

Assessment Summary:

The Study Area does not contain a significant amount of topographic relief with the highest point being Great Hill at roughly 243 feet. However, it does contain patches of forested land (which makes up approximately 19% of the Study Area) located predominantly to the west. Various commercial and Industrial land uses make up approximately 8% of the Study Area; of which, approximately 30% is categorized as some sort of utility use. The Project itself is contained within the property of an existing power plant with various buildings and electrical utility infrastructure surrounding the Project Site. Hydrologic features make up around 38% of the Study Area and contribute to the majority of the potential views. These features are located to the east and are mostly made up of estuarine salt marshes. The existing vegetation and utility infrastructure limit overall visibility and long distant views of the Project through either obstructing visibility or allowing the proposed structures to blend into the existing landscape.

The Project is consistent with the existing uses that define the portion of the Study Area surrounding the Project Site. There is significant existing public utility infrastructure (electric distribution and transmission lines, substations, transmission towers, cell towers, and other structures) that run along the surrounding area of the Project Site. The Project will be contained within the same property as Seabrook Station power plant and adjacent to the Eversource Line 363 345kV transmission line corridor, along with other Eversource transmission corridors. The Project will be constructed on the site of an existing parking lot on Seabrook Station.

Two options are presented in this report as proposed interconnections to the existing Eversource Line 363, although most components for the capacitor bank will remain constant between both options. The first proposed interconnection, which is referred to as Option A, would be via two monopole taps; whereas, the second option, described as Option B, would be through two 3-pole tap structures. The height of the poles for either option will remain at 115-feet. Since both proposed designs have minimal differences in visibility, as described in previous sections, it was concluded that visual impacts would be similar for either design.

The screened viewshed analysis illustrates that for Option A, 14.74% of the three-mile Study Area will theoretically contain a view of the proposed Project, with only a negligible difference of 0.18% (14.56% overall) of the screened viewshed for Option B. When considering how accessible the areas containing visibility of the Project may be, it is important to recognize that the existing Seabrook Station property, Eversource Line 363, other electrical utility corridors, and the Project Site contribute significantly to the overall foreground view (see Section 6.3). Some of the larger, although still limited, patches of visibility scattered throughout the Study Area include:

- American Independence Byway and Coastal Byway between 1.5 and 2 miles to the north and west, respectively, of the Project,
- Taylor and Hampton River at a distance of over 1 mile to the northeast of the Project,
- Hampton Harbor between 1.5 to 2.25 miles to the east of the Project,



- A section of the Landing Road residential subdivision over 1.8 miles to the northnortheast of the Project, and
- Parts of Hampton Beach State Park at over 2 miles to the east of the Project.

The largest area of continuous visibility occurs along the estuarine saltmarsh and open water areas from the north-northeast to east and portions south-east, where approximately 86% of all the illustrated visibility will occur. Other smaller pockets of visibility within the Study Area are shown on the viewshed maps contained in Appendix B. Views generally found of the Project Site are consistent with existing conditions.

The Project is consistent with existing land uses and the underlying zoning district. As further demonstrated by the photographic simulation (discussed in Section 7), where there is potential for visibility, the Project will likely be seen in conjunction with existing infrastructure in the area.

Assessment Conclusion

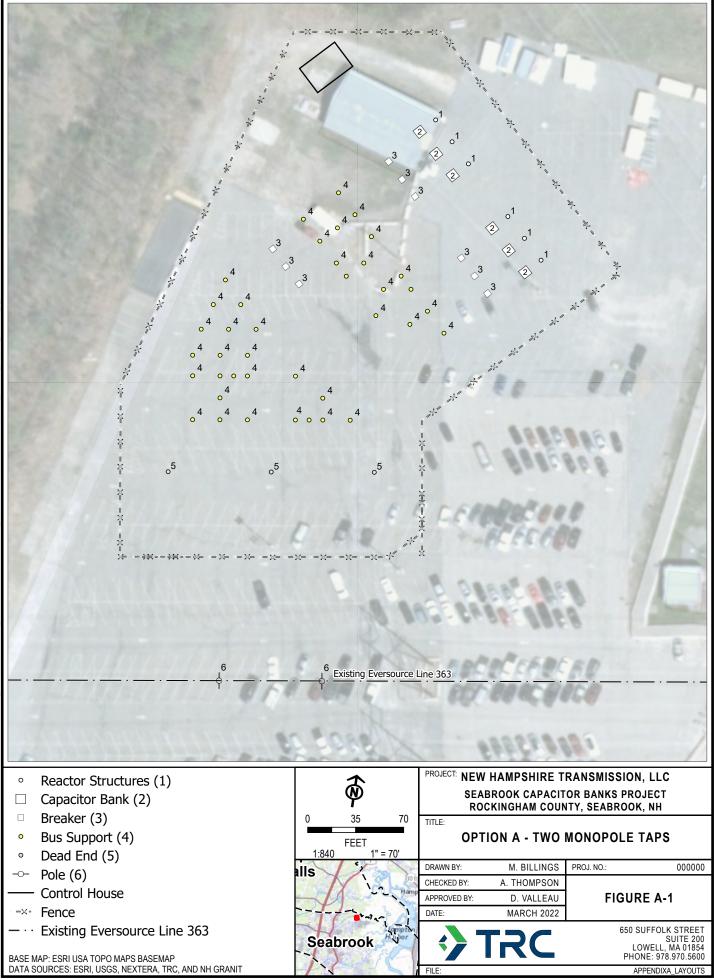
The Project will not affect the community's overall visual or aesthetic characteristics as it is consistent with existing energy infrastructure uses within the surrounding Eversource ROW, Seabrook Station, and the current visual character of the Study Area. The Project is simply an improvement to the existing power infrastructure of Seabrook Station. While the poles may appear different, the average height difference between the proposed interconnection monopoles and the existing structures from Seabrook Station's Switchyard and Eversource's utility corridor is roughly 20 feet (recognizing that some of the proposed structures will be shorter or taller than the existing). Along the Eversource Line 363, the Project structures will be erected in line, or in close proximity, with the existing 345 kV structures.

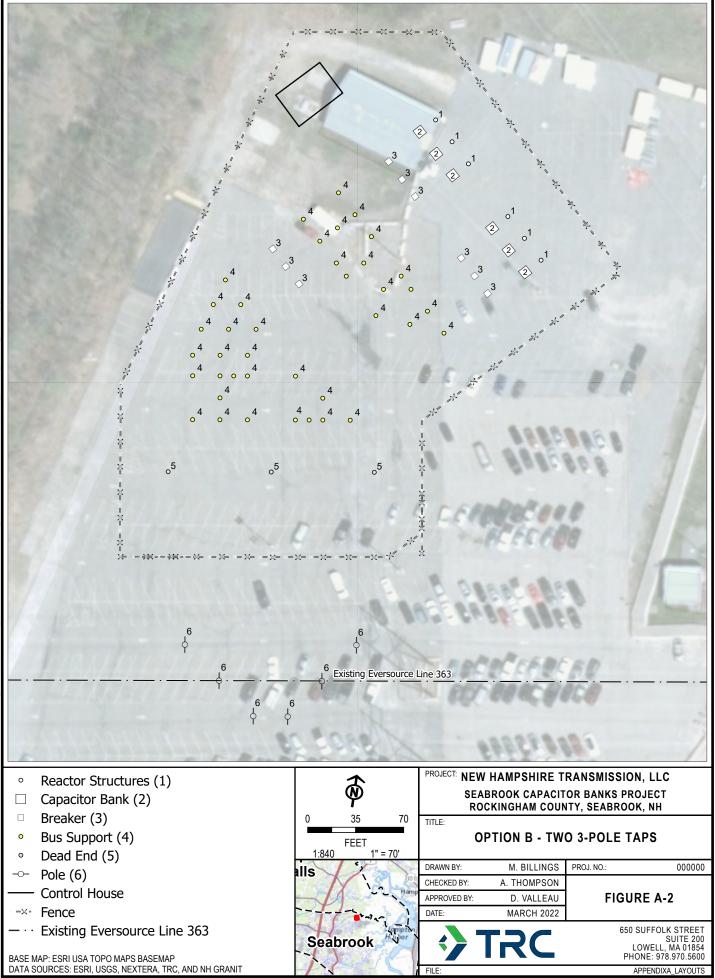
Findings from the viewshed mapping and associated analysis, photographic simulation, and the data provided above, indicate overall visual impact of the Project is minimal. When this Project is visible, most times it is also seen in conjunction with the existing Seabrook Station, or surrounding utility and transmission infrastructure and does not alter the character of the landscape. While there are limited areas that will have some sort of visibility of the Project, it appears to be generally confined to the immediate area of the Site where existing features further minimize any potential for adverse impacts. Further, the Project will provide Seabrook Station with enhanced reliability of the electric power grid and help with transmission voltage stability during disturbances and/or high load conditions, as well as, providing quantifiable benefits to the public on both a local and regional level.

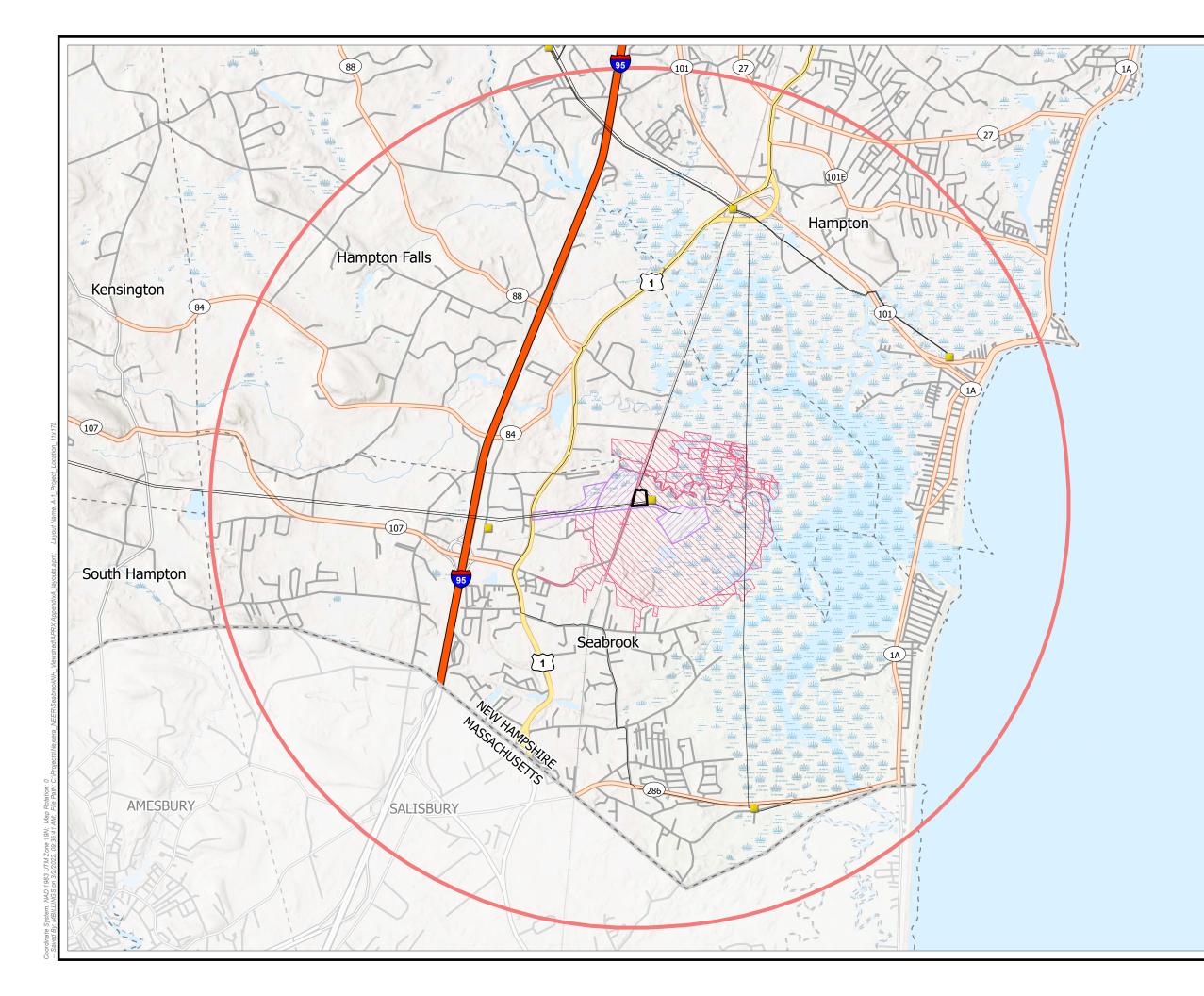


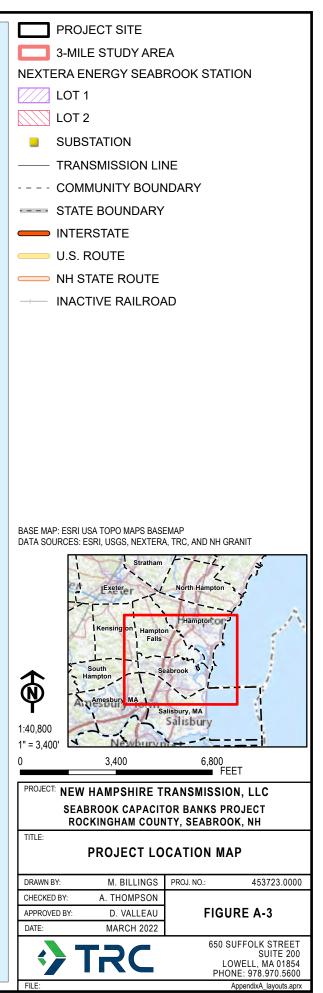
Appendix A Project Site Location

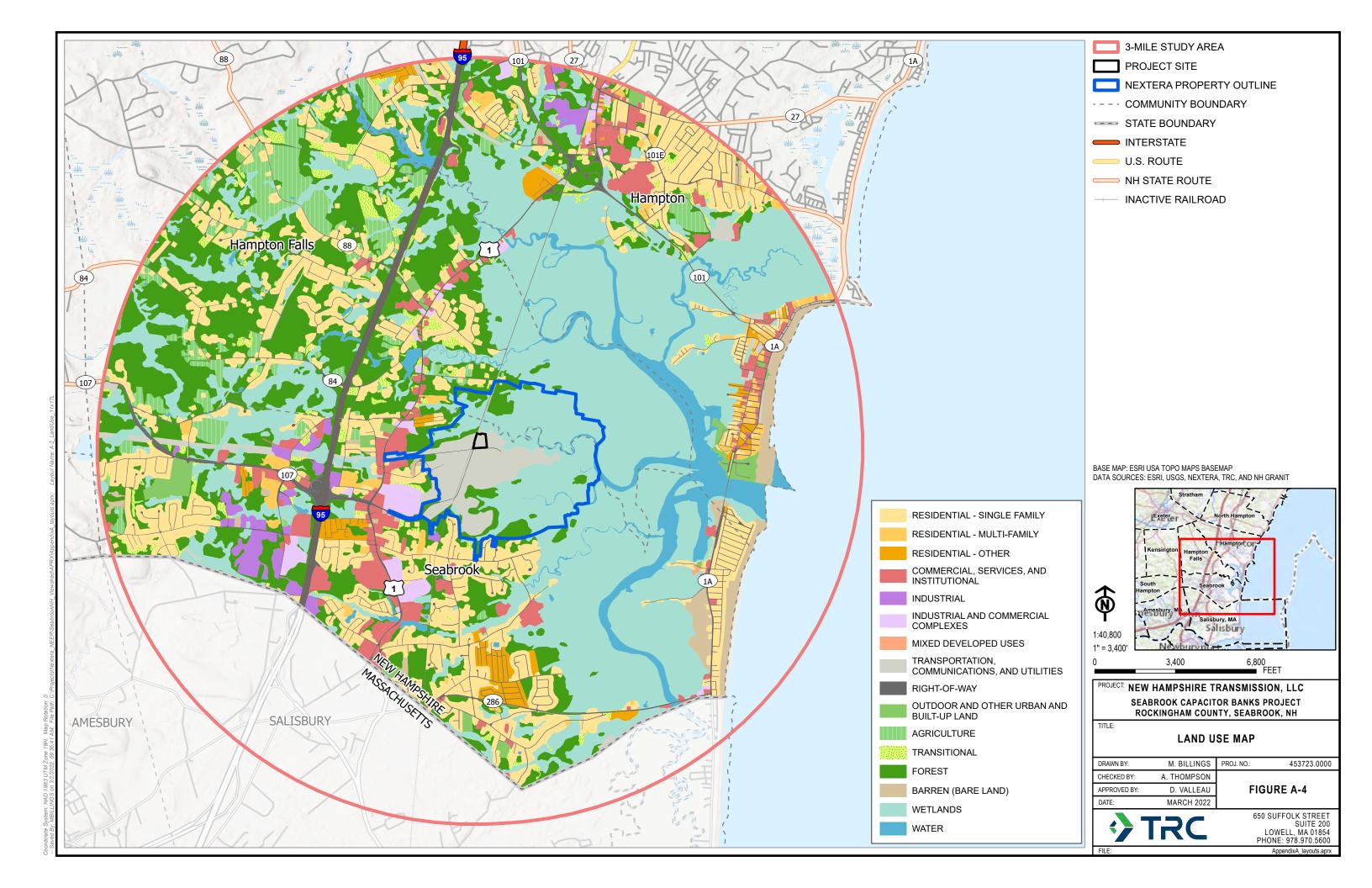






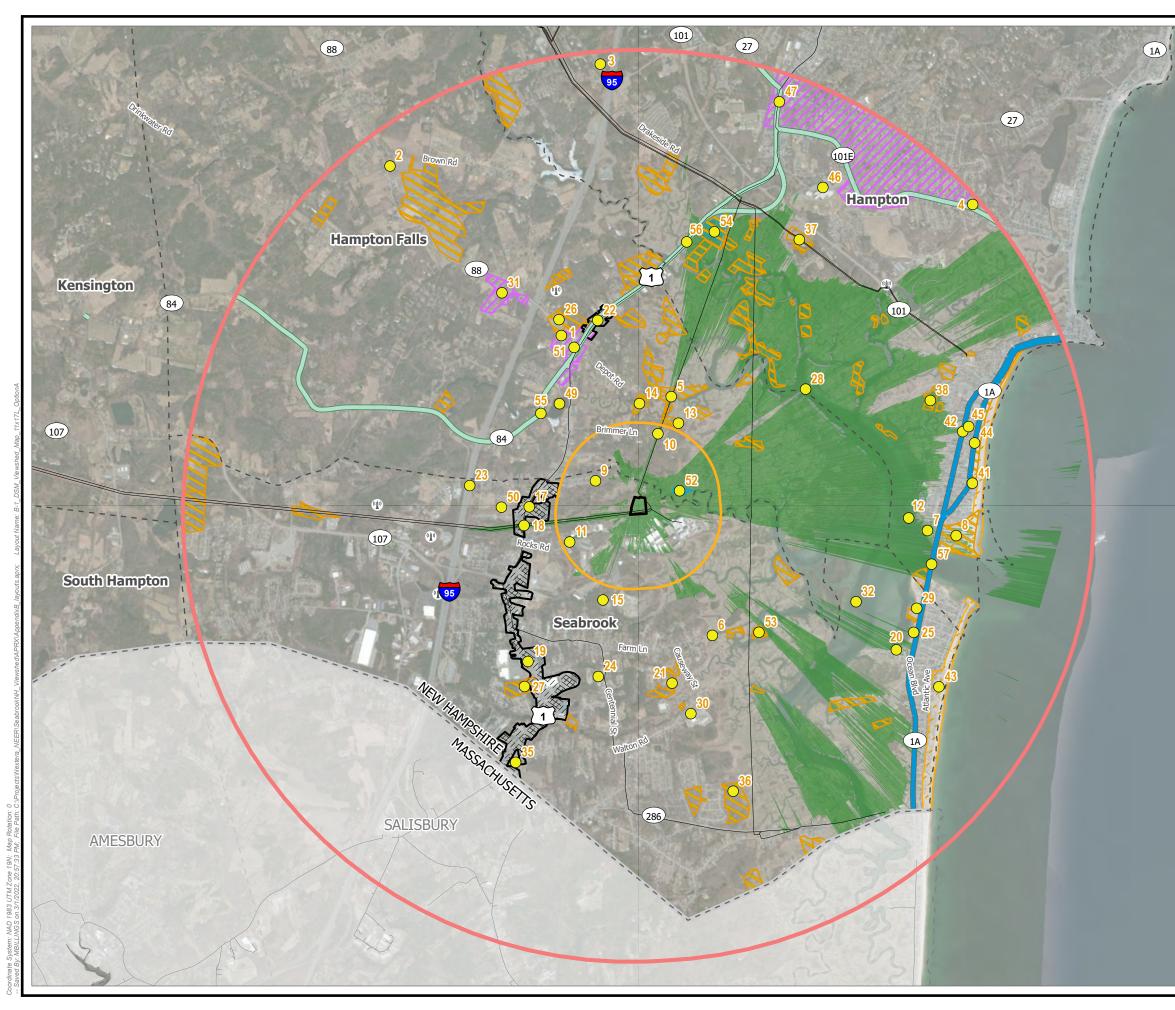


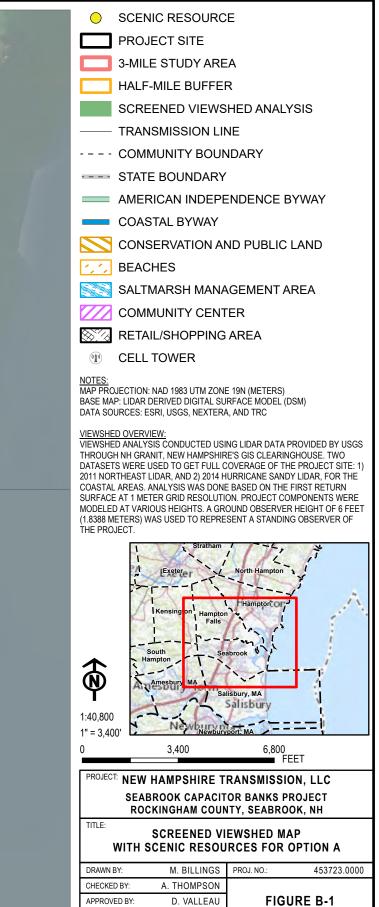




Appendix B Viewshed Maps







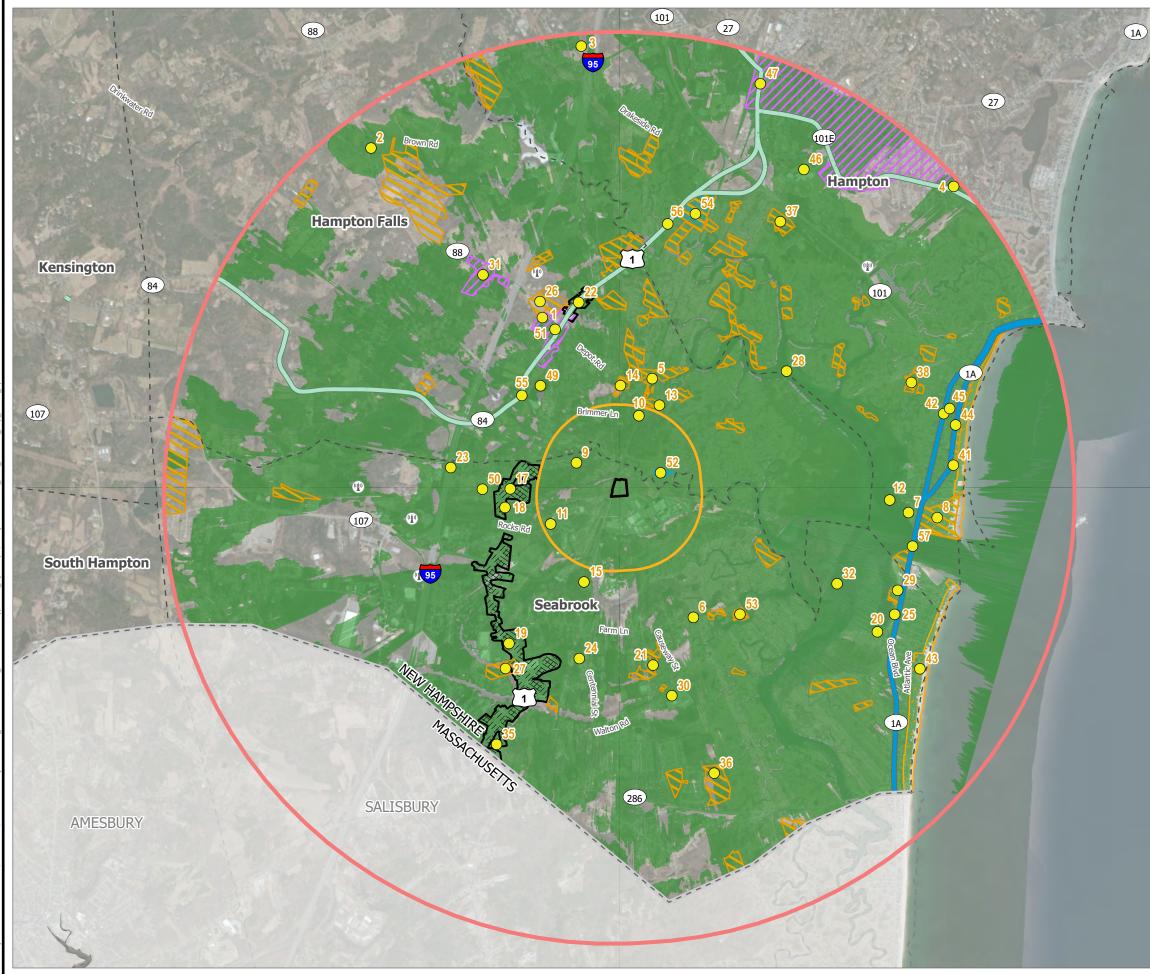
MARCH 2022

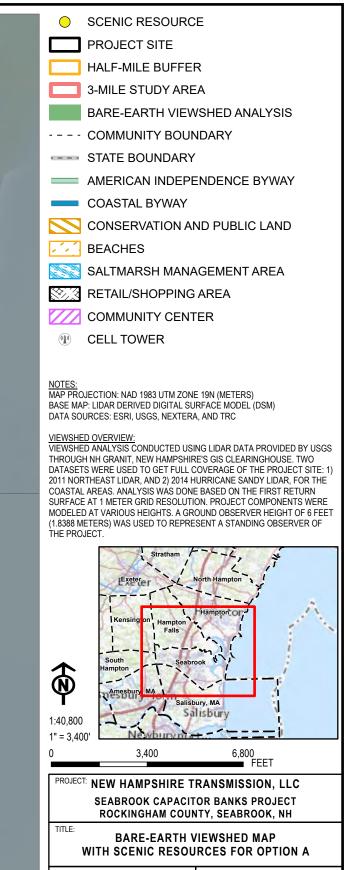
IRC

650 SUFFOLK STREET SUITE 200 LOWELL, MA 01854

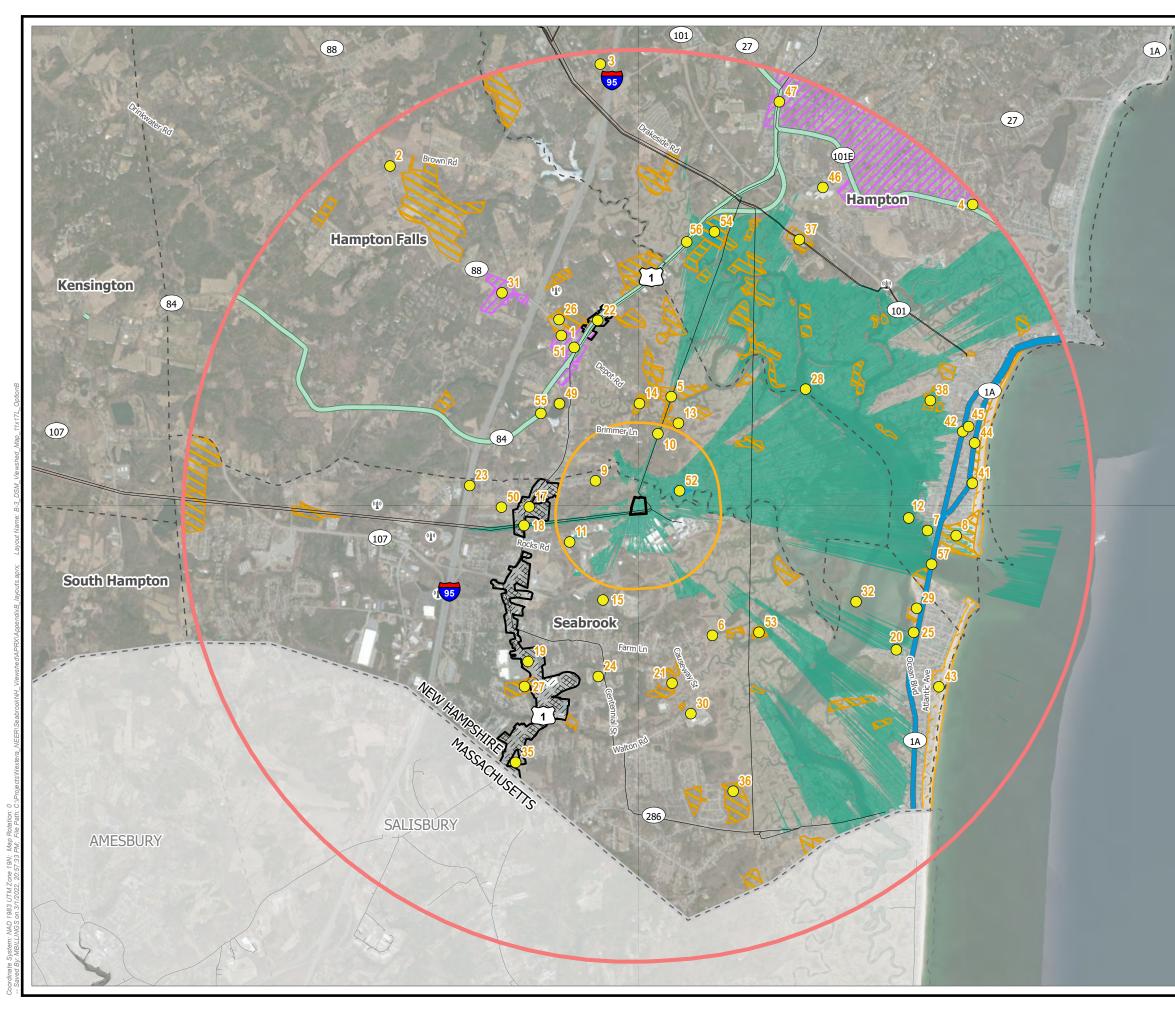
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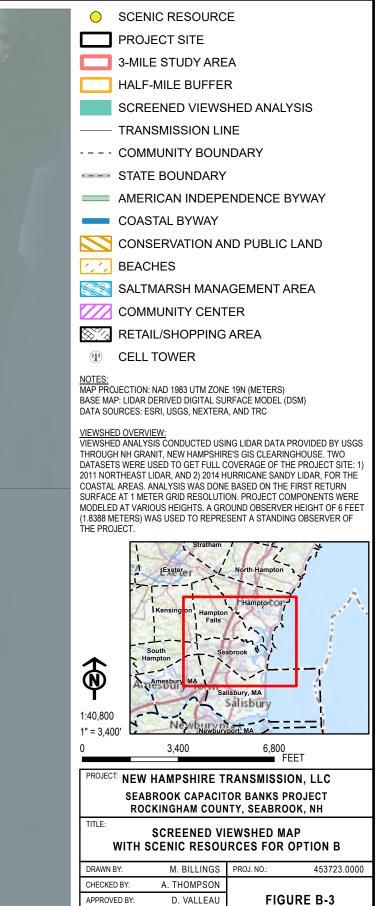
DATE:





DRAWN BY:	M. BILLINGS	PROJ. NO.:	453723.0000
CHECKED BY:	A. THOMPSON		
APPROVED BY:	D. VALLEAU	FIGU	RE B-2
DATE:	MARCH 2022		
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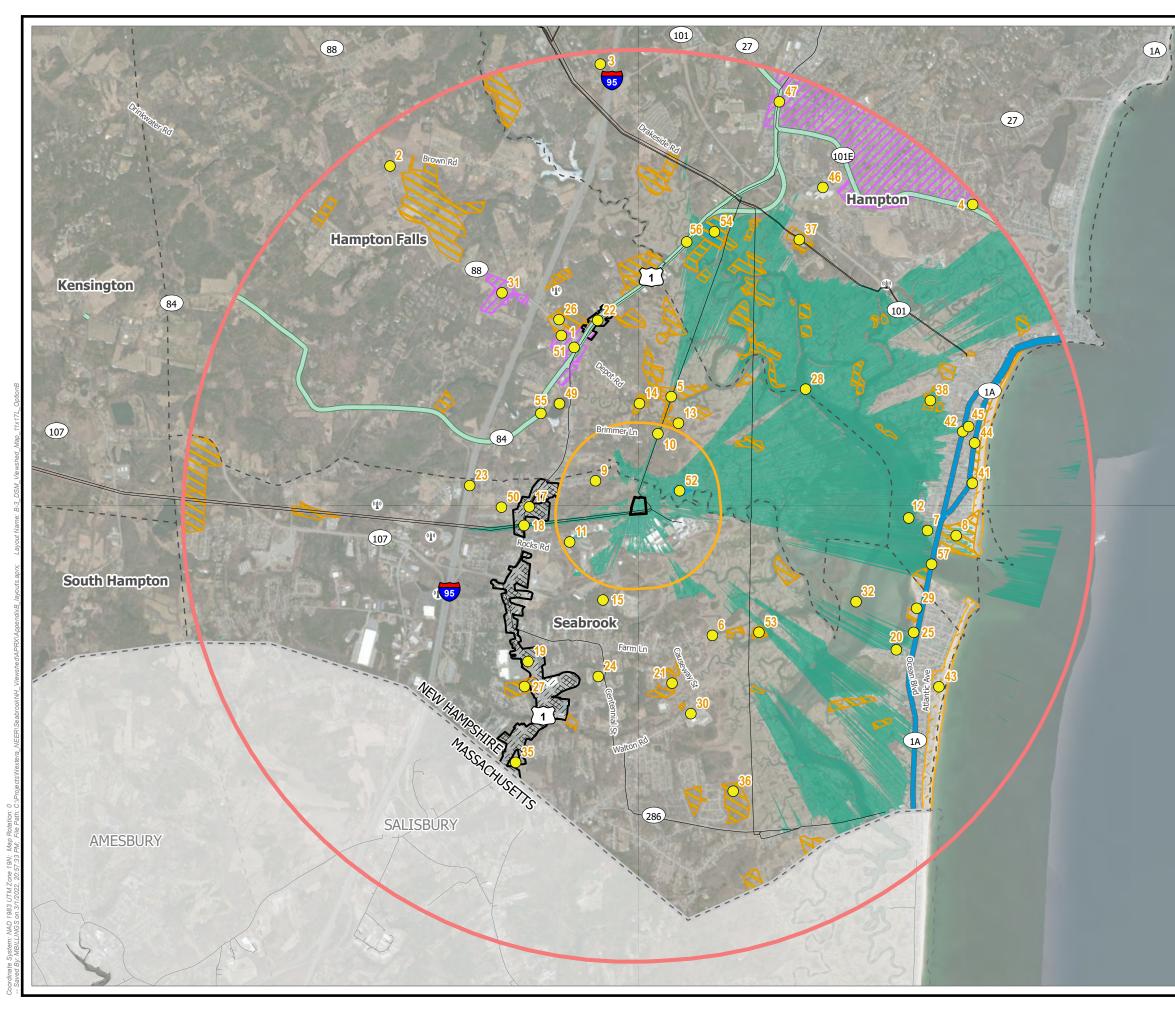
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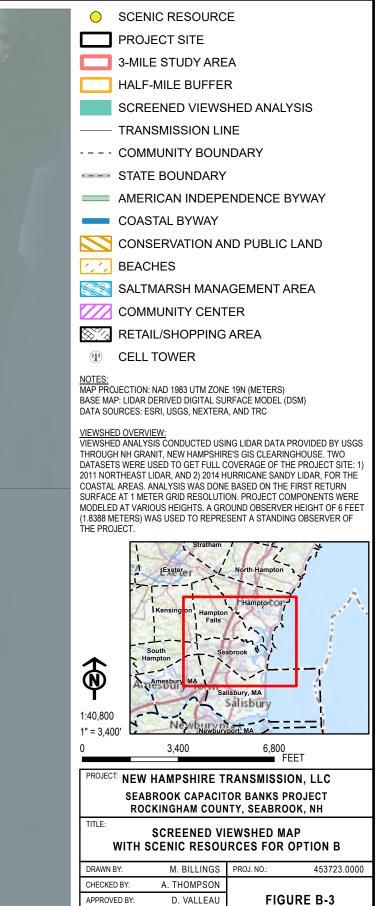
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PHONE: 978.970.5600 AppendixB layouts.aprx

DATE:

Appendix C Photographic Simulations





FIGURE 1: PHOTO LOCATION MAP





PHOTO LOCATION AND NUMBER

DIRECTION OF PHOTO



TECHNICAL INFORMATION

Viewpoint Coordinates in	1209533
NH State Plane feet	176117
Viewpoint Location	End of Island Path
Viewer Eye Elevation	6 ft msl
Distance to Project	8633 feet
Camera Model	Canon EOS 6D Mark II
Lens Setting	50 mm
Date/Time	2-1-2022/9:25 AM

SEABROOK CAPACITOR BANKS VISUAL SIMULATION FEBRUARY 2022



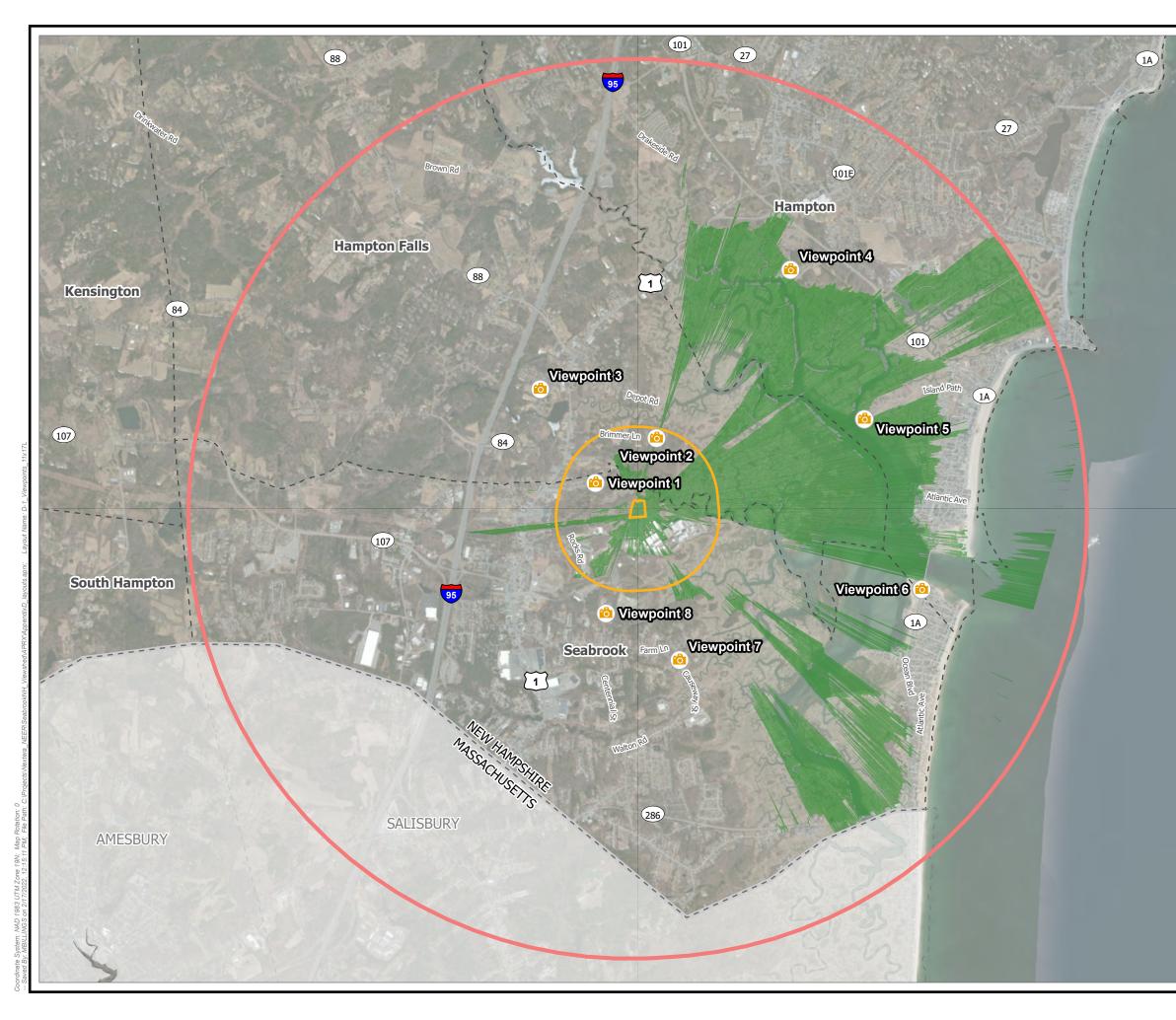


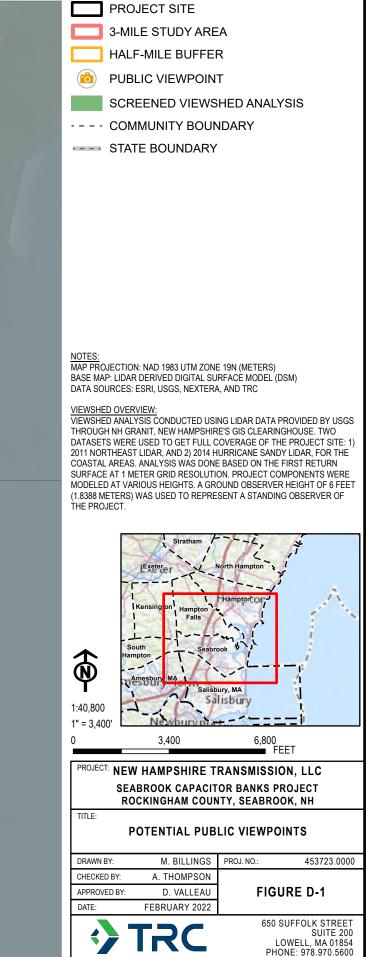




Appendix D Photolog







AppendixD layouts.aprx



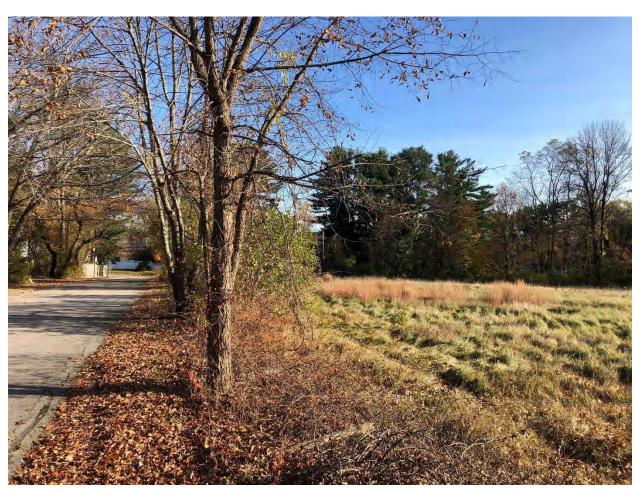
Viewpoint 1: A picture from A Street facing southeast, roughly 0.3 miles from the Project Site.





Viewpoint 2: A picture from Brimmer Lane facing south-southwest along utility corridor, roughly 0.45 miles from the Project Site.





Viewpoint 3: A picture from Janvrin Avenue facing southeast, roughly 1 mile from the Project Site.





Viewpoint 4: A picture from Landing Road facing southwest, roughly 1.85 miles from the Project Site.





Viewpoint 5: A picture from the end of Island Path facing west-southwest, roughly 1.6 miles from the Project Site.





Viewpoint 6: A picture from Harborside Dunes, along Ocean Road in Seabrook, facing west, roughly 1.95 miles from the Project Site.





Viewpoint 7: A picture up Causeway Street facing north-northwest, roughly 1 mile from the Project Site.





Viewpoint 8: A picture up Dows Lane facing north-northeast, roughly 0.7 miles from the Project Site.



Appendix E Scenic Resource Ranking



Appendix E - Table 1:

Site 301.05(b)(6) Criteria Rankings for Scenic Resources with Potential Visibility

Map ID	Resource/Location Name	Approximate Distance to Project Site (miles)	Potential Visual Impact	es The	b The effections of the Upic	c. The extent of the Use and enjoyment	"Increamo "ile proposed facility" of the of The ource "theodosed facility" in the scenic reserves of the ource of the our is in the ource of the ource of the ource of the our is in the our in the our is the	e. The horizontal the proposed facility the end of the contract of the closed facility	etics, relax, elar, elar, elar, or ho, un ho	^{-ung} structures attion, and nature of visible 9. The duration sunding the structure of the structure structures of the structure of the str	$1 \frac{1}{10} \frac{1}{10}$	The first of the second states of the second
5	Depot Road Boat Ramp (Hampton Falls Boat Landing)	0.7	None	1	0	0.25	2.0	v	0.20	0.0	-	5.5
7	Hampton State Marina	1.88	Low	1.75	0	2	1.5	0.25	0.5	1.5	3	10.5
8	Hampton Beach State Park Facilities and Campground	2.12	Low	1	0.5	1.25	1	0.25	0.5	1	2.5	8
10	Brimmer Lane (Viewpoint 2)	0.44	Low	0.75	0	0.5	2.75	0	0.5	0.75	1	6.25
12	Hampton Harbor	1.76	Low	1.75	0.25	1.75	1.5	0.25	0.5	2	2.75	10.75
18	U.S. Route 1 - Seabrook	0.72	None	0.5	0	0.25	2.5	0.25	0.25	0.25	1	5
20	Seabrook Boat Launch	1.91	None	1.25	0	0.25	1.5	0.25	0.25	0.25	1	4.75
28	Taylor River/Hampton River	1.29	Medium	1.5	0.25	2.25	2	0.5	0.5	2.25	3	12.25
32	Blackwater River	1.52	Low	0.75	0.25	0.25	1.5	0.25	0.25	1	2.5	6.75
38	Hampton Marsh - Hickman	1.95	Low	1	0	1.75	1.5	0.25	0.5	1	2.75	8.75
42	NH Route 1A South - Hampton	2.18	None	0.25	0	0.5	1	0	0.25	0.5	1.5	4
45	Hampton Beach Casino - Back Parking Lot	2.26	None	0.25	0	1	1	0	0.5	1	2	5.75
52	Hampton Falls Saltmarsh Wildlife Management Area	0.19	Medium	0.5	0.5	2.5	3	1.5	1	1.75	1.75	12.5
53	Seabrook Saltmarsh Wildlife Management Area	1.05	Low	0.75	0.25	1	2	0	0.75	1	1.5	7.25
54	Hampton Saltmarsh Wildlife Management Area	1.74	Low	0.75	0.25	0.75	1.5	0	0.75	1	2	7
56	American Independence Byway	1.74	Low	1	0	1.25	1.5	0	0.5	0.5	2	6.75
57	Coastal Byway	1.95	Low	1.25	0	0.75	1.5	0	0.25	0.5	2	6.25



Ranges for Final Rankings No Impact: < 6 Low Impact: ≥ 6 and < 12 Medium Impact: ≥ 12 and < 18 High Impact: ≥ 18 and ≤ 24

Criteria Scoring
0 = None
0.5
1 = Low
1.5
2 = Medium
2.5
3 = High

APPENDIX 11: DOCUMENTATION OF PUBLIC INFORMATION SESSION

1	ST	ATE OF NEW HAMPSHIRE
2	SITE	E EVALUATION COMMITTEE
3	December 1 2021	5.20 m m
4	December 1, 2021 - Seabrook Public Lil	-
5	25 Liberty Lane Seabrook, New Hamp	shire
6		
7		NEW HAMPSHIRE TRANSMISSION, LLC:
8		Pre-Application Public Information Session held pursuant to RSA 162-H:10 regarding the
9		Application of New Hampshire Transmission, LLC, for a
10		Certificate of Site and Facility for the Seabrook Capacitor
11		Bank Project to be Located in the Town of Seabrook, Rockingham County,
12	1	New Hampshire. (Presentation by New Hampshire
13		Transmission, LLC, followed by a Question-and-Answer Session, and
14		then comments to be received from the public, which commenced
15		after the Open House, which was held at 5:00 p.m.)
16		
17	PRESIDING:	Hon. Kathleen McGuire (Retired)
18		(Presiding as The Moderator)
19		
20		
21		
22		
23	COURT REPORTER:	Steven E. Patnaude, LCR No. 52
24		

1 2 NOTED AS PRESENT: 3 Counsel for New Hampshire Transmission, LLC: Douglas Patch, Esq. (Orr & Reno) 4 5 Also noted as present for the New Hampshire Transmission (NHT) Project Team: 6 7 Corinne DiDomenico (NHT - Project Development) 8 Kim Austin (NHT - Environmental) 9 Jason Hoffman (NHT - Engineering & Construction) 10 Peter LaRochelle (NHT - Transmission) 11 Dana Valleau (TRC Environmental - Project Manager) 12 Heather Storlazzi Ward (TRC Environmental - Wetlands) 13 14 ALSO NOTED AS PRESENT: 15 Dylan Achey (TRC Environmental) 16 17 18 19 20 21 2.2 23 24

1	PROCEEDING
2	THE MODERATOR: Well, we have a lot
3	more members of our team here than we do of
4	people from the public. We have the Town
5	Manager, and two Selectwomen are here today, and
6	some members of the public.
7	So, my name is Kathleen McGuire. I'm a
8	retired I've spoken to some of you already,
9	I'm a retired Superior Court judge. And I was a
10	judge for about 25 years before I fully retired.
11	So, if you don't know me, that's a good thing.
12	But my function tonight is to moderate this
13	public information session about the
14	capacitator no, capacit
15	MS. DiDOMENICO: Capacitor.
16	THE MODERATOR: "Capacitor". I did
17	practice that ahead of time, and I had it
18	right Capacitor Banks and Circuit Breaker
19	Project, which is proposed to be built here on
20	Seabrook property, that serves right now as a
21	parking lot for the Seabrook Station.
22	ISO New England, the non-profit
23	regional electrical organization for New England
24	has determined that this Project is needed to

1	ensure the safety and reliability of the high
2	voltage electric transmission grid. This Project
3	is proposed by New Hampshire Transmission, LLC,
4	NHT, which is a subsidiary of NextEra Energy
5	Resources, which is headquartered in Juno Beach,
6	Florida.
7	So, this public information session is
8	the first step in a state administrative process
9	that's required by statute, by RSA 162-H. Before
10	this Project, or any new energy project, can be
11	built, the company proposing the project must
12	receive a Certificate of Site and Facility from
13	the New Hampshire Site Evaluation Committee, more
14	usually called the "SEC". The SEC is an entity
15	formed by the Legislature for the purpose of
16	reviewing and authorizing proposed energy sites
17	and facilities.
18	In determining whether to approve an
19	energy project, the SEC considers whether the
20	project will have an unreasonable adverse impact
21	on the aesthetics, historic sites, water quality,
22	the natural environment, and public health and
23	safety. The SEC must also determine whether the
24	project serves the public interest.

	F
1	RSA 162-H:10 requires that at least 30
2	days before submitting an application to the SEC,
3	the company seeking approval for the energy
4	project must hold a public information session in
5	the county in which the project is to built.
6	And, as you know, Seabrook is in Rockingham
7	County, and this event tonight is the
8	pre-application information session for the
9	proposed
10	MS. DiDOMENICO: Capacitor.
11	THE MODERATOR: Capacitor, thank
12	you, Bank Project.
13	The statute further requires I can't
14	talk without a pen in my hands the statute
15	further requires that all public information
16	sessions be recorded. And that's why you see
17	over here Steve Patnaude, a court reporter,
18	taking down everything that is said here tonight.
19	And he'll then prepare a transcript of tonight's
20	session, and that will be made part of the
21	application for the Project, for this Project to
22	the SEC.
23	So, the purpose of tonight's session is
24	for New Hampshire Transmission to present
24	for New Hampshire Transmission to present

1	information about the Project to the public, and
2	to provide the public with an opportunity to ask
3	questions and to make comments about the proposed
4	Project. As part of the effort in that regard,
5	there was an open house ahead of time, in which
6	members of the public could ask the Project
7	experts here about the Project. And, again, once
8	this part of the process is over, they will still
9	be around to ask any further questions that you
10	have.
11	So, tonight's session has three parts.
12	First, after I've completed my introduction, the
13	Project Manager, Corinne DiDomenico, will make
14	opening remarks and give an overview about the
15	Project. And then, members of the Project Team
16	will answer questions from you, the public. And,
17	so, when that part comes, you'll just step up to
18	the microphone and ask your questions, and
19	Corinne will direct the question to the person
20	she thinks is most capable of answering your
21	questions.
22	After that ends, then you can make
23	comments, again, up at the microphone. Just
24	state your name and what town you're from, and

1	that will all be taken down again by Steve.
2	Those comments will be transcribed again and made
3	part of the presentation to the SEC.
4	As I said previously, tonight's public
5	information session is the beginning of what may
6	be a lengthy state administrative process. The
7	next step will be for NHT to file its application
8	with the SEC. RSA Chapter 162-H provides that
9	this occur no sooner than 30 days after
10	completing tonight's public information session.
11	NHT anticipates that it will file its application
12	in early 2022. The application, including all
13	public comments, will be available on the SEC
14	website.
15	Once the application is filed, the SEC
16	has 60 days to determine whether to accept it.
17	Because this is a relatively small and
18	inexpensive project, compared to many other
19	projects that come before the SEC, NHT plans to
20	ask the SEC to exempt it from the full SEC
21	process. A decision on this request will also be
22	made within 60 days after the filing.
23	If the SEC agrees with this request,
24	NHT will have to get will still have to get

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1	any permits that are required by state agencies.
2	If the SEC disagrees, NHT will have to undergo a
3	longer process of public and adjudicative
4	hearings before the SEC. At the end of which the
5	SEC will determine whether or not to grant a
6	certificate.
7	So, again, thank you for coming out to
8	this initial step in the SEC siting process. And
9	now Corinne will introduce the Project and the
10	Project Team, after which, of course, you can ask
11	your questions and make your comments.
12	Corinne.
13	MS. DiDOMENICO: Hi. Good evening,
14	everyone. Actually, before I get started with
15	the presentation, just some safety items. In the
16	event of an emergency, you, of course, have the
17	doors where you came in. There's also an exit
18	right there, right here in the room. Water is
19	over here, and that's for those who are
20	interested.
21	Again, I'm Corinne DiDomenico.
22	"Corinne D" is fine. We've got enough
23	complicated words to cover today.
24	THE MODERATOR: You should have told me

1	that before.
2	MS. DiDOMENICO: Yes. I should have.
3	So, I'm joined today by colleagues who
4	have been working on this Project that perform
5	subject matter expertise, provide subject matter
6	expertise. I'm joined here today by Dana, who
7	will be covering our environmental aspects of the
8	permitting application; I'm also joined by Doug
9	Patch, who is our outside counsel from Orr &
10	Reno; Heather Storlazzi Ward, from TRC
11	Environmental, our wetlands expert; Peter
12	LaRochelle, our transmission expert; and Jason
13	Hoffman, our engineering and construction expert.
14	And, so, I am realizing, as I stand up
15	here, I'm going to constantly be looking
16	backwards. So, I might actually go back to my
17	seat so I can look at the laptop, because I can
18	hear my voice drifting when I turn. So, back in
19	a second.
20	(Short pause.)
21	MS. DiDOMENICO: All right. Can you
22	all hear me okay?
23	UNIDENTIFIED SPEAKER: Yes.
24	MS. DiDOMENICO: All right. So, I'll

1	just give some background on our Company, who we
2	are; background of the Project, sort of why this
3	Project is needed; an overview of the Project
4	itself, we'll show we do have some pictures
5	around of the site location, we'll give that in
6	the presentation as well; cover the permitting
7	process; and the Project design, sort of the
8	technical aspects of sort of what we were trying
9	to achieve with the Project; and then, again,
10	open it up for questions.
11	So, as Judge McGuire said, we New
12	Hampshire Transmission is an affiliate of NextEra
13	Energy Resources. We're a leading clean energy
14	and utility infrastructure company across
15	excuse me active across North America. You'll
16	see here we've got "NextEra Energy", our parent
17	company; "NextEra Energy Transmission", that's
18	under which New Hampshire Transmission is an
19	affiliate; we've got "NextEra Energy Resources",
20	which is the leader in electricity, renewable
21	electricity; and "FPL", which is the largest
22	utility in the United States. And, so, we're a
23	growing, diversified company.
24	But you'll see here on the next slide

1	sort of understanding where New Hampshire
2	Transmission sort of fits in the energy
3	landscape. You'll see here, in a deregulated
4	market or, I should say a regulated market,
5	when utilities were vertically integrated, you
6	sort of had utilities involved from the power
7	generation, through the transmission, then
8	stepped down to distribution and distributed to
9	the retail customers.
10	Today, in a deregulated, not integrated
11	world, you'll see there that NextEra New
12	Hampshire Transmission performs the transmission
13	role function in this world. And, so, different
14	entities represent the generating companies,
15	transmission, and sometimes the distribution and
16	serving to retail customers.
17	So, New Hampshire Transmission is a
18	transmission company. We do not serve retail
19	loads here in New Hampshire. We merely function
20	as the transmission company in this aspect.
21	I went through some of these
22	introductions, but I'm also noting that I missed
23	a colleague here. So, sorry about that, and
24	thankfully for the slide. Again, Corinne who

1	I missed is Kim Austin, who works with us here in
2	the environmental efforts. I went through and
3	introduced Jason Hoffman, Peter LaRochelle. And
4	the TRC team, who are our consultants, supporting
5	us on both environmental and engineering. And,
6	then, of course, Doug Patch, from Orr & Reno, for
7	our outside counsel.
8	So, ultimately, this Project is needed
9	to ensure the safety and reliability of the high
10	voltage electric transmission grid. I may have
11	explained this to some of the folks here, but the
12	ISO, the Inter oh, my goodness Interstate
13	System Independent System Operator of New
14	England, conducts periodic studies of the system
15	in New England. And the system in New England is
16	made up of the New England states. But this
17	particular study focused on the New Hampshire
18	area, and it looked out to 2029. And, so, it
19	looks out at a forecast of what load will look
20	like in ten years from that time it was conducted
21	in 2019, what the future load will look like,
22	what future resources will be available, and it
23	studies the system under various scenarios. And
24	it's looking for any issues, reliability or

1 criteria violations that would be identified. 2 And, so, that study was conducted. And, 3 thereafter, ISO evaluated solutions to resolve 4 those reliability issues. 5 And, ultimately, New Hampshire 6 Transmission's solution was selected as a part of 7 the ultimate portfolio, I should say, of projects 8 that would be used to address this. And, so, New 9 Hampshire Transmission is installing two 50 10 MegaVAR capacitor banks, which we will give some 11 more details on as well. But also sort of paired 12 with this Project is Eversource will be doing a 13 project over at the Amherst Station installing a 14 Statcom. 15 So, an overview of the Project: Of 16 course, the Project is located here in Seabrook, 17 New Hampshire. The site is currently serving as 18 a parking lot for the Seabrook Power Station. 19 Again, the Project is a small electrical 20 facility, similar to sort of substations that you 21 might see or have seen, consisting of two 50 MegaVAR, which is "Megavolt-amp reactive", 2.2 23 capacitor banks, three 345 kV circuit breakers, 24 and a short transmission line tap, which will

serve to connect the capacitor banks to the 1 2 transmission line. The Project footprint will be 3 approximately two acres. 4 And the target schedule, as mentioned 5 before, is that we're looking to make the SEC 6 filing in early 2022. We're looking to start 7 construction in the Spring of 2023, and go in service at the end of 2023. 8 9 So, you can see here, this is the 10 Project site. This is an aerial view. What I 11 wanted to be able to show here is its location in 12 proximity to the NextEra Seabrook Power Station. 13 You can also see there on the left-hand side, or 14 the western side of the site, that's Route 1, for 15 you to be able to see there. The road just south 16 of the Project is the north access road, which is 17 a bit north of Rocks Road there. And, so, you 18 can see the Project will be sited in a very 19 similar, sort of situated environment, industrial 20 location for a project like this. 21 Here are some examples of capacitor 2.2 banks, just to give folks sort of an idea of what 23 this Project will look like. You can see here a closeup, I think I showed folks there. But this 24

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[Public Information Session]

1 equipment will be located in a fenced-in yard, 2 with other electric equipment, as well as a 3 control house, a very small, unmanned control 4 house used for the facility. 5 So, I won't go into a lot of detail on 6 the permitting process. I think Judge McGuire 7 covered a lot of it. But, again, the SEC process 8 is meant to ensure that the Project meets state regulations. We'll be seeking to be exempt from 9 10 the SEC process, or ask that they determine that 11 the Project is not a sizeable addition. This 12 Project is a smaller scale, compared to other projects that would typically go before the SEC, 13 14 or we'll be asking to expedite the SEC process 15 for approval. 16 We have been keeping the Town updated 17 of the Project, and we'll be seeking any local 18 permits that would be required. 19 MR. VALLEAU: All right. I'm Dana 20 Valleau, from TRC. And I'm leading the 21 environmental permitting effort. And I'll get 2.2 into a little bit of how we look at a site like 23 this. 24 So, what we first do is try to

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1	determine what constraints are on the site, and
2	to kind of maximize the efficiency of building on
3	the site. So, just so happens that the site that
4	was brought to us is a parking lot on the
5	Seabrook Station site. So, the footprint itself
6	is pretty much confined to the parking area and
7	previously developed land.
8	So, now, we look outside of that.
9	There are wetlands that abut the site. So, we
10	did a wetland delineation, and also determined
11	where the extent of the high tide line is, to
12	determine jurisdiction under the DES Shoreland
13	Permit process, and also to determine if we
14	needed any wetland permitting.
15	So, the Project, as I said, is in an
16	existing developed area, so there's no direct
17	wetland impacts. We are within 100 feet of the
18	tidal wetland. So, we will need some level of
19	wetland permit, even though we're outside, we're
20	within a buffer. And we're also within 250 feet
21	of the high tide line. So, we will need a
22	Shoreland Permit. The full extent of that
23	permitting will depend on the Project ultimate
24	footprint that's going to be permanently

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developed there. But, right now, it looks like 1 2 it will be fairly minimal. And, again, it's 3 within an existing parking lot area that's already been developed. 4 5 It's a good site, because it is 6 directly adjacent to existing transmission lines. 7 So, when you look at constraints to a site, you 8 also look at any sort of benefits from siting a 9 project. And being directly adjacent to existing 10 transmission is very good, and it helps a project 11 fit into the landscape, and also reduces the need 12 for additional transmission development. 13 We're also going to use existing access 14 roads, which also minimizes the amount of 15 footprint we need to disturb. And it fits in 16 with all of the local regulations. 17 We will be doing some additional 18 studies, to make sure that we meet not only local 19 standards, but also state standards. 20 Let's see. So, as I mentioned, we did 21 a wetland delineation. We're not going to have 2.2 any impacts that are direct to the wetlands or 23 waterbodies. We are consulting with the New 24 Hampshire Department of Historic Resources, to

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1determine if there's any resources either in the2area or, you know, that could be affected by the3footprint or have visibility, may be historic4structures nearby. We'll see what that5consultation brings. We're filing a request for6a Project review with them.7We're also going to do a visual impact8assessment and a sound assessment. And once we9have final engineering, we'll have those results.10And, with both of those, we're looking at impacts11to protected locations, such as residences or12public areas.13We have consulted with New Hampshire14Natural Heritage Bureau and also the U.S. Fish &15Wildlife for any rare species. And there's some16rare plants that are found in the tidal marsh,17but they're not within the Project area.18As part of the SEC, we also look at19land use, employment, and other economic benefits20or impacts that a project could cause.21So, again, like I said, we did a22wetland work delineation out there. Located the23Coastal Reference Line, which is based on the24Highest Observable Tide Line. We established		
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	22	wetland work delineation out there. Located the
24 Highest Observable Tide Line. We established	23	Coastal Reference Line, which is based on the
	24	Highest Observable Tide Line. We established

[Public Information Session]

1	where the regulated Tidal Buffer Zone is. And we
2	also established where the shoreland zone is.
3	Agency consultations, I mentioned
4	these: U.S. Fish & Wildlife, New Hampshire
5	Division of Historical Resources, Natural
6	Heritage Bureau, and we're also talking to DES
7	about Shoreland Permitting.
8	The Project will also likely trip
9	Alteration of Terrain, which the threshold is
10	100,000 square feet of soil disturbance, whether
11	it's developed or not. So, we're talking with
12	that bureau right now to determine what we're
13	going to need to address for their permitting
14	needs. And other and we're talking to the
15	Town of Seabrook, to determine what level of
16	permitting they might need, say, if we don't need
17	to go through the SEC process.
18	We've looked at the watershed. We've
19	also looked at soils mapping, and NWI mapping.
20	Our on-site wetland mapping is what we're relying
21	on, though. The NWI mapping is just for
22	reference.
23	So, with that, are there any questions?
24	We do have our wetlands expert here, if anybody

[Public Information Session]

1 has any wetlands questions. And I can address 2 anything regarding permitting. 3 THE MODERATOR: Does anyone have any questions? 4 5 Yes. Would you come up to the 6 microphone, and state your name and your town? 7 MS. SOMERBY: Faye, from Hampton Falls. THE MODERATOR: It's "Faye"? 8 MS. SOMERBY: "Faye". 9 10 THE MODERATOR: Okay. 11 MS. SOMERBY: If it's going to be built 12 in a parking lot, where is the people going to 13 park that park there now? 14 THE MODERATOR: Okay. Who wants it? 15 Corinne, who wants to --16 [Court reporter interruption.] 17 THE MODERATOR: Would you state your 18 name just for the record. 19 MR. HOFFMAN: Can you hear me? 20 MR. PATNAUDE: Yes. 21 MR. HOFFMAN: Jason Hoffman, with 2.2 engineering and construction. 23 So, the current station footprint has 24 other parking located, actually some is right

1 adjacent to the lot we're building in. So, there 2 is additional parking within the station to 3 accommodate the employees. MS. SOMERBY: And when it's all 4 5 completed, will there be new jobs? 6 MS. DiDOMENICO: I'm happy to take 7 that. So, the site will be unmanned. And, 8 9 so, there will be jobs during the construction, 10 and some short-term jobs. But the site will be 11 unmanned. 12 MS. SOMERBY: Thank you. 13 THE MODERATOR: Again, just to make 14 sure. Faye, were you asking whether or not they 15 would have to make an additional parking lot? 16 MS. SOMERBY: I was just curious as 17 to --18 THE MODERATOR: Okay. 19 MR. HOFFMAN: Yes. We will not be 20 adding an additional parking lot. But there is 21 additional parking already on the station 2.2 property. THE MODERATOR: So, there's adequate 23 24 parking even with the Project?

[Public Information Session]

i	
1	MR. HOFFMAN: That is correct.
2	THE MODERATOR: Okay.
3	Does anyone else have a question or
4	comment they would like to make?
5	[No verbal response.]
6	THE MODERATOR: Okay. All right.
7	Going once? Twice?
8	[No verbal response.]
9	THE MODERATOR: Okay. I think we're
10	done.
11	Does anybody from the Team want to add
12	anything?
13	MS. DiDOMENICO: No thank you.
14	THE MODERATOR: Okay.
15	MS. DiDOMENICO: Thanks for offering.
16	THE MODERATOR: Have a safe drive home.
17	(Whereupon the Public Information
18	Session was adjourned at 5:57 p.m.)
19	
20	
21	
22	
23	
24	

1	
2	CERTIFICATE
3	I, Steven. E. Patnaude, a Licensed Shorthand
4	Court Reporter, do hereby certify that the foregoing
5	is a true and accurate transcript of my stenographic
6	notes of these proceedings taken at the place and on
7	the date hereinbefore set forth, to the best of my
8	skill and ability under the conditions present at
9	the time.
10	I further certify that I am neither attorney or
11	counsel for, nor related to or employed by any of
12	the parties to the action; and further, that I am
13	not a relative or employee of any attorney or
14	counsel employed in this case, nor am I financially
15	interested in this action.
16	
17	Steven E. Patnaude, LCR
18	Licensed Court Reporter N.H. LCR No. 52
19	(RSA 310-A:173)
20	
21	
22	
23	
24	

NHT SEABROOK CAP BANK 12/1/2021 Email/Phone Name Herepa Kyle 1. 2. Olla M. 3 Dala Q. BRCKman dbeckars & comcast. Net 17 PAYE SOMERBY fayered 52 Romanis NET 5 ROBERT ARSBY

APPENDIX 12: FINANCIAL STATEMENT

	Balance as of	Pro-forma	Adjusted Balance
<u>Acct. Desc.</u>	12/31/21	Adjustments	as of 12/31/21
<u>Assets</u>			
Cash	\$		\$
Accounts Receivable	\$		\$
Other Current Assets	\$		\$ \$ \$
Total Current Assets	\$	\$	\$
Plant-in-Service	\$	\$	\$ \$ \$ \$ \$
Accumulated Depreciation	\$ 		\$
Net Plant-in-Service	\$	\$	\$
Construction, Work-in-Progress	\$		\$
Total Property, Plant, & Equipment	\$	\$	\$
Regulatory Assets & Deferred Debits	\$		\$
Total Assets	\$	\$	\$
Liabilities			
Accounts Payable	\$		\$
Accounts Payable Due to Assoc. Comp.			\$
Accrued Interest & Taxes	\$		\$
Other Accrued Liabilities	\$ \$ \$		\$
Total Current Liabilities	\$	\$	\$ \$ \$ \$
Notes Payable	\$	\$	\$
Regulatory Liabilities	\$		\$
Accumulated Deferred State Income Taxes	\$		\$ \$ \$
Accumulated Deferred Federal Income Taxes	\$		\$
Total Deferred Credits and Other Liab.	\$	\$	\$ \$
Total Liabilities	\$	\$	\$
Miscellaneous Paid-in-Capital	\$	\$	\$
Unappropriated Retained Earnings	\$		\$
Total Owners' Equity	\$	\$	\$

APPENDIX 13A: CULTURAL REQUEST FOR PROJECT REVIEW



1356 Washington St, Suite A Bath, ME 04350 T 207.387.0572 TRCcompanies.com

February 2, 2022

Ms. Marika Labash Review & Compliance NH Division of Historical Resources State Historic Preservation Office 19 Pillsbury Street Concord, NY 03301-3570

Dear Ms. Labash

Please find the enclosed Request for Project Review Form that TRC is submitting on behalf of New Hampshire Transmission, LLC for the Seabrook Station Capacitor Banks Project (Project) located in Seabrook, New Hampshire. The Project is seeking a Certificate of Site and Facility through the Site Evaluation Committee and has been assigned SEC No. 2021-05. The Project will also be seeking a NH Department of Transportation (DOT) Temporary Use Agreement to Enter State-Owned Railroad Land to Preform Work. This agreement has not yet been filed with NH DOT and therefore a NHDOT reference number has not been assigned.

Please contact me at kemack@trccompanies.com or 207-215-2872 with any questions or concerns.

Thank you,

Karen E Mack

Karen E. Mack TRC Principal Archaeologist

Please mail the completed form and required material to:

New Hampshire Division of Historical Resources State Historic Preservation Office Attention: Review & Compliance 19 Pillsbury Street, Concord, NH 03301-3570

DHR Use Only	
R&C #	
Log In Date	//
Response Date	//
Sent Date	//

Request for Project Review by the New Hampshire Division of Historical Resources

CENEDAL DDO IECT INFORMATION	
This is additional information relating to DHR Review & Compliance (R&C) #:	
This is a new submittal	

Project Title Seabrook Station Capacitor Banks Project			
Project Location The Project is located 2 mi. N of the MA line, 15 mi. S of the ME line.			
City/Town Seabrook, NH Tax Map 7; 11;12 Lot # 1,90,94,110; 1,2; 25,43			
NH State Plane - Feet Geographic Coordinates:Easting 1202903Northing 146210(See RPR Instructions and R&C FAQs for guidance.)			
Lead Federal Agency and Contact (<i>if applicable</i>) None (Agency providing funds, licenses, or permits) Permit Type and Permit or Job Reference #			
State Agency and Contact (if applicable) Site Evaluation Committee & NHDOT Temporary Use			
Permit Type and Permit or Job Reference # SEC #2021-05			
APPLICANT INFORMATION			
Applicant Name New Hampshire Transmission, LLC			
Mailing Address 700 Universe Blvd. Phone Number 316-775-8503			
City Juno Beach State FL Zip 33408 Email Peter.Larochelle@nexteraenergy.com			
CONTACT PERSON TO RECEIVE RESPONSE			
Name/Company Karen E. Mack, TRC			
Mailing Address 1356 Washington St. Suite A Phone Number 2072152872			
City Bath State ME Zip 04530 Email kemack@trccompanies.com			

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at marika.labash@dncr.nh.gov or 603.271.3558.

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

Project Boundaries and Description

- Attach the Project Mapping using EMMIT or relevant portion of a 7.5' USGS Map. (See RPR Instructions and R&C FAQs for guidance.)
- Attach a detailed narrative description of the proposed project.
- Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation.
- Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.)
- A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in **Table 1**. (Blank table forms are available on the DHR website.)

EMMIT or in-house records search conducted on 10/29/2021.

<u>Architecture</u>

Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? 🛛 Yes 🗌 No

If no, skip to Archaeology section. If yes, submit all of the following information:

Approximate age(s): 1980s

- Photographs of *each* resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.)
- L If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)

<u>Archaeology</u>

Does the proposed undertaking involve ground-disturbing activity? 🛛 Yes 🗌 No If yes, submit all of the following information:

- Description of current and previous land use and disturbances.
- Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)

Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.

DHR Comment/Finding Recommendation This Space for Division of Historical Resources Use Only

□ Insufficient information to initiate review. □ Additional information is needed in order to complete review.

🗌 No Potential to cause Effects 🔄 No Historic Properties Affected 🔄 No Adverse Effect 🗔 Adverse Effect

Comments:_

If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.

Authorized Signature:

Date:

NHDHR Request for Project Review Seabrook Capacitor Banks Project

Project Description

New Hampshire Transmission, LLC (NHT) is proposing the development of the Seabrook Capacitor Banks Project (Project or Project area) at the Seabrook Station. The purpose for this Project is to install additional industrial infrastructure within the existing industrial setting of the Seabrook Station. The Seabrook Station site encompasses 889 acres on a peninsula bordered by Browns River, Hunts Island Creek, and estuarine marshlands and is approximately 3.7 kilometers (km) west of the Atlantic Ocean and Hampton Harbor Inlet. The Project will be in an existing parking lot on the Seabrook Station site, which is located in the Town of Seabrook, Rockingham County, NH (Figure 1). The Project area's limits of disturbance will cover approximately 3.87 acres. Project components will include capacitors, aboveground electric lines, and other necessary infrastructure (e.g., other electrical equipment, security fencing, dead-end structures, etc.).

Environmental Description

The Project is located on the south side of Browns River (Figure 1, Photo 1). The Project will be in an existing parking lot shown in Figure 2 and the background of Photo 2 (Photo key provided in Figure 2). The Project area is paved except for a small section in the northernmost portion; however, the entire area is mapped by Natural Resource Conservation Service (NRCS) as Udorthents, smoothed (299) (websoilsurvey.sc.egov.usda.gov) (Figure 3). Udorthents are defined by the NRCS as in areas that have been cut to a depth of 2 feet or more or are on areas with more than 2 feet of fill. A review of historic aerials showed that major modification of the Project area, now used as a parking lot and storage location at the Seabrook Station, took place between 1974 and 1978 (Figures 4 and 5).

Literature Review

Literature review for the Project consisted of a review of NHDHR site files within 5 km of the Project boundary. The review of NHDHR site files using EMMIT was completed on October 29, 2020. Table 1 provides a summary of this review.

No Precontact period archaeological sites or Postcontact period archaeological sites are located within the Project area. However, 25 Precontact period archaeological sites are located within 5 km of the Project area. These sites provide evidence of Native American use of the area from the Middle Archaic period through the Late Woodland period. An additional seven (7) Postcontact (Historic) period sites also are located within 5 km of the Project area. The earliest Postcontact period site dates to the mid-1600s.

No previously inventoried Historic structures are located within the Project area. However, 35 inventoried Historic structures are located within the 5 km of the Project area. The closest previously inventoried structure was Mildy's Antiques ("Judge Chase's Courthouse"); this structure is no longer standing. No information is available on the date of construction of this structure. It was located approximately 1.7 km west of the Project area on the east side of Lafayette Road. The location of the structure is currently occupied by a Dollar Tree store.

Two previously identified Historic areas are located within 5 km of the Project area: the RR Eastern Railroad Linear District/B&M Eastern Division (ZMT-ERLD) and Hampton Beach Cottages Historic District (HAM-HBHD). Both are eligible for listing on the NRHP.

The RR Eastern Railroad Linear District/B&M Eastern Division (ZMT-ERLD), lies adjacent to the western edge of the Project area, and the Project area overlaps a small paved area of the portion of the historic district that is located within the area controlled by Seabrook. This paved area is currently part of the existing parking lot in the Project area (see site plan). This district was determined eligible for listing on the NRHP in March of 2002 under Criteria A and C (events and design/style). It was the second rail line built in the state and linked the city of Portsmouth to Boston, coastal Maine and Portland. It was

NHDHR Request for Project Review Seabrook Capacitor Banks Project

economically significant to the region for its ability to move goods to market and later to transport summer tourists to the area. Although passenger service along the rail line ended in the mid-20th century, the portion of the railroad that lies adjacent to, and partially overlapped by, the Project area appears to have been used to transport construction materials during construction of the Seabrook Power Plant during the 1980s (*taken from DOE form*). Currently, the rail line in this area has been removed and it is increasingly overgrown with reverting vegetation along the rail corridor in this location, consisting of trees and shrubs. As shown on the site plan and Figures 2 and 3, the portion of the district that overlaps the project area consists of an existing paved area that is currently part of the parking lot in which the Project will be constructed. This paved area will be used as workspace for and access around the new Project components during construction, but the paving will remain in place, there will be no tree or shrub cutting in this area, and no subsurface soil disturbance or alteration of the existing paved surface will occur. Therefore, despite use of this small portion of the historic district that is located within the Project area.

The second Historic area, Hampton Beach Cottages Historic District (HAM-HBHD), is located 4.4 km east of the Project along Hampton Beach. It consists of an intact neighborhood of seasonal cottages constructed during the early-mid 20th century for summer tourists. This district was determined eligible for listing on the NRHP in March of 2019 under Criteria A and C (events and design/style). Given its distance from the Project area, the Project is not expected to have any physical or visual impacts on this historic district.

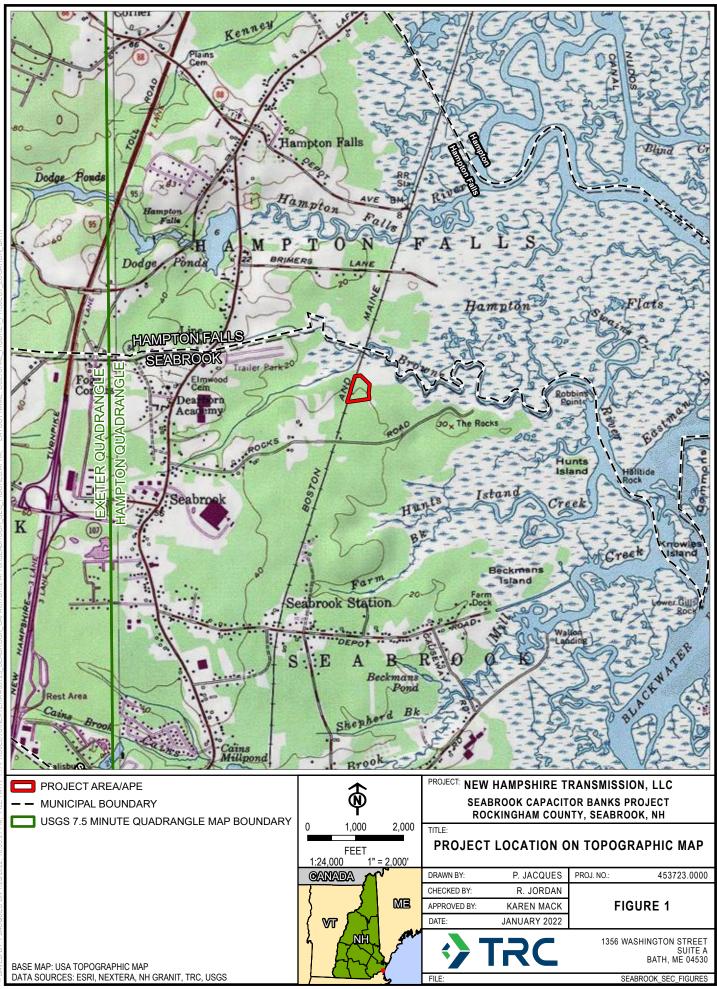
Three Historic Project areas are located within 5 km of the Project area; their NRHP eligibility is undetermined or not eligible. The Seabrook-Hampton Project Area (ZMT-SHPA), which was surveyed in 2017 and 2018 and whose NRHP eligibility is undetermined, overlaps the Project area. The Seabrook-Hampton Project Area is focused primarily on Ocean Boulevard and adjacent streets but includes a 3.080acre area consisting of coastal salt marshes, low-lying coastline areas and barrier spits. The Seabrook Station is located in the coastal sea marsh area, but was not included in the survey due to security concerns. The coastline areas contain properties dating from the 18th century to the present; barrier spits have been chiefly built upon beginning in the late 19th century and continuing to the present. The area evolved from a fishing and agricultural community to recreational area during the 19th and 20th centuries. The closest point of the Routes 101/51 Project Area (ZMT-R101), which was surveyed in January 1991 and whose NRHP eligibility is undetermined, is located approximately 3.6 km north of the Project. The closest point of the Hampton, Hampton Beach Project Area (HAM-00HB), which was surveyed in February 2010 and determined not eligible for the NRHP, is located 3.6 km east of the Project. Given the distance of the built portions of the Seabrook-Hampton Project Area (ZMT-SHPA) and the closest points for the Routes 101/51 Project Area (ZMT-R101) and the Hampton Beach Project Area (HAM-00HB) from the Project area, the Project is not expected to have any adverse physical or visual impacts on these Historic Project areas.

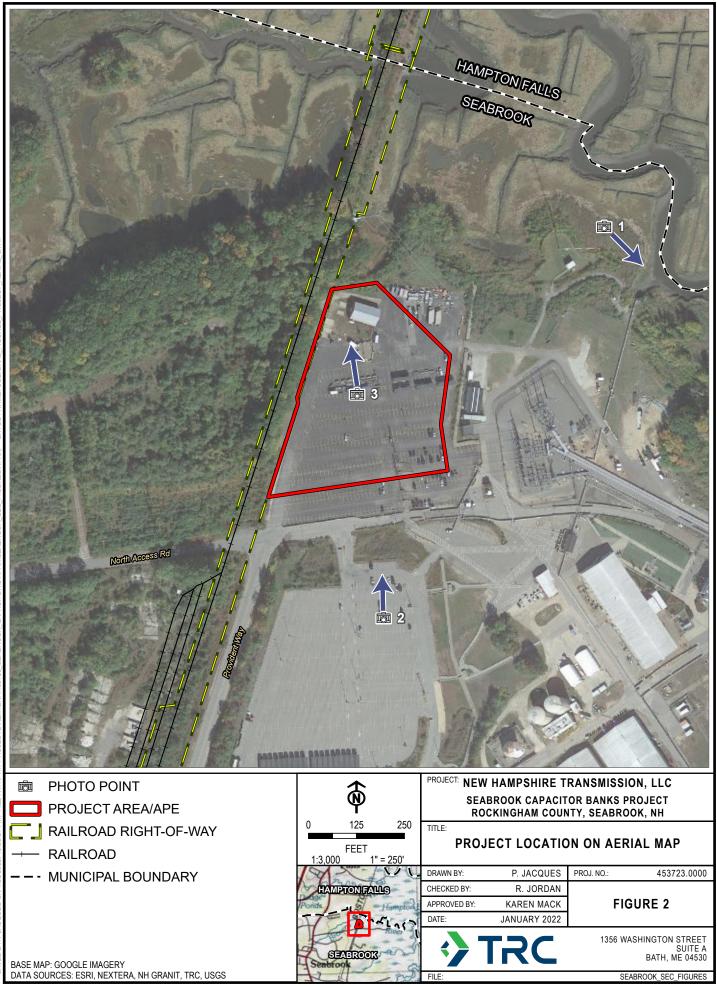
Construction of Seabrook Station was completed in 1986 and it began commercial operation in 1990. The proposed Project will be generally consistent in form and function with other built features of the Seabrook Station. An existing storage building is located within the Project area. A review of historic aerials suggests the building was constructed between 1978 and 1990. It can be seen in the distance in Photo 1 and in close up in Photo 3. The current plan is to remove this functionally utilitarian and architecturally undistinguished building from the Project area.

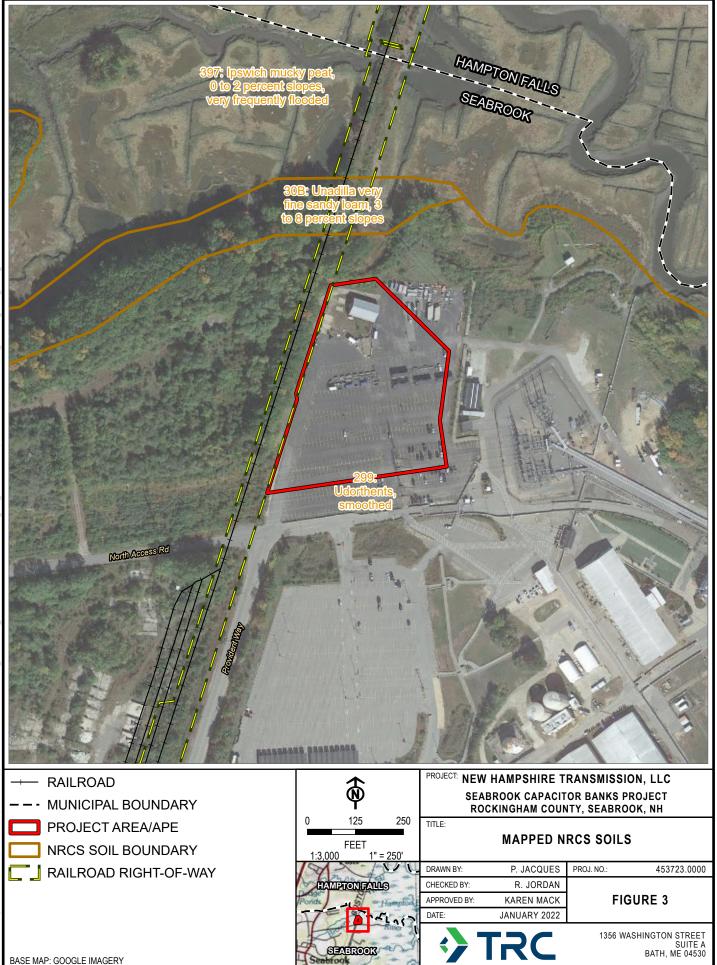
Seabrook Capacitor Banks		DHR R&C#		
RPR Table 1: PREVIOUSI		r		
NHDHR Property Name	NHDHR Inventory #/ NRHP #	National Register-listed, Eligible or Not Eligible	Date of Determination (mm/dd/yy)	National Register Criteria of Significance
Precontact Archaeological	Sites			
Rest Area Seabrook	27-RK-0010	Undetermined		
White Effigy	27-RK-0055	Eligible-NR	9/01/1991	D
Rocks Road Seabrook Station	27-RK-0075	Not Eligible	6/24/03	
Edgerly Farm	27-RK-0160	Undetermined		
Cache	27-RK-0161	Undetermined		
Healey's Island	27-RK-0162	Undetermined		
Unnamed	27-RK-0163	Undetermined		
Hunt's Island	27-RK-0164	Not eligible	8/27/2002	
Seabrook Saltmarsh	27-RK-0165	Undetermined		
Unnamed	27-RK-0166	Undetermined		
Unnamed	27-RK-0167	Undetermined		
Unnamed	27-RK-0168	Undetermined		
Hampton Landing	27-RK-0169	Undetermined		
Unnamed	27-RK-0170	Undetermined		
Chase Homestead Prehistoric	27-RK-0172	Undetermined		
Robbie Beckman's	27-RK-0173	Undetermined		
Tide-Water Campground	27-RK-0175	Undetermined		
Great Rock Ledge	27-RK-0196	Undetermined		
Secord's Pond Axe	27-RK-0190	Undetermined		
Mary's Brook Site	27-RK-0230	Undetermined		
Beckman Woods	27-RK-0441	Not Eligible	6/10/2010	
Bolian #2	27-RK-0452	More info. needed	5/6/2010	D
Bolian #5	27-RK-0453	More info. needed	5/6/2010	D
Taylor River II	27-RK-0557	Not eligible	2/1/2021	D
Taylor River III	27-RK-0558	Not eligible	2/1/2021	
Postcontact (Historic) Arch		Not eligible	2/1/2021	
Healey's Island	27-RK0162	Undetermined		
Hunt's Island	27-RK-0164	Not eligible	8/27/2002	
Robbie Beckman's	27-RK-0104	Undetermined	012112002	
Tide Mill	27-RK-0173	Undetermined		
Quaker Burying Ground	27-RK-0176	Undetermined		
Taylor River II	27-RK-0557	Not eligible	2/1/2021	
Taylor River III	27-RK-0558	Not eligible	2/1/2021	
Architectural Resources/His		1,00 01151010	2, 1, 2021	1
Hampton Beach Fire Station	HAM0035	Eligible-SR	9/22/2010	
Neil R. Underwood Memorial Bridge/ NHDOT Bridge (235/025)	HAM0103	Eligible-NR	1/23/2019	

Seabrook Capacitor Banks Project DHR R&C#				
RPR Table 1: PREVIOUSL	AY SURVEYED	OR LISTED PROP	ERTIES within 5	km of the Project
NHDHR Property Name	NHDHR	National	Date of	National
	Inventory #/	Register-listed,	Determination	Register
	NRHP #	Eligible or Not	(mm/dd/yy)	Criteria of
		Eligible		Significance
The Fraser and The Bobby	HAM0108	Not eligible	3/13/2019	
Dean				
Madaline Cottage/ Harris	HAM0109	Eligible-NR	3/13/2019	
Inn		C		
Hampton Beach Salt Water	HAM0110	Not eligible	6/5/2019	
Pump House		_		
Unnamed	HAM0111	Not eligible	6/5/2019	
House	HAM0112	Not eligible	6/5/2019	
Hampton Falls Town Hall	HMF0001	Eligible- NR. SR	6/24/2015	
Hampton Falls Library, fmr	HMF0004	Eligible- NR, SR	6/24/2015	
Christian Baptist Church				
Governor Meshech Weare	HMF0005	Undetermined		
House				
Unnamed	SEA0001	Undetermined	3/27/2003	
Locke House	SEA0002	Eligible-NR	10/11/1995	
Samuel & Dorothy Small	SEA0003	Undetermined	10/11/1995	
House				
Bob's Tatoo (Perkins	SEA0004	Not eligible	10/11/1995	
House)				
Unnamed	SEA0005	Not eligible	10/11/1995	
Old South Meetinghouse	SEA0006	Eligible-NR	10/11/1995	
Trinity United Church	SEA0007	Not eligible	10/11/1995	
(formerly Perry's Nut				
House)				
Sanborn School	SEA0008	Eligible-NR	10/6/1993	
Brown House	SEA0009	Not eligible	10/11/1995	
Lafeyette Bakery	SEA0010	Not eligible	10/11/1995	
Edward Gove House	SEA0011	Eligible-NR	11/8/1995	
Mildy's Antiques ('Judge	SEA0012	Not eligible	10/11/1995	
Chase's Couthouse")	AT 1 0 0 1 0	NT - 11 11 1	10/11/1005	
Shapley Line Marker	SEA0013	Not eligible	10/11/1995	
John & Newell Brown	SEA0014	Eligible-NR	11/21/1996	
House	GE 4 001 5	NT / 1' '1 1	7/07/1004	
Gov. Weare Prof Bldg	SEA0015	Not eligible	7/27/1994	
(Order of American				
Mechanics)	SEA0016	Not ali zihla	11/10/2004	
Unnamed	SEA0016	Not eligible	11/10/2004	
Boston & Maine RR Bridge	SEA0017	Contributes to NR,	10/28/2009	
41.92 (136/107)	SE 40019	SR	10/26/1004	
Dwelling	SEA0018	Undetermined Undetermined	10/26/1994	
Former US Saving Bank Building	SEA0019	Undetermined		
Dwelling	SEA0020	Not eligible		
Dwenning	SEA0020	inot eligible		

Seabrook Capacitor Banks Project DHR R&C#				
RPR Table 1: PREVIOUSLY SURVEYED OR LISTED PROPERTIES within 5 km of the Project				
NHDHR Property Name	NHDHR Inventory #/ NRHP #	National Register-listed, Eligible or Not Eligible	Date of Determina (mm/dd/y	8
Brown Library	SEA0022	Not eligible-NR; Eligible-SR	3/24/2010	
Methodist/Smithtown Cemetery	SEA0023	Eligible-SR	3/23/2011	
Seasonal cottage	SEA0024	Eligible- NR, SR	3/13/2019	
Ceal's Clam Shack	SEA0025	Eligible- NR, SR	3/13/2019	
Joshua Janvrin House	SEA1001	Undetermined	10/11/199	5
Architectural/Historic Areas				
Hampton Beach Cottages Historic District	HAM-HBHD	Eligible-NR	3/13/2019	A,C
RR Eastern Railroad Linear District/ B&M Eastern Division	ZMT-ERLD	Eligible-NR	3/13/2002	A,C
Architectural/Historic Project Areas				
Hampton, Hampton Beach	HAM-00HB	Not eligible	2/24/2010	
Routes 101/51 Project	ZMT-R101	Undetermined	1/17/1991	
Seabrook-Hampton Project Area	ZMT-SHPA	Undetermined	11/14/2018	3



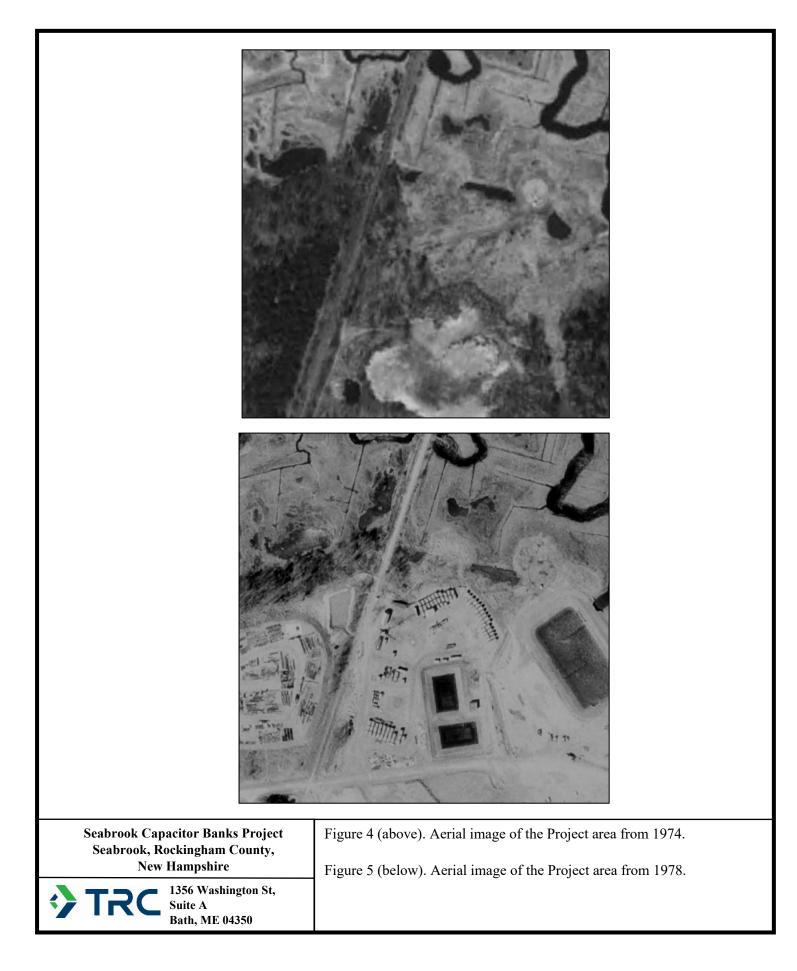


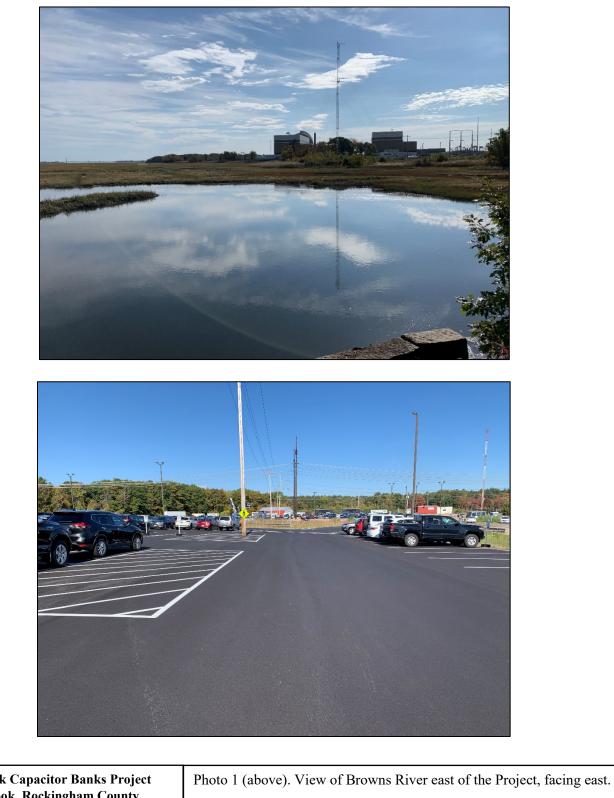


FILE

DATA SOURCES: ESRI, NEXTERA, NH GRANIT, NRCS, TRC, USGS

SEABROOK SEC FIGURE





Seabrook Capacitor Banks Project Seabrook, Rockingham County, New Hampshire

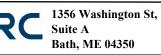


Photo 2 (below). View of the Project area, facing northwest.



Seabrook Capacitor Banks Project Seabrook, Rockingham County, New Hampshire

TRC 1356 Washington St, Suite A Bath. ME 04350 Photo 3. Close up of building, facing northwest.

APPENDIX 13B: NEW HAMPSHIRE DIVISION OF HISTORICAL RESOURCES PROJECT AREA FORM RESPONSE LETTER

Please mail the completed form and required material to:	DHR Use Only
New Hampshire Division of Historical Resources State Historic Preservation Office Attention: Review & Compliance 19 Pillsbury Street, Concord, NH 03301-3570	R&C# 13472 Log In Date $2/7/2$ Response Date $2/7/2$ Sent Date $2/10/2$
Request for Project Review by the New Hampshire Division of Historical Reso	urces
\boxtimes This is a new submittal \square This is additional information relating to DHR Review & Compliance (R&C) #:	
GENERAL PROJECT INFORMATION	
Project Title Seabrook Station Capacitor Banks Project Project Location The Project is located 2 mi. N of the MA line, 15 mi. S of the ME line.	
City/Town Seabrook, NH Tax Map 7; 11;12 Lot # 1,90,94,110; 1,2; 25	5,43
NH State Plane - Feet Geographic Coordinates: Easting 1202903 Northing 1463 (See RPR Instructions and R&C FAQs for guidance.)	
Lead Federal Agency and Contact <i>(if applicable)</i> None (Agency providing funds, licenses, or permits) Permit Type and Permit or Job Reference #	
State Agency and Contact (if applicable) Site Evaluation Committee & NHDOT Tempor	rary Use
Permit Type and Permit or Job Reference # SEC #2021-05	
APPLICANT INFORMATION	
Applicant Name New Hampshire Transmission, LLC	
Mailing Address 700 Universe Blvd. Phone Number 316-775-8503	
City Juno Beach State FL Zip 33408 Email Peter.Larochelle@nexteraend	ergy.com
CONTACT PERSON TO RECEIVE RESPONSE	
Name/Company Karen E. Mack, TRC	
Mailing Address 1356 Washington St. Suite A Phone Number 2072152872	
City Bath State ME Zip 04530 Email kemack@trccompanies.com	

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at marika.labash@dncr.nh.gov or 603.271.3558.

	PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION
<u>Projec</u>	t Boundaries and Description
	 Attach the Project Mapping using EMMIT or relevant portion of a 7.5' USGS Map. (See RPE Instructions and R&C FAQs for guidance.) Attach a detailed narrative description of the proposed project. Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation. Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.) A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in Table 1. (Blank table forms are available on the DHR website.) EMMIT or in-house records search conducted on 10 /29/2021.
Arc	<u>hitecture</u>
Are	e there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within the project area? 🛛 Yes 🗌 No If no, skip to Archaeology section. If yes, submit all of the following information:
Ap	proximate age(s): 1980s
	Photographs of <i>each</i> resource or streetscape located within the project area, with captions, along with a mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused.) If the project involves rehabilitation, demolition, additions, or alterations to existing buildings or structures, provide additional photographs showing detailed project work locations. (i.e. Detail photo of windows if window replacement is proposed.)
Arci	haeology
Doe	s the proposed undertaking involve ground-disturbing activity? \boxtimes Yes \square No If yes, submit all of the following information:
\boxtimes	Description of current and previous land use and disturbances. Available information concerning known or suspected archaeological resources within the project area (such as cellar holes, wells, foundations, dams, etc.)
	Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.
DE	IR Comment/Finding Recommendation This Space for Division of Historical Resources Use Only
🗌 Insı	afficient information to initiate review. Additional information is needed in order to complete review.
] No P	otential to cause Effects 🗹 No Historic Properties Affected 🗌 No Adverse Effect 🗌 Adverse Effect
ommen	ts:
ns char rces as	nge or resources are discovered in the course of this project, you must contact the Division of Histor required by federal law and regulation.
cized Si	gnature: Machie Multa, DSHOD Date: 2/8/22

1

A

New Hampshire Division of Historical Resources / State Historic Preservation Office May 2019

APPENDIX 14: SPILL PREVENTION, CONTROL, AND COUNTERMEASURES PLAN

Section 1 Introduction

To manage hazardous substances in accordance with federal and state regulations, New Hampshire Transmission, LLC (NHT) and the construction contractor will prepare a Spill Prevention, Control, and Countermeasures (SPCC) Plan prior to commencing construction, if required. The SPCC Plan describes the procedures, methods, and equipment that will be used to comply with the USEPA's oil spill prevention, control, and countermeasures standards during construction. Likewise, the SPCC Plan complies with federal inspection, reporting, training, and record keeping requirements.

This plan outlines the requirements that will be followed during the construction of the Seabrook Capacitor Banks Project (Project), if the Project determines that a SPCC Plan is required.

The Project is located within the existing Seabrook Station 626 Lafayette Road in Seabrook, New Hampshire. The Project itself consists of construction of a permanent 2.1 acre yard and a 4.1 acre construction site within the 889-acre Seabrook Station property. The Project area is generally flat and is currently being used as a parking lot for the existing Seabrook Station. The Project is bordered to the south by an existing approximately 245-foot wide Eversource easement, to the west by an existing abandoned Boston & Maine railroad right of way, to the north by existing emergency response infrastructure, and to the east by an existing approximately 70-foot wide Unitil easement.

The practices and procedures outlined in this document should be considered the minimum requirements. Applicable regulations include:

- United States Environmental Protection Agency (EPA) Regulations on Oil Pollution Prevention (Title 40 Code of Federal Regulations [40 CFR Part 112), Spill Prevention, Control and Countermeasure (SPCC) Plans;
 - §112.1(b) General applicability, requires any owner or operator of a nontransportation-related onshore facility engaged in use or consumption of oil and oil products, which due to its location (in this case, the Project is adjacent to navigable waters), could reasonably be expected to discharge oil in quantities that may be harmful, violate applicable water quality standards, or cause a film or sheen upon or discoloration of the surface water or adjoining shorelines or cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.
 - §112.1(b)(1) Any aboveground container;
 - §112.1(b)(3) Any container that is used for standby storage, for seasonal storage, or for temporary storage.
 - §112.7 General requirements for Spill Prevention, Control and Countermeasure Plans.
- NHDES Env-Or 300 (Above Ground Petroleum Storage Facilities) requirements.
 - Same as required by 40 CFR Part 112.

The Project will develop a SPCC plan for construction activities to reduce pollution associated with spills as required, if storage thresholds and other regulatory thresholds are exceeded during construction.

Potential Sources of Pollution

Although the details of construction have not been finalized, it is expected that potentially hazardous materials will be used and stored on site in quantities that exceed thresholds requiring a SPCC plan. Hazardous materials are expected to include the following:

During Construction:

- Diesel fuel
- Gasoline
- Hydraulic fluids
- Lubricating oils and fluids
- Oil
- Oily rags or similar wastes from general maintenance

If a SPCC plan is determined to be required, volumes of oily and hazardous materials will be included in the final SPCC plan once determined. Containment of oily and hazardous materials will be in conformance with NHDES Env-Or 300 (Above Ground Petroleum Storage Facilities) and will likely include double-wall tanks and other spill containment measures.

Additional potential sources of pollution may include refueling of vehicles during construction, leaking equipment, and spills of liquids.

Spill Prevention

Every effort will be taken to prevent spills during construction. This includes, but is not limited to, the following:

- Good housekeeping practices shall be followed.
 - 1. Limited amount of material shall be stored on site.
 - 2. All materials shall be in a neat and orderly manner in their labeled proper containers.
 - 3. Manufacturer's recommendations for proper use and disposal shall be followed.
 - 4. The site construction manager shall inspect containers daily to ensure proper use and disposal of all material.
 - 5. Substances shall not be mixed unless recommended by the manufacturer.
 - 6. When possible, the entirety of a product shall be consumed before disposal of the container.
- Spills shall be prevented during vehicle fueling and maintenance.
 - 1. The contractor shall make an effort to perform equipment/vehicle fueling and maintenance at an off-site facility.
 - 2. The contractor shall provide an on-site fueling and maintenance area that is clean and dry.
 - 3. The contractor shall keep a spill kit at the fueling and maintenance area.
 - 4. The contractor vehicles shall be inspected regularly for leaks and damage.
 - 5. The contractor shall use drip pans, drop cloths, or absorbent pads when replacing spent fluid.

Spill Control and Response

Although every effort will be taken to prevent spills and releases, the following practices will be followed in the event of a spill, and will be incorporated into the SPCC Plan:

- Equipment will be inspected before use to ensure that there are no leaks and that the equipment does not pose a safety or environmental hazard to the Project. Equipment maintenance records will be retained for each piece of equipment.
- Manufacturers recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and location of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup shall be kept in the onsite material storage area. Spill cleanup equipment and materials shall include, but not be limited to: brooms, dustpans, mops, rags, gloves, goggles, speedy-dry, sand, sawdust, and plastic or metal trash containers specifically for this purpose.
- All spills shall be cleaned up immediately after discovery if it is safe to do so. The location of the spill will be documented and recorded as part of the notification protocol.
- The spill area shall be kept well-ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- Spills of toxic or hazardous material shall be reported to the Construction Manager who will then follow the appropriate communication and reporting procedures as required.
- The construction manager responsible for day-to-day site operations shall be the spill prevention and cleanup coordination personnel. The construction manager shall be responsible for training all personnel about the SPCC plan procedures when arriving on the Project. The construction manager shall also be responsible for documenting and reporting a reportable spill per the New Hampshire Department of Environmental Services Waste Management Division. Pursuant Env-Or 604.06, any spill of petroleum (oil) must be reported within 24 hours of such a spill unless all five of the following conditions are met:
 - 1. The discharge is less than 25 gallons.
 - 2. The discharge is immediately contained.
 - 3. The discharge and/or contamination is completely removed within 24 hours.
 - 4. There is no impact or potential for impact to groundwater or surface water.
 - 5. There is no potential for vapors which pose an imminent threat to human health.

Section 2 Contact Information/Responsible Parties

2.1 Operator(s)/ Subcontractor(s)

Operator(s):

Company or Organization Name:	New Hampshire Transmission, LLC
Name:	Construction Manager To Be Determined
Address:	To Be Determined
City, State, Zip:	To Be Determined
Telephone Number:	To Be Determined
Fax/Email:	To Be Determined
Area of Control:	Owner – Operational control of project plans and specifications

Emergency 24-Hour Contact:

Company or Organization Name:	To Be Determined	
Name:		
Telephone Number:		

Subcontractor(s): All subcontractors to complete Subcontractor Certification/ Completed copies shall kept onsite

Company or Organization Name:	To Be Determined
Name:	
Address:	
City, State, Zip:	
Telephone Number:	
Fax/Email:	
Area of Control:	

New Hampshire Department of Environmental Protection

Company or Organization Name:	NHDES Waste Management Division - Spills
Name:	Gardner Warr
Address:	29 Hazen Drive
City, State, Zip:	Concord, NH 03302-0095
Telephone Number:	(603) 271-3899
Fax/Email:	orcb.wmd@des.nh.gov
Area of Control:	Spill Hot Line

Local Emergency

Company or Organization Name:	Seabrook Fire Department
Address:	87 Centennial Road
City, State, Zip:	Seabrook, NH 03874
	911 for Emergency ((603) 474-2611 non-
Telephone Number:	emergency)

Nearest Hospital

	Portsmouth Regional Hospital (Seabrook
Company or Organization Name:	Emergency Room)
Address:	603 Lafayette Road
City, State, Zip:	Seabrook, NH 03874
Telephone Number:	(603) 474-6400

APPENDIX 15A: NEW HAMPSHIRE NATURAL HERITAGE BUREAU CORRESPONDENCE NHNHB Email Response to TRC Response to NHNHB Request for Additional Information, dated 2/8/2022

StorlazziWard, Heather

From:	DNCR: NHB Review <nhbreview@dncr.nh.gov></nhbreview@dncr.nh.gov>
Sent:	Tuesday, February 8, 2022 11:31 AM
To:	StorlazziWard, Heather
Cc:	Corinne.didomenico@nexteraenergy.com; Austin, Kim; Valleau, Dana; Jipson, Erika; Bonta, Jen
Subject:	[EXTERNAL] RE: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project
Follow Up Flag:	Follow up
Flag Status:	Flagged

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Hi Heather,

Thank you for the report with photos and the aerial overview that shows the portion of the project within currently undisturbed areas. As the project will not encroach upon the Salt marsh, NHB has no concerns about impacts to the Salt marsh natural community system and the Salt marsh exemplary natural community types that fall within it. Additionally, as Salt marsh will not be impacted by the project, NHB has no concerns regarding potential impacts to the state-listed salt marsh species indicated on the Datacheck Letter. Finally, there are some rare upland plants on an upland peninsula within Salt marsh along the southeastern edge of the power plant. These plants are thought to be restricted to the unique habitat at that specific location, and appropriate habitat for the upland plants is not thought to be within the naturalized grassy and wooded northern end of the parking lot.

In conclusion, NHB is satisfied that the proposed project will not impact state-listed plant species indicated on the Letter or the nearby exemplary natural communities/systems.

Please let me know if you have any questions.

Thank you,

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 (603) 271-2834 (office)

NHB DataCheck Tool

From: StorlazziWard, Heather <HStorlazziWard@trccompanies.com>

Sent: Thursday, February 3, 2022 4:30 PM

To: DNCR: NHB Review <nhbreview@dncr.nh.gov>

Cc: Corinne.didomenico@nexteraenergy.com; Austin, Kim <Kim.Austin@nexteraenergy.com>; Valleau, Dana
 <DValleau@trccompanies.com>; Jipson, Erika <EJipson@trccompanies.com>; Bonta, Jen <JBonta@trccompanies.com>
 Subject: NHB Review: NHB21-3502 - Seabrook Capacitor Banks Project

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

HI Jessica,

Thank you for your assistance thus far. Attached is additional information requested within the NHNHB datacheck review.

Please do not hesitate to contact me if I can be of further assistance.

Kind regards, Heather

Heather Storlazzi Ward, NHCWS



From: DNCR: NHB Review <<u>nhbreview@dncr.nh.gov</u>>
Sent: Tuesday, November 16, 2021 10:46 AM
To: StorlazziWard, Heather <<u>HStorlazziWard@trccompanies.com</u>>
Cc: Corinne.didomenico@nexteraenergy.com
Subject: [EXTERNAL] NHB Review: NHB21-3502

This is an **EXTERNAL** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best, Jessica

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist

NH Natural Heritage Bureau DNCR - Forests & Lands 172 Pembroke Rd Concord, NH 03301 603-271-2834

TRC Response to NHNHB Request for Additional Information, dated 2/3/2022



February 3, 2022

Jessica Bouchard Environmental Reviewer / Ecological Information Specialist New Hampshire Natural Heritage Bureau (NHB) Division of Forests & Lands NH Dept. of Natural & Cultural Resources 172 Pembroke Rd Concord, NH 03301 Via email: nhbreview@dncr.nh.gov

RE: Response to Review by NH Natural Heritage Bureau for Seabrook Capacitor Banks Project NHBID NHB21-3502 Town of Seabrook, Rockingham County, New Hampshire

Dear Ms. Bouchard:

On behalf of New Hampshire Transmission, LLC (Applicant), a direct subsidiary of NextEra Energy Transmission, LLC (NEET), TRC Environmental Corp. (TRC) is responding to a request for more information regarding the construction of a capacitor bank on an existing parking lot in Seabrook, NH (Attachment 1). A capacitor bank is similar to a substation, is unmanned, and will not result in an increase in traffic during operations. Overall, post-construction peak runoff rates are not expected to be higher than pre-construction peak runoff rates, thus stormwater quality and quantity are not expected to be significantly altered.

While there is a salt marsh system mapped within the northern portion of the area that was surveyed for protected natural resources by TRC, the location of the proposed project will not directly impact freshwater wetlands or tidally influenced areas associated with the salt marsh system (Attachment 2). The proposed project layout and limits of disturbance are primarily located on an existing parking lot that partially falls within the regulated 250-foot shoreland area, where it overlaps with the northern portion of the parking lot (Attachment 2). A small area of woodland and naturalized grassy area to the north, will be impacted by the proposed development and can be seen on Attachment 2. Photos of the project area and a photo locus map (Attachment 3) show the existing area where the project is being proposed.

If you have any questions or would like any additional information, please feel free to contact me at 207-317-6630 or hstorlazziward@trccompanies.com.

Sincerely,

Heather Storlazzi Ward, NHCWS Senior Scientist/Project Manager

Cc: Corinne Didomenico, NEE; Kim Austin, NEE Dana Valleau, TRC

Attachments:

Attachment 1. Seabrook Capacitor Bank NHB Response Attachment 2. Figure 1. Project Aerial with Limit of Disturbance Attachment 3. Photolog

ATTACHMENT 1

Seabrook Capacitor Bank NHB Response



Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Location:

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

To: Heather Storlazzi Ward, TRC 6 Ashley Dr Scarborough, ME 04074

- **From:** NHB Review, NH Natural Heritage Bureau
- **Date:** 11/12/2021 (valid until 11/12/2022)
- **Re**: Review by NH Natural Heritage Bureau

Permits: NHDES - Alteration of Terrain Permit, NHDES - Shoreland Standard Permit

NHB ID: NHB21-3502 Town: Description: Construction of a capacitor bank on an existing parking lot.

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments NHB: Although the project description indicates that the capacitor bank will be constructed on an existing parking lot, a portion of the Exemplary Salt marsh system is mapped within the project area. Please indicate if salt marsh is proposed to be impacted for the project and provide a clear aerial overlaid with the full limit of disturbance. Please describe impacts proposed in any previously undisturbed area for the project, and provide photos of such locations.

F&G: No Comments At This Time

Natural Community	State ¹	Federal	Notes
Brackish marsh*			
High salt marsh			
Low salt marsh*			
Salt marsh system			Threats are primarily changes to the hydrology of the system, introduction of invasive species, and increased input of nutrients and pollutants.
Subtidalsystem			Threats to these communities are primarily alterations to the hydrology of the wetland (such as alterations that might affect the sheet flow of tidal waters across the intertidal flat) and increased input of nutrients and pollutants in storm runoff.

Plant species

State¹ Federal Notes

Memo

NH Natural Heritage Bureau NHB DataCheck Results Letter

Please note: portions of this document are confidential.

Maps and NHB record pages are confidential and should be redacted from public documents.

1 1 0		1
dry land sedge (Carex siccata)	Е	
dwarf glass wort (<i>Salicornia bigelovii</i>)*	E	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
hollow Joe-Pye weed (Eutrochium fistulosum)*	Е	 Threats include changes to the hydrology (e.g., water levels) of its habitat and increased sedimentation or nutrients and pollutants in stormwater runoff.
marsh elder (Iva frutescens)	Т	 Threats are primarily alterations to the hydrology of the wetland, such as ditching or tidal restrictions that might affect the sheet flow of tidal waters across the intertidal flat, activities that eliminate plants, and increased input of nutrients and pollutants in stormrunoff.
orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)	Е	
perennial glasswort (Salicornia ambigua)*	E	 Primarily vulnerable to changes to the hydrology of its habitat, especially alterations that change water levels. It may also be susceptible to increased pollutants and nutrients carried in stormwater runoff.
saltmarsh agalinis (<i>Agalinis maritima ssp.</i> <i>maritima</i>)	Т	
upright knotweed (Polygonum erectum)*	Е	 Threats include direct desctuction of the plants and loss of habitat.
yellow thistle (<i>Cirsium horridulum var.</i> horridulum)*	Е	
1		

¹Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

CONFIDENTIAL – NH Dept. of Environmental Services review

NHB21-3502



Brackish marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Imperiled due to rarity or vulnerability
Description at this Lo	ocation
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).
Comments on Rank:	Rank is for largest area visited (). Others were B- (three sites) or C
	Salt Marsh).
Detailed Description:	1997: A characteristic mix of graminoids includes Agrostis stolonifera var. palustris (marsh
General Area:	creeping bent-grass), <i>Spartina patens</i> (salt-meadow cord-grass), <i>Juncus gerardii</i> (salt marsh rush), <i>Solidago sempervirens</i> (seaside goldenrod), <i>Distichlis spicata</i> (spike-grass), <i>Juncus arcticus</i> var. <i>littoralis</i> (shore rush), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (fresh water cord-grass, slough-grass), <i>Carex paleacea</i> (chaffy salt sedge), <i>Hierochloe odorata</i> (sweet grass), <i>Aster novi-belgii</i> (New York aster), <i>Scirpus pungens</i> (three-square rush), and several other less frequent species. At the several other less frequent several transh in middle with <i>Quercus bicolor</i> (swamp white oak), <i>Toxicodendron radicans</i> (climbing poison ivy), and <i>Rosa virginiana</i> (Virginia rose). 1997: The several several other several extends seaward to an imaginary line drawn across and upstream and landward to where ocean-derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communi
General Comments:	and <i>low salt marsh</i> . Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh islands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the fourther area, the forest of the rail road track, and the fourther area, the forest of the rail road track, and the fourther area, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997). 1997: Tidally flooded by salt water only during spring tides and storm surges. Supports a greater diversity of plants and generally flooded less frequently than the robust forb brackish marsh. Elevationally higher, received more freshwater input, and experienced less frequent tidal flow different fresh water runoff or groundwater discharge flows onto the marsh surface. This hydrologic regime supports brackish marsh species and other species most often found in fresh or salt marshes but tolerant of brackish conditions and able to
Management	successfully compete in this environment.
Comments:	
Location	
Survey Site Name:	
Managed By:	
County:	

Town(s): Size: 34	31.4 acres Elevation:
Precision:	Within (but not necessarily restricted to) the area indicated on the map.
Directions:	
Dates docume	ented

First reported: 1997-07-05

Last reported: 1997-10-06

High salt marsh

Legal Status	Conservation Status				
Federal: Not listed	Global: Not ranked (need more information)				
State: Not listed	State: Rare or uncommon				
Description at this Location					
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).				
Comments on Rank:	These ranks are for the entire estuary.				
Detailed Description: General Area:	photographed. 1997: In addition to <i>Spartina patens</i> (salt meadow cordgrass) and <i>Juncus gerardii</i> (salt marsh rush), other common plants on the high marsh included smooth cordgrass (short form) and <i>Distichlis spicata</i> (spike-grass). <i>D. spicata</i> formed pure stands in wetter, more poorly drained areas, or mixed with <i>S. patens</i> , growing at similar elevations on the high marsh. <i>J. gerardii</i> dominated landward of salt meadow-grass in narrow vegetative zones with decreased tidal flooding and soil water salinity, beginning at about mean spring high water. This zone had the highest species richness within the high marsh and included <i>Solidago sempervirens</i> (seaside goldenrod), <i>Panicum virgatum</i> (switch-grass), <i>Hierochloe odorata</i> (sweet grass), <i>Carexhormathodes</i> (necklace sedge), <i>Festuca rubra</i> (red fescue), <i>Aster novi-belgii</i> (New York aster), <i>Elytrigia repens</i> (quack-grass), <i>Spartina pectinata</i> (freshwater cordgrass), and <i>Potentilla anserina</i> (silverweed). 2007: Mostly borders a fringe of low salt marsh seaward, but occasionally transitions directly to <i>intertidal flat</i> and/or subtidal system . Borders upland forest and developed areas landward, as well as occasional patches of <i>brackish marsh</i> and coastal sand dune system . 1997: At marsh rises from ca. 4 feet above mean sealevel at its lower end to 5 feet.				
	above mean sea level at the landward limit of the salt marsh rush zone. The Estuary contains the majority of the estimated 6,200 acres of salt marsh in the state. The River portion of the estuary continues south into the estuarine system extends seaward to an imaginary line drawn across Inlet and upstream and landward to where ocean -derived salts are less than or equal to 0.5 parts per thousand during the period of average annual low freshwater flow (Cowardin et al. 1979). This estuary is surrounded by moderate levels of residential and commercial development. Several exemplary subtidal and intertidal communities occur in this estuary. Subtidal communities include the undifferentiated saline/brackish subtidal channel/bay bottom and tidal creek bottom. Other intertidal flat, and low salt marsh. Exemplary dry Appalachian oak-hickory forest occurs at the site as "salt marsh is lands", forested uplands surrounded by salt marsh. Most of the estuary is unaffected by restricted tidal flow. Other areas are described as having an adequate tidal inlet by the USDA Soil Conservation Service (1994). The largest portions of the estuary determined to have inadequate tidal inlets include the west of the rail road track (USDA Soil Conservation Service 1994).				
General Comments:					
Management Comments:	 1997: Marsh ditched heavily; greenhead boxes present. In the last four years, several salt marsh restoration projects have begun in this estuary (Ammann, A.P. pers. comm., 1997).				
Location					
Survey Site Name: Managed By:					
County: Town(s): Size: 3431.4 act	res Elevation:				

Precision: Within (but not necessarily restricted to) the area indicated on the	map.
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Directions:				
		·		
Dates documente	ed			
First reported:	1997-07-05	Last reported:	2006-08-17	

Low salt marsh

Legal Status	Conservation Status						
Federal: Not listed	Global: Not ranked (need more information)						
State: Not listed	State: Rare or uncommon						
Description at this Lo	peation						
Conservation Rank:	Excellent quality, condition and landscape context ('A' on a scale of A-D).						
Comments on Rank:	These ranks are for the entire estuary.						
Detailed Description:	1997: Community mostly occurs as a fringe around the seaward edge of the much more extensive <i>high salt marsh</i> .						
General Area:	1997: The state of						
General Comments:							
Management							
Comments:							
Location							
Survey Site Name: Managed By:							
County: Town(s): Size: 3431.4 act	res Elevation:						
Precision: Within	n (but not necessarily restricted to) the area indicated on the map.						
Directions:							
Dates documented							
	997-07-05 Last reported: 1997-10-08						
i istropolited. I							

Salt marsh system

Legal Status	Conservation Status				
Federal: Not listed	Global: Not ranked (need more information)				
State: Not listed	State: Rare or uncommon				
Description at this L	ocation				
Conservation Rank:	Fair quality, condition and/or landscape context ('C' on a scale of A -D).				
Comments on Rank:	Component communities are in fair condition. 2007 (A): Largest estuarine system in the state.				
Detailed Description:	 2013, 2012, 2011: This system supports an expected array of estuarine communities, all in fair condition. The marsh has a history of ditching (New HampshireÆs salt marshes were ditched in an effort to control salt marsh mosquitoes and to improve salt marsh hay production). Brackish marshes have occasionally formed along the upland edge where wetlands and streams landward of the salt marsh drain freshwater onto the marsh. Several rare (S1 and S2) and uncommon (S3) plant species have been documented in the marsh over the years. Surveys in 2011 and 2012 documented new occurrences of saltmarsh agalinis (<i>Agalinis maritima</i>), sea-milkwort (<i>Lysimachia maritima</i>), beach umbrella sedge (<i>Cyperus filicinus</i>), seaside crowfoot (<i>Ranunculus cymbalaria</i>), and many-seeded plantain (<i>Plantago intermedia</i>). 2007: Photographs taken, from the air and the ground. 1997: Dominated by <i>high salt marsh</i> with narrow fringes and patches of <i>low saltmarsh</i>, bordered in places by <i>brackish marsh</i> and with scattered <i>salt pannes and pools</i> throughout. This system contains the majority of the estimated 6,200 acres of salt marsh in the state. Most of the estuary has unrestricted tidal flow. 2013: The system is bounded by heavy residential development on its east side. Elsewhere, it 				
	borders residential and commercial development or forest buffer. 2007: Mostly borders intertidal system and subtidal system below, and upland forests and developed areas above. Also borders coastal sand dune system at The Sands. Includes several islands with <i>dry Appalachian oak forest</i> within.				
General Comments:					
Management Comments:	2013: Some stands of the invasive common reed (<i>Phragmites australis</i>) are being managed in the marsh, although resources to continue management may be nearing their end.				
Location					
Survey Site Name:					
Managed By:					
County: Town(s):	res Elevation:				
Size: 3431.4 ac	res Elevation:				
Precision: Withi	n (but not necessarily restricted to) the area indicated on the map.				
Directions: 1997-2	2013: Systemoccurs throughout the entire estuary.				
Dates documented					
First reported:	1997-07-05 Last reported: 2013-08-12				

Subtidal system

Legal Status	Conservation Status		
Federal: Not listed	Global: Not ranked (need more information)		
State: Not listed	State: Rare or uncommon		
Description at this Lo	cation		
Conservation Rank:	Good quality, condition and landscape context ('B' on a scale of A-D).		
Comments on Rank:			
Detailed Description:	A relatively short main channel to the second seco		
General Area:	Borders intertidal flat community and salt marsh system landward.		
General Comments:			
Management	-		
Comments:			
Location			
Survey Site Name: Managed By:			
County: Town(s):			
Size: 870.6 acres	Elevation:		
Precision: Within (but not necessarily restricted to) the area indicated on the map.			
Directions: Subtida	alcreeks and bay bottoms in the Marsh estuary.		
Dates documented			
First reported: 19	997-07-05 Last reported: 2007-10-13		

dry land sedge (Carex siccata)

Legal Status		Conservation Status			
Federal: Not listed		Global:	Demonst	trably widespread, abundant, and secure	
State: Listed Enda	angered	State:	Critically	imperiled due to rarity or vulnerability	
Description at this L	ocation				
Conservation Rank:	Not ranked				
Comments on Rank:	n en				
	2019: At least 200 fruiting st				
General Area:	2019: Greenbriar and poison	ivy ring t	he upland	ls and are common throughout. 1972:	
ALL 12 12 13	•				
General Comments:					
Management					
Comments:					
Location					
Survey Site Name: Managed By:					
County:					
Town(s):					
Size: .4 acres		Elevatio	n:		
Precision: Withi	n (but not necessarily restricted	lto) the a	rea indica	ted on the map.	
Directions: 1972:	Ledges at southwestern side of	f	", nea	end of point.	
Dates documented					
First reported:	1972-06-03	Last rep	orted:	2019-07-26	

dwarf glass wort (Salicornia bigelovii)

Legal Status		Conser	vation S ta	tus			
Federal: Not listed		Global:	Demonstr	rably widespread, abundant, and secure			
State: Listed Endar	ngered	State:	Critically	imperiled due to rarity or vulnerability			
Description at this Lo	Description at this Location						
Conservation Rank:	Not ranked						
Comments on Rank:	Sub-population of a large "A-" population.						
Detailed Description:	 1982: Plants only 1 cmtall and indistinguishable from other species of Salicornia (6/10). Collections made from flowering material (8/17). 1972: Specimen collected. 						
General Area:	1982: Salt marsh with Salico	rnia virg	inica.	-			
General Comments:							
Management							
Comments:							
Location							
Survey Site Name: Managed By:							
County: Town(s):2.8 acres		Elevatio	on:				
Precision: Within (but not necessarily restricted to) the area indicated on the map.							
Directions: salt marsh. North of "							
Dates documented							
First reported: 19	931	Last rep	orted:	1982-08-17			

hollow Joe-Pye weed (Eutrochium fistulosum)

Legal Status		Conserv	vation Stat	us
Federal: Not listed		Global:	Demonstra	ably widespread, abundant, and secure
State: Listed Endar	ngered	State:	Critically i	mperiled due to rarity or vulnerability
Description at this Lo	cation			
Conservation Rank:	Not ranked			
Comments on Rank:				
Detailed Description: General Area:	1972: Documented as "occas	ional" in .	Area2by A	Ibion Hodgdon and Johonet Wicks.
General Comments:				
Management				
Comments:				
Location				
Survey Site Name: Managed By:				
County: Town(s): Size: 644.9 acres		Elevatio	n:	
	, ,	210 / 4010		
Precision: Within 1.5 miles of the area indicated on the map (location information is vague or uncertain).				
Directions:				
Dates documented				
First reported: 19	972-06	Last rep	orted:	1972-06

marsh elder (*Iva frutescens*)

Legal Status		Conser	vation S tat	us		
Federal: Not listed		Global:	Demonstr	ably widespread, abundant, and secure		
State: Listed Threa	tened	State:	Imperiled	due to rarity or vulnerability		
Description at this Lo	cation					
Conservation Rank:	Not ranked					
Comments on Rank:						
	2019: 4 plants observed.					
General Area:	2019: High salt marsh south	of The Ro	ocks.			
General Comments:						
Management Comments:						
Comments.						
Location Survey Site Name: Managed By:						
County:						
Town(s):	•					
Size: .4 acres		Elevatio	n:			
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions: 2019: Salt marsh fringe adjacent to a set of the set o						
Dates documented						
First reported: 20)19-07-26	Last rep	orted:	2019-07-26		

orange-fruited horse-gentian (Triosteum aurantiacum var. aurantiacum)

Legal St	atus		Conserv	ation Status		
Federal:	Not listed	(Global:	Demonstrably widespread, abundant, and secure		
State:	Listed Enda	ngered S	State:	Critically imperiled due to rarity or vulnerability		
Descript	tion at this Lo	ocation				
Conserva	ation Rank:	Fair quality, condition and/or l	andscap	e context ('C' on a scale of A-D).		
Commen	ts on Rank:	Rank does not consider the eff	fects of t	ne nuclear power plant.		
Detailed	Description:	plant. 1997: 6 clumps with 67 f and somewhat beneath shubs,	fruiting s all stems	etative plants. Area 2: 4 fruiting stems, 1 vegetative stems, scattered in small area of provide in open in fruit, some dropping when touched. 1982: ca. 60 of insect damage. 1972: Specimens at		
General A	Area:	2019: Greenbriar and poison ivy ring the uplands and are common throughout. Area 2: with red oak and hickory. 1997:				
General (Comments:					
Manager		()				
Commen	ts:					
Location	L.					
Survey S Manage	ite Name: 1 By:					
County:						
Town(s)		1.1				
Size:	.9 acres	I	Elevatio	1:		
Precision	n: Withir	n (but not necessarily restricted t	o) the ar	ea indicated on the map.		
Direction	ns: 1982:			. Near		
	end of					
Dates do	cumented					
First repo		.972 I	Last rep	orted: 2019-07-26		

perennial glasswort (Salicornia ambigua)

Legal Status	Conservation Status				
Federal: Not listed	Global: Not ranked (need more information)				
State: Listed Endangered	State: Critically imperiled due to rarity or vulnerability				
Description at this Location					
•	and/anlandscore context (D) on a costs of (D)				
Comments on Rank:	and/or landscape context ('D' on a scale of A-D).				
Comments on Rank					
Detailed Description: 1982: 10-15 stalks, one	e plant beginning to flower. 1972: Small flowering stand.				
	a cordgrass (Spartina sp.) salt marsh. Full sun, moist, flat, but above				
	n. 1972: Salt marsh, amid common glasswort (Salicornia depressa)				
	cordgrass (Spartina patens).				
General Comments:					
Management					
Comments:					
Location					
Survey Site Name:					
Managed By:					
County:					
Town(s):					
Size: 2.8 acres	Elevation:				
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions: marsh. 1982: North side of "marsh. on elevated land next to a					
rock. 1972:					
Dates documented					
First reported: 1972-09	Last reported: 1982-08-17				

saltmarsh agalinis (Agalinis maritima ssp. maritima)

Federal: Not listed Global: Demonstrably widespread, abundant, and secure State: Listed Threatened State: Imperiled due to rarity or vulnerability Description at this Location Conservation Rank: Not ranked Comments on Rank: Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Description at this Location Conservation Rank: Not ranked Comments on Rank: Not ranked Sub-population of a large "A-" population. Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Conservation Rank:Not rankedComments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Comments on Rank:Sub-population of a large "A-" population.Detailed Description:2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
Detailed Description: 2019: More than 100 plants observed. 1982: More than 50 plants in 30 x 10 foot area. Most					
flowering, but plant is very difficult to spot when it is not flowering and very ephemeral when it is.					
General Area: 1982: Flat, full sun. Damp but not innundated. With Spartina patens (salt-meadow cordgrass).					
General Comments:					
Management					
Comments:					
Location Survey Site Name: Managed By:					
County: Town(s): Town(s): Elevation:					
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions: 2019: High marsh south of complex and The south of marsh. Directly south of the sout					
Dates documented					
First reported: 1982-08-17 Last reported: 2019-07-26					

upright knotweed (Polygonum erectum)

Legal Status		Conser	ervation Status		
Federal: Not listed		Global:	l: Demonstrably widespread, abundant, and secure		
State: Listed Endar	ngered	State:	Not ranked (need more information)		
T					
Description at this Lo					
Conservation Rank:	Not ranked				
Comments on Rank:					
	1070 0	C.	11 1 1		
General Area:	1972: Straus specimen at Clo	Straus p	personal neroarium.		
General Comments:					
Management Comments:					
Comments:					
Location					
Survey Site Name:					
Managed By:					
0,					
County:					
Town(s):	_				
Size: 2.8 acres		Elevatio	tion:		
Precision: Within (but not necessarily restricted to) the area indicated on the map.					
Directions:	The second se	Edgeof	" road.		
Directions.	• •	Lige of	1044.		
Dates documented					
First reported: 19	972	Last rep	eported: 1972-09-11		

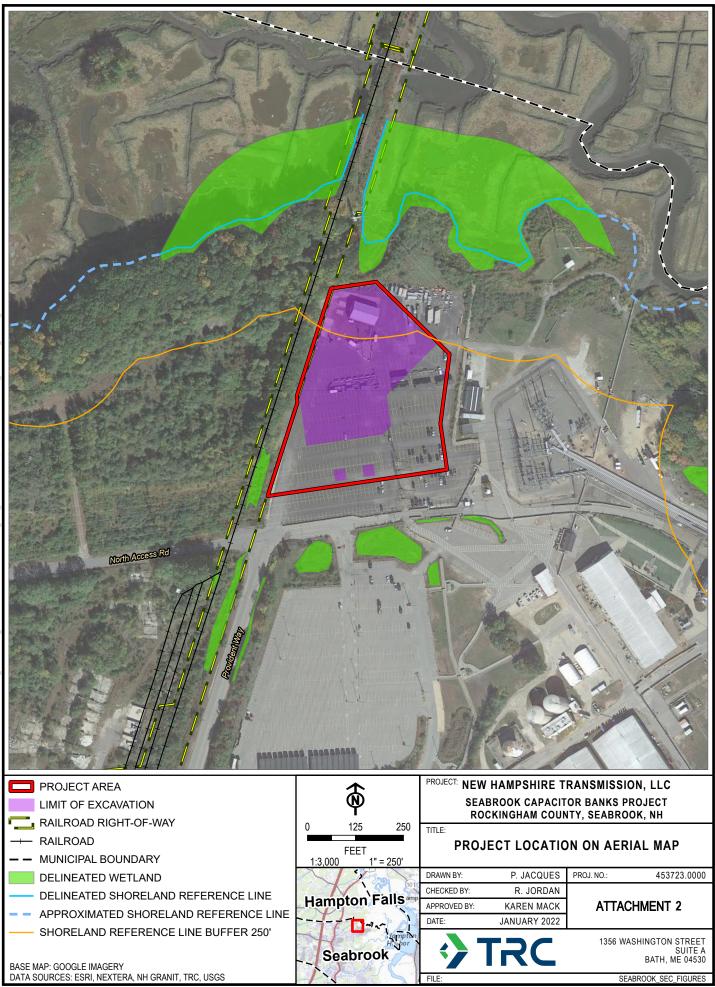
yellow this tle (Cirsium horridulum var. horridulum)

Legal Status	Conservation Status					
Federal: Not listed	Global: Demonstrably widespread, abundant, and secure					
State: Listed Endangered	State: Not ranked (need more information)					
Description at this Location						
Conservation Rank: Not ranked						
Comments on Rank:						
Detailed Description:1982: 5 vigorous plants. Specimen of Dunlop at NHA.General Area:1982: Salt marsh; open, wet.General Comments:ManagementComments:						
Location Survey Site Name: Managed By:						
County: Town(s): Size: 2.8 acres	Elevation:					
Precision: Within (but not necessarily restricted to) the area indicated on the map.						
Directions: The Southeast of Site. Immediate edge of outside of fence. A second group more to the						
Dates documented						
First reported: 1982-08-17	Last reported: 1982-08-17					

ATTACHMENT 2

Project Aerial with Limit of Disturbance

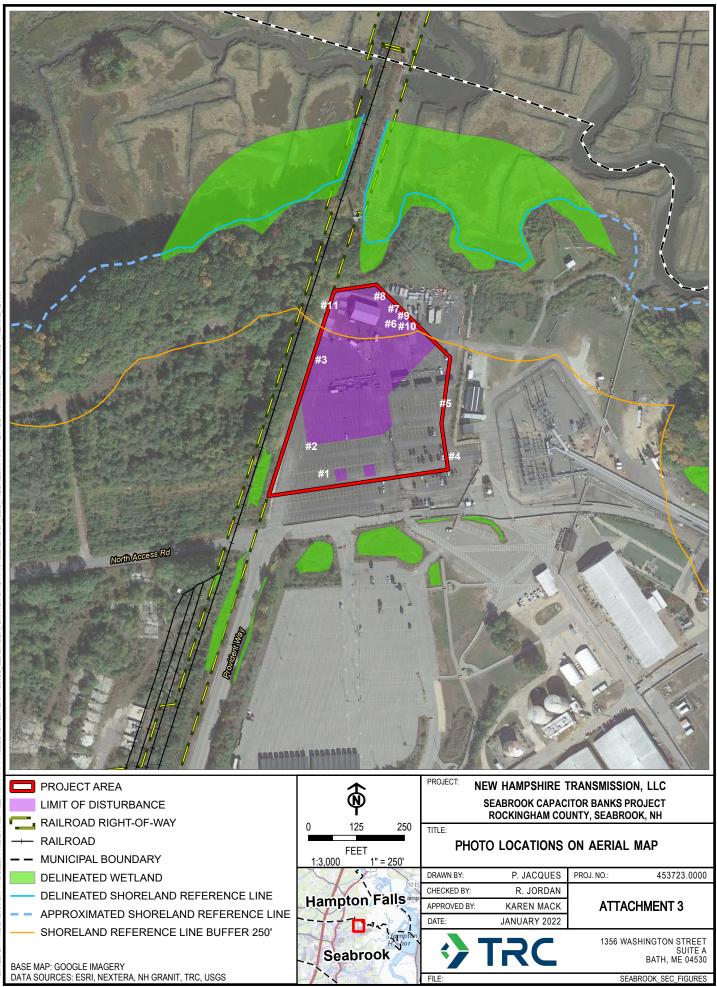




ATTACHMENT 3

Photolog









SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 3

Description:

View of northwest part of the parking lot and project boundary area, facing north. The grassy and wooded area in the background is one of the only naturalized areas to be disturbed by the Project.



Photograph: 4

Description:

View of the eastern part of the parking lot and project boundary area, facing north.





SEABROOK CAPACITOR BANKS PROJECT SEABROOK, NH Photograph: 5 Description: View of eastern part of the parking lot, looking northeast at the trailers on the edge of the project boundary. Photograph: 6 Description: View of B.5.b equipment building facing east in northern part of parking lot A, inside the shoreland buffer zone.



SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 7

Description:

View behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.



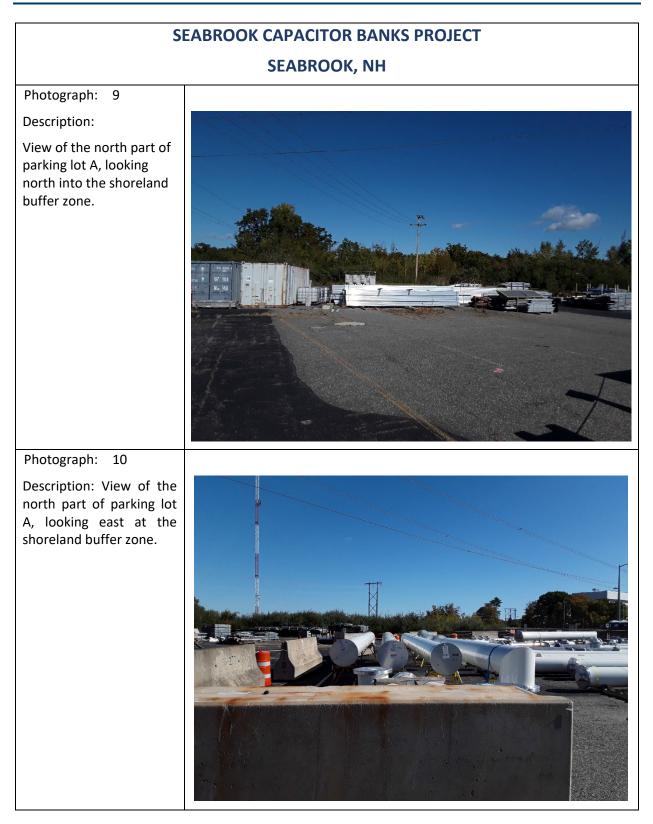
Photograph: 8

Description:

View of path behind B.5.b equipment building facing east, inside the shoreland zone. The naturalized grassy and woodland area on the right will be impacted by the proposed development.









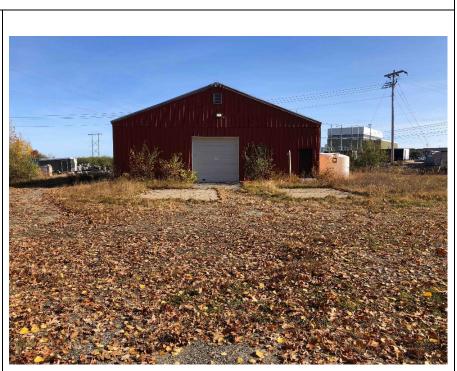
SEABROOK CAPACITOR BANKS PROJECT

SEABROOK, NH

Photograph: 11

Description:

View of behind the B.5.b building looking east, inside the shoreland buffer zone.





APPENDIX 15B: UNITED STATES FISH AND WILDLIFE SERVICE OFFICIAL SPECIES LIST



United States Department of the Interior

FISH AND WILDLIFE SERVICE New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104 <u>http://www.fws.gov/newengland</u>



In Reply Refer To: Consultation Code: 05E1NE00-2022-SLI-0326 Event Code: 05E1NE00-2022-E-01080 Project Name: Seabrook Cap Bank October 28, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq*.), and projects affecting these species may require development of an eagle conservation plan

(http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

http://

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

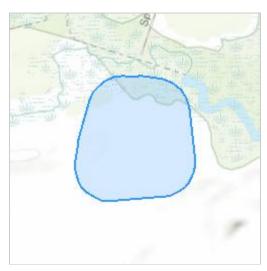
New England Ecological Services Field Office

70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

Project Summary

Consultation Code:05E1NE00-2022-SLI-0326Event Code:Some(05E1NE00-2022-E-01080)Project Name:Seabrook Cap BankProject Type:DEVELOPMENTProject Description:Project proposes construction of a capacitor bankProject Location:Vertice Construction of a capacitor bank

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/@42.9010176,-70.85545479298744,14z</u>



Counties: Rockingham County, New Hampshire

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9045</u>	Threatened
Birds NAME	STATUS
Red Knot <i>Calidris canutus rufa</i> There is proposed critical habitat for this species. The location of the critical habitat is not available. Species profile: <u>https://ecos.fws.gov/ecp/species/1864</u>	Threatened
Insects NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <u>https://ecos.fws.gov/ecp/species/9743</u>	Candidate

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

APPENDIX 16: SOUND STUDY



February 1, 2022

Mr. Dana Valleau Environmental Specialist Office Manager TRC Companies, Inc. 14 Gabriel Drive Augusta, ME 04330

Ref. 4680

Re: Seabrook Capacitor Banks Project, Seabrook, NH – Revised Screening-Level Analysis

Dear Dana:

This letter report presents the results of Tech Environmental's (Tech) revised screening-level analysis for the proposed addition of two (2) 50 MVA capacitor banks, six (6) switchyard reactors and a 500 kVA, 4160-480-volt transformer adjacent to an existing 345kV substation/switchyard, owned by New Hampshire Transmission (NHT) at 626 Lafayette Road, Seabrook, NH (herein referred to as the Project). This screening-level analysis will be part of the New Hampshire Site Evaluation Committee (NHSEC) application. This screening-level analysis did not-evaluate existing sound sources at the site. The only sound sources that were evaluated were the additional capacitor banks, switchyard reactors and new transformer. The proposed capacitor banks, reactors and transformer will operate both during the daytime and nighttime. Therefore, this screening-level analysis evaluated both daytime and nighttime sound impacts at the closest noise-sensitive receptors. The acoustic modeling included seven (7) residential receptors surrounding the site. The results of the acoustic study were compared to NHSEC Chapter Site 300 Certificates of Site and Facility, Part 301.08(d) sound limit, which is allows for a 10dBA above background (L₉₀) sound increase. The predicted change in sound levels would range from 1 to 4 dBA above the estimated baseline ambient L₉₀ daytime and nighttime sound levels. Therefore, the Project will comply with the NHSEC sound limit.

THE DECIBEL SCALE FOR SOUND

All sounds originate with a source – a human voice, vehicles on a roadway, or an airplane overhead. The sound energy moves from the source to a person's ears as sound waves, which are minute variations of air pressure. The loudness of a sound depends on the sound pressure level, which has units of decibel (dB). The decibel scale is logarithmic to accommodate the wide range of sound intensities to which the human ear is subjected. On this scale, the quietest sound we can hear is 0 dB, while the loudest is 120 dB. Every 10-dB increase is perceived as a doubling of loudness. Most sounds we hear in our daily lives have sound pressure levels in the range of 30 dB to 90 dB.

Community noise studies and regulations use an A-weighting scale (dBA) when measuring sound pressure levels as this approximates the response of the human ear to sounds, we experience in everyday life. Typical sound levels associated with various activities and environments are presented in **Figure 1**. Here are examples of sound levels we all encounter. A quiet suburban area at night without any traffic

typically has an average sound level of 40 to 45 dBA. The freight train you hear in the distance may be 50 dBA, and crickets and tree frogs in the summer sing a sound level of 55 dBA. Two people having a conversation in a normal tone of voice will hear each other speak at 65 dBA. Standing near a road, a car passing by can produce 75 dBA, and a truck passing by is louder at 80 dBA.

There are various measures of sound pressure designed for different purposes. To establish the background ambient sound level in an area, the L_{90} metric, which is the sound level exceeded 90 percent of the time, is typically used. The L_{90} can also be thought of as the level representing the quietest 10 percent of any time period. The L_{10} metric, which is the sound level exceeded 10 percent of the time is typically used to assess transient noise highway or rail activities. The L_{eq} , or equivalent sound level, is the steady-state sound level over a period of time that has the same acoustic energy as the fluctuating sounds that actually occurred during that same period. It is commonly referred to as the average sound level. The L_{max} , or maximum sound level, represents the one second peak level experienced during a given period. These are a broadband sound pressure measure, i.e., it includes sounds at all frequencies.

APPLICABLE NOISE REGULATIONS

New Hampshire Site Evaluation Committee

The New Hampshire Site Evaluation Committee (NHSEC), Chapter Site 300 Certificates of Site and Facility, Part 301.08(d) for all energy facilities, except for wind energy facilities, requires that the SEC application include "an assessment of operational sound associated with the proposed facility, if the facility would involve use of equipment that might reasonably be expected to increase sound by 10 decibel A-weighted (dBA) or more over background levels, measured at the L₉₀ sound level, at the property boundary of the proposed facility site or, in the case of an electric transmission line or an energy transmission pipeline, at the edge of the right-of-way or the edge of the property boundary if the proposed facility, or portion thereof, will be located on land owned, leased or otherwise controlled by the applicant or an affiliate of the applicant."

Town of Seabrook

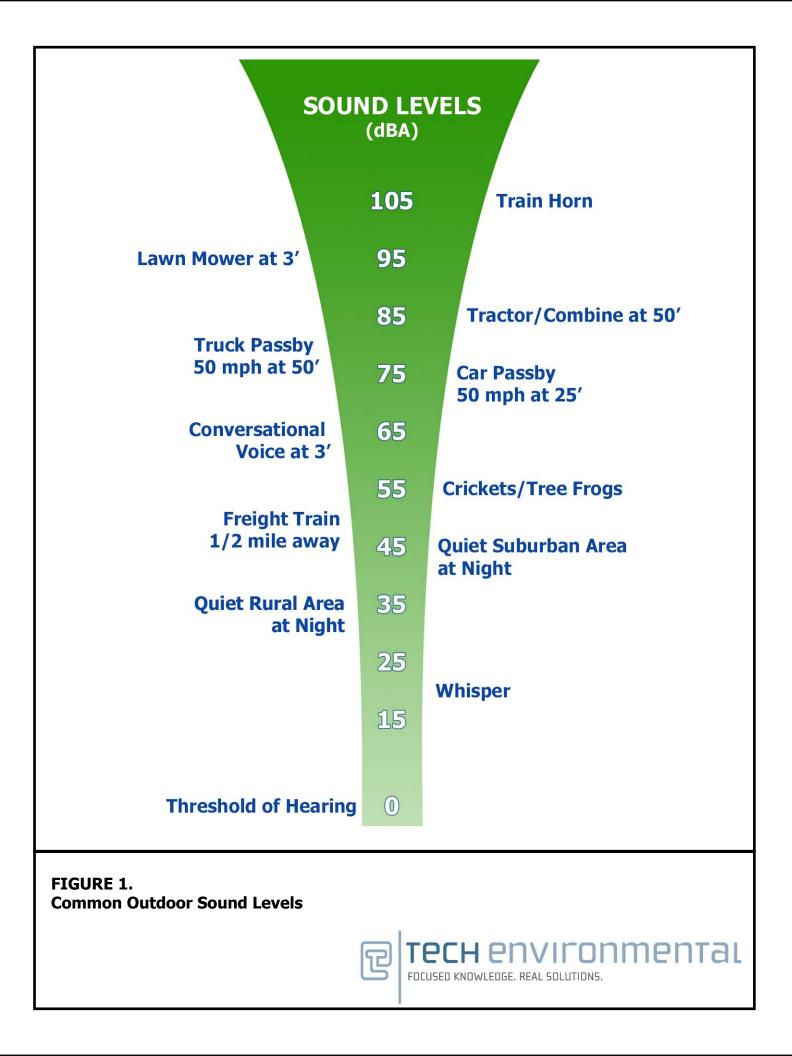
The Town of Seabrook does not have quantitative noise by-law.

AMBIENT SOUND LEVELS

For this screening-level analysis, Tech did not measure baseline ambient sound levels. Instead, Tech estimated baseline ambient sound levels based on our previous ambient sound measurements in New Hampshire and northern New England. Tech estimated a baseline ambient sound level of 30 dBA during the daytime hours, and 25 dBA during the nighttime hours to representative of the surrounding residential areas to the west of the Project location. These estimated ambient sound levels are conservative given the proximity to Interstate 95 and Route 1. Tech used the U.S. Environmental Protection Agency (EPA) definition of daytime (7:00 AM to 10:00 AM) and nighttime (10:00 PM to 7:00 AM).¹

¹ U.S. EPA, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March, 1974.





PREDICTED PROJECT SOUND LEVELS

Future sound levels from the Project, when it is producing maximum electrical power, were calculated with the Cadna/A acoustic model. Cadna/A is a three-dimensional model for sound propagation and attenuation based on International Standard ISO 9613². Atmospheric absorption, the process by which sound energy is absorbed by the air, was calculated using ANSI S1.26-1995.³ Digital terrain data for the project areas were analyzed to obtain terrain heights. The model assumes the most-favorable sound propagation conditions, as occur under downwind conditions or during a ground-based temperature inversion on a clear night. Under these atmospheric conditions, sound travels further than if a person is upwind from a source and the atmosphere is well mixed, which would dampen the sound.

The proposed capacitor banks will each be 50 MVA units. According to the manufacturer, capacitor banks at the 345 kV voltage level is approximately 75 dBA, but that could go higher depending on the bank configuration and current harmonic spectrum. For the purposes of the screening-level analysis, a sound power level of 89 dBA was used in Cadna/A, which was based on actual sound measurements of a 19.5 MVA transformer scaled up to 50 MVA, with an additional 10-dBA safety factor. Switchyard reactors have an estimated sound level that ranges from 70 to 80 dBA. Since there is no manufacturer's sound data for the reactors, Tech assumed that the overall sound profile from the reactors would be similar to a transformer. Thus, a sound power level of 85 dBA was used in Cadna/A, which is based on actual sound measurements of a 19.5 MVA transformer with an additional 10-dBA safety factor. A sound power level of 65 dBA was used in Cadna/A for the 500 kVA, 4160-480-volt transformer, which was based on actual sound measurements of a 19.5 MVA transformer scaled down to 500 kVA, with an additional 10-dBA safety factor. ⁴ The modeling analysis assumes that both capacitor banks, reactors and transformer will operate at maximum load during the daytime and nighttime.

Figure 2 shows modeling receptors included in Cadna/A representing the seven (7) residential locations closest to the site and decibel-level contours of the predicted Project daytime and nighttime sound levels. The ambient L_{90} sound levels and the predicted daytime and nighttime sound levels for each residence are presented in **Table 1**. Attachment A presents the acoustic modeling results.

The predicted sound level increases would be 1 to 2 dB above the ambient daytime sound levels of 30 dBA and range from 2 to 5 dB above the ambient nighttime sound levels of 25 dBA. Therefore, the Project will comply with the New Hampshire Site Evaluation Committee sound limit of 10 dBA above the ambient L_{90} level.

CONCLUSIONS

A revised screening-level sound study was performed for the Seabrook Capacitor Banks Project in Seabrook, NH. The revised sound study included the addition of two (2) 50 MVA capacitor banks, six (6) switchyard reactors and a 500 kVA, 4160-480-volt transformer. The results of the study showed the Project will comply with the NHSEC sound limit.

⁴ Tech Environmental, Inc., Coolidge Solar PV Farm, Ludlow, VT – Transformer Sound Monitoring, July 31, 2020.



² International Standard, ISO 9613-2, <u>Acoustics – Attenuation of Sound During Propagation Outdoors</u>, -- Part 2 General Method of Calculation.

³ American National Standards Institute, ANSI S1.26-1995, "American National Standard Method for the Calculation of the Absorption of Sound by the Atmosphere," 1995.

Mr. Dana Valleau

Please call if you have any questions regarding this report.

Sincerely,

TECH ENVIRONMENTAL, INC.

Marc Wallace

Marc C. Wallace, QEP, INCE Vice President 4680/ Seabrook Capacitor Bank Screening-Level Analysis Report 01.17.2022



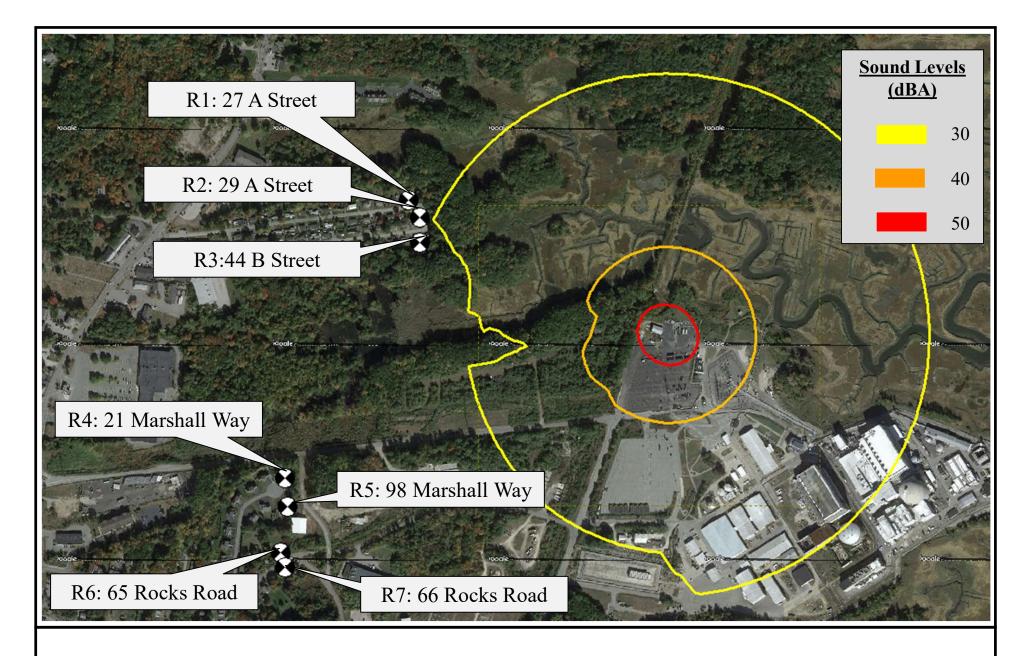


Figure 2 Daytime and Nighttime Predicted Project Sound Levels 626 Lafayette Rd, Seabrook, NH 03874



TABLE 1

Receptor ID	Address	Soun	dicted d Level IBA)	Soun	ibient d Level IBA)	Pre Soun	otal dicted d Level IBA)	Predicted Sound Level Increase (dBA)			
		Day	Night	Day	Night	Day	Night	Day	Night		
R1	27 A Street	29	29	30	25	32	30	2	5		
R2	29 A Street	29	29	30	25	32	30	2	5		
R3	44 B Street	28	28	30	25	32	30	2	5		
R4	21 Marshall Way	23	23	30	25	31	27	1	2		
R5	98 Marshall Way	23	23	30	25	31	27	1	2		
R6	65 Rocks Road	22	22	30	25	31	27	1	2		
R7	66 Rocks Road	22	22	30	25	31	27	1	2		

PREDICTED SOUND LEVELS AT NEARBY RESIDENCES FROM THE SEABROOK CAPACITOR BANKS PROJECT



ATTACHMENT A ACOUSTIC MODELING RESULTS

Name	M.	ID	Level Lr		Limit. Va	alue	1/3rd O	tave Band	Day																										Land Use	e		deight	Coordinates		
			Day	Night	Day	Night	1	25 31	40	50	63	3 8	30 1	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	10000	J Type	Auto	Noise Type		X Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(d	3) (d	3) (di	B) (dl	B) (d	dB) (d	B) (d	IB) (di	B) (c	dB) (dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)				(m)	(m) (m)	(m)	
27 A Street		R1	28.8	28	.8	0	0 11	.6 14.1	29.1	21.5	19.1	21	.1 1	8.1	25.5	20	15.7	25.3	18.3	24.6	20.1	21.5	24.8	21	14.6	10.7	6.3	2.1	3.2	-11	-21.2	-37.6	-60.6	-80	J	х	Total	2.44 r	348019.7 47	/51820 /	.54
29 A Street		R2	28.9	28	.9	0	0 11	.2 13.3	28.7	21.2	18.7	7 20	.7 1	8.3	25.8	20.3	15.9	25.6	18.6	24.5	20.1	21.6	24.8	21.2	14.9	11.1	6.8	2.8	4.2	-9.7	-19.2	-34.6	-56.3	-79.4	4	х	Total	2.44 r	348042.2 47	/51786	.54
44 B Street		R3	28	3	28	0	0 9	.6 12.1	27.1	19.6	17.1	19	.1 1	7.9	25.3	19.8	15.8	25.5	18.4	23.6	19.1	20.7	23.9	20.3	14.1	10.3	6.1	2.3	4	-9.5	-18.7	-33.5	-54.4	-78.7	1	х	Total	2.44 r	348042 47	751735 8	.54
21 Marshall Way		R4	23.2	23	.2	0	0 5	.5 8	22.9	15.4	13	3 14	.9 1	3.7	21.1	15.6	13.1	22.7	15.6	19.2	14.7	16.1	18.6	14.7	8	3.6	-1.5	-6.7	-7.3	-24.1	-38.4	-60.9	-80	-80.2	1	х	Total	4.57 r	347773.7 47	/51268 1/	.76
98 Marshall Way		R5	23	1	23	0	0 5	.3 7.8	22.8	15.3	12.8	3 14	.8 1	3.5	20.9	15.4	12.9	22.5	15.4	19.1	14.5	15.9	18.4	14.5	7.8	3.3	-1.8	-7.1	-7.8	-24.8	-39.3	-62.3	-80.1	-80.2	1	х	Total	4.57 r	347780 47	751211 16	.76
65 Rocks Road		R6	22.4	22	.4	0	0 4	.9 7.4	22.4	14.8	12.4	14	.3	13	20.4	14.8	12.4	22	14.8	18.5	13.9	15.2	17.8	13.8	7	2.5	-2.8	-8.4	-9.4	-27	-42.5	-66.7	-80.2	-80.2	1	х	Total	4.57 r	347766.5 47	/51120 1/	.76
66 Rocks Road		R7	22.3	22	3	0	0 4	8 73	22.3	14.8	12.3	3 14	3 1	29	20.3	14.8	12.3	21.9	14.7	18.4	13.8	15.2	17.7	13.7	6.9	2.4	-2.9	-85	-9.6	-27.3	-42.9	-67.3	-80.2	-80.2	/	x	Total	4 57 r	347775 4	/51092 1	76

APPENDIX 17: DECOMMISSIONING PLAN

SUMMARY OF WORK SEABROOK CAPACITOR BANKS DECOMMISSIONING

Section 1: Background

Capacitor bank facility decommissioning can generally described as the removal of system components and the rehabilitation of the site to pre-construction conditions. The typical goal of project decommissioning and reclamation is to remove the installed electrical equipment and return the site to a condition as close to a pre-construction state as feasible.

A properly maintained capacitor bank has an expected life of thirty (30) years. The decommissioning process will initiate upon the completion of the project's useful life.

Deconstruction procedures are designed to ensure public health and safety, environmental protection, and compliance with applicable regulations. Typical activities during a high voltage decommissioning and site reclamation phase include the following:

- Facility de-energization;
- Dismantling and demolition of above grade electrical structures;
- Dismantling and removal of above ground and below ground utilities to a depth of 36";
- Debris management including hauling and disposal;
- Temporary erosion control;
- Removal of security fencing;
- Grading;
- Repaving; and
- Revegetation disturbed areas as needed.

Much of the solid material waste can be recycled or sold as scrap, however, it is noted that salvage or scrap value is not included in the decommissioning opinion of probable cost.

Section 2: Facility Materials

Capacitor bank facilities are constructed using the same basic materials and methods of installation common to their application. Materials include:

<u>Metals</u>: Steel from pier foundations, racking, conduits, electrical enclosures, and fencing,; aluminum from buss work, breakers, and electrical wire; stainless steel from fasteners, and electrical enclosures; copper from electrical wire.

<u>Concrete</u>: Equipment pads and footings.

<u>Plastics</u>: A limited amount of plastic materials are used in capacitor bank systems due to a system's continuous exposure to the elements and long operational lifetime. Plastics typically are found in capacitor bank facilities as wire insulation, electrical enclosures, control and monitoring equipment.

Section 3: Project Decommissioning Plan

The Project owner shall:

- Be responsible for all decommissioning costs. A Financial Assurance Mechanism (FAM) in the form of an irrevocable standby letter of credit, performance bond, surety bond, or unconditional payment guaranty executed by a parent company will be established prior to construction, as required by applicable permits.
- Provide a decommissioning schedule to Seabrook and the SEC, as applicable, prior to initiating any decommissioning activities.



SUMMARY OF WORK SEABROOK CAPACITOR BANKS DECOMMISSIONING

- Obtain any additional permits required for the decommissioning, removal and legal disposal of Project components prior to commencement of decommissioning activities.
- Complete decommissioning, including component removal and disposal, grading and revegetation in accordance with permits and in compliance with all applicable rules and regulations then in effect governing the disposal thereof.
- Remove all hazardous materials and transport them to be disposed of by licensed contractors at an appropriate facility in accordance with rules and regulations governing the disposal of such materials.

The following sequence for the removal of the components will be used:

Capacitor Bank Site

- Disconnect facility from the utility power grid.
- Disconnect all aboveground wirings, cables and electrical components and recycle offsite by an approved recycling facility.
- Remove concrete foundations (if required) and recycle off-site by a concrete recycler.
- Remove all waste.
- Remove the perimeter fence and recycle off-site by an approved metal recycler.

Access Road

• The existing access roads and associated drainage infrastructure (culverts, etc.) will remain to maintain access the site for existing Seabrook Nuclear Power Plant access in the future.

Below-Ground Structure Decommissioning

- Disconnect and remove all underground cables and transmission lines to a depth of 36" below grade and recycle off-site by an approved recycling facility.
- Removal of steel foundations.

Section 4: Site Restoration

Once the on-site equipment is removed, it is expected that the site will be returned to its existing condition. Some minor site grading may be required. Site restoration activities will be undertaken with the input of the Seabrook Station staff.

Section 5: Decommissioning Conditions and Timeframe

The capacitor bank facility and all components described above shall be physically removed from the site no later than 2 years following the discontinuation of operations.

This decommissioning plan is based on current procedures and experience. These procedures may be subject to revision based on new experiences and requirements over time.

Section 6: Opinion of Probable Costs

TRC has prepared an opinion of probable current cost for the decommissioning of the Seabrook Capacitor Banks station. Assumptions used to develop this opinion of costs include:

- Electrical equipment is recyclable
- Fencing is recyclable
- Primary costs are associated with labor to dismantle and loading recyclable materials



SUMMARY OF WORK SEABROOK CAPACITOR BANKS DECOMMISSIONING

• Market value of recyclable materials is zero

The labor and rental rates used in the estimate:

- \$120/hour for electricians
- \$65/hour for laborer
- \$80/hour for operator
- \$1,750/day for excavator rental
- \$660/week for skid steer rental

Opinion of Probably Costs Summary

<u>Task</u>	<u>Cost</u>
Remove Electrical Equipment (10 hour/unit) x (15 units) = 150 hours (2 Electricians) x (\$120/hour) x (150 hours) = \$36,000 (2 Laborers) x (\$65/hour) x (570 hours) = \$74,100 (2 Operator) x (\$80/hour) x (570 hours) = \$91,200 (1 Excavator) x (\$1,750/day) x (71 days) = \$124,250 (1 skid steer) x (\$660/week) x (14.5 weeks) = \$9,657	\$341,207
Removal of Station (5 Electricians) x (\$120/Hour) x (100 Hours) = \$60,000 (1 Operator) x (\$140/hour) x (5 days) = \$5,600 (1 Excavator) x (\$1,750/day) x (5 day) = \$8,750	\$74,350
Break Up Equipment Pads (15 Pad) x (4 Hours) = 60 hours (1 Operator) x (\$80/hour) x (60 hours) = \$4,800 (1 Excavator) x (\$1,750/day) x (7.5 day) = \$13,125	\$17,925
Site Restoration Total Area = 2.1 acres (\$5,000/acre) x (2.1 acres) = \$10,500	\$10,500
Removal of Fence (\$2/lf) x (1,500 lf) = \$3,000	\$3,000
Cap Bank Decommissioning Total	\$ 446,982



APPENDIX 18: AGENCY AND STAKEHOLDER MEETING NOTES



TRC 6 Ashley Drive 1st Floor Scarborough, ME 04074

Seabrook Capacitor Banks Project Pre-Application Meeting Minutes Municipal Permits & Approvals Webex Call 12/14/2021, 11:00AM

Attendees:

In Attendance	Name	Company
Х	Kim Austin	NHT
Х	Jen Bonta	TRC Environmental
X	Corinne Didomenico	NEER
X	Lacey Fowler	Town of Seabrook – Code Enforcement Officer
Х	Erika Jipson	TRC Environmental
X	Heather Storlazzi Ward	TRC Environmental
Х	Dana Valleau	TRC Environmental

General Meeting Goal Review, Project Overview and Introductions

- Corrinne made Project Team introductions.
 - Corinne provided via email, the PPP that was shared during the PIM and a Project description summary.
- Corinne gave high level overview of the project purpose and description.
 - Addition of capbanks will add to grid voltage stability.
 - Project sited on an existing parking lot.
 - Screen share of Project location including vicinity features, and preliminary layout plan with aerial base.
 - \circ $\;$ TRC has conducted tidal reference delineation and wetland.

Permitting Discussion

- Heather shared and presented the Wetland and Waterbody Delineation figure, reviewing the delineated natural resources and agency consultation.
- Heather reviewed known permit applications that will be required:
 - SEC application for exemption or a determination that this project is not a sizable addition to an existing facility;
 - NHDES Shoreland Application; and
 - o NHDES Alteration of Terrain Application.

- Heather reviewed municipal permits that are assumed to be required:
 - Commercial Building Permit;
 - Demolition Permit *CEO indicates to include Demolition activity as part of Building Permit application. Does not have to be a separate Demolition Permit Application.*
- Questions from Heather
 - On the Building Permit application what is meant by 'A signed Planning Board site plan is required before issuance of a Building Permit'
 - CEO response checking with Tom Morgan regarding Planning Board signed site plan, as well as whether a Planning Board Site Review application and approval is necessary. Quick turnaround typically from Tom, the Planning Director.
 - Commercial Building Permit Application regarding overall project cost that the fees are based on, what should be included?
 - CEO response cost is based on materials and labor, does not include electrical costs. Electrical costs shall be kept separate and included with the electrical permit application.
- CEO indicates that an electrical permit will most likely be needed, and is checking in with Jeff Jacobs, Electrical Inspector.
- Planning Board meets the 1st and 3rd Mondays at 6:30PM.
- Town requires application 30 days prior to PB meeting / hearing. Town is responsible for contacting abutters.

Follow-Up Items

- CEO responding back to Corinne on PB Site Review status, in accordance with Town Planner, Tom Morgan.
- CEO checking with electric inspector, Jeff Jacobs, regarding need for electrical permit.



TRC 6 Ashley Drive 1st Floor Scarborough, ME 04074

Seabrook Capacitor Banks Project Pre-Application Meeting Minutes Alteration of Terrian and Shoreland Permits Teams Call 12/15/2021, 1:00PM

Attendees:

In Attendence	Name	Company
Х	Kim Austin	NHT
Х	Eric Brown	TRC Engineering
Х	Caleb Frederick	TRC Engineering
Х	Michael Hansen	NHDES - AoT
Х	Jason Hoffman	NHT
Х	Erika Jipson	TRC Environmental
Х	Eben Lewis	NHDES - Wetlands
Х	Zack Martin	TRC Engineering
Х	Dana Valleau	TRC Environmental
Х	Heather Storlazzi Ward	TRC Environmental

General Overview and Introductions

- Each person in attendance introduced themselves.
- Dana gave high level overview of the project purpose and description.
 - Addition of capbanks will add to grid voltage stability.
 - Project sited on an existing parking lot.
 - TRC has conducted tidal reference delineation and wetland.

Shoreland Permitting Discussion

- Heather shared and presented the below figure:
 - o Red Line: Project Area
 - Yellow Line: Environmental Survey Area
 - Blue Line: Field Delineated Shoreland Reference Line
 - Dark Purple Line: 100' Tidal Buffer Zone
 - Orange Line: 250' Shoreland Area
 - Purple/Orange Shaded Areas: Field Delineated Wetlands



- Questions from Heather
 - Application form Should TRC provide numbers based on Project area rather than the entire parcel?
 - DES Response All areas above the tidal reference line should be included -Generally like to see cumulative area not just the specific area, the remainder of the area of shoreland within the total parcel can be estimated based on GIS.
 - It is TRC's understanding that as this project is a public infrastructure project, abutter notification is not required and project will be exempt from filing notices under the regulation. Is TRC's understanding correct? TRC has provided notices to abutters due to SEC application process.
 - DES Response correct. Provide abutter list, but applicant is not required to notify the abutters for the SL Application due to Project being a public infrastructure project.
 - Is definition of impervious surface the same for Shoreland as AoT?
 - DES Response Pretty much the same.
 - o Will areas of crushed stone be included as an impervious surface
 - DES Response Crushed stone is considered an impervious surface although the curve runoff numbers will be a little different as compared to asphalt.
 - Regarding existing permits there are existing permits for the site, but the permittee is different than the Project (NHT). Is there an avenue to having an amendment to existing permit? Or is this a standalone permit application and simply make reference to existing permits?
 - DES Response best to file a new application for this Project particular due to wetland rules changes.

- Section 7 Related permits, is this only for permits related to current project or overall site?
 - DES Response For Shoreland/Wetland only departmentwide applications need to be listed.
- Can fees be wrapped into one check?
 - DES Response Separate checks are needed. All made to Treasurer, State of New Hampshire.
- On coastal zone consistency certification TRC understands that certain activities require a consistency review, one being federal permitting including ACOE.
 - DES Response Contact Christian Williams, DES can reach out to him.

AoT Permit Discussion

- TRC Engineering did not have any questions specific to preparation of the AoT Permit.
 - Caleb Frederick to direct questions to Michael Hansen if questions do arise as the permit application is drafted.

Schedule

• Target submittals of application including SEC which Shoreland and AoT will be wrapped in is February 15, 2022.

TRC Follow-Up Items

• None

APPENDIX 19A: TOWN OF SEABROOK ZONING ORDINANCE

Zoning Ordinance

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 22	Authority & Purpose Definitions Zoning Districts Smithtown Village and North Village Buildings per Lot Permitted Land Uses Dimensional Requirements Special Exceptions & Conditional Use Open Space Development Junkyards General Provisions Earth Excavation Signs Non-Conforming Property Surface Water Protection Aquifer Protection Telecommunication Facilities Traffic Mitigation Small Wind Energy Systems Impact Fees Administration Pollution Control	Z-3 Z-19 Z-20 Z-21 Z-22 Z-26 Z-28 Z-29 Z-31 Z-32 Z-33 Z-34 Z-36 Z-37 Z-39 Z-41 Z-42 Z-43 Z-49 Z-55 Z-56 Z-56
22 23	Pollution Control Sexually Oriented Businesses	Z-56 Z-57
24	Floodplain Regulations	Z-59

November 17, 2020

Zoning Ordinance

Section 1 - Authority & Purpose

This chapter shall be known as the "Zoning Ordinance of the Town of Seabrook, New Hampshire." The purposes of this chapter are to promote the health, safety, convenience and general welfare of the inhabitants of the Town of Seabrook, to protect and conserve the value of property, to promote economic development of the town's resources and to encourage the most appropriate use of land throughout the town of Seabrook.

Any terms not defined in Section 2 Definitions shall be accorded their commonly accepted meanings. In the event of conflicts between Section 2-Definitions and Section 4 – Smithtown Village, those of Section 4 shall take precedence.

Section 2 - Definitions

As used in this chapter, the following terms shall have the meaning indicated:

Accessory Building: A non-residential building with no habitable space, the use of which is subordinate to that of the main building. It may be separate from or attached to the main building. For the purpose of this ordinance, a garage or a carport that is attached directly to the main building by a breeze way shall be regarded as an integral part of the main building. An accessory building shall be no larger than the standard two-car garage, not to exceed 1,080 square feet, and must conform to the general building design of the neighborhood.

Accessory Use: Any subordinate use of premises that is customarily accepted as a reasonable corollary to the principal use thereof and which is neither injurious nor detrimental to the neighborhood.

Adult Bookstore or Adult Video Store: A business that devotes more than 15% of the total display, shelf, rack, table, stand or floor area, utilized for the display and sale of the following: books, magazines, periodicals, or other printed matter, or photographs, films, motion pictures, video cassettes, slides, tapes, records, CD-ROMs or other forms of visual or audio representations which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1 or, instruments, devices, or paraphernalia which are designed for use in connection with "sexual conduct" as defined in RSA 571-B:1, other than birth control devices. An adult bookstore or adult video store does not include an establishment that sells books or periodicals as an incidental or accessory part of its principal stock and trade and does not devote more than 15% of the total floor area of the establishment to the sale of books and periodicals.

Adult Cabaret: A nightclub, bar, restaurant, or similar establishment which during a substantial portion of the total presentation time features live performances which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1, and/or feature films, motion pictures, video cassettes, slides or other photographic reproductions, a substantial portion of the total presentation time of which is devoted to showing of material which meets the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Adult Drive-In Theater: An open lot or part thereof, with appurtenant facilities, devoted primarily to the presentation of motion pictures, films, theatrical productions and other forms of visual productions, for any form of consideration to persons in motor vehicles or on outdoor seats, in which a substantial portion of the total presentation time being presented for observation by patrons is devoted to the showing of material which meets the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Adult Motel: A motel or similar establishment offering public accommodations for any form of consideration which provides patrons with closed circuit television transmissions, films, motion pictures, video cassettes, slices or other photographic reproductions a substantial portion of the total presentation time of which are distinguished or characterized by an emphasis upon the depiction of materials which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Adult Motion Picture Arcade: Any place to which the public is permitted or invited wherein coin or slug operated or electronically, electrically or mechanically controlled still or motion picture machines, projectors, or other image producing devices are maintained to show images to five or fewer persons per machine at any one time, in which a substantial portion of the total presentation time of the images so displayed is devoted to the showing of material which meets the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1

Adult Motion Picture Theater: An establishment with a capacity of five or more persons, where for any form of consideration, films, motion pictures, video cassettes, slides or similar photographic reproductions are shown, and in which a substantial portion of the total presentation time is devoted to the showing of material which meets the definition of "harmful to minors" and/or "sexually content" as set forth in NH RSA 571-B:1, for observation by patrons. For the purposes of this ordinance, substantial portion of the total presentation time shall mean the presentation of films or shows described above for viewing on more than seven days within any 56 consecutive day period.

Adult Theater: A theater, concert hall, auditorium or similar establishment, either indoor or outdoor in nature, which for any form of consideration, regularly features live performances, a substantial portion of the total presentation time of which are distinguished or characterized by an emphasis on activities which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Alteration of a Building or a Fabricated Structure: A change, rearrangement or addition involving the original structural parts or significant changes or additions to the plumbing, gas piping, electrical wiring, ventilation or heating installations. Such alterations are not to be confused with replacements or repairs.

Apartment: A dwelling unit in a structure containing more than two dwelling units, or a dwelling unit in a commercial or industrial building.

Assessed Property means the land or buildings comprising new development that is subject to an impact fee assessment under this Section.

Assessment, with respect to an impact fee, means a notification issued by the Town of Seabrook, its Planning Board, or its Building Inspector, stating the amount of an impact fee due from an assessed property, and the conditions or schedule for its collection.

Buildable Area: Land within the Net Tract Area that is not dedicated to open space preservation.

Building: Any permanent structure occupied or intended to shelter any occupancy. For the purposes of this ordinance, a multi-unit building, with or without firewalls, shall be considered one building.

Building Height: The vertical distance from the grade to the highest point of the coping of a flat roof, or to the deck line of a mansard roof, or to the main mean height between the plate and the ridge of a pitched or a hip roof.

Cargo Container: Standardized reusable vessel that was originally designed for or used in the packing, shipping, movement or transportation of freight, articles, goods or commodities. This definition includes containers that have a similar appearance to cargo containers.

Collection, with respect to an impact fee, means the actual delivery of payment of the fee to the Town of Seabrook on behalf of an assessed property.

Commercial Amusements means any game or amusement that is provided in exchange for value received or pledged. Such game or amusement shall not necessarily require any skill on the part of the participant. Commercial amusements shall not include the dissemination of any material which is obscene, as those terms are defined by Chapter 650 of the Revised Statutes Annotated of New Hampshire.

Commercial Entertainment means any show or display, whether live, by film or by other means of presentation, which is provided in exchange for value received or pledged. Commercial entertainment does not include the dissemination of material that is obscene, as those terms are defined by Chapter 650 of the Revised Statutes Annotated of New Hampshire.

Commercial-General means any retail, sales, service or office uses, and not including heavy or light industrial uses.

Commercial Recreation means any game or amusement that is provided in exchange for value received or pledged. Such game or amusement shall not necessarily require any skill on the part of any participant. Commercial recreation shall not include the dissemination of any material which is obscene, as those terms are defined by Chapter 650 of the Revised Statutes Annotated of New Hampshire.

District: A division of the total area of the town, including all the land, water, streets and buildings within the designated boundaries.

Dwelling Building: A building exclusively designed or used for one or more dwelling units.

Dwelling Unit: A building or portion thereof providing complete independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation. This use shall not be deemed to include such transient occupancies as hotels, motels, rooming or boarding houses.

Single-Family Dwelling: A detached building containing one primary dwelling unit.

Accessory Dwelling Unit (ADU): A residential living unit that is within or attached to a single-family dwelling, and that provides independent living facilities for one or more persons, including provisions for sleeping, eating, cooking, and sanitation. ADU's are subject to the following restrictions:

- An ADU may not be converted to a condominium;
- An ADU may not be detached from the Single-Family Dwelling;
- Two off-street parking spaces are required for the ADU;
- There shall be no more than one ADU per lot;
- Either the ADU or the Single-Family Dwelling shall be owner occupied;
- The ADU shall be no larger than 750 square feet; and
- The ADU shall contain no more than two bedrooms.
- An interior door shall be provided between the primary dwelling unit and the ADU.
- The ADU shall maintain an aesthetic continuity with the primary dwelling unit.

Two-Attached Primary Dwelling Units (TAPDU): A building containing two primary dwelling units. The two dwellings must share a common wall, and each dwelling must be architecturally consistent with the other. Two attached mobile homes shall not be deemed a TAPDU, but rather, they shall be deemed to be two separate dwelling buildings.

Multi-Family Dwelling: A building containing more than 2 dwelling units.

Establishment means and includes any of the following as they relate to a sexually oriented business:

- The opening or commencement of any sexually oriented business as a new business;
- The conversion of an existing business whether or not a sexually oriented business, to any sexually oriented business;
- The relocation of any sexually oriented business;
- The substantial enlargement of a sexually oriented business, which means the increase in floor areas occupied by the business by more than 25%, as a floor area exists on the date of the adoption of this ordinance; or
- The transfer of ownership or control of a sexually oriented business, which means and includes any of the following: A) the sale, lease, or sublease of the business; B) the transfer of securities which constitute a controlling interest in the business, whether by sale, exchange or similar means; C) the establishment of a trust, gift or other similar legal device which transfers the ownership or control of the business, except for transfer by bequest or other operation of law upon the death of the person possessing the ownership or control.

Fee Payer is the party from whom an impact fee payment has been received on behalf of an assessed property.

Fireworks Sales: The sale of fireworks as defined in NH RSA 160-B:1

Foundation: The structural materials supporting a building.

Frontage: Line separating private property from a public right-of-way or street.

Gasoline Station - A retail establishment at which motor vehicles are refueled, serviced, and sometimes repaired. Also called a filling station, a service station, or a retail motor fuel outlet.

Greenbelt: A vegetative area in which no parking lots or buildings are permitted. The only permitted structures shall be utility poles, sidewalks, signs, bicycle paths, and access driveways.

Hazardous Waste: A solid, semi-solid, liquid or contained gaseous waste, or any combination of these wastes:

A) Which, because of quantity, concentration, or physical, chemical, or infectious characteristics may:

- Cause or contribute to an increase in mortality or an increase in irreversible or incapacitating reversible illness; or
- Pose a present or potential threat to human health or the environment when improperly treated, stored, transported, disposed of or otherwise mismanaged.

B) Or which has been identified as a hazardous waste by NH DES using the criteria established under RSA 147-A:3, I or as listed under RSA 147-A:3, II. Such wastes include, but are not limited to, those that are reactive, toxic, corrosive, ignitable, irritants, strong sensitizers or which generate pressure through decomposition, heat or other means. Such wastes do not include radioactive substances that are regulated by the Atomic Energy Act of 1954, as amended. **Home Occupation** is a home-based business that has no noticeable impact on the quality and character of Seabrook's residential districts. In order to qualify as a Home Occupation, the business must meet all of the following standards:

1) no more than two non-resident employees;

2) it is not a nuisance;

3) it is conducted within a pre-existing building;

4) parking is located off the street, and the vehicles are subject to zoning setbacks for structures;

5) no emission of odor, smoke, dust, vibration, or noise that is discernable from the property line;

6) no on-site storage of hazardous, flammable, or explosive materials other than small quantities of products that are intended for normal household use; and

7) deliveries are permitted only between 7AM and 7PM.

Home Office: A home-based business that has no noticeable impact on the quality and character of Seabrook's residential districts. In order to qualify for Home Office use, the business must meet all of the following standards:

1) Be situated in a dwelling in which the business proprietor resides;

2) No changes are made to the building exterior that would reveal home office use;

3) No outdoor activity related to the office use;

4) No more than one vehicle used in the business shall be parked on the premises, and that vehicle shall be no more than 10,000 lbs. GVWR;

5) No non-resident employees shall utilize the office;

6) No outdoor storage of equipment;

7) No retail sales on the premises, and

8) Delivery of packages by commercial vehicles shall not exceed two vehicles per day.

Hotel, Motel - A building designed for or used commercially in which the room or rooms are designed to provide living and sleeping accommodations for temporary lodgers. For the purposes of this ordinance, buildings used to lodge the same tenants for more than thirty days within the same calendar year are to be considered multi-family buildings.

House, Guest or Rooming: A building in which bedrooms are rented to semipermanent guests whose meals, when consumed on the premises, are prepared only by the proprietor or his employees.

Impacted Area: Any area altered from its current state.

Impervious surface means any area that is paved, compacted, or otherwise modified to prevent or restrict the infiltration of storm water. Examples of impervious surfaces include, but are not limited to: roofs, decks, patios, and pavement, and walkways.

Industrial-Heavy means any use having to do with the business of manufacturing products using regulated substances and/or heavy machinery.

Industrial-Light means any production and/or manufacturing activity that uses moderate amounts of partially processed materials to produce finished goods or product parts and components with no significant environmental pollution or risk of contamination.

Junkyard (Machinery Junkyard): Any place of storage in which there is displayed to public view junk machinery of any kind or scrap metals, wood, glass, fabric or other materials commonly called *"junk"*.

Junkyard (Motor Vehicle Junkyard): Includes any business, whether conducted in connection with any other business and any place of storage or deposit, whether conducted in connection with any other business such as garage, auto repairs, new or secondhand auto sales, service station, etc. or not, which has stored, deposited or abandoned:

- Two or more unregistered motor vehicles which are no longer intended or in a condition conforming to legal requirements for use on the public highways; or
- Used parts of motor vehicles or such pieces of iron, bronze or other metals, glass, paper, rubber or other discarded or secondhand material as has been a part or intended to be part of any motor vehicle, the sum of which parts or materials shall be the equivalent, in bulk, of two or more passenger car motor vehicles.

• The term *"motor vehicle junkyard"* shall also include any place of business or storage or deposit of motor vehicles purchased or acquired otherwise for the purpose of dismantling the vehicles for their parts or for use of the metals for sale as scrap materials as well as those places where scrap metals are salvaged by burning the motor vehicles or where motor vehicle parts are cut up for the salvage of metals in more convenient sizes.

Land: Includes all the surface of the earth within the limits of the Town of Seabrook, including all land, ground and subsurface deposits, all the air space above the land to the limits of the town's jurisdiction thereof and all water, tidewaters, marshes, flats and underwater lands to the limits of the town's jurisdiction thereof; provided, however, that as to a lot and its area, the bounds as defined herein, the term "land" shall not include water or underwater lands, whether tidal or otherwise, unless otherwise provided herein.

Limited-Cut Buffer: A healthy, well-distributed stand of trees, saplings, shrubs and ground cover that must be maintained, and which leaves an intact vegetated buffer. Tree cutting shall be limited to 50% of the basal area of trees, and 50% of the total number of saplings over a 20-year period.

Lot: One parcel of land set off as a unit and either occupied by or intended to be occupied by a building or fabricated structure and including the open spaces required by law.

Lot Area: The extent in square feet of the surface of a lot. The "lot area" shall not include any part of the street upon which the lot fronts or abuts.

Lot Lines: The lines bounding a lot and dividing the lot from other lots, streets, land or water.

Lot of Record: A lot which has its principal frontage upon a street and is described in a deed which has been lawfully recorded in the Registry of Deeds, or which, if not so deeded, is a lot which is part of a subdivision, the plan of which has been lawfully recorded in the Registry of Deeds.

Meteorological Tower (Met Tower). Includes the tower, base plate, anchors, guy wires and hardware, anemometers (wind speed indicators), wind direction vanes, booms to hold equipment for anemometers and vanes, data loggers, instrument wiring, and any telemetry devices that are used to monitor or transmit wind speed and wind flow characteristics over a period of time for either instantaneous wind information or to characterize the wind resource at a given location. For the purpose of this ordinance, met towers shall refer only to those whose purpose are to analyze the environmental factors needed to assess the potential to install, construct or erect a small wind energy system.

Mixed Use - A building or parcel that incorporates some combination of residential and non-residential uses or functions. Mixed use also includes elements of pedestrian-oriented access and site design, non-vehicular and transit accommodations, public space, and open space. A mixed-use building or parcel shall have no less than 50 percent of the gross floor area for non-residential use, and with no more than five dwelling units per building.

Mobile Home or House Trailer: A prefabricated dwelling unit which:

- is designed for long-term and continuous residential occupancy,
- is designed to be moved on wheels, as a whole or in sections, or
- on arrival on the site, is complete and ready for occupancy, except for incidental unpacking, assembly, connection with utilities and placing on supports or a permanent structure.

Mobile Home Park or **House Trailer Park:** Any parcel of land under single or common ownership or control which contains or is designed, laid out or adapted to accommodate three or more mobile homes.

Modification. Any change to the small wind energy system that materially alters the size, type or location of the small wind energy system. Like-kind replacements shall not be construed to be a modification.

Motor Vehicle Re-Manufacturing: The storage, dismantling, and re-assembly of motor vehicles within a building and as a subordinate accessory use to an authorized motor vehicle dealership or repair facility.

Motor Vehicle Repair: A business, service, or industry involving the maintenance, repair, servicing, or painting of motor vehicles.

Natural Ground Cover means any herbaceous plant or any woody seedling or shrub less than 3 feet in height. Natural ground cover shall also include naturally occurring leaf or needle litter, stumps, decaying woody debris, stones, and boulders. Natural ground cover shall not include lawns, invasive species as listed by the department of agriculture, imported organic or stone mulches, or other artificial materials.

Neighborhood: An area of land local to the use concerned, generally lying within a radius of one thousand (1,000) feet of such use for the purposes of this ordinance, but including all areas farther away from such use whenever the use creates a condition which, by reason of noise, smoke, vibration, lighting or other cause, creates a detriment, hazard or injury to an area more extensive in size.

Net Metering. The difference between the electricity supplied to a customer over the electric distribution system and the electricity generated by the customer's small wind energy system that is fed back into the electric distribution system over a billing period.

Net Tract Area: The area of a parcel less all non-buildable land such as wetlands and land encumbered by utilities such as electrical transmission lines.

New Development, for the purpose of impact fee assessment, may include the following land use changes:

- The construction of a new dwelling unit; or
- Changes to an existing structure that would result in a net increase in the number of dwelling units; or
- Construction of a new commercial/industrial building or any net increase in the gross floor area of an existing commercial/industrial building; or
- The conversion of an existing use to another use that is determined by the Planning Board, with consultation/advice of the Building Inspector, to result in a measurable net increase in the demand on the public capital facilities that are the subject of impact fee assessment; however,
- New development shall not include the replacement of an existing manufactured housing unit or the reconstruction of a structure that has been destroyed by fire or natural disaster where there is no change in size, density, or type of use that would increase the demand on capital facilities for which impact fees are assessed.

No-Disturb Buffer: An area where activities that disrupt, move or disturb the soil are prohibited.

Nonconforming Structure: A structure that does not comply with the terms of the ordinance.

Nonconforming Use: A use of the land that is not permitted by the ordinance in the zoning district in which the use occurs.

Nude Model Studio: A place where a person who appears in a state of nudity or displays male genitals in a state of sexual arousal and/or the vulva or more intimate parts of the female genitals, and is observed, sketched, drawn, painted, sculptured, photographed, or similarly depicted by other persons who pay money or any form of consideration or such display is characterized by an emphasis on activities which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Off-Site Improvements means highway, drainage, and sewer and water upgrades or improvements that are necessitated by a development but which are located outside the boundaries of the property, as determined by the Planning Board during the course of subdivision plat or site plan approval.

Open Space: Land area not covered by pavement or buildings. Solar panels are not subject to open space restrictions.

Power Grid. The transmission system, managed by ISO New England, created to balance the supply and demand of electricity for consumers in New England.

Privately Maintained Dedicated Public Way is a street built to Town standards that has been approved by the Planning Board, and the plan has been recorded at the Registry of Deeds.

Regulated Substance: As defined in NH Administrative Rules Env-Wq 401, any of the following, with the exclusion of ammonia, sodium hypochlorite, sodium hydroxide, acetic acid, sulfuric acid, potassium hydroxide, and potassium permanganate:

A) Oil as defined in RSA 146-A:2, III.

B) Any substance that contains a regulated containment for which an ambient groundwater quality standard has been established pursuant to RSA 485-C:6.

C) Any substance listed in 40 CFR 302, 7-1-05 edition.

Repair: Replacement or mending of parts already existing but in a state of deterioration with equivalent materials and for the purpose of maintaining their quality.

Restaurant: A commercial use with the primary function of food service that may also serve alcohol and provide entertainment.

Retail: A use devoted to the sale, rent or lease of merchandise directly to the consumer for use off premises. For the purposes of this ordinance, wholesale clubs shall be considered a retail use.

School District includes the Seabrook School District, and the Winnacunnet Cooperative School District, or any other regional or cooperative school district of which the Town of Seabrook becomes a member municipality. **Schools:** Places for systematic instruction in any branch or branches of knowledge and which promotes the academic interests rather than commercial interests.

Sexual Encounter Center: A business or commercial enterprise that as one of its primary business purposes, offers for any form of consideration: 1) physical contact in the form of wrestling or tumbling between persons of the opposite sex; or 2) activities between male and female persons and/or persons of the same sex when one or more persons is in the state of nudity; and 3) when the activities in sections A or B above are characterized by an emphasis on activities which meet the definition of "harmful to minors" and/or "sexual conduct" as set forth in NH RSA 571-B:1.

Sexually Oriented Business: any place of business in which any of the following activities are conducted: adult bookstore or adult video store, adult motion picture theater, adult drive-in theater, adult cabaret, adult motel, adult theater, nude model studio, or sexual encounter center.

Shadow Flicker. The visible flicker effect when rotating blades of the wind generator cast shadows on the ground and nearby structures causing a repeating pattern of light and shadow.

Sign: Any device, structure, banner, fixture, awning or placard using graphics, symbols, and/or written copy designed specifically for the purpose of advertising or identifying any establishments product, goods, service or activity.

- Freestanding Sign: A sign supported by poles or braces that are permanently attached in the ground or attached to something buried in the ground and not supported by any building or structure.
- **Non-Accessory Sign & Billboard:** Any sign that does not advertise the name, address, business or products of the site on which it is located.
- **Non-Conforming Sign:** Any signs that predate this ordinance and do not comply with the guidelines set forth herein.
- **Off-Premise Directional Sign:** A sign designed to aid the traveling public to locate a business not on a state highway.
- Roof Sign: A sign erected over or on the roof of any building.
- **Temporary Sign:** A sign not intended for long-term use and that is not permanently attached to the ground.
- **Wall Sign:** A sign painted on or attached to and erected parallel to the outside wall of any building.

Small Wind Energy System: A wind energy conversion system consisting of a wind generator and associated control or conversion electronics, which has a rated capacity of 100 kilowatts or less and will be used primarily for onsite consumption.

Solar Farm: A photovoltaic power station.

Special Event: A temporary event such as a tent sale, carnival, circus, outdoor auction in which: 1) Duration shall not exceed one month; 2) Prior written approval is issued by the Fire Chief; and 3) The Building Inspector issues written findings that the event will not create a traffic safety hazard, that there will be no unreasonable impact on nearby residents, and that the proposal complies with all applicable building and safety codes.

Story: That part of a building or structure comprised between a floor and the floor or roof next above it.

Structure: Any structure constructed or erected by human means, whether on land or water, the use of which requires location on the ground or bed of water or which requires attachment to something having location on the ground or water. Fences; stonewalls; retaining walls; driveways; and steps, porches, and piazzas smaller than 24 square feet are not to be construed as *"structures"* for purposes of side line and setback requirements, however for safety reasons, opaque fences shall be set back a minimum of 15 feet from street pavement.

Substantially Complete: A project is considered substantially complete when all utilities and storm water infrastructure are installed, the ground surface is stabilized, and the binder course is in place on all paved areas.

System Height: The vertical distance from ground level to the tip of the wind generator blade when it is at its highest point.

Tattoo Establishment: Any room or space where tattooing is practiced or where the business of tattooing is practiced or where the business of tattooing is conducted, or any part thereof.

Telecommunications Facility: any structure, antenna, tower, or other device which provides commercial mobile wireless services, unlicensed wireless services, cellular phone services, specialized mobile radio communications (SMR), personal communications service (PCS), and common carrier wireless exchange access services.

Tower: The monopole, guyed monopole or lattice structure that supports a wind generator.

Tower Height: The height above grade of the fixed portion of the tower, excluding the wind generator.

Trailer, Travel-Trailer Type: A fabricated structure with a maximum floor area of 319 square feet, mounted on wheels and designed for being hauled on highways and to be used as temporary living quarters during travel, camping, recreational, or vacation trips (synonymous with *"trailer coach"*).

Travel Trailer Park: A parcel of land in which two or more spaces are occupied or intended for occupancy by vehicles and/or tents for recreational dwelling purposes and not for permanent year-round residence.

Undisturbed State means native vegetation allowed to grow without interference.

Variance: A variation from the terms of this ordinance, not otherwise permitted within the district concerned which may be granted by the Board of Adjustment pursuant to its discretionary power where the Board finds that the granting of such variance will do substantial justice and the intent of the ordinance will be still observed. The Board of Adjustment may, in such case, waive the literal enforcement of the applicable provisions(s) of this ordinance and grant a variance only where such literal enforcement would result in unnecessary hardship to the applicant.

Vernal Pools are as defined by the NH Code of Administrative Rules – part Env-Wt 101.106.

Wetlands means an area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands include, but are not limited to, swamps, marshes, bogs, and similar areas. Wetlands shall be delineated on the basis of hydrophytic vegetation, hydric soils, and wetlands hydrology, in accordance with the techniques outlined in the <u>Corps of Engineers</u> <u>Wetlands Delineation Manual</u> (January 1987).

Wholesale – The selling of goods in large quantities to be retailed by others.

Wind Generator: The blades and associated mechanical and electrical conversion components whose purpose is to convert kinetic energy of the wind into rotational energy used to generate electricity.

Section 3 - Zoning Districts

For the purpose of this ordinance, the Town of Seabrook is hereby divided into eight use districts:

Zone 1 (*Rural*) Zone 2 (*Commercial*) Zone 2R (*Residential*) Zone 3 (*Industrial*) Zone 4 (*Conservation*) Zone 5 (*Harbor Commercial*) Zone 6R (*Smithtown Village - Residential*) Zone 6M (*Smithtown Village and North Village - Mixed Use*)

These districts and the boundaries of such districts are shown on the official Zoning Map of the Town of Seabrook, which map is incorporated herein by reference and made a part hereof. This official Zoning Map shall be the final authority as the current zoning status of land in the town. In the event that uncertainty exists with respect to the boundaries of the various districts as shown on the official Zoning Map, the following rules of interpretation shall be applied:

3.100 **Landmarks:** Where a boundary is indicated as a highway, railroad or such other landmark, it shall be construed to be the centerline thereof unless otherwise indicated on the Zoning Map. Where a boundary is indicated as approximately parallel to a highway, railroad or such other landmark, it shall be construed as parallel thereto and at such distance there from as shown on the Zoning Map.

3.200 Lots Divided by Zoning Boundaries: When a boundary between two zoning districts divides a lot, the Planning Board may, upon application of the lot owner, grant a Conditional Use Permit in order to permit a use that would be permitted in either zoning district. The Conditional Use Permit shall only be granted following a Planning Board finding that the proposed use will cause no substantial increase in motor vehicle traffic, or such increase will be mitigated to the Planning Board's satisfaction.

3.300 **Map Scale:** If no dimension is given on the Zoning Map, the location of any boundary shall be determined by use of the scale shown on the Zoning Map.

3.400 **Planning Board Determinations:** Where not otherwise provided for or a question exists, the Planning Board shall determine the exact boundary line.

Section 4 – Smithtown & North Village

4.100 **Authority:** The purpose of this ordinance is to establish Smithtown Village and North Village, mixed use and residential districts focused on creating a diverse service and pedestrian oriented, economically viable development center in Seabrook as authorized under RSA 674:21 II Innovative Land Use Controls and RSA 674:16 Grant of Power. This Section was adopted as one of the instruments to implement the public purposes and objectives of the Town's Master Plan. This Ordinance is declared to be in accord with the Master Plan, as required by RSA 674:2.

4.200 **Purpose:** The purpose of the Smithtown Village and North Village is to enhance economic vitality, business diversity, accessibility, and visual appeal in a manner that is consistent with the landscape and architecture of the Town's historic village tradition. This Ordinance was adopted to promote the health, safety and general welfare of the Town of Seabrook and its citizens, including protection of the environment, conservation of land, energy and natural resources, reduction in vehicular traffic congestion, more efficient use of public funds, health benefits of a pedestrian environment, preservation of community character, civic and recreational use, reduction in sprawl development, and improvement of the built environment.

4.300 **Intent:** The intent of the Smithtown Village and North Village is to foster development of a vibrant mixed use district with a cohesive street layout and architectural character that includes commercial, residential and civic uses and integration of open spaces, transit, bicycle and pedestrian accommodations.

4.400 **Goals:** The overarching goals of the Smithtown Village and North Village are to enhance the economic development potential of properties; encourage mixed uses that support one another; provide services and employment opportunities; create pedestrian and bicycle friendly neighborhoods; respect the historical nature of Smithtown Village and North Village; and create a gateway into the Town of Seabrook.

4.500 **Defining Elements:** Development shall incorporate the following concepts to preserve and complement elements of the historic tradition of Seabrook, and local and regional village character:

4.501 Comprised of compact, pedestrian-oriented development;

4.502 Mixed-use pattern of development where development specializing in a single use should be the exception;

4.503 Encourage a range of housing choices and price levels to accommodate diverse populations;

4.504 Diversity of open space including parks, squares, and playgrounds distributed within neighborhoods and throughout the district;

4.505 Expansion and provision of public transportation facilities that promote use and access;

4.506 Provide improved visibility and access to and use of conservation lands, where appropriate; and

4.507 Opportunities for agrarian activities such as farmers markets and community gardens.

Section 5 - Buildings per Lot

Every building hereinafter erected shall be located on a lot, as herein defined, in no case shall there be more than one principal building on one lot, except as follows:

1) Commercial development in Zone 2 within 500 feet of Lafayette Road that exceeds a lot area greater than 60,000 square feet; and

2) Zone 6M Smithtown Village and North Village - Mixed Use, and

3) In Zone 2R, a second dwelling building, containing one dwelling unit, may be placed on a lot, providing that the lot is 45,000 square feet or larger; and the number of dwelling units on the lot does not exceed two.

Section 6 - Permitted Land Uses

No building shall be erected, reconstructed or structurally altered, nor shall any building or land be used for any purpose other than is permitted in the district in which such building or land is located. No building, structure or portion thereof shall be erected, altered, moved or used, and no land or building or part thereof shall be used arranged, or designed to be used except in conformance with Tables 1 & 2. Uses that are not designated as permitted (by right or as a conditional use) shall be construed as prohibited.

Table 1

P = Permitted S = Special Exception - only permitted if granted by Board of Adjust. N = Not Permitted C = Conditional Use - only permitted if granted by Planning Board

	Zoning Districts								
Uses	1	2	2R	3	4	5	6R	6M	
Accessory uses and buildings not for human									
habitation and which are normally incidental	Р	Р	Р	Р	N	Р	Р	Р	
to the permitted principal use of the premises.									
Agricultural	Р	Р	Р	Ν	Ν	Ν	Р	C ¹	
Boat Charters and Excursions	Ν	Ν	Ν	Ν	Ν	Р	Ν	Р	
Boating Supplies	Ν	Р	Ν	Ν	Ν	Р	Ν	Р	
Cargo Containers ²	Ν	С	N	С	Ν	Ν	N	С	
Churches	Р	Р	Р	Ν	Ν	Ν	N	Р	
Day Care	Р	Р	Р	S	Ν	N	С	Р	
Fireworks Sales	Ν	N	N	Ν	Ν	Ν	N	Ν	
Fish and Shellfish: wholesale and retail sales	Ν	Р	Ν	Ν	Ν	Р	N	P ³	
Fishing Equipment: fabrication, storage and	Р	Р	Р	N	N	Р	Р	Р	
repair	Г	Г	Г	IN	IN	Г	Г	Г	
Gasoline Stations, subject to the limitations	Ν	Р	N	Ν	Ν	Ν	N	N	
specified in Section 6.200	IN	Г	IN	IN	IN	IN	IN	IN	
Guest Houses	Р	Р	Р	N	Ν	Ν	С	Р	
Home Occupations	С	С	С	С	Ν	С	С	С	
Home Offices	Р	Р	Р	Р	N	Р	Р	Р	
Hotels and Motels	N	Р	N	N	Ν	Ν	Ν	Р	
Industrial-Heavy	N	Ν	Ν	С	Ν	Ν	Ν	Ν	
Industrial-Light	N	Р	Ν	Р	Ν	Ν	Ν	Р	
Manufacturing - as a Subordinate Use, and									
clearly subordinate and incidental to the permitted	N	Р	С	С	Ν	Ν	С	С	
principal use of the premises.									
Marinas and Related Services such as sail lofts,									
boat brokerage, boat building & repair, retail boat	N	Р	N	Р	Ν	Р	С	N	
& motor sales, boat storage, and boat refueling.									
Methadone Clinic	N	N	N	N	N	N	N	N	
Mixed Use	N	С	N	N	N	N	N	Р	
Motor Vehicle Repair	N	Р	N	N	Ν	N	N	N	

¹ Livestock, foul and animal husbandry are not permitted in Zone 6M.

 2 No more than 2 cargo containers per business are permitted, and for a duration not to exceed 3 months. Cargo containers shall not be used for human habitation or hazardous material storage.

³ Wholesale sales of fish and shellfish are not permitted in Zone 6M

	Zoning Districts							
Uses	1	2	2R	3	4	5	6R	6M
Motor Vehicle Re-Manufacturing provided that	•	_		•	-	•	•••	•
1) No more than 20 vehicles are stored on-site at		-						
one time; and 2) all salvaged parts shall be used	N	S	N	N	N	N	N	N
to repair vehicles on-site.								
Nursing or Convalescent Homes - not more		_						_
than 20 patients.	N	Р	N	N	N	N	N	Р
Offices - Professional offices which are incidental								
to a residence, and which conform in design to								
the structures in the area. There shall be no more	Р	Р	Р	Р	Ν	Ν	Р	Р
than one office per single-family house, and no	-			-			-	-
such office shall have more than three employees.								
Offices for maritime activities	N	Р	Р	N	N	Р	Р	Р
Offices - All other offices, including banks	N	P	N	P	N	N	N	P
Outdoor Storage of more than one inoperative		-						
and unregistered automobile	N	N	N	N	N	N	N	N
Outside Commercial Amusements and								
Entertainment, including, but not limited to	Ν	S	N	S	N	Ν	N	N
helicopter & airplane rides, and bungee jumping.	IN	3	IN	3	IN	IN	IN	IN
Recreation - Commercial amusements and								
entertainment which is conducted within the	Ν	Р	N	s	Ν	Ν	N	С
confines of a building.	IN	Г	IN	3	IN	IN	IN	C
Recreation - Non-commercial passive recreation	Р	Р	Р	Р	Р	Р	Р	Р
Residential ⁴	Г	Г	Г	Г	Г	Г	Г	Г
Mobile Home Park	NI	Ν	N	Ν	N	NI	NI	N
	N N	N	N N	N	N	N N	N N	N
Multi-Family Dwelling	N	C	N	N	N		N	P
Mixed Use with no more than 5 dwelling units Single Family Dwelling	P	P	P	N	N	N P	P	N N
Single Family Dwelling + ADU	Р	P	P	N	N	Р	P	N
Two Attached Primary Dwelling Units	Р	Р	P	N	N	Г N	Р	N
Restaurants	N	P	N	N	N	P	N	P
		P			N	-		г N ⁵
Restaurants that have drive-up windows	N	Р	N	N	IN	N	N	IN°
Retail and Service Businesses - floor area of	Ν	Р	Ν	Ν	Ν	Ν	N	Р
1,000 sq ft or more								
Retail and Service Businesses - floor area less	Ν	Р	Р	Ν	N	Ν	Р	Р
than 1,000 sq ft	_		_				_	_
School Bus Shelters	S	S	S	S	N	S	S	P
Schools	Р	Р	Р	Ν	Ν	Ν	Ν	Р

 ⁴ In North Village, existing residential uses are grandfathered and can be redeveloped and expanded as the same use while conforming to all other requirements.
 ⁵ In Zone 6M North Village, restaurants that have drive-up windows are permitted if the Planning Board

grants a conditional use permit.

	Zoning Districts								
Uses	1	2	2R	3	4	5	6R	6M	
Sexually Oriented Businesses as regulated, restricted and defined by this ordinance, Section 21 hereof and such other ordinances adopted by the Town regulating sexually oriented businesses. Specifically, without limitation, sexually oriented businesses shall not be permitted with 1,000 feet of a church, or place of worship, parish house, or convent, a public, parochial or private school, a state approved day care center, another sexually oriented business, a sexually oriented business for which a building permit has been applied for, or within 300 feet from a residence, or 500 feet from a public sports/recreation park, any establishment in which minors constitute more than 50% of the Town boundaries or within 500 feet of such businesses or buildings owned by the Town of Seabrook and operated for government use.	Ν	Ρ	N	N	N	N	N	Ν	
Solar Farms	С	Р	Ν	Р	Ν	Ν	Ν	Ν	
Special Events	Ν	Р	Ν	Р	Ν	Ν	Ν	Р	
Swimming Pools	Р	Р	Р	Ν	Ν	Ν	Р	Р	
Tattoo Establishment	Ν	Ν	Ν	Ν	Ν	Ν	Ν	Ν	
Telecommunications Facilities permitted only on land west of I-95 and within 3,500' of the centerline of I-95. These facilities are subject to the provisions of Section 16.	Ρ	Ρ	N	Ρ	N	N	N	Ν	
Theaters and Halls	Ν	Р	N	Ν	Ν	Ν	Ν	Р	
Trailers and Boats - Dead storage of travel trailers & boats used by residents of the property	Ρ	Р	Р	Р	N	Р	Р	Р	
Travel Trailer Parks	Ν	Р	N	N	N	N	N	Ν	
Utilities: Public Utility Buildings	Ν	Р	Р	Р	N	N	Р	С	
Wholesale	Ν	Р	N	Р	Ν	Ν	N	Ν	

6.200 **Gasoline Stations:** In order to prevent an excessive concentration of petroleum products that may pose a threat to Seabrook's vital groundwater resources, no gasoline station shall be erected or operated within 1,000 feet of another such station, as measured from the closest property lines.

Seabrook's twelve existing gasoline stations in an operable condition in 2012 are grandfathered, and thus are not required to conform to the 1,000-foot setback, and are situated on the following parcels:

Мар	Lot	Name	Address
5	11	O'Brien	8 Batchelder
7	62	Extra Mart	762 Lafayette
7	87	Getty North	663 Lafayette
7	94-5	Prime Gas	843 Lafayette
7	126	Sunoco	720 Lafayette
8	110	Richdale	472 Lafayette
8	4	Getty South	587 Lafayette
9	62	Irving	361 Lafayette
9	67-0	Seacoast One-Stop	265 Lafayette
10	20-1	Gateway	3 Lafayette
17	48-1	O'Keefe	445 Route 286
26	98	Yankee Fishermen	725 Ocean Boulevard

Should a gasoline station cease to operate for one year, and should its NH gasoline station operator's license expire, the facility will no longer be grandfathered from the 1,000-foot setback requirement.

Section 7 - Dimensional Requirements

No building shall be erected, reconstructed or structurally altered to exceed the height herein established for the districts in which such building is located. No lot area shall be so reduced or diminished that the yards or other open spaces shall be smaller than prescribed by this ordinance, nor shall the density of population be increased in any manner except in conformity with the table set forth below. No yard or other open space provided around any building for the purpose of complying with the provisions of these regulations shall be considered as providing a yard or open space for any other building. In order to demonstrate the minimum required lot depth and lot width, lots in Zones 2R, 5 & 6R must be able to accommodate a 100' by 100' square; lots in Zones 1, 2, 3 & 6M must be able to accommodate a 125' by 125' square.

Dimensional Requirements	Zoning Districts							
Dimensional Requirements	1	2	2R	3	4	5	6R	6M
Minimum Lot Area (in thousands of sq ft)								
Single Family Dwelling ⁶	20	30	15	30		20	15	30
Single Family Dwelling + ADU ⁶	20	30	15	30		20	15	30
Two Attached Primary Dwelling Units	30	30	30				20	
Non-Residential Buildings	20	30	15	30		20	15	30
Maximum # of Primary Structures ⁷								
(Residential) Buildings per lot ⁸	1	1	1	0	0	1	1	
(Residential) Dwelling Units per lot ³	2	2	2	0	0	2	2	2
Mixed Use (maximum dwelling units per building)								5
Minimum Lot Dimensions ¹								
Continuous Road Frontage ⁹	125'	125'	100'	125'		100'	100	125
(i.e. uninterrupted frontage)								
Depth and Width	125'	125'	100'	125'		100'	100	125
Minimum Setbacks ¹⁰								
Front	20'	30'	20'	50'		30'	20'	15'
Frontage abutting Route 1	30'	30'	30'	30'		30'	30'	30'
Side and Rear	10'	15'	10'	15'		15'	10'	15'
Side and Rear for sheds less than 100 sq ft	2'	2'	2'	2'		2'	2'	2'
From ponds & streams	50'	50'	50'	50'		50'	50'	50'
Bus and Transit Shelters:								
setback from roadway pavement	8'	8'	8'	8'		8'	8'	8'
setback from roadway intersections	20'	20'	20'	20'		20'	20'	20'
Side and rear setbacks for commercial uses								
from land utilized or zoned Residential	30'	30'	30'	30'		30'	20'	30'

⁶ This requirement shall not apply to lots of record that were recorded at the Registry of Deeds prior to 1974.

⁷ Note exceptions for lots in Zone 2, per Section 5 of this ordinance.

⁸ A second dwelling building, containing one dwelling unit, may be placed on a lot in Zones 2R & 6R, providing that the lot is 45,000 sq ft or larger; and the number of dwelling units on the lot does not exceed two.

⁹ Parcels dedicated for conveyance to the Town of Seabrook for conservation purposes shall be exempt from the roadway frontage requirement.

¹⁰ On corner lots where the side yard abuts a street, the side yard shall be subject to the minimum setback requirements for front yards.

Dimensional Requirements	Zoning Districts							
Dimensional Requirements		2	2R	3	4	5	6R	6M
Minimum Buffers								
See Section 15 for buffer and setback								
requirements for wetlands and surface waters.								
Maximum Height ¹¹								
In 6M - with parking on first floor	35'	35'	35'	50'		35'	35"	45'
In 6M - without parking on first floor								40'
Minimum Width of Greenbelt along Lafayette		20'						20'
Road ¹²		20						20
Minimum % of Open Space	25%	25%	25%	25%	100%	25%	25%	20%
Maximum Building Footprint (in square feet) ¹³								
Mixed Use Building (with no more than 5								7,500
dwelling units per building permitted)								
In 6M-Smithtown	_	_	_		_	_	_	7,500
	_	_	_	_	_	_	_	7 500
In 6M North Village west of Route 1								7,500
								20,00014
In 6M North Village east of Route 1								20,000 ¹⁴

¹¹ Utility structures such as radio/television towers are exempt from this height limit. For wind systems, see Section 19. The maximum height limit for all other structures on properties that abut Lafayette Road in Zone 2 is 50 feet (not 35 feet).

¹² The minimum 20-foot Lafayette greenbelt shall be measured from the edge of the widest proposed rightof-way currently under consideration by NH DOT.

¹³ In Zone 6-M North Village, existing lots of record as of adoption of the 6-M North Village zoning district are allowed to redevelop the square footage of their existing building footprint(s) on that property.

¹⁴ Conditional Use Permit from the Planning Board rquired to permit structures greater than20,000 square feet on the east side of Route 1 in 6-M North Village for Industrial-Light uses.

Section 8 - Special Exceptions & Conditional Use Permits

8.100 **Special Exceptions** shall be granted by the Board of Adjustment, and **Conditional Use Permits** shall be granted by the Planning Board, if in the board's judgment, the proposed use:

- Does not have an adverse effect on surrounding properties or on environmentally sensitive areas;
- Does not at any time of day decrease the existing level of service of roads and intersections servicing the property and any other road or intersection to be determined by the Planning Board;
- Implements mitigation measures that retain the existing and/or improve the level of service of roads and intersections servicing the property including other affected components of the roadways network identified by the Planning Board;
- Does not cause erosion, or discharge of chemicals or other pollutants into stormwater;
- Does not emit odors, noise, dust, vibration, smoke or fumes which travel beyond the boundary lines of the subject property; and
- Does not interfere with or decrease safety and access for motorists, bicyclists, pedestrians and residents.

The Special Exceptions and Conditional Use Permits shall run with the land, that is to say, the restrictions and stipulations will apply to subsequent owners of the property.

Section 9 – Open Space Development

9.100 **Purpose:** The purpose of this section is to encourage flexibility in design and development of land in order to promote the conservation of open space and the efficient use of land in harmony with its natural features.

9.200 Objectives

9.201 To stimulate imaginative and economical approaches to land use and community development.

9.202 To facilitate the adequate and economical provision of streets, utilities and public spaces.

9.203 To preserve the natural and scenic qualities of open areas.

9.204 To establish living areas that provide a diversity of housing opportunities while ensuring adequate standards for public health, safety, welfare and convenience.

9.205 To encourage the conveyance of land and easements for use by the general public for recreational and or conservation purposes,

9.206 To preserve those areas of the site that have the highest ecological value, for example, wildlife habitat including rare and exemplary species and habitats, water resources, wetlands, streams and rivers.

9.207 To create a contiguous network of open spaces or "greenways" by linking the common open spaces within the subdivision and to open space on adjoining lands wherever possible.

9.300 Locations: Such development shall only be permitted in Zones 1, 2R & 6R

9.400 **Procedure:** Applications shall follow the procedures and standards of the Subdivision Regulations. Open Space subdivisions, as described herein, are strictly optional, that us to say, applicants are free to pursue conventional subdivisions pursuant to Seabrook's Subdivision Regulations.

9.500 **Dimensional Requirements:** Within the Buildable Area, residential development may be built in any configuration or combination of dwelling types and lot sizes, subject to the following:

9.501 A minimum of fifty percent (50%) of the land identified as Net Tract Area shall be set aside as open space.

9.502 Residential density for the Buildable Area shall not exceed 7,500 square feet per dwelling.

9.503 The height of buildings shall not exceed 35 feet.

9.504 Ten foot structural setbacks shall be maintained from all abutters who are situated outside of the Open Space Development.

9.505 The Planning Board finds that the proposal is consistent with the purposes of this section.

9.600 **Open Space Guarantees**

9.601 **Contiguous Open Space:** Reasonable efforts shall be made to locate open space adjacent to protected open space in adjoining property or properties to the satisfaction of the Planning Board. This open space shall be permanently restricted for recreation, open space and conservation uses and protected by a homeowners or condominium association. Upon mutual agreement of the Town, the developer and/or the homeowners or condominium association, a portion of the open space may be permanently protected by a public body which shall maintain the land for the benefit of the general public.

9.602 **Enforceability:** The Town and the property owners within the development shall be assured of enforceable rights with respect to such preservation.

9.603 **Non-Divisible:** Such open space shall not be re-subdivided further, but may contain accessory structures and improvements appropriate for educational, recreational or social uses.

9.604 **Legal Guarantees:** The developer shall submit, prior to final approval, such legal instruments as the Planning Board may require to prescribe the manner of ownership, maintenance and obligations of the developer and future residents, including the articles of incorporation and charter in a form and manner approved by the Board necessary to ensure the intent and purpose of this section.

9.605 **Municipal Rights:** In the event the party entrusted with ownership of the open space within the development shall fail to maintain such open space in a reasonable order and condition, the Town may, through court action, be authorized to assess the costs incurred by the municipality to maintain this open space against the owners as a lien on their properties.

9.606 **Dissolution:** Should the organization managing said open space dissolve, all assets shall be turned over to the public or a non-profit organization dedicated to the preservation of open space. Any such transfer shall be approved by the Planning Board.

Section 10 - Junkyards

In pursuance of the authority conferred by RSA 236, as amended, the following regulations shall govern the upkeep of motor vehicle and machinery junkyards. No new junkyards, as herein before defined shall be established, opened or operated within the town. No existing junkyard within the town shall be expanded or in any way enlarged unless a variance is granted by the Board of Adjustment. No person, corporation or association shall locate or maintain a motor vehicle junkyard or a machinery junkyard within a distance of 150 feet from the surface of any public highway, unless such yard is fenced or screened so as to be completely hidden from view of the highway. Yards currently in operation shall be a period of 60 days grace in which to complete the actions necessary for compliance with these regulations before violators may be prosecuted. Any motor vehicle junkyard or machinery junkyard located or maintained in violation of the provisions of this Section is hereby declared a nuisance, and the same may be abated on complaint of any prosecuting officer. Whoever violates any of the provisions of these regulations governing junkyards shall be fined not more than \$100 or imprisoned for not more than six months, or both.

Section 11 - General Provisions

11.100 **Mobile Home Parks:** No mobile home park or house trailer park shall be established, or be allowed to expand if already established, within the confines of the town.

11.200 **Nuisances:** The occurrence of activities that may be obnoxious or injurious by reason of the production or the emission of odor, dust, smoke, fumes, refuse matter, noise, vibration or similar conditions or that are dangerous to the health, safety or value of property of the community or that lend otherwise to the annoyance or disturbance of a neighborhood shall be prohibited.

11.300 **Dumping and waste disposal:** No land in any district shall be used for a dumping place for garbage and refuse from either private or from commercial or from industrial sources except the public dump as provided by the town and except with the approval, in writing, of the Public Health Officer or the Board of Adjustment upon such conditions as they may require.

11.400 **Housing Authority Exempted:** The use of land by the Seabrook Housing Authority shall be exempt from all provisions of this Zoning Ordinance.

11.500 **Historic Stone Walls** – No person shall deface, alter, the location of or remove any stone wall which was made for the purpose of marking the boundary of lots or recording lots of record, or which borders any road in the Town of Seabrook except upon written permission of the Planning Board and the Board of Selectmen.

Section 12 - Sand, Topsoil & Gravel Removal

It shall be unlawful to excavate and remove from any premises, sand, topsoil, gravel or rock, excepting such surpluses of topsoil, sand, gravel or rock as may result from excavations when constructing basements or foundations for buildings or when excavating for driveways, parking lots and streets, except in accordance with the following conditions:

12.100 **Permit Application:** A permit has first been obtained from the Board of Adjustment, following written application therefore, and said Board has held a public hearing thereon.

12.200 **BOA Findings:** The Board of Adjustment must first find that such use is not detrimental, injurious or dangerous to public health and the welfare of the district or town and shall not constitute a nuisance due to noise, vibration, erosion, the discharge of chemical and other pollutants from stormwater runoff, smoke, odor or other objectionable features nor adversely affect the economic status of the district or town. The Board shall consult with the Planning Board of the town as a resource for making these findings.

12.300 **Permit to Operate:** Both existing and proposed uses must have a permit to operate. A permit so issued shall be issued for an initial period of not more than one year and to be subject to renewal upon application to and at the option of the Board of Adjustment for successive periods of not more than one year, provided that a bond is posted in the name of the Town assuring satisfaction of any requirements of the Board of Adjustment which it may require to safeguard the interest of the town.

12.400 **Inspections:** The Code Enforcement Officer will arrange inspections of the site to ensure that the Board's requirements and those of the NPDES Construction Permit are being followed. If an outside consultant is necessary to make a report, the cost shall be paid by the permit holder.

Section 13 - Signs

13.100 **Purpose:** The purpose of this section is to minimize distractions to motorists that could adversely affect traffic safety, and also to minimize unsightly signs that could diminish the value of nearby properties.

13.200 **Dimensional Limits:** All signs, other than temporary political campaign signs and real estate sales signs, require a permit issued by the Building Inspector. All signs shall adhere to the requirements set forth in the table below:

Zoning District:	1, 2R & 5	2&3	4	6R	6M Smith- town	6M North Village
Maximum Cumulative Surface Area (<i>in square feet</i>) of all free-standing signs	16	100 ¹⁵	0	16	55	100
Maximum area of all roof signs	0	32	0	0	0	0
Maximum number of free-standing signs per lot ¹⁶	1	1	0	1	1	1
Maximum area of entrance & exit signs	4	4	0	4	4	4
Maximum height of entrance & exit signs above grade	3	3	-	3	3	3
Maximum number of roof signs per business	0	1	0	0	0	0
Height of free-standing sign above grade						
Maximum	15'	20'	-	15'	20'	20'
Minimum for signs within 30' of street pavement	6'	6'	-	6'	6'	6'
Minimum for signs beyond 30' of street pavement	0	0	-	0	0	0
Minimum Setback for free-standing signs from edge of pavement ¹⁷	10'	15'	-	10'	15'	15'
Wall Sign: Maximum coverage of wall surface	10%	10%	-	10%	10 sf	10%
Suspended Sign: Placed no higher than 2 nd floor sill	-	-	-	-	8 sf	-
Maximum area of a temporary sign	16	16	-	16	16	16

¹⁵ 100 square feet plus an additional 24 square feet for every business on the premises, not to exceed a total of 400 square feet. No one side of any sign shall exceed 200 square feet.

¹⁶ Entrance & exit signs, and temporary signs are exempt from the limit on the number of free-standing signs per lot.

¹⁷ Entrance & exit signs are exempt from this setback requirement.

13.300 **Temporary Signs:** The maximum duration for the display of temporary signs shall be 90 days per sign, within any calendar year.

13.400 **Prohibited signs:** In order to minimize driver distraction, the following signs are prohibited in the Town of Seabrook:

- Animated, moving, flashing, spinning, revolving, scrolling, or intensely lighted signs and signs that emit audible sounds or noise are prohibited in order to enhance traffic safety.
- **Digital Display** signs that change their message more frequently than once per hour. The display of time, temperature, public service announcements, and Amber Alerts are exempt from this prohibition.
- Off-Premise signs and billboards, except as noted in Section 13.600 below.
- Signs painted on or attached to a vehicle or trailer parked on private property for the purpose of providing advertisement of products or directing people or a business or activity located on the property.
- Signs that block the view of traffic, street signs or traffic signals;
- Signs which bear or contain statements, words, or pictures which constitute the dissemination of any material which is **obscene** as those terms are defined by Chapter 650 of the Revised Statutes Annotated of New Hampshire;
- Roof signs made of combustible material;
- Visual Story Signs that convey a sequence of messages.
- Illumination that interferes with traffic controls devices.

13.500 **Light Emitting Diode (LED) Signs:** In order to minimize driver distraction, LED signs shall adhere to the following standards:

- LED signs shall be permanently affixed to the ground;
- Maximum luminance shall not exceed 5,000 nits (candela per square meter) during daylight hours, and 300 nits after sunset.
- LED signs shall not be illuminated between the hours of 12AM and 5AM.
- LED signs shall only be erected within Zones 2 and 6M North Village.

• Text shall be sufficiently large enough so as not to require additional attention from passing motorists.

13.600 For businesses that are *not* located along State highways, one **Off-Premise Directional Sign** per business shall be permitted, providing that:

- the sign complies with the provisions of this ordinance in all other respects;
- the sign face does not exceed six square feet;

13.700 **Non-conforming signs** in place prior to this ordinance may not be altered or replaced, however a change to the message is permitted.

Section 14 - Non-Conforming Property

14.100 **Expansion:** Non-conforming uses and non-conforming structures shall not be enlarged, expanded or extended, nor changed to another non-conforming use. Note Section 6 Permitted Land Uses and Section 7 Dimensional Requirements for exceptions relating to continuance and expansion of non-conforming uses in 6-M North Village.

14.200 **Cessation:** If a non-conforming use ceases for a period of one year, all subsequent uses shall conform to the terms of the Zoning Ordinance.

14.300 **Restoration:** Nothing in this ordinance shall prevent restoration within one year and continued non-conforming use of a building that has been damaged by fire, water or other casualty.

14.400 **Mobile Homes**: A non-conforming mobile home may be replaced with a new mobile home at the same locations.

Section 15 – Surface Water Protection

15.100 **Purpose:** to protect the larger expanses of wetlands in Seabrook, to minimize flooding, to protect wildlife habitats, to protect groundwater quality, and to prevent damage to structures and property.

15.200 **Minimum Lot Sizes:** Wetlands shall not be utilized to satisfy more than 20% of the minimum lot size requirement specified in Section 6 of this ordinance. Tracts of land that were less than five acres as of January 1, 1998 are exempt from this requirement. For the construction of single-family homes, a minimum of 7,500 square feet of contiguous uplands (non-wetlands) shall be available on the lot; For duplexes, 15,000 square feet of contiguous uplands shall be available.

15.300 **Vegetation:** In order to ensure that wetlands remain well vegetated, no natural herbaceous vegetation and no more than fifty percent (50%) of trees, saplings, or shrubs shall be removed from wetlands. Vegetation shall only be removed during the dry season or when the ground is frozen.

- Not more than a maximum of fifty percent (50%) of the basal area of trees, and a maximum of fifty percent (50%) of the total number of saplings shall be removed for any purpose in a 15-year period. Any subsequent cutting requires prior approval by the Planning Board. A healthy, well-distributed stand of trees, saplings, shrubs, ground cover, and their living, undamaged root systems shall be left in place.
- Dead, diseased, unsafe, or fallen trees, saplings, shrubs, or ground cover may be removed. Their removal shall not be used in computing the percentage limitations.
- Stumps and their root systems shall be left intact in the ground.
- Preservation of dead and living trees that provide dens and nesting places for wildlife is encouraged.
- Planting efforts that are beneficial to wildlife are encouraged.

15.400 **Buffers & Setbacks:** The following vegetative buffers and structural setbacks shall be observed in order to protect the integrity and functionality of Seabrook's water resources:

Water Resource	Minimum Buffer	Minimum Setback
Wetlands less than 5,000 sq ft	None	10 feet
Vernal Pools of any size, and Wetlands greater than 5,000 sq ft	25 feet limited-cut, consistent with Paragraph D above.	25 feet
Ponds & Streams	25 feet limited-cut, consistent with Paragraph D above.	50 feet

Parking lots shall observe a minimum setback of 25 feet.

15.500 **Violations:** Any water resource or its buffer altered in violation of this ordinance shall be restored at the expense of the violator(s) as provided by RSA 483-A:5 and under the direction of a New Hampshire certified wetland scientist, and said restoration shall be subject to review by the Seabrook Conservation Commission. When appropriate, injunctive relief shall be sought by the Town as per RSA 676:15, and civil fines imposed as per RSA 676:17.

15.600 In all water resource areas such as ponds, streams, wetlands, and their associated buffers, only potash and slow release lime shall be used for soil amenities.

Section 16- Aquifer Protection

16.100 **Purpose:** The purpose of the Aquifer Protection Overlay District is to protect future ground water sources from potential contaminants and human intervention that might limit recharge. The intent of this Overlay District is to provide for the overall health and safety to the public by preserving and maintaining existing aquifers. The Aquifer Protection Overlay District is a zoning overlay district that imposes additional requirements and restrictions in addition to those of the underlying district zone. The goals of the Aquifer Protection Overlay District are to:

16.101 Achieve runoff volume control to maintain pre-development hydrology functions, including holding surface runoff volume, infiltration, and aquifer recharge volumes reasonably constant. These standards help maintain aquatic habitats, wetlands, stream base flow and prevent increased frequency of damaging bank full flows and floods.

16.102 Protect, maintain, and improve stream uses and the surface water and groundwater quality (including temperature regimes) that sustains these uses.

16.103 Prevent any increase in peak runoff rate and total volume of discharge from a site for a range of frequent to large storms. Where appropriate, additional release rate and volume controls may be required to reduce cumulative flooding impacts downstream and to water bodies containing sensitive species or habitats.

16.200 **Aquifer Protection Overlay District** extends over all land within the political boundaries of the Town of Seabrook located west of I-95.

16.300 **Applicability:** The Aquifer Protection Overlay District standards shall apply fully to new development projects, and redevelopment projects that expand by more than 25 percent the total footprint of development on a site or add more than 10,000 square feet of new impervious surface cover to a site, whichever is smaller. For site development that does not meet these redevelopment thresholds, the standards shall be applied to the maximum extent practicable at the discretion of the Planning Board.

16.400 **Prohibited Uses:** The following uses are not permitted in the Aquifer Overlay Protection District.

16.401 Storage, use, treatment or disposal of hazardous waste as defined under RSA 147-A, and Section 2 herein:

16.402 Storage, use, treatment or disposal of solid waste and sludge;

16.403 Disposal of solid waste. Brush and stumps may not be disposed of on-site;

16.404 Disposal of septic waste;

16.405 Dumping of snow or stockpiling of snow brought from outside the Aquifer Protection Overlay District;

16.406 Storage of road salt, salted sand or other deicing materials and chemicals in bulk except in lined and enclosed covered storage constructed in accordance with the standards of NH DES;

16.407 Subsurface storage of petroleum and other refined petroleum products for commercial sale and industrial use;

16.408 Motor vehicle service and repair shops, gasoline stations, car washes, junk, reclamation and salvage yards;

16.49 Facilities for the bulk storage of petroleum products;

16.410 Industrial and commercial uses that discharge contact type process and cooling waters on site;

- 16.411 Commercial livestock stockyards, feedlots, and manure storage;
- 16.412 Mining of land and excavation of sand or gravel;
- 16.413 Septage or wastewater lagoons.

16.450 **Regulated Substances:** The handling, storage, processing or recycling of regulated substances and toxic materials in storage containers greater than five gallons shall only be permitted if the Planning Board and Fire Chief approve the applicant's plan for Spill Prevention, Control and Countermeasure (SPCC).

16.500 **Exemptions:** The following uses are exempt from this ordinance as long as they are in compliance with all applicable local, state and federal requirements:

16.501 Storage of heating fuels for on-site residential and non-residential use or fuels for emergency electric generation, provided that storage tanks are above ground on a concrete pad or floor and have corrosion control, leak detection, and secondary containment in place.

16.502 Storage of motor fuel in tanks attached to vehicles and fitted with permanent fuel lines to enable the fuel to be used by that vehicle.

16.303 Storage and use of office supplies.

Section 17 - Telecommunications Facilities

17.100 **Signs:** Telecommunication towers shall not contain signs or graphic representation of any kind.

17.200 **Fall Zone:** A circular fall zone shall be depicted on the site plan. The radius of said zone shall equal the height of the proposed tower. This zone shall not include any buildings or public ways. Easements shall be required if the fall zone extends onto other properties.

17.300 **Evidence that Co-Location is not Feasible:** If a new tower is being proposed, the applicant shall submit evidence which is satisfactory to the Planning Board, that no existing structure can accommodate the applicant's antenna(s).

17.400 **Cooperation:** An applicant proposing to build a new tower shall submit a binding agreement that provides for the maximum allowance of antenna colocation on the new structure. This agreement shall obligate the applicant to supply antenna co-location for reasonable fees and costs to other telecommunications providers. Failure to provide an agreement that is satisfactory to the Planning Board is grounds for denial.

17.500 **A Bond** shall be submitted by the applicant to cover the costs of tower removal in the case of abandonment. The applicant shall submit a written agreement, the terms of which are to be satisfactory to the Town of Seabrook, which governs the bond.

17.600 **Abandoned Telecommunications Facilities** are those that have not operated for a period of twelve consecutive months.

Section 18 – Traffic Mitigation

The construction or redevelopment of any building in excess of 50,000 square feet may be approved only after a finding by the Planning Board that the following conditions will be met at the time of opening of the building and that they will continue to be met for at least five years from the time of building opening:

18.100 **Visibility:** Line of sight distance shall meet or exceed New Hampshire DOT standards for entrances and exits to commercial sites.

18.200 **Access:** Access to the site shall be directly from a Town road or State highway or through a private roadway built to Town standards and approved by the Planning Board.

18.300 **Traffic Controls**: Adequate traffic controls exist to ensure safe access and on-site circulation of vehicle and pedestrian traffic. If traffic signals are required, signalization shall be interconnected with other traffic signals in the Town if such interconnection is found to be appropriate by the Planning Board.

18.400 **Acceleration/Deceleration lanes** or suitable alternate roadway improvements are provided on State and Town roads where the Planning Board finds out such lanes are necessary to provide safe site access based on sound engineering principles and practice.

18.500 **Review Costs**: The costs incurred by the Town in reviewing traffic studies of applicants, calculating the fair share of off-site improvements and/or in developing mitigation plans shall be borne by applicants.

18.600 **Construction Standards**: All improvements required by this ordinance shall be built in accordance with local, State and ASHTO standards.

Section 19 - Small Wind Energy Systems

19.100 **Purpose:** This small wind energy systems ordinance is enacted in accordance with RSA 674:62-66, and the purposes outlined in RSA 672:1-III-a. The purpose of this ordinance is to accommodate small wind energy systems in appropriate locations, while protecting the public's health, safety and welfare. In addition, this ordinance provides a permitting process for small wind energy systems to ensure compliance with the provisions of the requirements and standards established herein.

19.200 Procedure for Review:

19.210 **Location:** Small wind energy systems and met towers are an accessory use, and are permitted in all zoning districts where structures of any sort are allowed.

19.220 **Building Permit:** No small wind energy system shall be erected, constructed, or installed without first receiving a building permit from the building inspector. A building permit shall be required for any physical modification to an existing small wind energy system. Met towers that receive a building permit shall be permitted on a temporary basis not to exceed 3 years from the date the building permit was issued.

19.230 **Application:** Applications submitted to the building inspector shall contain a site plan with the following information:

19.231 Property lines and physical dimensions of the applicant's property.

19.232 Location, dimensions, and types of existing major structures on the property.

19.233 Location of the proposed small wind energy system, foundations, guy anchors and associated equipment.

19.234 Tower foundation blueprints or drawings.

19.235 Tower blueprints or drawings.

19.236 Setback requirements as outlined in this ordinance.

19.237 The right-of-way of any public road that is contiguous with the property.

19.238 Any overhead utility lines.

19.239 Small wind energy system specifications, including manufacturer, model, rotor diameter, tower height, tower type, nameplate generation capacity.

19.240 Small wind energy systems that will be connected to the power grid shall include a copy of the application for interconnection with their electric utility provider.

19.241 Sound level analysis prepared by the wind generator manufacturer or qualified engineer.

19.242 Electrical components in sufficient detail to allow for a determination that the manner of installation conforms to the NH State Building Code.

19.243 List of abutters to the applicant's property.

19.240 **Abutter and Regional Notification:** In accordance with RSA 674:66, the building inspector shall notify all abutters and the local governing body by certified mail upon application for a building permit to construct a small wind energy system. The public will be afforded 30 days to submit comments to the building inspector prior to the issuance of the building permit. The building inspector shall review the application for regional impacts per RSA 36:55. If the proposal is determined to have potential regional impacts, the building inspector shall follow the procedures set forth in RSA 36:57, IV.

19.300 **Standards:** The building inspector shall evaluate the application for compliance with the following standards;

19.310 **Setbacks:** The setback shall be calculated by multiplying the minimum setback requirement number by the system height and measured from the center of the tower base to property line, public roads, or nearest point on the foundation of an occupied building.

19.311 Small wind energy systems must meet all setbacks for principal structures for the zoning district in which the system is located.

19.312 Guy wires used to support the tower are exempt from the small wind energy system setback requirements.

	Minimum Setback Requirements Indicated as a % of Tower Height				
	Occupied Buildings on Participating Landowner Property	Occupied Buildings on Abutting Property	Property Lines of Abutting Property and Utility Lines	Public Roads	
ſ	0	150%	110%	150%	

19.320 **Tower:** The maximum tower height shall be restricted to 35 feet above the tree canopy within 300 feet of the small wind energy system. In no situation shall the tower height exceed 150 feet.

19.330 **The Sound Level** of the small wind energy system shall not be discernible at the property line.

19.340 **Shadow Flicker:** Small wind energy systems shall be sited in a manner that does not result in shadow flicker impacts on abutting properties.

19.350 **Signs:** All signs including flags streamers and decorative items, both temporary and permanent, are prohibited on the small wind energy system, except for manufacturer identification or appropriate warning signs.

19.360 **Code Compliance:** The small wind energy system shall comply with all applicable sections of the New Hampshire State Building Code.

19.370 **Visual Impacts:** It is inherent that small wind energy systems may pose some visual impacts due to the tower height needed to access wind resources. The purpose of this section is to reduce the visual impacts, without restricting the owner's access to the optimal wind resources on the property.

19.371 The applicant shall demonstrate through project site planning and proposed mitigation that the small wind energy system's visual impacts will be minimized for surrounding neighbors and the community. This may include, but not be limited to information regarding site selection, wind generator design or appearance, buffering, and screening of ground mounted electrical and control equipment. All electrical conduits shall be underground, except when the financial costs are prohibitive.

19.372 The color of the small wind energy system shall either be the stock color from the manufacturer or painted with a nonreflective, unobtrusive color that blends in with the surrounding environment. Approved colors include but are not limited to white, off-white or gray.

19.373 A small wind energy system shall not be artificially lit unless such lighting is required by the Federal Aviation Administration (FAA). If lighting is required, the applicant shall provide a copy of the FAA determination to establish the required markings and/or lights for the small wind energy system.

19.380 **Approved Wind Generators:** The manufacturer and model of the wind generator to be used in the proposed small wind energy system must have been approved by the California Energy Commission or the New York State Energy Research and Development Authority, or a similar list approved by the state of New Hampshire, if available.

19.390 **Utility Connection:** If the proposed small wind energy system is to be connected to the power grid through net metering, it shall adhere to RSA362-A:9.

19.392 **Access:** The tower shall be designed and installed so as not to provide step bolts or a ladder readily accessible to the public for a minimum height of 8 feet above the ground. All ground-mounted electrical and control equipment shall be labeled and secured to prevent unauthorized access.

19.394 **Clearing:** Clearing of natural vegetation shall be limited to that which is necessary for the construction, operation and maintenance of the small wind energy system and as otherwise prescribed by applicable laws, regulations, and ordinances.

19.396 **Impact on Wildlife:** Only wind energy system models that have a minimal negative impact on birds, said impact as determined by the Seabrook Conservation Commission, shall be permitted.

19.400 Abandonment

19.410 **Notification:** At such time that a small wind energy system is scheduled to be abandoned or discontinued, the applicant will notify the building inspector by certified U.S. mail of the proposed date of abandonment or discontinuation of operations.

19.420 **Removal:** Upon abandonment or discontinuation of use, the owner shall physically remove the small wind energy system within 90 days from the date of abandonment or discontinuation of use. This period may be extended at the request of the owner and at the discretion of the building inspector. "Physically remove" shall include, but not be limited to:

19.421 Removal of the wind generator and tower and related above-grade structures.

19.422 Restoration of the location of the small wind energy system to its natural condition, except that any landscaping, grading or below-grade foundation may remain in its same condition at initiation of abandonment.

19.430 **Failure to Notify:** In the event that an applicant fails to give such notice, the system shall be considered abandoned or discontinued if the system is out-of-service for a continuous 12-month period. After the 12 months of inoperability, the building inspector may issue a Notice of Abandonment to the owner of the small wind energy system. The owner shall have the right to respond to the Notice of Abandonment within 30 days from Notice receipt date. After review of the information provided by the owner, the building inspector shall determine if the small wind energy system has been abandoned. If it is determined that the small wind energy system has not been abandoned, the building inspector shall withdraw the Notice of Abandonment and notify the owner of the withdrawal.

19.440 **Legal Action:** If the owner fails to respond to the Notice of Abandonment or if, after review by the building inspector, it is determined that the small wind energy system has been abandoned or discontinued, the owner of the small wind energy system shall remove the wind generator and tower at the owner's sole expense within 3 months of receipt of the Notice of Abandonment. If the owner fails to physically remove the small wind energy system after the Notice of Abandonment procedure, the building inspector may pursue legal action to have the small wind energy system removed at the owner's expense.

19.500 **Violation:** It is unlawful for any person to construct, install, or operate a small wind energy system that is not in compliance with this ordinance.

19.600 **Penalties:** Any person who fails to comply with any provision of this ordinance or a building permit issued pursuant to this ordinance shall be subject to enforcement and penalties as allowed by NH Revised Statutes Annotated Chapter 676:17.

Section 20 - Impact Fees

20.100 Authority

20.110 This Section is authorized by New Hampshire RSA 674:21, V, and other pertinent state law, as an innovative land use control. Under this authority, new development in Seabrook may be assessed impact fees in proportion to its demand on the public capital facilities of the Town or the School Districts serving Seabrook.

20.120 The public facilities for which impact fees may be assessed in Seabrook may include municipal office facilities; public school facilities; public safety facilities; public road systems and rights-of-way; solid waste collection, transfer, recycling, processing and disposal facilities; public library facilities; public recreation facilities, not including public open space; water treatment and distribution facilities; wastewater treatment and disposal facilities; sanitary sewers; and storm water, drainage and flood control facilities.

The Planning Board is hereby authorized to assess impact fees in accordance with the standards set forth in this Section. The Planning Board shall have the authority to adopt regulations to implement the provisions of this Section and to delegate the administrative functions of impact fee assessment, collection and disbursement as necessary.

20.200 **Purpose:** Impact fees may be used to assess an equitable share of the cost of public facility capacity to new development in proportion to the facility demands created by that development. The purpose of this Section is to:

- Assist in the implementation of the Master Plan and Capital Improvements Program;
- Enable the Town of Seabrook to assess an equitable share of the cost of public capital facilities to new development in proportion to its demand on those facilities; and
- Provide authority to the Planning Board to adopt appropriate methods that support proportionate impact fee assessments, and to provide for the administration thereof.

20.300 Standards for Assessment

20.310 The amount of each impact fee shall be assessed in accordance with written procedures or methodologies adopted and amended by the Planning Board for the purpose of capital facility impact fee assessment in Seabrook. These methodologies shall set forth the assumptions and formulas comprising the basis for impact fee assessment, and shall include documentation of the procedures and calculations used to establish impact fee schedules. Such documentation shall be available for public inspection at the Planning office of the Town of Seabrook.

20.320 The amount of any impact fee shall be a proportional share of public facility improvement costs that are reasonably related to the capital needs created by the development, and to the benefits accruing to the development from the capital improvements financed by the fee.

20.330 The Planning Board may prepare, adopt, or amend studies, reports, or cost allocation procedures that are consistent with the above standards, and which define a basis for impact fee assessment for public capital facilities, and the impact fee assessment schedules thereof.

20.340 No methodology, cost allocation procedure, or other basis of assessment, nor related impact fee schedules, or changes in the basis of assessment or the fee schedules, shall become effective until it shall have been the subject of a public hearing before the Planning Board.

20.400 **Waiver of Impact Fees:** The Planning Board may grant full or partial waivers of impact fees to an assessed property, subject to its finding that the proposed development meets one or more of the applicable conditions set forth below:

20.410 A full or partial waiver of public school impact fees may be granted for residential units that are lawfully restricted to exclusive occupancy by persons age 55 or older within a development that is maintained in compliance with the provisions of RSA 354-A: 15, Housing For Older Persons. The Planning Board may waive school impact fee assessments for the age-restricted units within a development that are subject to deeded restrictions that limit occupancy to persons age 55 or older. Should these occupancy restrictions be rescinded subsequent to the construction of the affected units, the units shall be subject to the school impact fee assessment in effect at the time the age restriction on occupancy is removed.

20.420 The Planning Board may agree to waive all or part of an impact fee assessment and accept in lieu of a cash payment, a proposed contribution of real property or facility improvements of equivalent value and utility to the public. Prior to acting on a request for a waiver of impact fees under this provision that involves a contribution of real property or the construction of capital facilities, the Planning Board shall submit a copy of the waiver request to the Board of Selectmen for its review and consent prior to its acceptance of the proposed contribution. The value of contributions or improvements shall be credited only toward facilities of like kind, and may not be credited to other categories of impact fee assessment. Full or partial waivers of impact fees may not be based on the value of exactions for off-site improvements required by the Planning Board as a result of subdivision or site plan review, and which would be required of the developer regardless of the impact fee assessments authorized by this Section.

20.430 The applicant for development of an assessed property may apply for a full or partial waiver of the amount of the impact fee based on the results of an independent study of the demand on capital facility capacity and related costs attributable to the development. In support of such request, the applicant shall prepare and submit to the Planning Board an independent fee calculation or other relevant study and supporting documentation of the capital facility impact of the proposed development. The independent calculation or study shall set forth the specific reasons for departing from the methodologies and schedules adopted by the Town. The Planning Board shall review such study and render its decision. All costs incurred by the Town for the review of such study, including consultant and counsel fees, shall be paid by the applicant.

20.500 **Assessment and Collection of Impact Fees**: The administrative process of assessment and collection of impact fees will be the delegated to the Building Inspector. The management and disbursement of impact fee accounts will be the responsibility of the Treasurer.

20.510 Where subdivision or site plan approval is required for new development, impact fees shall be assessed at the time of Planning Board approval of a subdivision plat or site plan. The amount of such assessment shall be applicable to subsequent building construction within the approved subdivision or site plan for a period of five years from the date of Planning Board approval. Once this five-year period has expired, remaining construction for which no building permit has been obtained shall be subject to the adopted fee schedule in force at the time of the building permit application.

20.520 With the exception of those plats and site plans meeting the conditions in (A) above, and when no other Planning Board approval is required, or has been made prior to the adoption or amendment of the impact fee ordinance, impact fees shall be assessed prior to, or as a condition for, the issuance of a building permit. The impact fee schedule in force at the time of the building permit application shall apply.

20.530 Unless an impact fee is inapplicable to a particular development or has been waived by the Planning Board, no permit shall be issued for new development as defined in this Section until the applicable impact fees have been assessed. The Building Inspector shall not issue a Certificate of Occupancy for the development on which the fee is assessed until the impact fee has been paid in full.

20.540 In the case of new development created by conversion or modification of an existing use, the impact fee shall be based upon the net positive increase in the impact fee assessment applicable to the new use as compared to the highest impact fee that was or would have been assessed to the previous use in existence on or after the effective date of the assessment.

20.550 The Planning Board and applicant may agree to another mutually acceptable schedule for payment. If an alternate schedule of payment is established, the Planning Board shall require the deposit of an irrevocable letter of credit or other acceptable performance and payment guarantee with the Town of Seabrook.

20.600 **Accounting and Disbursement of Impact Fees:** Impact fees shall be held in the custody of the Town Treasurer. Impact fees shall be held in separate, non-lapsing, interest-bearing accounts and not co-mingled with other municipal funds.

20.610 Impact fee expenditures shall be paid by the Treasurer upon order of the Board of Selectmen or its designated agent, without further approval of the legislative body. Impact fees shall be expended only for the purpose for which they were assessed.

20.620 Impact fees may be used to reimburse any account from which an amount has been expended in anticipation of the receipt of said fees. Impact fees assessed to recoup the cost of existing capital improvements made in anticipation of the needs of new development may be applied as revenue against any outstanding debt for those capital improvements. 20.630 In the absence of outstanding debt service obligations for a particular capital facility, the recoupment may be applied to offset the cost of other capital expenditures within the same facility category where the Planning Board finds that there is sufficient facility capacity to accommodate new development.

20.640 Impact fee revenue shall be earmarked for the specific purpose of which it was assessed and shall be accounted for in separate municipal impact fee accounts. Seabrook's annual financial statements shall include an accounting for each impact fee, showing the source and amount of fees assessed, the amount of fees expended for capital improvements funded in whole or in part by impact fees, and the balance remaining at year end. The annual statements shall show the capital improvement category for which the fees were assessed and the date of assessment and collection of the fee. The report shall be sufficiently detailed as to allow the public to determine how the fees were applied, and whether the fees were expended, retained, or refunded.

20.700 **Refund of Impact Fee:** Impact fees are assessed to specific properties to offset the capital cost impact of new development within the property. Impact fees received by the Town from all fee payers shall be recognized as payments made on behalf of the assessed property, its owner, or successors in interest in the assessed property.

20.710 Impact fees are collected to offset the capital facility impacts associated with the occupancy or use of the assessed property. Therefore impact fee refunds shall be made to the owner of record of the assessed property at the time a refund becomes due.

20.720 The owner of record of an assessed property for which an impact fee has been paid shall be entitled to a refund of that fee, plus accrued interest where:

- The impact fee has not been encumbered or legally bound to be spent for the purpose for which it was collected within a period of six (6) years from the date of the final payment of the fee; or
- The Town, or in the case of school impact fees the School District has failed, within the period of six (6) years from the date of the final payment of such fee, to appropriate the non-impact fee share of related capital improvement costs.

20.800 **Review and Change in Assessment Schedules:** An impact fee assessment schedule adopted by the Planning Board shall be reviewed not more than five years following its adoption. The fee schedule may also be revised periodically upon the Board's adoption of revisions to a Capital Improvement Program if its adoption would affect the facility standards or capital cost assumptions used to define the fee schedules. Periodic review of fee schedules may result in recommended adjustments in one or more of the fees or the basis of assessment, using the most recent data that affect the variables in the fee calculations. A proposed change in the impact fee assessment schedules or the basis of assessment shall be effective only where such change is adopted by the Planning Board following a public hearing. Failure to conduct a periodic review of the methodology shall not, in and of itself, invalidate any fee imposed.

20.900 Appeals Under this Section

20.9100 A party aggrieved by a decision made by the Building Inspector or other Town official relating to an administrative decision in the assessment, collection, or refunding of impact fees authorized by this Section may appeal such decision to the Zoning Board of Adjustment as provided by RSA 676:5, as amended.

20.9200 A party aggrieved by a decision of the Planning Board under this Section may appeal such decision to the Rockingham County Superior Court as provided by RSA 677:15, as amended.

20.930 Other Authority Retained: This Section shall not affect other authority of the Town of Seabrook or its Planning Board governing subdivisions and site plans, or ordinances and regulations on public water or sewer utilities, including but not limited to:

20.931 The authority of the Planning Board to declare a development to be premature or scattered in accordance with the regulations of the Board and in accordance with RSA 674:36, II(a); or

20.932 The authority of the Planning Board to require the payment of exactions for off-site improvements for highway, drainage, sewer and water upgrades necessitated by the development, in accordance with the provisions of RSA 674:21, V (j); or

20.933 Other authority of the Town of Seabrook to assess system development charges for water and sewer utilities, or fees authorized by other statutory authority as provided within the ordinances of the Town of Seabrook or the Seabrook Planning Board Site Plan Review and Subdivision Regulations.

20.940 **Effective Date:** This Section shall become effective upon adoption. Specific Impact fee schedules applicable to new development shall not become effective until the Planning Board has adopted a basis of assessment and fee schedule for capital facilities under the procedures provided for in this Section.

Section 21 – Administrative Provisions

21.100 **Board of Adjustment:** A Board of Adjustment, as established, is hereby continued as such, and its membership and duties shall conform to the provisions of RSA 676:5-7, or any amendments or additions made thereto.

21.200 **Enforcement procedures:** Upon receipt of information from any source that any provision of this ordinance is being violated, the Building Inspector, Health Officer, or Police Chief shall promptly investigate the alleged violation at its site and, through the Board of Selectmen, shall undertake the following actions to enforce the provisions of this ordinance:

21.210 Notify the owner of his agent, in writing, of the nature of the violation and order immediate correction of it;

21.220 When satisfactory compliance has not been obtained following such notification, the Selectmen shall have a complaint prepared against the offending party who shall be summoned to appear in court to answer such complaint or the Selectmen may take any other action that may be appropriate or in accordance with the advice of Town Counsel.

21.300 **Violations and penalties:** Any person, firm or corporation who violates any of the provisions of this Zoning Ordinance or decisions issued by any local administrator(s) or land use board acting under authority of this ordinance:

21.310 shall be guilty of a misdemeanor if a natural person or guilty of a felony if any other person;

21.320 shall be subject to a civil penalty not to exceed \$275 for each day that such violation is found to continue after the conviction date or after the date on which the violator received written notice from the Selectmen or their representative that he is in violation, whichever is earlier.

Any such violation, once commenced, shall constitute a continuing violation until it is terminated and continuing violation may be prosecuted as a single violation or a series of separate violations. 21.400 **Amendments:** The provisions of this ordinance or any part thereof may be amended, supplemented or repealed in the manner set forth by RSA 675, as amended.

21.500 **More restrictive standards to prevail:** Whenever the regulations made under the authority hereof differ from those described by any statute, ordinance or other regulation, that provision which imposes the greater restriction or the higher standard shall prevail.

21.600 **Severability:** Should any section or provision of this ordinance be held to be invalid or unconstitutional by any court of competent authority and jurisdiction, such holding shall not affect, impair or invalidate any other provision of this ordinance, and to such end, all sections and provisions of this ordinance are declared to be severable.

21.700 **Effective date:** This ordinance shall take effect upon its passage and shall thereupon supersede all prior zoning ordinances of the Town of Seabrook.

21.800 **Effect on power of Planning Board:** No provision of this ordinance however shall limit or affect the power of the Planning Board as authorized by the Town on March 7, 1972 under former RSA 36:19 and its amendments and replacements.

Section 22 – Pollution Control

Developers of all land activities that disturb 1 acre or more (or are a part of a larger development that disturbs 1 acre or more) shall submit to the Building Inspector a plan for erosion and pollution control measures that meet the EPA's National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Construction Activities. These projects shall be subject to review, inspection, and enforcement by the Town. The project plan shall include appropriate stormwater and erosion BMP's (Best Management Practices), provisions to provide minimized land disturbance, an outline of measures to control construction wastes, and a spill control plan.

Section 23 - Sexually Oriented Businesses

It is the purpose of this section to establish reasonable and uniform regulations to prevent the concentration of sexually oriented businesses within the Town of Seabrook; and, it is the intent to promote the health, safety and general welfare of the citizens of the Town of Seabrook; and, it is the intent of this section that the regulations be utilized to prevent problems of blight and deterioration which accompany and are brought about by the concentration of sexually oriented businesses; and, the provisions of this amendment have neither the purpose nor the effect of imposing limitation or restriction on the content of any communicative materials, including sexually oriented materials; and, it is not the intent nor effect of this section to restrict or deny access by adults to sexually oriented materials protected by the First Amendment, or to deny access by the distributors and exhibitors of sexually oriented entertainment to their intended market; and, neither is it the intent nor effect of this section to restrict.

23.100 **Permitted Locations:** Sexually oriented businesses shall only be permitted in Zone 2 provided all regulations, requirements and restrictions pertaining to that zone are met, and sexually oriented businesses shall not be permitted within 1,000 feet of a church or place of worship, parish house or convent, a public, parochial or private school, a state approved day care center, another sexual oriented business, a sexually oriented business for which a building permit has been applied for, or 300 feet from a residence, or 500 feet from any establishment in which minors constitute more than 50% of the patrons or 500 feet from buildings owned by the Town of Seabrook and operated for government use.

23.200 **Measure of Distance:** The measure of distance between any sexually oriented business and other named point of reference shall be measured in a straight line.

23.300 **Site Plan Approval:** Site Plan Approval by the Seabrook Planning Board shall be a prerequisite for the establishment of a sexually oriented business. The Planning Board may impose reasonable restrictions relative to buffers, outdoor lighting, signs, parking, egress and ingress, pedestrian movement, landscaping, building aesthetics, and measures to ensure that displays of merchandise conform with NH RSA 571-B. 23.400 **Non-Conforming Sexually Oriented Businesses:** Sexually oriented businesses which have been established at their existing locations prior to the effective date of this ordinance and which are not in conformity with the requirements of this ordinance, may continue to operate. Once established in a permitted location under this ordinance, a sexually oriented business operating as a conforming use is not rendered a non conforming use by the subsequent location of:

- A church or place of worship, parish house or convent within 1,000';
- A state approved day care center within 1,000 feet;
- A public sports, recreation **park** with 500 feet;
- A residence with 300 feet;
- A public, parochial or private **school** within 1,000 feet;
- Any establishment in which **minors** constitute more than 50% of the patrons with 500 feet; or
- The location within 500 feet of such business or buildings owned by the Town of Seabrook and operated for **government use**.

23.500 **Public Nuisance Per Se:** Violation of the use provisions of this ordinance is declared to be a public nuisance per se, which shall be abated by the Town by way of civil abatement procedures.

23.600 **Limiting Clause:** Nothing in this ordinance is intended to authorize, legalize or permit the establishment operation or maintenance of any business, building or use which violates any Town of Seabrook ordinance or statute of the State of New Hampshire regarding public nuisances, sexual conduct, lewdness, or obscene or harmful matter or the exhibition or public display thereof.

23.700 **Severability:** If any section, subsection, sentence, clause, phrase or any portion of this ordinance is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not effect the validity of the remaining portions of this ordinance. The legislative body of the Town of Seabrook hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase or portion thereof irrespective of the fact that any one or more sections, subsections, sentence, clauses, phrases or portions be declared invalid or unconstitutional.

Section 24 - Floodplain Regulations

This ordinance, adopted pursuant to the authority of RSA 674:16 shall be known as the Town of Seabrook Floodplain Development Ordinance. The regulations in this ordinance shall overlay and supplement the regulations in the Town of Seabrook Zoning Ordinance, and shall be considered part of the Zoning Ordinance for purposes of administration and appeals under state law. If any provision of this ordinance differs or appears to conflict with any provision of the Zoning Ordinance or other ordinance or regulation, the provision imposing the greater restriction or more stringent standard shall be controlling.

24.110 **Purpose:** Whereas the flood hazard areas of Seabrook are subject to periodic flooding from streams, rivers, lakes, and oceans, etc., which result in loss of life and property, health and safety, disruption of commerce and government services, public expenditure for flood protection and relief and impairment of the tax base, all of which adversely affects the public health, safety, and general welfare; and whereas the relief is available in the form of federally subsidized flood insurance as authorized by the *National Flood Insurance Act of 1968*, which Act requires the implementation of certain regulations by the Town prior to June 17, 1986, regarding the building regulations within identified flood hazard areas.

24.120 **Affected Land Areas:** The following regulations are hereby adopted so as to comply with requirements of the National Flood Insurance Act of 1968; These regulations shall apply to all lands designated as special flood hazard areas by the Federal Emergency Management Agency (FEMA) in its Flood Insurance Study for Rockingham County, New Hampshire dated January 29, 2021 or as amended, together with the associated Flood Insurance Rate Maps dated January 29, 2021 or as amended, which are hereby declared to be a part of this ordinance and are hereby incorporated by reference.

24.130 **Definition of Terms:** the following definitions shall apply only to this Floodplain Development Ordinance, and shall not be affected by, the provisions of any other ordinance of the Town of Seabrook.

Area of Special Flood Hazard is the land in the floodplain within the Town of Seabrook subject to a one-percent or greater possibility of flooding in any given year. The area is designated on the FIRM as zones A, AE and VE.

Base Flood means the flood having a one-percent possibility of being equaled or exceeded in any given year.

Base Flood Elevation means the water surface elevation having a one percent chance of being equaled or exceeded in any given year.

Basement means any area of a building having its floor sub graded on all sides.

Building: See Structure.

Breakaway Wall means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation.

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation, or drilling operation or storage of equipment materials.

FEMA means the Federal Emergency Management Agency.

Flood or **Flooding** means a general and temporary condition of partial or complete inundation of normally dry land areas from:

- the overflow of inland or tidal waters.
- the unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Study means an examination, evaluation, and determination of flood hazards and if appropriate, corresponding water surface elevations, or an examination and determination of mudslide or flood-related erosion hazards.

Flood Insurance Rate Map (*FIRM*) means an official map incorporated with this ordinance, on which FEMA has delineated both the special flood hazard areas and risk premium zones applicable to the Town of Seabrook.

Flood Plain or Flood-Prone Area means any land area susceptible to being inundated by water from any source (see definition of "Flooding").

Flood Proofing means any combination of structural and non-structural additions, change, or adjustments to structures that reduce or eliminate flood damage to real estate or improved real property, water and sanitation facilities, structures and their contents.

Floodway: See Regulatory Floodway.

Functionally Dependent Use means a use that cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking and port facilities that are necessary for the loading/unloading of cargo or passenger, and ship building/repair facilities but does not include long-term storage or related manufacturing facilities.

Highest Adjacent Grade means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure means any structure that is listed individually in the National Register of Historic Places (*a listing maintained by the Department of Interior*) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register; certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district; individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

- by an approved state program as determined by the Secretary of the Interior, or
- directly by the Secretary of the Interior in states without approved programs.

Lowest Floor means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage in an area other than a basement area is not considered a building's lowest floor; provided that such an enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.

Manufactured Home means a structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to required utilities. For floodplain management purposes the term *"manufactured home"* includes park trailers, travel trailers, and other similar vehicles placed on site for greater than 180 consecutive days. This includes manufactured homes located in a manufactured home park or subdivision.

Manufactured Home Park or Subdivision means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or sale.

Mean Sea Level means the *National Geodetic Vertical Datum (NGVD)* of 1929, *North American Vertical Datum* of 1988 or other datum, to which base flood elevations shown on a community's *Flood Insurance Rate Map* are referenced.

New Construction means, for the purposes of determining insurance rates, structures for which the "start of construction" commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, *new construction* means structures for which the *start of construction* commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

Recreational Vehicle means a vehicle that is

- built on a single chassis;
- 319 square feet or less when measured at the largest horizontal projection;
- designed to be self-propelled or permanently towable by a light duty truck; and
- designed primarily not for use as a permanent dwelling, but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulatory Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

Special Flood Hazard Area: See Area of Special Flood Hazard.

Structure means for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank that is principally above ground, as well as a manufactured home.

Start of Construction includes substantial improvements, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, placement or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on site, such as the pouring of slab or footing, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary form; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or part of the main structure.

Substantial Damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement means any combination of repairs, reconstruction, alteration, or improvements to a structure in which the cumulative cost equals or exceeds fifty percent of the market value of the structure. The market value of the structure should equal:

(1) the appraised value prior to the start of the initial repair or improvement, or

(2) in the case of damage, the value of the structure prior to the damage occurring.

For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure. This term includes structures that have incurred substantial damage, regardless of actual repair work performed. The term does not, however, include any project for improvement of a structure required to comply with existing health, sanitary, or safety code specifications which are solely necessary to assure safe living conditions or any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Violation means the failure of a structure or other development to be fully compliant with the community's floodplain regulations. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required under this ordinance is presumed to be in violation until such time as that documentation is provided.

Water Surface Elevation means the height, in relation to the *National Geodetic Vertical Datum (NGVD) of 1929, North American Vertical Datum of 1988,* (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains.

24.140 **Permit Required:** All proposed development in any special flood hazard areas shall require a permit.

24.150 **Application Review:** The Building Inspector shall review all building permit applications for new construction or substantial improvements to determine whether proposed building sites will be reasonably safe from flooding. If a proposed building site is located in a special flood hazard area, all new construction or substantial improvements shall:

- be designed (or modified) and adequately anchored to prevent floatation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy,
- be constructed with materials resistant to flood damage,
- be constructed by methods and practices that minimize flood damages.
- be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment, and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

24.160 **Water & Sewer Systems:** Where new or replacement water and sewer systems (including on-site systems) are proposed in a special flood hazard area the applicant shall provide the Building Inspector with assurance that these systems will be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems will be located to avoid impairment to them or contamination from them during periods of flooding.

24.170 **Information to be Submitted:** For all new or substantially improved structures located in zones A, or AE, the applicant shall furnish the following information to the Building Inspector:

- the as-built elevation (in relation to mean sea level) of the lowest floor (including basement) and include whether or not such structures contain a basement;
- if the structure has been flood-proofed, the as-built (elevation in relation to mean sea level) to which the structure was flood-proofed;
- any certification of flood-proofing.

For all new construction or substantially improved buildings located in Zone VE, the applicant shall furnish the Building Inspector records indicating the as-built

elevation of the bottom of the lowest horizontal structural member of the lowest floor (excluding pilings or columns) in relation to mean sea level and whether or not the structure contains a basement. The Building Inspector shall maintain the above information for public inspection, and shall furnish it upon request.

24.180 **Other Permits Required:** The Building Inspector shall not grant a permit until the applicant certifies that all necessary permits have been received from those governmental agencies from which approval is required by federal or state law, including *Section 404* of the *Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334.*

24.190 Alteration of Watercourses: In riverine situations, prior to the alteration or relocation of a watercourse the applicant for such authorization shall notify the Wetlands Bureau of the New Hampshire Department of Environmental Services and submit copies of such notification to the Building Inspector, in addition to the copies required by the RSA 482-A:3. Further, the applicant shall be required to submit copies of said notification to those adjacent communities as determined by the Building Inspector, including notice of all scheduled hearings before the Wetlands Bureau. The applicant shall submit to the Building Inspector, certification provided by a registered professional engineer, assuring that the flood carrying capacity of an altered or relocated watercourse can and will be maintained. The Building Inspector shall obtain, review, and reasonable utilize any floodway data available from Federal, State, or other sources as criteria for requiring that all development located Zone A meet the following floodway requirement: No encroachments, including fill, new construction, substantial improvements, and other development are allowed within the floodway that would result in any increase in flood levels within the community during the base flood discharge. Along watercourses that have not had a Regulatory Floodway designated, no new construction, substantial improvements, or other development (including fill) shall be permitted within zone AE on the FIRM, unless it is demonstrated by the applicant that the cumulative effect of the proposed development, when combined with all existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

24.200 **Method for Determining Base Flood Elevations:** In special flood hazard areas the Building Inspector shall determine the base flood elevation in the following order of precedence according to the data available:

- In zones AE, and VE refer to the base flood elevation data provided in the community's Flood Insurance Study and accompanying FIRM.
- In Zone A the Building Inspector shall obtain, review, and reasonably utilize any base flood elevation data available from any federal, state or other source including data submitted for development proposals submitted to the community, i.e. subdivisions, site approvals.
- In Zone A when a base flood elevation is not available, the base flood elevation shall be at least two feet above the highest adjacent grade.

24.210 **Construction Requirements:** The Building Inspector's base flood elevation determination will be used as criteria for requiring in zones A and AE, that:

- all new construction or substantial improvement of residential structures have the lowest floor (including basement) elevated to or above the base flood elevation;
- that all new construction or substantial improvements of non-residential structures have the lowest floor (including basement) elevated to or above the base flood elevation; or together with attendant utility and sanitary facilities, shall:
- be flood-proofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water;
- have structural components capable of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy; and
- be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this section.

24.220 **Manufactured Homes:** All manufactured homes to be placed or substantially improved within special flood hazard areas shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above the base flood elevation; and be securely anchored to resist floatation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.

24.230 **Recreational Vehicles** placed on sites within Zones A and AE shall either:

- be on the site for fewer than 180 days;
- be fully licensed and ready for highway use;
- meet all standards of Section 24.140 of this ordinance and the elevation and anchoring requirements for "manufactured homes" in Section 24.220 of this ordinance.

24.240 **Areas Subject to Flooding:** For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding are permitted provided they meet the following requirements:

- the enclosed area is unfinished or flood resistant, usable solely for the parking of vehicles, building access or storage;
- the area is not a basement;
- shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood water. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria: A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided. The bottom of all openings shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwater.

24.250 **Coastal High Hazard Areas:** The following regulations shall apply to all new construction and substantial improvements including all manufactured homes to be placed or substantially improved in a coastal high hazard area, designated as Zone VE on the *Flood Insurance Rate Map.* All new construction or substantial improvements are to be elevated on pilings and columns so that:

- The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated to or above the base flood elevation;
- The pile or column foundation and structure attached thereto is anchored to resist floatation, collapse, and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable state and local building standards.
- A registered professional engineer or architect shall develop or review the structural design, specifications and plans for construction, and shall certify that the design and methods of construction to be used are in accordance with accepted standards or practice for meeting the provisions of this section.
- The space below the lowest floor must be free of obstructions or constructed with non-supporting breakaway walls, open lattice-work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purposes of this section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Such enclosed space shall be usable solely for the parking of vehicles, building access, or storage.
- The use of fill for the structural support of buildings is prohibited.
- Man-made alterations of sand dunes that would increase potential flood damage are prohibited.
- All new construction or substantial improvements within zone VE on the FIRM shall be located landward of the reach of mean high tide.
- All recreational vehicles placed on sites within Zone VE shall either: be on the site for fewer than 180 days; be fully licensed and ready for highway use; or meet all standards of Section 24.140 of this ordinance and all of the above requirements of Section 24.250.

24.270 **Variances and Appeals:** Any order, requirement, decision or determination of the Building Inspector made under this ordinance may be appealed to the Zoning Board of Adjustment as set forth in RSA 676:5. If the applicant, upon appeal, requests a variance as authorized by RSA 674:33, I(b), the applicant shall have the burden of showing in addition to the usual variance standards under state law:

- That the variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense.
- That if the requested variance is for activity within a designated regulatory floodway, no increase in flood levels during the base flood discharge will result.
- That the variance is the minimum necessary, considering the flood hazard, to afford relief.

24.280 The Zoning Board of Adjustment shall notify the applicant in writing that:

- the issuance of a variance to construct below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and
- such construction below the base flood level increases risks to life and property. Such notification shall be maintained with a record of all variance actions.

24.290 The community shall:

- Maintain a record of all variance actions, including their justification for their issuance, and
- Report such variances issued in its annual or biennial report submitted to FEMA's Federal Insurance Administrator.

APPENDIX 19B: TOWN OF SEABROOK SITE PLAN REGULATIONS

Site Plan Review Regulations

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Site Plan Review Regulations

Section 1 - Authority & Purpose

Pursuant to the authority vested in the Town of Seabrook Planning Board by Town Meeting, and in accordance with the provisions RSA 674:43-44, the Seabrook Planning Board hereby adopts the following regulations governing the review of site plans. The purpose of the site plan review procedure is to protect the public health, safety and welfare, to promote balanced growth, and to ensure positive environmental development in accordance with the Seabrook Master Plan.

Section 2 - Scope of Review

The development, expansion, or change of use of property for nonresidential use, multi-family dwelling units, or condominium conversion, or excavation which results in the ponding of water shall be subject to review and approval by the Planning Board. A change of use sufficient to invoke Planning Board jurisdiction is:

- The change of one type of use to another, e.g. retail to restaurant; or
- Any use proposed for vacant land or buildings.

Should a use cease for one year, any subsequent use shall be subject to site plan review.

Section 3 - Fees

3.100 **Standard Site Plan Review:** The application fee for site plan review is \$300 + \$100 per every 1,000 square feet of net increase in impervious surface. For purposes of determining the appropriate application fee, the plans shall identify and measure the area of net increase in impervious surface, including, but not limited to, buildings, parking, landscaping, woodlands, and wetlands.

3.200 **Low Impact:** The fee for Low Impact Proposals (see Section 4 below) applications is \$300. No impacted area or public notice fees are due.

3.300 **Condominium Conversion:** The application fee is \$300 plus \$100 per condominium unit.

3.400 **Conditional Use Permits:** The application fee is \$100. No public notice fee is required.

3.500 **Amended Site Plans:** In those instances in which an applicant seeks to amend an approved site plan less than one year after Planning Board's vote to approve, and in which the proposed amendment impacts less than 10% of the approved site plan impact area, the applicant will pay one hundred percent (100%) of the Town's expenses to review the plan, as determined by the Planning Board, and will submit an application fee in the amount of fifty percent (50%) of the original site plan application fee.

3.600 **Additional Fees** specified in Section 4 of the Subdivision Regulations apply to all applications unless otherwise noted herein.

Section 4 - Site Plan Review Procedure

shall be the same as that required by the Seabrook Subdivision Regulations for subdivision review, including provisions relative to abutter notification, public notice, administration; the submittal of site security, exhibits, data, standards, project revisions & as-built plans; the depiction of dimensions, parking, signs, lighting, site features & vegetation; and stormwater standards & requirements. The meanings of terms in the Seabrook Zoning Ordinance and Subdivision Regulations apply also to these regulations.

4.100 **Low Impact Proposal:** Notwithstanding the foregoing, in those cases in which Code Enforcement and/or Town Planner determines that a site plan proposal meets all of the following criteria:

- No discernible impact on abutters;
- No adverse impact on the public or the environment;
- No building expansion;
- No increase in intensity of use;
- No increase in traffic impact;
- No condominium conversion, subdivision, or lot line adjustment;
- No changes to stormwater flow or utilities;
- It is the site of a previously approved site plan;
- No review by the Technical Review Committee is warranted;
- No change to lighting or signage;

then the proposal may qualify as a **Low Impact Proposal**, consistent with RSA 676:4 III. Abutters shall be notified pursuant to RSA 676:4. Publication of the notice shall not be required, nor shall review by the Technical Review Committee be required. The Planning Board reserves the right to determine that the proposal does not qualify as a Low Impact Proposal. Required exhibits for Low Impact Proposals are as follows:

- Name of applicant, site address, and business address;
- Name of property owner and address;
- Case number(s) of prior site plan approvals;
- All lot, building, driveway, and parking dimensions;
- Location of lighting, signage, vegetation and other site features;
- Wetlands locations;
- Abutter names and locations shown on drawing;
- North arrow;
- Street names clearly shown;
- Location of Liberty Elm if planted, or new location if not already planted;
- Aerial photos and hand drawings are acceptable if they include all of the above;
- Applications should include 14 copies if color is used, all copies must

show colors.

4.200 **Conditional Use Permits:** Abutters shall be notified pursuant to RSA 676:4. Publication of a public notice shall not be required, nor shall review by the Technical Review Committee be required. In determining the merits of an application for Conditional Use, the Planning Board will be guided by the criteria specified in Section 8 of the Zoning Ordinance.

4.300 **Home Offices:** No abutter notification or Planning Board review is required. Applicants for Home Office use shall file an application with the Building Department.

4.400 **Special Events:** No abutter notification or Planning Board review is required. Applicants for a Special Event shall file an application with the Building Department. At the Building Inspector's discretion, the proposal may be forwarded to the Board of Selectmen for review and approval.

Section 5 - Additional Exhibits & Data Required For Site Plan Review

The applicant shall submit the following exhibits and data, in addition to those required for a subdivision application by the *Subdivision Regulations*, unless such submittal is specifically waived by the Board:

5.010 Copies of all applicable State & Federal Permits;

5.020 Elevation views of all buildings;

5.030 The stamp or seal of a Licensed Landscape Architect pursuant to RSA 310-A:152.

5.040 A copy of the certification from a qualified inspector, pursuant to NH RSA 155-A and NH RSA 285, that the project meets the accessibility standards in the State Building Code.

5.050 The location, size and design of proposed signs, outside lighting & other advertising devices;

5.100 Lighting Specifications:

5.110 Description of all Outdoor Lighting Fixtures including component specifications such as lamps, reflectors, optics, angle of cutoff, support poles, additional shields, etc. Include the manufacturers catalog cut or specification sheet for each type of fixture used.

5.120 Location and description of every outdoor lighting fixture including hours of operation.

5.130 The maintained horizontal luminance shown as foot-candles (after depreciation) as follows:

- 5.131 Maximum
- 5.132 Minimum
- 5.133 Average during operating and non-operating hours
- 5.134 Average to Minimum Uniformity Ration.

5.140 Computer generated photometric grid of the site showing the average foot-candle reading in every ten-foot square. This grid shall include contribution from all sources, (i.e., Pole mounted lights, wall mounted lights and signs).

5.150 Foundation and pole details.

5.200 The site plan shall meet the recording requirements of the Rockingham County Registry of Deeds.

Section 6 – Site Security

The applicant shall submit a site security to ensure that proposed improvements are completed properly and in a timely fashion. The amount of the site security shall be determined by the Planning Board, however, the security amount shall be at least \$5,000.

Section 7 - Site Approval Expiration

In the event that construction is not completed within two years of the date that Site Approval is granted by the Planning Board, the Site Approval shall expire, unless extended by vote of the Planning Board. Site approval shall also expire upon a subsequent site plan approval by the Planning Board for a project on the same site.

Section 8 - Site Plan Review Standards

While reviewing a final plan, the Board shall consider the following general requirements and design standards:

8.010 **Detrimental Effects To Be Minimized:** Plans shall be reviewed in order to minimize traffic congestion, traffic hazards, unsightliness, annoyance to other land users, erosion and other effects detrimental to the abutters, the neighborhood and the environment.

8.020 **Off-Street Loading:** Sufficient off-street loading space shall be provided, including off-street areas for maneuvering the anticipated trucks or other vehicles.

8.030 **Erosion Control:** Grading, paving and storm drainage systems shall be installed in such a manner as to prevent erosion or sedimentation of streams or damage to abutting properties. Required hay bales and silt fences shall remain in place and will be maintained for a minimum of 24 months. The utilization of wood chips to control erosion is acceptable, as are bales of salt marsh hay. All other hay bales are prohibited due to their propensity to introduce invasive species.

8.040 **Pollution Control:** Oil/water separators shall be installed where the Planning Board deems such installation to be necessary.

8.050 **Local Codes:** All fire and safety codes adopted by the Town of Seabrook shall be adhered to.

8.060 **Sewer:** Sanitary waste facilities in new buildings shall be connected to the municipal sewer system.

8.070 **Truck Operations to be Restricted in Residential Areas:** The applicant shall ensure that truck traffic, the unloading of dumpsters, and the operation of refrigeration trucks will not occur in residential areas between the hours of 11:00 PM and 7:00 AM.

8.080 **Sidewalk Construction Mandatory:** Sidewalks shall be installed at the expense of the developer in all locations that, in the judgment of the Planning Board, will enhance the safe and efficient movement of pedestrians. Sidewalks in Zone 2 shall be fabricated of Portland Cement and shall meet the minimum construction standards specified for such sidewalks in the Subdivision Regulations.

8.090 **Curbing Mandatory:** Curbs shall be vertical granite, and shall meet the current standards and specifications of the NH Department of Transportation. Curbs shall be installed at all roadway curb-cuts, at corners, and at other locations deemed appropriate by the Planning Board.

8.100 **Elms:** At least one disease-resistant elm tree shall be planted on-site. Additional elm trees shall be planted no closer than 150 feet to another elm tree. The aforementioned liberty elms shall be a minimum of 1.5" in diameter.

8.110 **Noise:** All external machinery shall be muffled so that noise will not be discernible at the perimeter of the lot. At locations where a commercial or industrial proposal abuts a residential use situated within a residential district, the applicant for commercial/industrial use shall construct an acoustical barrier wall to specifications determined by the Planning Board.

8.120 **Loam:** For new connections to the municipal water system, all proposed lawn areas shall by underlain by 6 inches of loam.

8.130 **All Standards** and requirements cited in Section 6 of the Subdivision Regulations shall apply to site plan review.

8.140 **Storage:** There shall be no outside storage of flammable or hazardous gases, liquids, or materials over 2,000 gallons aggregate. Utilities for heating a building or motor vehicle fueling station are exempt from this regulation.

8.150 **Green Roofs** – Buildings with flat roofs, or roofs sloped less than 10 degrees, in excess of 50,000 square feet shall be constructed as a green roof for the benefit of the environment.

8.160 **LEED** - The Planning Board encourages building designs that comply with LEED (Low Energy & Environmental Design) standards.

8.170 **Salt Management:** Within the bounds of the Aquifer Protection District, use of road salt shall be minimized and Best Management Practices shall be observed.

8.180 **Outdoor Dining:** Permanent outdoor dining facilities shall include physical barriers to protect patrons from motor vehicles, shall meet all requirements of Seabrook's Health Officer and Water & Sewer Superintendent, and shall meet the applicable electrical code to the satisfaction of the Building Inspector.

Section 9 - Lighting

All lighting fixtures shall meet the following standards:

9.010 **Shielding:** In order to minimize light trespass and direct glare beyond the site boundary, all outdoor light fixtures shall be fully shielded. This includes Wall Pack Style Fixture.

9.015 **Type:** Pole mounted Outdoor Light Fixture shall be Shoe Box Style. Shoe Box Style Fixtures with Sag Glass Lens and pole mounted flood or spot lights are prohibited.

9.020 **Height:** Pole mounted lighting fixture are limited to 20 feet in height above ground inclusive of the foundation height.

9.025 **Abutters:** Outdoors lighting systems shall be designed such that direct glare is not observable above a height of five feet at the site boundary. Designers are cautioned that this may require shorter poles at perimeter locations depending upon the fixture angle of cut off.

9.030 **Ornamental Lighting** and lighting fixtures used to illuminate landscaping or buildings are prohibited except those that will project light equal to or less than incandescent fixture of 100 watts.

9.035 **Signs:** Lighting fixture used to illuminate outdoor signs shall be subject to the direct glare restriction of section 9.010 and shall be fully shielded.

9.040 **Specifications:** All outdoor lighting systems shall be designed as not to exceed the following Illuminating Engineering Society of North America (IESNA) recommended luminance levels:

	Average	Minimum	Uniformity Ratio
Shopping Centers, Restaurants, Offices, during			
Operational Hours	2.4	0.9	4/1
Industrial employee parking and other sites during			
non-operational hours	0.8	0.2	6/1
All sites under all operating conditions when measured ten feet from the property line on abutting properties	0.1	N/A	N/A

Horizontal Illuminance (Foot candles)

Note: These levels do not apply under service station canopies or awnings at building entrances, however all lights shall be fully shielded or fully recessed into the canopy or awning to meet the direct glare design requirement of section D. 9.045 **Hours:** All outdoor lighting systems shall be equipped with timers to reduce illumination levels to non-operational levels at a minimum during non-operational hours.

9.050 **Illuminated Signs** shall be equipped with timers to extinguish signs during non-operational hours.

9.055 **Nonconforming Outdoor Lighting Fixtures** installed prior to the effective date of this section are exempt from the provisions of this section, provided however, that no change in use, replacement, structural alteration, or restoration of Outdoor Lighting Fixtures shall be made unless it thereafter conforms to the provisions of this section.

Section 10 – Off-Site Impacts of Development

10.005 **Authority & Purpose**: Pursuant to NH RSA 674:21 & 674:44, land developers may be required to pay an exaction for the cost of *off-site improvements* that are determined by the Planning Board to be necessary for the occupancy of any portion of a new development. The exaction is intended to be a proportional share of public infrastructure improvement costs, and one that is reasonably related to the benefits accruing to the development from the improvements financed by the exaction.

10.010 **Infrastructure Improvements** shall be limited to the transportation network, stormwater treatment and drainage, culvert upgrades, and sewer and water upgrades, as determined by the Planning Board.

10.015 **Traffic Volume:** Land development or redevelopment shall be assessed an exaction fee for the cost of public infrastructure improvements. Traffic volumes produced by prior occupants of the site shall not be factored into the threshold calculations.

10.017 **Trip Defined**: Each vehicle that enters the property shall be considered one trip. When that vehicle exits the property, it shall be considered a second trip.

10.020 **The Calculation of Vehicle Trips** shall be determined by the table below. In the event that a proposed use is not listed in the table, then trips shall derive from the latest edition of the ITE Trip Generation Manual, or from actual traffic counts at comparable facilities. In the event that more than one methodology is employed, the higher trip count will be utilized.

Use ¹	Trips/1,000 square feet
General Office	1.5
Medical or Dental Office	3.5
Retail	5.0
Supermarkets & Convenience Stores w/o fuel pumps (Includes combination food market and general retail, e.g. Walmart with supermarket)	9.5
Convenience store & auto repair shop with fuel	50 trips/1,000 sf, or 13.5 trips per
pumps	fueling station, whichever is greater
Bank with drive-thru	25.0
Restaurant w/o drive-thru	10.0
Restaurant with drive-thru	40.0
Auto care center without fuel pumps	5.0
Car Wash	10.0

10.035 **Improvements Identified:** The necessary improvements shall be determined solely by the Planning Board.

10.040 **Exaction Formula for New Development:** For new development projects that utilize US Route 1 for access or egress, the exaction fee amount will be calculated by determining the peak-hour site generated trips pursuant to Section 10.020 above, then deducting 50 trips from that total, and then multiplying the result by \$1,200.² The term *"New Development"* refers to the construction of new facilities or an addition to existing facilities.

10.041 **Minimum Exaction:** The exaction fee for new development shall be a minimum of \$5,000.

¹ Retail malls shall be split into their component uses.

 $^{^2}$ This figure is derived from an exhaustive and comprehensive analysis of the Route 1 corridor conducted by Resource Systems Group, Inc.

10.042 **Exaction Formula for Redevelopment & Reoccupation:** The exaction fee cited in Section 10.040 above may be adjusted as shown in the schedule below. The term *"Redevelopment"* refers to alterations to developed land and to the exterior of buildings. The term *"Reoccupation"* refers to the reuse of existing commercial facilities in which no changes are made to the type of use, building exterior, or size of buildings.

Vacant for less than one year	0% of new development exaction fee
Vacant for 1 to 3 years	25% of new development exaction fee
Vacant for over 3 years	50% of new development exaction fee

10.042 **Credits**: The Planning Board, at its sole discretion, may credit the applicant for up to 50% of the fair market value of land donations that would facilitate future improvements along US Route 1 in Seabrook. Improvements required by the NH Department of Transportation shall **not** be credited toward the exaction required by the Planning Board.

10.045 **Planning Board Costs:** The applicant shall reimburse the Town for all costs incurred by the Planning Board's traffic consultants.

10.050 **Payment Due:** The exaction fee shall be paid by the developer prior to the issuance of an occupancy permit.

10.055 **Escrow:** Any exaction collected by the Planning Board shall be held by the Town of Seabrook in an interest-bearing escrow account.

10.060 **Project Construction:** As an alternative to paying an exaction, the developer may elect to construct the necessary improvements, subject to the posting of a financial security that is acceptable to the Planning Board.

10.065 **Refunds:** Any exaction collected by the Planning Board shall be refunded if the funds have not been appropriated for their dedicated purpose within six years of the date of collection.

10.070 **Donations**: At the discretion of the Planning Board, in lieu of submitting an exaction fee, the applicant may elect to make a donation amounting to 90% of the exaction fee. A donation shall be utilized for the same purposes as an exaction fee or for other transportation related projects along the Route 1 corridor identified by the Planning Board in the Master Plan, however unlike the fee, a donation would not be subject to refund pursuant to Section 10.065 above.

Section 11 - Parking Requirements

11.010 **Parking Spaces:** No structure shall be erected nor shall any nonresidential land use be established unless appropriate off-street parking and loading space is provided. The number of off-street parking spaces shall conform to the limits specified in the following table:

Type of Use	Maximum # of Spaces	Minimum # of Spaces
Eating & Drinking Establishments	1 space for every 4 seats	0
Manufacturing Facility	1 space per 500 square feet of floor area	0
Motels and Hotels	1 space for every sleeping room	0
Offices	1 space per 250 square feet of floor area	0
Places of Public Assembly	1 space for every 5 seats	0
Retail Business	1 space per 250 square feet of floor area	0

If no standard is specified in these regulations, parking requirements will be at the discretion of the Planning Board. The Planning Board may require variation to these standards if in the board's judgment, circumstances warrant such variation.

11.020 **Parking Dimensions:** Every parking space shall be a minimum of 10 feet in width, and 18 feet in length. Parking lot travel lanes shall be a minimum of 20 feet in width if a herringbone configuration is utilized. Otherwise the travel lanes shall be and a maximum of 24 feet in width.

11.030 **Pavement:** Parking and loading areas shall be paved, if required by the Planning Board. Parking lots shall be designed in such a manner so as to minimize the construction of impervious surface area. For that reason, a herringbone parking alignment is preferred

11.040 **Parking Location:** All parking shall be located on-site, or alternately, a permanent easement may be recorded for alternative parking off-site, so long as the off-site property's potential for expansion is not hindered. Parking is encouraged to be in the rear.

Section 12 - Condominium Conversion

As used in this section, "Condominium Conversion" shall have the following meaning: The placing or conversion of real property or any interest therein presently under a developed use into the condominium form of ownership pursuant to RSA 356-B. Such conversions must be approved, in advance, by the Seabrook Planning Board. In addition to the requirements specified in these Site Plan Review Regulations for site plan review, applications for condominium conversion must meet the following additional requirements:

- 12.010 **Documents:** A complete set of site plans and floor plans, as well as a complete set of all Condominium documents must be filed with the Planning Board. The applicant's attorney shall certify that all condominium documents are consistent with the Seabrook Zoning Ordinance and with the requirements of RSA 356-B.
- 12.020 **Utilities:** A plan shall be submitted to the Planning Board showing the location of all utilities on the site, and the plan shall indicate the locations where the shutoff valves will be located for each unit. The plan shall indicate whether or not additional meters or additional lines from the street will be required as a result of the condominium conversion. Shut-off valves shall be located on Town-owned property or in a Town-owned right-of-way. Proposed underground utilities shall provide two four-inch ducts for use of the municipality and all overhead poles shall provide space for the use of the municipality at the subdivider's expense. The responsibility for maintenance, operation, replacement and protection of utilities shall be clearly established by the Condominium agreement.
- 12.030 **Legal Status:** The units which are subject to the requests for condominium conversion must, at the time of the request, exist as legal units pursuant to the ordinances of the Town of Seabrook. The burden shall be on the petitioner to demonstrate that the units to be converted are legal.
- 12.040 **Wetland Protection:** In order for the Condominium Conversion Regulations to be consistent with Section 14 of the Zoning Ordinance, no proposed Limited Common Area shall be allocated a disproportionate share of a lot's wetlands.
- 12.060 **Subsequent Revisions:** Prior to the construction of buildings or infrastructure in any location other than that which was approved, the property owners must first obtain Planning Board approval.
- 12.070 The Access/Egress of other property owners shall not be obstructed.
- 12.080 **Parking:** The application shall include a master plan to allocate all parking on-site.

12.090 **Stormwater Drainage:** The long-term responsibility for maintenance must be clearly defined, and binding commitments made by the developer, and a mechanism established to bind successors in title.

Section 13 – Landscaping

Purpose of Landscape Design Standards: The existing landscape of Seabrook is diverse, containing natural wooded environments, open fields, as well as marsh, wetlands and streams. New development should be respectful and sensitive to the dominant landscape character of the town as a whole. Landscaping should result in attractive natural areas, outdoor spaces and open space that incorporate high quality design and maintenance, buffering and screening, and support native wildlife. The purpose of landscaping design standards in Seabrook is to:

13.005 Preserve and enhance the character of Seabrook's landscape and implement goals and objectives of the Master Plan.

13.010 Provide attractive settings for new development, which promotes aesthetically pleasing relationship of scale between buildings and their natural surroundings.

13.015 Preserve and enhance local and regional open space resources.

13.020 Support and encourage the use of sustainable design principles and operating practices that preserve and enhance wildlife habitats, water quality, and overall health of the natural environment.

13.025 Encourage the use of indigenous plant material to provide natural habitat and food sources and to maintain ecological diversity.

13.030 Retain mature vegetation in place or transplant and reuse it on site to the greatest extent feasible and reinforce the visual image of Seabrook through the planting of shade trees along roadways and access ways.

13.035 Enhance the visual impact of public spaces and promote "pedestrian friendly" environments by defining pedestrian and vehicular circulation.

13.040 Offer adequate buffering between abutting parcels and land uses to protect neighboring properties and zoning districts from potentially adverse impacts of structures, lighting glare, noise, wind velocities, and odors and incompatible uses.

13.045 Provide visual relief and mitigate the "heat island affect" from broad

expanses of pavement.

13.050 Maintain natural drainage pathways and hydrologic processes and facilitate the reintegration of stormwater run-off on the site.

Landscaping Design Standards: These landscaping design standards shall apply to parcels and lots of greater than one (1) acre. Parcels and lots of one (1) acre or less are exempted from these standards but shall comply with the recommendations contained in the guidance document *'Landscaping Standards for Small Parcels and Lots in the Town of Seabrook'*.

13.100 General Requirements

Site Landscape Design

13.105 All applications for Site Plan Review or Subdivision shall be accompanied by a landscape plan that is stamped and signed by a licensed landscape architect.

13.110 All required landscaping shall be located entirely within the lot or parcel, unless agreements have been made with the Town for landscaping in the road right-of-way. Landscaping and screening must be provided with proper regard to adjacent properties, the public road and right of way, and within the site, including interior landscaping of parking areas.

13.115 The proposed landscape design must be sensitive to any well-executed and maintained adjoining property landscape design. The landscape design, as submitted to the Planning Board, shall indicate prominent landscape elements on adjoining properties within 25 feet abutting the subject site.

13.120 Landscaping shall be designed and maintained so that it does not interfere with sight distances for driveways and roadways.

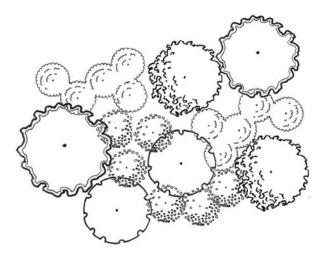
13.125 Buildings, parking areas, loading docks, access roads, and other structural elements shall be sited to preserve existing healthy mature vegetation and maintain natural topography to the maximum extent feasible.

13.130 Landscaping shall be laid out in informal natural groupings rather than formal rows and shall be compatible with site topography. Individual clusters of trees or islands of shrub beds are acceptable. Linear solutions shall be avoided wherever possible. Refer to Figure 13.1 for examples.

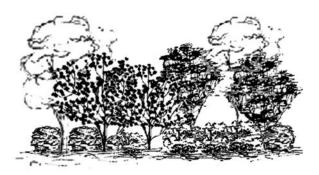
13.135 A variety of plant species shall be used to assemble new landscaping masses. Refer to Figure 13.1 for examples.

- 13.135.1 Create visual depth in plant massing by layering plants of various textures, sizes, heights and colors.
- 13.135.2 Include flowering or fruiting species for color, interest and wildlife habitat where appropriate.
- 13.135.3 Maintain landscaping coverage and mass year round by incorporating seasonal plantings.

Figure 13-1 – Examples of Informal Natural Groupings for Landscaping Installations



Plan View of Informal Grouping



Elevation View of Informal Grouping

13.140 Use plantings to enhance the relationship of buildings to their surroundings.

- 13.140.1 Layered plantings soften edges and corners and reduce the scale of buildings in the landscape.
- 13.140.2 Masses of trees and vegetation near buildings reduce the perceived scale of buildings and set them into the landscape.
- 13.140.3 Consider plant massing along with architectural massing during the design process.
- 13.140.4 Balance the mass, proportion and rhythm of landscape and building elements.

13.145 Rainwater storage and stormwater runoff shall be directed to irrigate landscaped areas, lawn and turf.

Planting and Material Specifications

13.150 Plants shall be selected for their ability to thrive in the environmental conditions of the site and for their ability to achieve a desired effect. In addition:

13.150.1 The use of native plant varieties or the cultivars of natives is encouraged.

13.150.2 Plants shall be installed in contiguous densely planted beds so as to appear more natural.

13.150.3 Plant varieties shall be selected to ensure long-term survival.

13.150.4 Plant varieties shall be selected so as to reduce long-term maintenance.

13.150.5 Landscaping shall consist of native drought resistant plants, shrubs and trees.

13.155 Under no circumstances shall any plants be used that are recognized by the State of New Hampshire Department of Agriculture as invasive.

13.160 All plant material shall have a minimum winter hardiness for Zone 5B as determined by the U.S. Department of Agriculture.

13.165 Minimum sizes for plant material for new or replacement plantings, unless

indicated elsewhere in these regulations or the Zoning Ordinance, shall be as follows:

13.165.1 Deciduous shade trees: three-inch caliper,

1.165.2 Deciduous ornamental trees: two-inch caliper,

13.165.3 Evergreen trees: six-foot height, and

13.165.4 Evergreen and Deciduous Shrubs: 5-gallon container.

13.170 Sizing and measuring shall be governed as defined in the publication *American Standard for Nursery Stock* (2004, as amended) by the American Nursery & Landscape Association (available at www.anla.org).

13.175 Plant material located within 20 feet of any road or other paved area shall consist of only those plants tolerant of roadway deicing salts and snow/ice conditions.

13.180 Landscaping shall be maintained in healthy condition. If within two years from the date of installation any plant is in a deteriorating state or is dead, it shall be replaced in kind in a timely manner.

13.185 Lawn area shall be minimized, as most lawn grasses require supplemental irrigation and regular applications of fertilizer to stay green. Where lawn is necessary fescues and other drought tolerant and native species are recommended.

13.190 Existing mature trees and vegetation shall be integrated with the landscape plan with the goal of preserving the function of existing vegetation, such as groves of trees that separate land uses or provide a natural backdrop for development.

13.195 Refer to the list of preferred and recommended plant species including a list of drought and salt tolerant species.

13.200 **Preservation of Existing Vegetation**

The purpose of this section is to provide incentives to retain and utilize existing

vegetation to satisfy landscaping requirements whenever possible.

Evaluation of Existing Conditions

13.205 For parcels and lots of greater than one acre, the applicant shall provide a tree survey performed by a licensed land surveyor, arborist, forester, or landscape architect. The plan shall clearly indicate forest type and the location, species of all existing trees 6 inch DBH (diameter at breast height) or greater on the site. The survey shall identify (1) all existing shade and ornamental trees that may have been part of a prior landscape scheme and (2) the location, average size and species of groves of trees, and of individual trees greater than 16 inch DBH selected for preservation to fulfill landscaping requirements on the site.

13.210 Healthy trees with a minimum 6-inch caliper and existing wooded areas are recommended for preferential preservation, particularly those trees adjacent to existing or proposed roadways and driveways, and within setback areas where buildings cannot be constructed. Such trees shall be inventoried and shown on an Existing Conditions Plan.

13.215 The applicant may request that the Planning Board or their designated professional landscape consultant determine whether existing vegetation is suitably located, sufficiently dense, and vigorous enough to be substituted in lieu of new planting required by these regulations.

On-Site Preservation Requirements

13.220 Construction activities and site alterations shall not disturb the root zone of the trees designated for preservation (refer to #2 above). No storage of construction equipment, digging, trenching, or other soil disturbance shall be permitted within drip-line of trees to be preserved. Areas of preserved plant material shall not be used as drainage areas or temporary runoff storage areas during construction.

13.225 Prior to the onset of any construction including site preparation work, the applicant shall install and maintain tree protection fencing, or other protective measures approved by the Planning Board, located 12 inches beyond the dripline of the trees to be protected. All no-cut and no-disturb zones shall be appropriately monumented and delineated on the site plan. Prior to construction, the town or its designee shall inspect all installed protective barriers. Protective barriers and signage shall remain in place until completion of the project.

13.230 The developer shall be responsible for making all contractors aware of

preservation requirements on the site prior to any construction activities.

13.235 Trees or groups of trees to be preserved shall be inspected and approved by the town's designee and shall be clearly identified on the Site Plan, Subdivision Plat, Landscape Plan and Grading Plan.

13.240 The applicant shall be responsible to replace any trees designated to remain, which have been damaged, killed, or removed as a result of construction activities. The Planning Board may require replacement in-kind, per caliper inch of deciduous trees and by height for evergreens. For example, if a 24-inch caliper deciduous tree is damaged or killed during construction, the applicant shall replace the tree with six 4-inch caliper trees, or any other combination that adds up to 24 caliper inches. A 36-foot tall evergreen, for example shall be replaced with six 6-foot-tall evergreen, or any other combination adding up to 36 feet.

13.300 Buffers and Screening

The purpose of this section is to provide detailed specifications for the composition, design and placement of buffers and screening, particularly with respect to mitigating negative impacts of non-residential uses on adjacent residential uses, adequate separation of uses, and creation of landscaped areas for public use and enjoyment.

13.305 Buffers shall be a year-round visually barrier that may be composed of existing vegetation, constructed landscaping, or a combination thereof. Buffers shall meet the following standards. Refer to Figure 13.2 for examples.

13.305.1 Buffer areas shall be comprised of existing trees and vegetation, new landscaping or a combination thereof to create a dense buffer incorporating a variety of species of understory and tree canopy layers.

13.305.2 The use of existing vegetation, topography, and natural features to comply with screening requirements is encouraged.

13.305.3 Screens shall not be located so as to impede vehicular or pedestrian traffic.

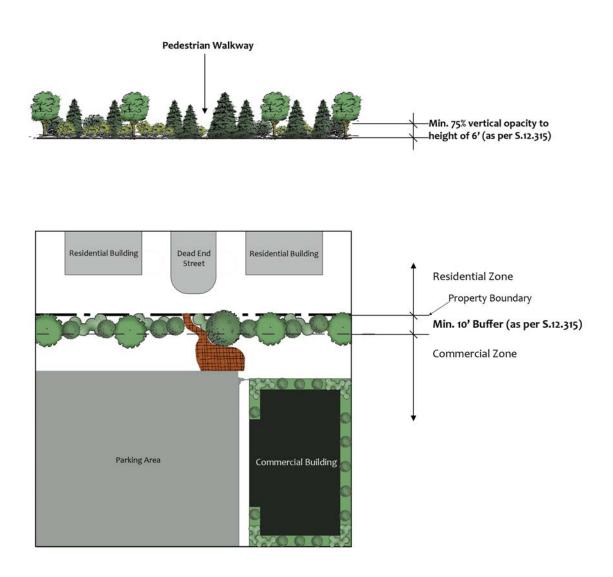
1.305.4 Where appropriate, existing healthy trees and vegetation must be incorporated into the buffer strips and overall landscape design.

13.310 Where a non-residential use abuts a residential property, activity on the subject property shall be buffered to a reasonable level from the adjacent residential property by appropriate landscaping, including the use of plant materials, and/or existing natural vegetation. Fencing alone is not considered an acceptable method of buffering.

13.315 A minimum ten (10) foot wide landscaped buffer, or more if required by the Planning Board, must be provided where a proposed non-residential

development abuts residential properties. Vegetative buffers shall achieve a minimum of 75 percent vertical opacity to a height of six (6) feet, year-round, within one year of installation. Refer to examples in Figure 13-2.

Figure 13-2 - Plan view and elevation view of planting arrangement and density of buffers between non-residential development and a residential property.



10-foot Buffer plan view and elevation view

13.320 For non-residential and mixed uses, a minimum ten (10) foot wide landscaped buffer, including shade trees, shall be provided along the full length

of the side and rear property lines, excluding driveways and other access ways. The landscaped buffer shall be designed to accommodate space for public access and use by incorporating elements such as seating, paths and/or walkways.

13.325 Screening is required to soften the visual impact of high intensity uses such as buildings, parking areas, loading docks, trash disposal areas, exterior storage, and other high intensity use areas associated with or generated by a particular development as viewed from a public right-of-way, residential zoning district, and the principal entrances of buildings on abutting properties. Screening shall meet the following standards.

13.325.1 Screens may consist of existing natural topographic landforms, rock outcrops, or vegetation that is dense enough to be visually impermeable.

13.325.2 Vegetative screens shall achieve a minimum of 75 percent vertical opacity to a height of six (6) feet, year-round, within one year of installation.

13.325.3 Constructed screens may consist of any combination of built screens, such as walls or fences, topographic screens, such as berms or landforms, and vegetative screens consisting of primarily evergreen material.

13.330 The following site design practices shall be applied to screening of high intensity use areas:

13.330.1 Locate storage/stockpile areas out of view of public or in a screened area and with a fenced enclosure.

13.330.2 Locate loading docks and receiving areas out of view or in a screened area.

13.330.3 An enclosure constructed of materials compatible with the principal structure may be substituted for screening requirements.

13.400 Street and Internal Access Road Landscape Strips

The purpose of the street landscape strip is to provide separation of the roadway from adjacent uses, visual appeal, shading and green space. Street landscape strips shall comply with the following standards. Refer to Figure 13.3 for examples.

13.405 Consisting of a minimum 15 feet width (depth of planting area as measured perpendicularly from the right of way).

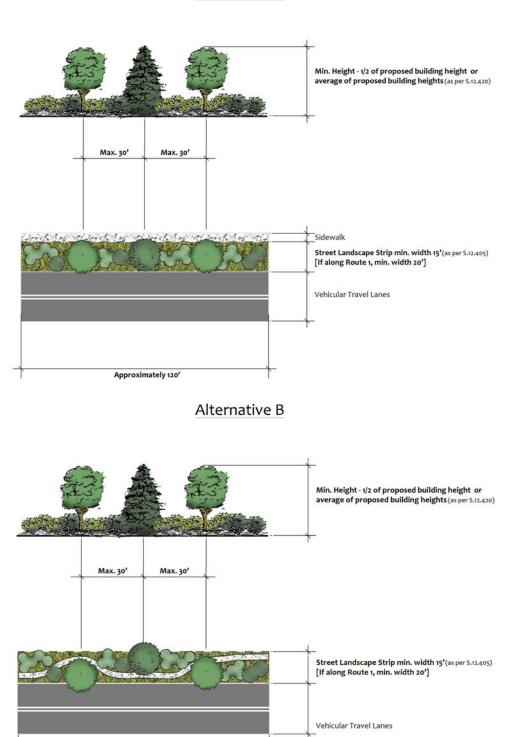
13.410 Minimum one tree per 40' frontage; trees shall be planted within 15 feet from the front lot line and spaced no more than 30 feet apart.

13.415 Trees shall not interfere with buildings, overhead utilities, pedestrian travel, or access to on-street parking spaces.

13.420 Minimum tree height equal to one half the proposed building height (or average building height if more than one building on a site).

13.425 Consist of groupings of deciduous and/or evergreen trees, shrubs, and groundcover.

Figure 13-3 - Examples of street and internal access road landscape strips



Alternative A

Approximately 120'

13.500 Parking Areas

Parking area landscaping areas shall provide the following: mitigate the visual impact of a broad expanse of pavement through careful placement of trees and other vegetation, shade impervious surfaces, walkways for pedestrian access, green space, and opportunity for implementation of stormwater management best management practices. Refer to Figure 13-4 for examples.

13.505 Landscaping shall be incorporated into the development of surface parking to reduce adverse environmental and aesthetic impacts, to shade pavement to reduce heat island effect and to screen parking areas from public view.

13.510 There shall be landscaped open space within the interior of parking areas in the minimum amount of 20 percent of the gross interior parking area, exclusive of perimeter landscaping.

13.515 The perimeter of parking areas shall have a 10-foot-wide landscape buffer, while maintaining clear sight lines, to soften visual and noise impacts and reduce interior temperatures of the parking area.

13.520 Planting islands should be used to define vehicular and pedestrian circulation patterns, to break up large expanses of pavement and to facilitate site drainage. In general, planting islands should be distributed throughout the parking lot. A combination of end cap islands and linear islands running parallel to parking rows are preferred. Islands should be densely planted and shall be designed to absorb run-off from the parking areas.

13.525 Divider islands shall be: provided for every four parking rows at least 10 feet wide; and with trees spaced not more than 50 feet apart in each contiguous island or provide one tree per 200 square feet of island area.

13.530 Terminal islands shall be: provided at ends of parking rows at least every 25 spaces; and have at least two trees per island and evergreen shrubs 3 feet on center (or grass/ground cover with approval of Planning Board). All landscape areas shall contain shrub and ground cover plantings. Landscape areas may not be totally covered with mulch.

13.535 Landscape islands shall be a minimum area of 200 square feet, a minimum of 15 feet in width in any direction, and at least one tree per island with trees located a minimum of 4 feet from curbing.

13.540 Strategically placed island crossings are required to enhance pedestrian access and safety in parking areas. Crossings constructed of modular pervious pavers are encouraged to minimize soil compaction within the island.

13.545 Landscaped parking area features are encouraged to be designed as

stormwater best management practices according to the design principals of Low Impact Development. (Refer to the design guidance manuals *Low-Impact Development Design Strategies An Integrated Design Approach* (1999, Low Impact Development Center) and The NH Stormwater Manuals Volumes I-III (2008, NH Department of Environmental Services).

13.550 Snow storage areas may be located in landscaped areas provided that appropriate landscape materials are selected which can withstand such snow storage. Snow storage shall not be located where it would adversely impact the functionality of bioretention or other stormwater management systems.

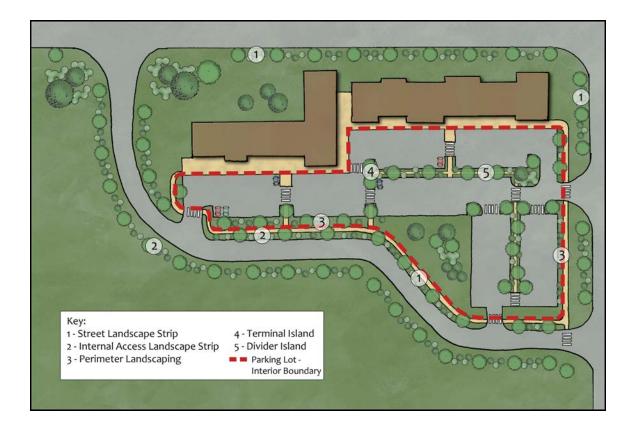


Figure 13-4 Illustration of interior & perimeter landscaping & site design for parking areas.

13.600 Structural Elements

13.605 No person shall deface, alter the location of, or remove any stonewall which was made for the purpose of delineating a boundary or border of a lot, road or right of way in the Town of Seabrook or other stone wall or historic structure located within the proposed development area, except upon the issuance of approval/written comments from the Planning Board.

13.610 Signage in the Landscape Strip:

13.610.1 Require minimum 4' wide area around each freestanding sign.

13.610.2 Existing vegetation, which is preserved, may be substituted for required plantings.

13.615 Provide minimum 10-foot-deep planting area(s) with trees, shrubs and groundcover around building sides with public access.

13.620 Fences and walls within public view must be of high architectural quality. Chain link and wire mesh fences shall be out of direct public view and shall be complimented with landscaping. Chain-link fence within public view shall be dark colored vinyl coated 6 – 9 gauge fencing with similarly coated posts and rails. Masonry walls shall be constructed of stone, brick or other durable and attractive materials. Concrete block walls are not permitted except where variety in color, design and detailing of the materials are of high architectural quality.

13.700 Soil Preparation

13.705 Landscaped areas where soil compaction has occurred due to construction activities should be deep tilled to a depth of 12 inches to facilitate deep-water penetration and soil oxygenation. Use of soil amendments is encouraged to improve soil chemistry, water drainage, moisture penetration, soil oxygenation, and/or water holding capacity. Soil amendments are organic matter such as compost, bio-solids, and forest by products, but do not include topsoil or any mix with soil as an element.

13.710 For all newly landscaped areas, organic matter (3-4 cubic yards of organic matter per 1,000 square feet of landscape area) should be incorporated to a depth of 4 to 6 inches. Organic content of landscaped soils shall not be less than 18 percent by volume in the top 6 inches of the finished topsoil.

13.715 For newly landscaped areas where topsoil is limited or nonexistent, or where soil drainage is impeded due to subsurface hardpan or bedrock, 6 to 24 inches of sandy loam topsoil should be spread in all planting and turf areas, in addition to the incorporation of organic matter into the top horizon of the imported soil. Organic content of landscaped soils shall not be less than 18 percent by volume in the top 6 inches of the finished topsoil.

13.720 Soil analysis of new or renovated landscaped and turf areas should include a determination of soil texture, including percentage of organic matter; an approximated soil infiltration rate; and a measure of pH value.

13.800 Mulching

13.805 Mulch should be applied regularly to, and maintained in all, planting areas to assist soils in retaining moisture, reduce weed growth, and minimize erosion. Mulches include organic materials such as wood chips, compost and shredded bark and inert organic materials such as decomposed lava rock, coble, and gravel. If weed barrier mats are used, the use of organic mulches is recommended. Mulches should be applied to the following depths - 3 inches over bare soil, and 2 inches where plant material will cover.

13.810 Non-porous materials, such as plastic sheeting, are not recommended for use in any areas of the landscaping because of down-slope erosion potential, soil contamination from herbicide washing, and potential for increased runoff velocity.

13.815 Mulch used in stormwater management areas should be heavier and not of a type that can be easily transported by runoff (i.e. float or wash away).

13.900 Maintenance

13.905 Upon completion of the project, plant material that has been designated for preservation shall be subject to the maintenance and inspection requirements outlined in this Section. Preserved vegetation and new plantings that show signs of construction damage within a one year period following construction, including but not limited to bark damage or excessive root damage, grade changes other than those originally indicated in the approved grading plan, soil compaction due to heavy equipment traversing closely, or general decline due to mechanical or natural conditions shall be rejected and must be replaced prior to the release of any defect guarantee. Any rejected tree will be subject to replacement (based on total caliper loss).

13.910 The owner of any lot or parcel for which a development approval has been issued pursuant to these regulations shall be responsible for the maintenance of all landscaped and natural areas on the property. Landscaping shall be maintained in such condition such that planting shall be vigorous and in good health at all times and that the parcel shall present a healthy, neat, and orderly appearance, free from refuse and debris. Any dead vegetation that is part of the approved landscaping design shall be replaced within one year.

13.915 Landscaping shall be maintained so that it does not interfere with sight distances for driveways, roadways and parking areas.

13.920 Plant material and landscape maintenance procedures that incorporate water conservation techniques are preferred.

13.925 The Planning Board, at its discretion, may require a landscape maintenance and water management plan. The maintenance plan shall include, but not be limited to the following:

13.925.1 Integrated Turf Management: mowing schedule, weed control, pest control, soil pH management, fertilizer plan, aeration/dethatching schedule and repair/replacement plan.

13.925.2 Shrub and Groundcover Management: mulch schedule, weed control, pruning where needed for visibility, preventative pest/disease management, repair/replacement plan.

13.925.3 Tree Management: mulch schedule, weed control, deadwood removal, pruning schedule, particularly for trees located next to walkways or roadways, fertilizing schedule, preventative pest/disease management, repair/replacement plan.

13.925.4 Water Systems Management: water source, system description, spring start-up, fall closeout, system testing schedule, and repair/replacement plan. The applicant may install a permanent water supply system consisting of a sprinkler system and/or hose bibs placed at appropriate locations and intervals. Wherever possible, irrigation water shall be derived from sources other than a public water system, including re-used water, detained stormwater or roof drainage. On-site cisterns may be installed to store water for irrigation.

13.925.5 Seasonal Maintenance: Spring clean-up plan, fall clean-up plan, disposal plans for leaves and plant debris, winter plowing plan, winter deicing plan.

13.930 The owner of any lot or parcel for which a development approval has been issued pursuant to these regulations shall provide a landscape maintenance bond for one year following completion of construction.

13.935 A note shall be provided on the final approved site plan stating "All conditions on this plan shall remain in effect for perpetuity."

13.950 **Preparation of a Landscape Plan**

13.955 A Landscape Plan shall be prepared in sufficient detail to indicate compliance with these regulations. The plan shall also include:

13.955.1 A plant schedule (keyed to plants shown on the plan) including quantity, plant name (common and scientific), planting size and size of maturity, growth habit, and tolerance to environmental conditions. Sizing and measuring shall be governed by the publication *American Standard for Nursery Stock* (2004, as amended) by the American Nursery & Landscape Association (available at www.anla.org).

13.955.2 Written planting notes, requirements and details.

13.955.3 Existing and proposed vegetation including trees; shrubs and plant beds including all vegetation that shall be retained as required by the Planning Board; dimensions of undisturbed areas and measures that shall be used to protect during construction existing natural features that are to be retained; and location of all utilities above ground and below ground and related easements; and required front, side, and rear yards.

13.960 The Landscape Plan shall be prepared by a Professional Landscape Architect registered in the State of New Hampshire, or certified by the Council of Landscape Architectural Registration Boards (CLARB). The Landscape Architect shall sign and stamp the Plan which shall be submitted as a requirement for a complete Site Plan application. The Landscape Plan shall be prepared to include the following certification:

Section 14 - Development Standards for Smithtown and North Village

The purpose of the Smithtown and North Village zoning district which include Zones 6R Residential and 6M Mixed Use – are to create a neighborhood focused on a pedestrian oriented, economically viable development center in Seabrook. The intent of village concept is to foster development of a vibrant mixed-use districts with a cohesive street layout and architectural character that includes commercial, residential and civic uses and integration of open spaces, transit, bicycle and pedestrian accommodations.

The purpose of the Smithtown and North Village Development Standards is to execute the vision for the zoning district. The goal of these standards is to enhance economic vitality, business diversity, accessibility, and visual appeal in a manner that is consistent with the landscape and architecture of the Town's historic village tradition.

The overarching goals of the Smithtown Village are to: enhance the economic development potential of properties; encourage mixed uses that support one another; provide services and employment opportunities; create pedestrian and bicycle friendly neighborhoods; respect the historical nature of the villages; and create a gateway between Seabrook and its neighboring towns to the north and south.

Development shall incorporate the following concepts to preserve and complement elements of the historic tradition of Seabrook, and local and regional village character:

- a. Comprised of compact, pedestrian-oriented development;
- b. Mixed use pattern of development where development specializing in a single use should be the exception;
- c. Encourage a range of housing choices and price levels to accommodate diverse populations;
- d. Diversity of open space including parks, squares, and playgrounds distributed within neighborhoods and throughout the district;
- e. Expansion and provision of public transportation facilities that promote use and access;
- f. Provide improved visibility and access to and use of conservation lands, where appropriate; and
- g. Opportunities for agrarian activities such as farmers markets and community gardens.

14.010 General Development Criteria

- 14.011 Development in Smithtown Village and the North Village shall incorporate the following:
 - a. Wherever possible retention of natural infrastructure and visual character derived from topography, woodlands, riparian corridors and other environmental features.
 - b. Infill development and redevelopment of existing sites.
 - c. Development contiguous to adjacent zoning districts shall be organized to complement and be compatible with the existing pattern of development and the natural landscape.
 - d. Develop the street network, connecting with existing local connector roads to disperse traffic to and from the Smithtown Village, and reduce traffic volumes.
 - f. Use greenways to define and connect developed areas, provide public spaces and enhance viewsheds to adjacent conservation lands.
 - g. Integrate a framework of transit, pedestrian, and bicycle systems that provide accessible alternatives to the automobile.
 - i. Apply architectural and landscape designs suited to a traditional New England appearance.
 - j. Create public gathering and public use spaces that are connected throughout the District, in a manner and location that will encourage use and promote safety and security.
 - k. Reduce impervious surfaces and associated stormwater runoff.
 - I. Design the scale of development and buildings to foster a traditional village atmosphere.

14.020 Building Materials and Architectural Elements

- 14.021 Building Materials
 - a. The exterior of buildings shall be covered with natural or simulated wood materials, natural or simulated stone or brick. Accent elements may incorporate use of metal, natural or simulated stone or brick.
 - b. Exterior building materials shall be compatible with or complement other hardscape materials used on the site.
- 14.022 Architectural Elements
 - Roof styles shall be limited to mansard, gable, hip and gambrel. Flat roofs are permitted only for installation of green roof technology as a Low Impact Development element or to execute a historical architectural style.
 - b. Sloped roofs are highly preferred. Gabled and hipped roofs should have a slope of greater than 4/12 (18°) but less than 14/12 (49°).

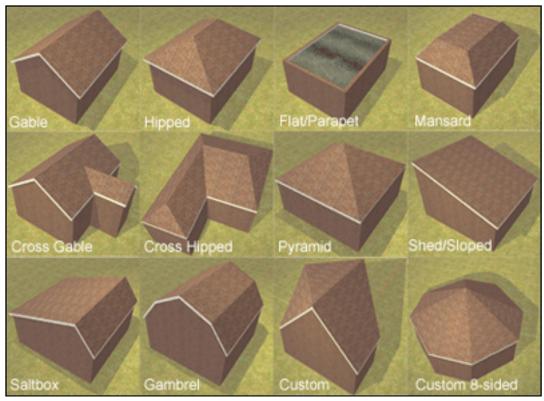


Figure 1. Illustration of preferred roof styles and forms.

c. Windows should be appropriately scaled to the building mass and style.



Figure 2. Examples of roof form and styles.

Articulation is the use of architectural elements and details such as changes in plane, composition or materials, to create a sense of variation and reduction of scale.

d. Articulation shall be used to define the architectural elements and details of a building (changes in plane, composition and materials of a building wall) to create variation and reduction of scale. A change in the wall plane should be in keeping with the architectural style of the building and should be significant enough to affect the building mass.



Figure 3. Example of articulation of a multi-section Federal style building.

- e. Buildings should be designed to clearly define the two or three distinct parts of the typical multi-story façade (refer to examples in Figures 4 and 5 below):
 - i. the bottom or ground level which frames a storefront or entrance;
 - ii. the middle or upper floors which comprises the greatest percentage of the façade; and
 - iii. the top or roof style/form, defined by a cornice and other trim elements.



Figure 4a. Example of a three story façade - ground level, upper floors, and roof line.



Figure 4b. Example of a two-story façade - ground level, upper floors, and roof line.

f. Buildings shall incorporate New England style character and design into at least one major structural element (i.e. a specific period or style,

lines and articulation, exterior materials).







14.023 Colors for buildings and signs shall reflect those found in a traditional New England village. Applicants shall select from paint chips on file at the Planning Office, or alternately, submit paint samples or chips for Planning Board approval.

14.030 Site Design Standards

14.031 Building Configuration and Orientation

- a. Single and multiple buildings on a site are encouraged to break up the massing and scale of larger developments.
- b. Buildings shall be oriented to frame the roadway and accommodate pedestrian access and safety. The building entrance is not required to be oriented to the roadway.

Figure 6. Example of building orientation in relation to the street, parking and overall site design.



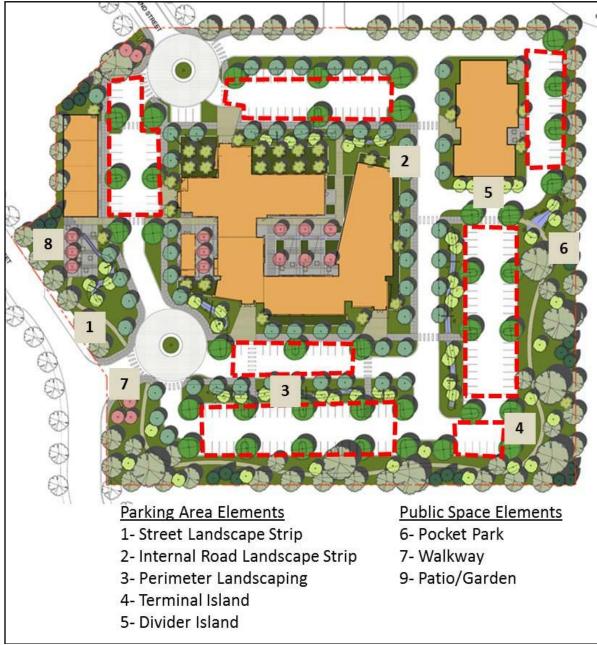
14.032 Mixed Use - Residential and Non-Residential

- a. Mixed Uses in the 6M Mixed Use zone shall provide commercial uses (i.e. retail stores and shops, food service/bar/entertainment establishments, and professional offices and businesses) on the first floor of buildings, with professional office and businesses, light commercial (such as artisanal manufacturing) and residential uses optionally on the upper floors.
- b. Residential developments or neighborhoods should include a mix of housing types, sizes and styles, and provide public gathering and/or recreational spaces or areas for use by residents, businesses, visitors and the community.
- c. Developments should provide a viable mix of residential and nonresidential uses to promote living and employment opportunities in the style of a traditional New England Village.

14.033 Interior Parking Areas

- a. Parking shall not be located between the building any principal road or street, either town or state owned.
- b. Parking areas shall be screened from roadways and adjacent residential uses. Refer to the Landscaping Section of the Seabrook Site Plan Review Regulations.

Figure 7. Illustration of parking area landscaping elements, vehicular and pedestrian connectivity within parking areas, and examples of public spaces.



c. Individual interior parking areas may be grouped or connected to form larger parking areas. Refer to the dashed areas outlined in the figure

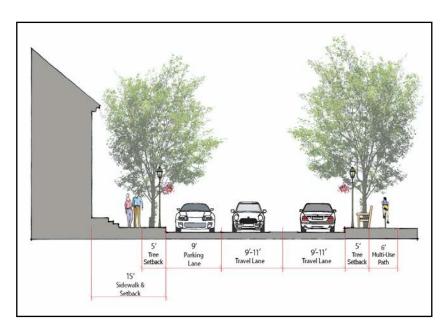
below.

- d. On-street parking shall provide short-term parking for patrons of shops and businesses. On street parking to service residential areas is recommended.
- e. Parking for mixed-use developments shall provide long term and shared parking by multiple uses and users.
- f. In all instances, the Planning Board shall consider parking lot safety.
- g. Delivery areas for mixed use and non-residential uses can be located at the front, rear or sides of buildings, or within designated portions of parking areas. Loading docks and service areas shall not face a public frontage. Delivery and service vehicles are encouraged to utilize rear alleys for building access.
- h. Parking structures shall comply with the dimensional requirements and design standards of principal buildings. Below ground and multi-story parking structures are encouraged.

14.034 Vehicular and Pedestrian Circulation

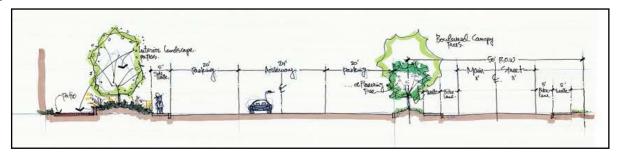
- a. Development within the district shall incorporate well connected grids of local and neighborhood streets, loop roads, access roads and alley ways. Refer to the examples in Figure 7.
- B. New roads and streets shall connect to the existing transportation network within the district and adjacent zoning districts to provide efficient traffic patterns and site access, and provide for public safety. Development shall provide potential future connections to adjacent properties and not prevent or preclude these connections.
- c. All roadways shall provide a pedestrian and bicycle friendly layout and incorporate landscaping and lighting elements.

Figures 8a-8b. Preferred street cross-section examples (local street above, connector street below).



8b.

8a.



14.035 Stormwater Management and Low Impact Development (LID)

a. Stormwater management and erosion control plans shall follow the detailed design and selection specifications in the NH Department of Environmental Services Stormwater Manual: Volume 2 Post-

Construction Best Management Practices Selection and Design and Volume 3 Erosion and Sediment Controls During Construction (latest edition).

- b. Low Impact Development (LID) site design strategies shall maintain or recreate the predevelopment hydrology of the landscape.
- c. LID design techniques and best management practices shall demonstrate implementation of runoff storage and infiltration, ground water recharge, and maintain volume and frequency of discharges to surface waters and wetlands.
- d. LID design techniques shall include the following: multiple, integrated and distributed small-scale stormwater treatment, retention and detention areas; minimization of (new development) and/or reduction of (redevelopment) impervious surfaces; and retention of overland flow paths and drainage systems.
- e. Landscaping shall be integrated with LID practices, general stormwater management practices, and parking lot and roadway designs.
- f. Green roof installations shall demonstrate the following benefits: enhance stormwater management capacity and water quality; reduce energy use; reduce air pollution and greenhouse gas emissions; improve human health and comfort; and improve quality of life.
- g. The Site Plan shall include a detailed narrative description of how and to what extent the above standards have been implemented, and if applicable, why such implementation was not feasible.

Figure 9. Examples of Low Impact Development stormwater management practices.



Sidewalk buffer strips intercept runoff before it reaches the street.



A Bioretention area is a depression with underdrains and plants tolerant of both wet and dry conditions.



A depressed swale with plants tolerant of wet and dry conditions captures and treats runoff from the adajcent parking areas (examples above and below).



Paver grids in light-duty parking areas are installed with a soil medium that supports plant growth and infilitrates runoff.





A rain garden is a depression with underdrains and plants tolerant of both wet and dry conditions.

14.040 Signage Standards - Smithtown Village Signage

- a. For multiple businesses at one address, one sign is permitted. The sign must have a cohesive uniform design for lettering, graphics and other elements. Signage for non-residential and residential uses shall comply with the sign style standards in Figure 10.
- b. Free standing signs for multiple businesses shall have a maximum of 24 square feet. Additional dimensional requirements for signs are found in the Zoning Ordinance.
- c. Refer to the preferred examples of suspended and free-standing sign styles in Figure 11.
- d. The Site Plan Review or Subdivision application shall include detailed illustrations of dimensions, design, colors, lettering and graphics for all proposed signs.
- e. Digital display signs and internally illuminated signs are prohibited.

Figure 10. General sign requirements and specifications: examples of free-standing signs for multiple businesses and sign base structures.

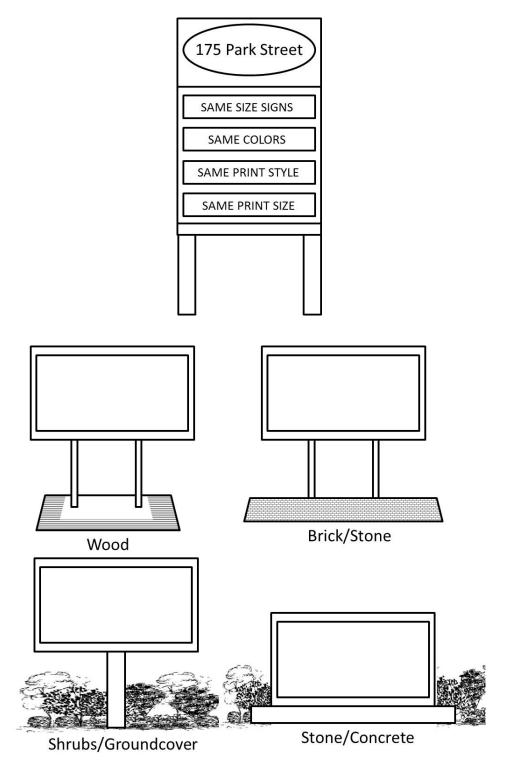


Figure 11. Preferred examples of suspended and free standing sign styles.





14.050 Street Elements & Design

Streets are an important part of the livability of our community and well-designed road networks can provide safer, more livable, and welcoming transportation options. Care should be given to design the entire roadway with all users in mind, including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities.

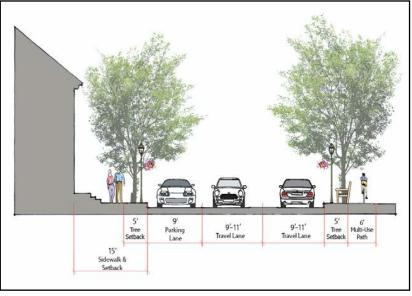


Figure 12a. Example of a street with accommodations for walking, biking, seating, lighting motorists, and parking.

Streets in Smithtown and North Village can have various cross-sections and configurations, providing specific basic elements are incorporated in the design, when necessary or desired: clearly defined travel lanes, on-street parking, street trees and other landscaping, sidewalks, pedestrian crossings, and bike lanes when necessary.

Figure 12b. Example of a typical neighborhood street with narrow width and onstreet parking.



14.060 Pedestrian and Bicycle Connections

- 14.061 Sidewalks
 - a. Sidewalks shall be constructed. Sidewalks shall be encouraged on private property and on at least one side of a public street with crossings when sidewalks alternate from one side to another. Sidewalks shall be maintained by the property owner <u>when practical</u>.
 - b. Sidewalks are encouraged on public streets, private roadways and access-ways.
 - c. Sidewalks shall be a minimum of 5 feet wide.

14.062 Walkways

- a. Walkways shall be incorporated to provide safe passage for pedestrians to and from parking areas, businesses, residences, sidewalks, open spaces, and public roadways.
- b. Proper lighting shall be installed along walkways when needed to ensure public safety.



Figure 13. Example of a typical pedestrian accommodations.







14.063 Seabrook/East Coast Greenway Rail Trail

- a. Pedestrian and bicycle connections shall focus on maintaining or establishing connectivity and circulation within the District and providing connections and access to the Seabrook/East Coast Greenway Rail Trail.
- b. Developments may provide a Greenway Trail through the property with connections provided to trails on adjacent properties or open space and public space. Greenway Trails shall be a minimum of 5 feet in width and surfaced to provide universal access.

14.070 Public Space

14.071 Descriptions and requirements for public space are provided below in Table 2 and the photographic examples in Figure 14.

Table 2. Public Space Standards.

Public Space Standards	Description
	Developments of 1 acre or greater shall include a minimum of 20 percent of the total area dedicated to public space. Public space shall not include lands within required thoroughfare cross-sections and other proposed streets. Public space shall be no less than 100 square feet of contiguous land or the entire 20 percent area requirement whichever is greater.
Public Space Requirements	Public space may include septic reserve areas, well protection areas, and Low Impact Development stormwater management features (i.e. natural areas such as bio-retention areas, vegetated buffers and rain gardens). Public space may consist of natural areas, or created natural areas such as gardens, landscaped areas and parks, where the public may gather, recreate and enjoy scenic views. Public space shall not include landscaping requirements for parking areas or screening and buffering purposes.
Permitted Uses	Permitted uses shall include passive, non-motorized recreation and uses; natural resource management and research; and non-commercial agriculture and forestry.
Access	All development shall provide public access to designated open space and public space.
Location and Connectivity	The goal of locating public space is to create a contiguous greenway that provides pedestrians and bicyclists opportunity to move throughout the District. Designated public space shall be connected preferably by being contiguous from one lot to another lot or within a development, or secondarily by walking paths or sidewalks.
Character and Features	Existing natural areas may be designated as public space. Public space may also be created in the form of parks, gardens, ponds and other natural areas and/or features. Public space shall be maintained or established to provide opportunity for the public – both residents and visitors - to gather, recreate outdoors, and enjoy scenic views and landscapes.

Figure 14. Examples of public spaces and community gardens.



Formal parks provide areas for events, gatherings and recreation, and offer large green space in more urban settings.



Pocket parks can be placed nearly anywhere in a suburban or urban landscape and fit well between buildings, within blocks and along streets.



Small and linear parks can offer gardens, sitting areas, walkways and architectural features of interest.



Pocket parks can be used to showcase gardens and include historical and cultural features such as statues, plaques and interpretative signage.

Figure 14. Examples of public spaces and community gardens (continued).



Large parks can provide extensive multiuse trails for recreation and connecting to other destinations.



Large parks can form the backbone or focal point of a village center, neighborhood or development complex by incorporating quality landscape and architectural features.



Community gardens fit well in small spaces between buildings and can incorporate multi-use paths, sidewalks and walkways.



Community gardens can occupy an entire block or parcel, a particularly good use for abandoned lands or very small lots.

Section 15 - Spill Prevention, Control & Countermeasures

Any existing or otherwise permitted use or activity having regulated substances in amounts greater than five gallons, shall submit an Emergency Response Official a Spill Prevention, Control & Countermeasures (SPCC) plan that is subject to approval by the Seabrook Fire Chief, or his designee. The plan shall include the following elements:

15.801 **Disclosure statements** describing the types, quantities, and storage locations of all regulated substances that will be part of the proposed use or activity.

15.802 **Owner** and spill response manager's contact information.

15.803 **Location** of all surface waters and drainage patterns.

15.804 **A narrative** describing the spill prevention practices to be employed when normally using regulated substances.

15.805 **Containment controls**, both structural and non-structural.

15.806 **Spill reporting procedures**, including a list of municipal personnel or agencies that will be contacted to assist in containing the spill, and the amount of a spill requiring outside assistance and response.

15.807 **Name of a contractor** available to assist in spill response, contaminant, and cleanup.

15.808 **The list of available clean-up equipment** with instructions available for use on-site and the names of employees with adequate training to implement containment and clean up response.

Section 16 - Outdoor Seating at Restaurants

In order to establish, construct, or expand outdoor seating on a restaurant property, site plan approval shall first be obtained from the Planning Board (following a public hearing in which abutters have been notified), and only after the board finds that the proposal satisfies all the following criteria:

16.010 **Safety:** Fixed guardrails, curbing, cement poles, jersey barriers, or other such structural barrier shall be installed to separate the outdoor seating

area from motor vehicle traffic.

16.020 **Emergency Vehicles:** The outdoor seating area shall not hinder or impede access by emergency vehicles.

16.030 **Sidewalks:** The proposed installation shall not block or impede existing sidewalks.

16.040 **Egress:** Outdoor seating areas shall not impede egress. New points of egress shall be installed by the applicant if deemed advisable by the Planning Board, Building Inspector, or Fire Department.

16.050 **Occupancy Load:** The applicant shall calculate an occupancy load that is satisfactory to the Building Inspector, and consistent with applicable codes.

16.060 **Assembly Permit:** Prior to occupancy, the applicant shall obtain an updated assembly permit from the Fire Department.

16.070 **Lighting:** Permanent lighting, electrical wiring and electrical connections shall meet applicable codes. The lighting shall not trespass onto neighboring properties.

16.080 **Music:** Outdoor live music is prohibited. Outdoor music that is piped outside via an audio system is permitted if the applicant obtains prior approval from the Board of Selectmen. In no instance shall music be discernable at the applicant's property line.

16.090 **Setbacks:** The outdoor seating installation shall observe all structural setback requirements.

16.100 **Heating:** All heating devices and fire pits shall receive prior approval by the Fire Department.

16.110 **Permeable Surface:** Outdoor seating areas shall be placed on permeable surfaces whenever practical, and in no instance shall the seating area increase the volume of stormwater runoff from the property.

16.120 **Adjacent & Connected:** The outdoor seating area shall be adjacent to and connected to the restaurant building.

16.130 **Permits:** Outdoor seating shall not be utilized until all applicable municipal permits are obtained, including a Certificate of Occupancy.

16.140 **Process:** Site plan approval by the Planning Board is a prerequisite to the issuance of permits from the other Town Departments.

APPENDIX 20: CERTIFICATION OF MAILING TO TOWN OF SEABROOK AND NEIGHBORING TOWNS (RESERVED)