CITY OF DOVER

DOVER CONSERVATION COMMISSION – AGENDA

Meeting Type: Regular Meeting
Meeting Location: First Floor Conference Room - 288 Central Avenue Dover NH
Meeting Date: Monday, February 13, 2023
Meeting Time: **5:30 pm**

1. **CALL TO ORDER AND ROLL CALL**

2. **CITIZEN'S FORUM**

3. **APPROVAL OF THE PRIOR MEETING MINUTES** – January 9, 2023

4. **OLD BUSINESS**

5. **NEW BUSINESS**
   - **A.** City of Dover Conditional Use Permit for Public Service Company of New Hampshire d/b/a Eversource Energy, (Agent: VHB, Inc.), Assessor's Maps H and M, covering various lots within the existing utility transmission ROW, zoned I and R-40, located east of Freshet Road at the Madbury town line and between west of Overlook Drive and east to Quaker Lane. Proposal is to perform maintenance work on the 307 Transmission Line involving a single utility structure replacement and optical ground wire replacement creating 2,796 square feet of wetland impact and combined 13,471 square feet of temporary impact to wetland buffers and the Conservation District.
   - **B.** City of Dover Conditional Use Permit for Public Service Company of New Hampshire d/b/a Eversource Energy, (Agent: VHB, Inc.), Assessor's Maps I, M and K covering various lots within the existing utility transmission ROW, zoned CWD, R-40, and R-12 from the Dover Substation off Cocheco Street to the Madbury town line. Proposal is to replace 14 wooden utility poles with weathered steel structures along the M183 Transmission Line creating 15,399 square feet of temporary wetland impact and 30,883 square feet of temporary impact to wetland buffers and the Conservation District.
   - **C.** NHDES Major Impact Wetland Permit Application for Saddle Trail Drive Home Owners Association (Agent: Ambit Engineering, Inc.) Assessor's Map N Lot 8-1, zoned R-40, located at off Saddle Trail Drive. Proposal is to construct a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 30' x 50' gangway and an 8' x 75' float, totaling 96 square feet of permanent impact to the previously developed Tidal Buffer Zone and 1,410 square feet of permanent impact to tidal wetlands.

6. **REPORT FROM THE CHAIR**
   - **A.** Review of Correspondence Received From NH Department of Environmental Services

7. **OTHER BUSINESS**
   - **A.** Update from Forest Management Subcommittee

8. **ADJOURNMENT**

CITY OF DOVER

DOVER CONSERVATION COMMISSION – MINUTES

Meeting Type:	Regular Meeting
Meeting Location:	City Council Conference Room - 288 Central Avenue Dover NH
Meeting Date:	Monday, January 9, 2023
Meeting Time:	**5:30 pm**

MEMBERS PRESENT: Bill Hunt (Chair), Steve Fellows (Vice Chair), Robert Atwood (Secretary), Amy Kramer-Perry, Bruce Batchelder, Abigail Lyon
Absent (Excused): Kristen Murphy, Jason Aube
STAFF PRESENT: Jackson Kaspari – Resilience Manager, Erin Bassegio – Outreach Coordinator

1. CALL TO ORDER AND ROLL CALL

The meeting was convened at 5:31 PM.

2. ANNUAL NOMINATIONS AND ELECTION OF OFFICERS FOR 2023

The current slate of officers: B. Hunt as Chair, S. Fellows as Vice Chair and R. Atwood as Secretary agreed to continue in their roles. A. Kramer-Perry motioned to nominate. A. Lyon seconded. Vote: 6 yes.

3. CITIZENS' FORUM: No citizens were present to speak during the forum

4. APPROVAL OF THE PRIOR MEETING MINUTES – December 12, 2022

S. Fellows moved to approve the December 12, 2022 minutes, R. Atwood seconded. Vote: 5 yes and 1 abstention from A. Lyon.

5. OLD BUSINESS: None

6. NEW BUSINESS:

A. January 10th Meet and Greet

J. Kaspari provided some details on the event noting that invitations were not widely distributed due to space constraints. The Meet and Greet provides a venue for Chairs to convey updates regarding their Board, Committee or Commissions work over the past year. During this year's Meet and Greet E. Bassegio will present information on the update to the Vision Chapter of the Master Plan and J. Kaspari will present a first look at the Citywide Resilience Plan. The Plan will be reviewed by the Planning Board and additionally considered for adoption by the Dover City Council.

B. Five Minutes for Dover's Future – Outreach Coordinator, Erin Bassegio

E. Bassegio: The Vision Chapter of the Master Plan is updated every 10 years. Current work involves reviewing the progress made for the 2023 Vision which was last updated in 2012 and identifying any gaps. We are hoping to have Boards, Committees and Commissions spread the word about opportunities to engage with the Chapter update and potentially participate directly. This time there will be volunteers assigned the roles of Vision Ambassadors. There will be a number of Visioning events. The first is set to be held virtually on February 9th. There is an associated project website: rebrand.ly/DistinctlyDover where folks can respond to "What is your wish for Dover's Future?" and learn more details about the project.

A. Lyon: Have you considered looking to the college student population in Dover for feedback? One idea would be to use the bus system to help convey information.

E. Bassegio: We have not but I appreciate that suggestion.

DRAFT

7. REPORT FROM THE CHAIR

A. Review of Correspondence Received from NH Department of Environmental Services

J. Kaspari: Once piece of correspondence to report. Received a notice of an alleged wetlands violation off of Gulf Road. The City was made aware of this through the local zoning complaint process which led to an investigation by Zoning Administrator Kypfer and myself. The complaint alleges that a gravel driveway installed back in 2009 with associated culvert drainage caused a shift to the wetland resource adjacent to it on the same lot. A City driveway permit was issued for the work. The City will cooperate with DES if it requires additional information for the State investigation.

8. OTHER BUSINESS

A. Update from Forest Management Subcommittee

S. Fellows: The Subcommittee met a week after the last Conservation Commission meeting. There are two tracks the Subcommittee has been considering:

(1) The Forest Stewardship Plan that was prepared for the parcels in the Tolend Road Landfill Area. We spoke with Tim Nolin who prepared the Plan and he said that six to nice months of lead time is necessary meaning that the Subcommittee should begin the process in the spring or summer for a winter harvest. The Subcommittee also looked into whether the Smith Well Parcel would be a viable option for a harvest. The lot is much for "harvest ready" due to better access than the parcels off Tolend Road. However, the City will be constructing a water tower on that parcel and we wouldn't want harvest activities to interfere.

(2) The other track is the CBD Street Tree Plan and looking into implementing those recommendations. The Subcommittee would like to fill the empty planting boxes as a first step but will need to consult with Community Services Director, John Storer. After this the Subcommittee can look at the Ash tree situation. The Subcommittee may ask the Conservation Commission in the future for a funding request related to this. Street trees have to deal with some harsh conditions so due care needs to be exercised during the installation process.

B. Hunt: Would it be worth contracting an arborist to assist the City through this process?

S. Fellows: That is part of a broader discussion the Subcommittee is having. We need to gauge interest and possible funding mechanisms to bring in an arborist.

Some discussion ensued about Dover participating in the Tree City USA program.

A. Lyon: Interested to hear in the potential of stormwater treatment associated with new tree plantings.

Kaspari brought up the plan to show the locations of interest.

R. Atwood mentioned the planned work for Fifth Street and Grove Street and the potential to lump in additional tree purchases with those trees as that project involves a complete adjustment to the sidewalk infrastructure.

Discussion ensued about various design elements like Silva Cells, stormwater elements etc.

A. Lyon: It might be worth including signage if the design elements help with stormwater.

DRAFT

B. Hunt: What is the legality of using Conservation Fund money for the purchase of street trees?

J. Kaspari: Will confirm this but I don't foresee any barriers.

S. Fellows: This aligns with the mission of the Conservation Commission.

A. Lyon: It will be important to designate the potential street tree purchase as a distinct project and not establish that all street trees going forward would be funded through the Conservation Fund.

9. ADJOURNMENT

A. Lyon motioned to adjourn. S. Fellows seconded. Vote: 6 yes.

The meeting was adjourned at 6:15 PM.

DRAFT

January 26, 2023

Ref: 52932.00

Ms. Gina Cruikshank, Chairperson
Dover Planning Board
City Hall
288 Central Avenue
Dover, NH 03820

Re: City of Dover Conditional Use Permit Application
PSNH 307 Transmission Line OPGW Replacement Project, Dover, NH

Dear Ms. Cruikshank:

On behalf of Public Service of New Hampshire (PSNH) d/b/a Eversource Energy (Eversource), VHB is submitting this Conditional Use Permit (CUP) Application to the City of Dover Planning Board for proposed utility maintenance on the existing 345kV 307 transmission line in Dover, NH. This project qualifies for a Conditional Use Permit approval as a power line project within a utility right-of-way (ROW) within the Conservation and Wetland Protection Overlay Districts in accordance with *Article VIII Sections 170-27(C)(1)* and *170-27.1(F)(1),* respectively, of the City's Zoning Ordinance (as amended 10/13/2021). This CUP Application is being submitted in accordance with *Section 170-27.1* of the zoning ordinance, and is required for the proposed work to allow temporary impacts to wetlands and streams (and their associated buffers) protected under the Conservation and Wetland Protection Districts.

In accordance with NH RSA 482-A:3, XV, routine utility maintenance work is exempt from the standard wetland permitting process at the state level. However, PSNH is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification (SPN) and Alteration of Terrain (AoT) permit application to New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with use of timber matting within wetlands required to complete the proposed pole replacement work, and the upland ground disturbance along the ROW, respectively. VHB is currently assisting PSNH with these filings. As part of the permitting process, the City of Dover will receive a copy of these filings, anticipated for early spring 2023.

Existing Conditions

The project area involves maintenance work on the 307 electric transmission line in an existing ROW that varies in width from 100 feet to 200 feet in Dover, New Hampshire and extends from the Madbury municipal boundary to the Piscataqua River and the Eliot, Maine municipal boundary. The project ROW is comprised of property owned by Eversource and easements controlled by Eversource. The project ROW is intersected by Freshet Road, Overlook Drive and Quaker Lane which are located in vicinity of the proposed work (described below). Two unnamed, intermittent streams are located in vicinity of Overlook Drive and Quaker Lane. The project ROW contains dense emergent and scrub-shrub wetland and upland vegetation that is maintained (cut) on a three to five-year cycle to achieve vertical clearance requirements between ground

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vegetation and overhead transmission lines. The surrounding land use is a mix of forested, fields, open space, and residential and commercial properties.

Project Description

PSNH intends to perform maintenance work on the 345kV 307 Transmission Line involving a single utility structure replacement and optical ground wire (OPGW) replacement along the existing utility ROW in Dover as part of a larger project involving seven other communities. In total, the project extends approximately 19.24 miles, from the Deerfield Substation, in Deerfield, New Hampshire to the Eliot Substation in Eliot, Maine, although work is not occurring on all structures along the ROW. Prior to working on the OPGW, Structure 58 will need to be replaced in the same general location, i.e., within 10 feet to east and outside of the existing wetland. Adjustments are typically made to pole locations to account for existing conditions in the ROW and for access during construction. Pulling pads for the OPGW will also need to be established to either side of Structure 58. In addition, pulling pads will be necessary to the east and west of Structure 81, near the Madbury town line. Although much of the OPGW work will be performed aerially, i.e., by helicopter, some of the work involves on the ground activities. Since the proposed pole replacement work will occur within the limits of an existing cleared and maintained overhead electric utility ROW, no tree clearing or widening of the ROW is proposed. Work crews will access the project locations from existing public roadways that intersect the transmission line ROW, traveling within the limits of the existing cleared ROW corridor to reach the poles. Crews will establish access trails within the ROW in areas that minimize natural resource crossings and have suitable topography during the proposed maintenance work. Some grading may be necessary along the proposed upland access trails to provide a safe and stable surface for construction equipment travel. Stone-lined construction entrances will be established at entry points to the ROW in order to minimize the amount of material that is tracked to public roadway from the ROW.

In Dover, a single existing 90-foot wooden pole, i.e., Structure 58 will be replaced with a new 105-foot weathered steel pole with two guy wires, and will be located in upland. Weathered steel poles are more resilient to insect and woodpecker damage, and pole rot, and can further withstand typical New Hampshire storms and severe weather events. The wooden pole requires replacement due to its aged condition and inadequacy for the OPGW replacement upgrade. The increase in pole height is necessary to maintain minimum clearance safety standards and balance line sag. Access to the utility structure replacement location is from Overlook Drive. In addition to the pole replacement, two pulling pads will be established within the ROW approximately 250 feet to the west and east of Structure 58. Construction matting will be necessary to establish the Structure 58 work pad, part of which is located within a small wetland and within the municipal 50-foot wetland and stream buffers. Portions of the pulling pads are also located within the 50-foot wetland buffer and small portion of one of the stone construction entrances is located within the 50-foot stream buffer.

Work will also occur in vicinity of Structure 81, located near the Madbury/Dover municipal boundary, where two pulling pads are necessary approximately 200 feet west and 250 east of the structure. A portion of the western pulling pad is located within the wetland (which will be matted) and within the municipal 50-foot wetland buffer. A very small portion of the eastern pulling pad is located within the 50-foot wetland buffer. Access to this ROW location is from Freshet Road on the Madbury side of the boundary which intersects the ROW. All work locations in Dover are shown on the attached **Project Plans**.

The maintenance activities are scheduled to commence in the late spring/summer 2023. As mentioned above, construction timber matting will be necessary in a couple locations. Any construction laydown areas required for equipment and material staging during pole replacement will be situated in upland areas along the existing ROW corridor. Ground disturbance and grading will be kept to a minimum and will be limited to an approximate 100-foot by 100-foot construction work pad around the replacement Structure 58. A smaller construction pad measuring approximately 50 feet by 50 feet will be needed at Structure 81. Pulling pad location dimensions are approximately 50 feet by 100 feet. Generally, work pads are positioned 70/30 as opposed to centered on the poles to provide more space in front of the new pole location to facilitate installation. However, the work pads may be shifted or reduced in size to avoid and minimize natural resource impacts, to the extent practical, as depicted on the **Project Plans.**

Erosion and Sediment Controls

Prior to accessing the ROW with construction equipment, crews will install wildlife friendly erosion and sediment control barriers in accordance with permitting plans and details, New Hampshire Department of Environmental Services (NHDES) conditions, and the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire* (or "Utility BMP Manual," March 2019), published by the New Hampshire Department of Natural and Cultural Resources (NHDNCR). Selected erosion and sediment control barriers may include silt sock, silt fence, and/or wood chip/compost berms/tubes. Additional Best Management Practices (BMPs) such as stabilized construction exits, water bars, and erosion control blankets will also be utilized along proposed access ways and adjacent to structure locations in order to manage stormwater run-off, reduce erosion and stabilize soils.

Installed erosion controls and other installed utility BMPs will be inspected daily by the contractor crews and weekly by a qualified environmental monitor, hired by PSNH, to ensure proper functionality and maintenance. Erosion and sediment control barriers will not be removed until project work is complete, and project areas are stabilized in accordance with NHDES guidance.

As soon as possible after the completion of the structure replacement work, timber matting and construction debris will be removed from the project ROW. Construction debris will be properly disposed of off-site. Timber matting will not remain in place for longer than one growing season. Stabilization and restoration of disturbed areas/exposed soils will be initiated as soon as possible once timber mats are pulled and structural work is completed. Due to the use of timber mats, it is anticipated that minimal restoration within the wetlands will be required, and that natural vegetative re-colonization of impacted areas will occur during summer vegetative growth periods in 2023. VHB will visit the project ROW post-construction to assess conditions, provide guidance to work crews on restoration, and determine if additional promotion of vegetation (seeding) is required. If necessary, a native upland and/or wetland seed mix will be applied to any areas where cover is slow to develop. Additionally, straw or weed-free hay will be applied in conjunction with seed. In accordance with Env-Wt 307.12(f), if the temporarily impacted areas do not have at least 75% revegetation after two growing seasons, replanting, or reseeding would occur in those areas.

Invasive Species Management

Several invasive plant species, varying in density, are present within the project ROW based on field observations made by VHB. Species include multi-flora rose (*Rosa multiflora*), honeysuckle (*Lonicera* sp.), and oriental bittersweet (*Celastrus orbiculatus)*. Invasive plant species readily colonize disturbed areas and

habitat edges, such as ROW corridors. Invasive species management during project construction will adhere to guidance provided in the Utility BMP Manual. Prior to the commencement of work, clearing and pole/line construction crews will be briefed on the invasive plant species present within the ROW and the modes of dispersal and spread of these species.

All equipment, including timber mats, arriving to the site will be visually inspected to ensure that it is clean prior to off-loading. "Clean" is defined as being free of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials. Additionally, any equipment that has been placed or used within areas containing invasive species within the ROW will be cleaned of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the ROW to minimize the spread of invasive species from one area to another. Equipment will be cleaned prior to being removed at the completion of the project. Cleaning will be accomplished by utilizing hand tools, shaking/dropping mats to dislodge any attached material, and/or compressed air.

Delineated Natural Resources

Portions of the proposed project fall within the City of Dover's Wetland Protection District as defined in *Article VIII Section 170-27.1(C)* of the zoning ordinance to include all wetlands that were delineated within the project area by a NH Certified Wetland Scientist in accordance with the applicable regulations. Jurisdictional wetlands and surface waters within the project ROW were reviewed and boundaries were reflagged by VHB Wetland Scientists in November 2022. The wetland delineation was conducted in accordance with the procedures and standards outlined in the *1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region,* Version 2.0 (January 2012) using alpha-numerically coded pink flagging tape. Wetland delineation also relied upon the *Field Indicators for Identifying Hydric Soils in the United States,* Version 8.2, published by the Natural Resource Conservation Service and the *Field Indicators for Identifying Hydric Soils in New England,* Version 4.0, published by the New England Interstate Water Pollution Control Commission in April 2019. Dominant wetland vegetation was assessed using the *2018 National Wetland Plant List* published by the U.S. Army Corps of Engineers. Wetlands were classified using the USFWS methodology *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979, revised 1985). No vernal pools were identified within the ROW during this field work.

In Dover, palustrine emergent (PEM) or palustrine scrub-shrub (PSS) wetlands intersect the existing 307 Line ROW, along with several intermittent streams and three (3) named perennial streams, including Johnson Creek, Bellamy River, and Varney Brook (not including the Cocheco River/Piscataqua River crossing at the eastern end of the project corridor). Delineated resources are depicted on the attached **Project Plans** and are described below. **Representative Site Photographs** are also attached.

Wetland Vegetation

Emergent and scrub-shrub palustrine wetlands are present within the existing utility ROW. Wetland and upland vegetation along the ROW is periodically mechanically cut to maintain safe vertical and horizontal clearance distances from the existing overhead distribution lines, thus maintaining a dense shrub-type habitat. Species typically found within these wetlands include tree species, which are not permitted to grow beyond a sapling growth stage, including red maple (*Acer rubrum*) and species of birch (*Betula* spp.). Common dominant shrub species found within these wetlands include white meadowsweet (*Spiraea alba*),

steeplebush (*Spiraea tomentosa*), maleberry (*Lyonia ligustrina*), arrowwood (*Viburnum recognitum*), and speckled alder (*Alnus incana*).

Palustrine emergent portions of these wetlands are typically dominated by cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), various species of sedge (*Carex* spp.), rough-stemmed goldenrod (*Solidago rugosa*), soft rush (*Juncus effusus*), swamp dewberry (*Rubus hispidus*), narrowleaf cattail (*Typha angustifolia*), arrow-leaved tearthumb (*Persicaria sagittata*), reed canary grass (*Phalaris arundinacea*), white meadowsweet, and peat moss (*Sphagnum* sp.).

Wetland Hydrology and Hydric Soils

Typical indicators of wetland hydrology observed throughout the project ROW wetlands include surface water (A1), saturation (A3), water-stained leaves (B9), drainage patterns (B10), and geomorphic position (D2). Typical indicators of hydric soils observed throughout the project ROW wetlands include Hydric Soil Indicators F3: Depleted Matrix and F6: Redox Dark Surface.

Functions and Values

Most of the wetlands within the ROW are currently maintained as either scrub-shrub or emergent habitat (or a mix thereof). Scrub-shrub wetlands, when associated with a stream, often receive over bank flooding and are significant in flood alteration and often protect stream banks from erosion. Scrub-shrub wetlands are productive in terms of food resources where they support berried varieties of shrubs. These wetlands tend to be more structurally diverse and can support diverse wildlife species. This is especially true when they are associated with streams that can act as wildlife corridors or that offer a wider range of local habitat conditions. However, when not associated with a stream, hydrologically isolated, and small, these wetlands tend to exhibit limited functions and values.

None of the proposed impacts associated with this project are expected to permanently alter the hydrology of wetlands (i.e., no inflow/outflow restrictions) along the existing or proposed ROW resulting from the timber mats (which will be in place for less than one growing season) as they minimize soil compaction and water can pass beneath and through the timber matting while it is in place. Therefore, the proposed project will not permanently impact water quality and hydrologic functions. These functions include groundwater recharge/discharge, floodflow alteration, sediment and nutrient trapping, production export, or shoreline stabilization which are performed by wetlands within the project ROW. Some temporary, short-term impacts to the wildlife habitat wetland function are anticipated during the construction period due to temporary construction-related noise and the presence of work crews and equipment.

Proposed Overlay District Impacts

Impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, the positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location/orientation of work pads. Stream and stream buffer impacts are completely avoided. Given the overlapping overlay districts and associated buffers, temporary impacts in **Table 1** below are quantified as "delineated wetland" and "municipal buffer" impacts.

Table 1: Proposed Temporary Impacts

Impact Type	Impact Area (Square Feet)
Delineated Wetland	2,796
Municipal Buffer	13,471
Total	**16,267**

Conditional Use Permit Procedures and Requirements

The Dover Zoning Ordinance provides that CUP applications can be approved for limited and regulated uses by the Planning Board if it is found that the use is consistent with the ordinance and does not have an adverse impact on the natural resources and jurisdictional areas within the overlay districts.

Conservation District

A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27(C)(2)* for the Conservation District*:*

(a) The applicant shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.

The proposed maintenance work is required to maintain the reliability of the existing infrastructure that provides electricity to the regional grid. Maintaining the flow of electricity to developed regions of the state is essential to the safety and productivity of those communities. All work has been designed to avoid and minimize impacts to the Conservation and Wetland Protection Districts to the extent practical while accomplishing the project objectives of replacing the target pole.

(b) A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:

(i) stabilization of exposed soils and soil stockpiles; **Exposed upland soils will be seeded and stabilized with straw mulch to prevent erosion while vegetation is establishing. Following removal of timber mats from wetland areas, any exposed soils will be stabilized with weed-free straw and allowed to reestablish within the next growing season. If some areas are slow to establish, NHDES-approved wetland seed mixes may be applied. Temporary soil stockpiles, if applicable, will be temporarily stabilized and surrounded by erosion controls (i.e., silt sock and/or silt fence), as necessary, to contain the sediment.**

(ii) protection of steep SLOPEs from erosion; **Work in steep slope areas is not part of this project.**

(iii) construction site waste management; **Old poles and equipment and any construction debris will be removed from the site and properly disposed.**

(iv) inspection and maintenance of runoff control measures (BMPs); **An environmental monitor hired by PSNH will be responsible for conducting weekly monitoring of the project to ensure the work is occurring in accordance with the approved plans and that erosion controls are functioning as intended (and recommend corrective actions if/as applicable). Furthermore, the selected contractor will be responsible for daily monitoring of the erosion controls.**

(v) minimization of land clearing; **No tree clearing is proposed as part of this project; however, brush removal and tree trimming along the existing access roads within the ROW may be required.**

(vi) stabilization of drainage ways; **Not applicable to this project.**

(vii) installation of perimeter controls; **Erosion control measures such as silt fence and/or silt sock will be used to protect the adjacent natural resources where necessary.**

(viii) installation of sediment trapping devices; and **Not applicable to this project.**

(ix) storm drain inlet protection. **Not applicable to this project.**

(c) Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.

A Utility Maintenance Activity SPN and AoT permit application for the proposed project will be submitted to NHDES for state-level environmental permitting commensurate with, or shortly after, submission of this CUP application.

(d) A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:

(i) attempted avoidance of the impact;

(ii) minimization of the impact;

(iii) planned mitigation of the effects of the impact; and

(iv) efficacy of the soil erosion and sedimentation control plan.

We request that the Conservation Commission compose a letter to the Planning Board addressing these items and stating any recommendations and concurrence for the project. These items are addressed elsewhere in this application.

<u>Wetland Protection District</u>

A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27.1(F)(1)* of the Wetland Protection District:

(a) Practicable Alternative: <u>There is no practicable alternative that would have a less adverse impact on the area.</u>

Avoidance and minimization of natural resource impacts was a main consideration throughout the project design and implementation, coupled with construction feasibility and safety. All access routes were selected through site walks with PSNH, and work and pulling pads were positioned to avoid natural resource impacts to the extent practical while still accomplishing the project objectives (such as replacing Structure 58 further to the east of

the wetland). Given the avoidance and minimization efforts employed throughout the plan development, it is our opinion that there is no practicable alternative that would have less impact. It should also be noted that impacts associated with this work are temporary and will be restored.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Wetland Protection Districts have been avoided to the extent practical while still accomplishing the project objectives. Stream and stream buffer impacts are completely avoided.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction, and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.*
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Conservation and Wetland Protection Districts have been minimized to the extent practical while still accomplishing the project objectives. The use of timber matting further minimizes impacts by reducing ground pressure and preventing rutting within wetlands. Any inadvertently rutted areas will be restored.

(d) *Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.*
Not applicable.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*
A Utility Maintenance Activity SPN for the proposed project will be submitted to the NHDES Wetlands Bureau in early Spring 2023 to cover environmental permitting at the state level for the proposed temporary wetland impacts.

Property Ownership and Abutters

It is our understanding that the City of Dover will prepare the abutting property list and invoice the applicant for the applicable fee (which must be paid at least 28 hours in advance of the Planning Board meeting).

Please do not hesitate to contact me if you have any questions at (603) 391-3951 or strefry@vhb.com.

Sincerely,

Sherrie Trefry

Sherrie Trefry, CSS
Energy Market Leader

cc: Kurt Nelson, PSNH

Attachments:

- City of Dover Conditional Use Permit Application Form
- Tax Maps
- USGS Map
- Representative Site Photos
- Project Plans

City of Dover, New Hampshire
CONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #: _____	Date Received: _____
	Amount Paid: _____	Time Received: _____

APPLICANT AND OWNER INFORMATION

Name of Applicant: Public Service of NH d/b/a Eversource Energy c/o Kurt Nelson Telephone #603-714-3031

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: kurt.nelson@eversource.com

Name of Property Owner (if different from applicant): SAME Telephone # SAME

Address of Property Owner: SAME AS APPLICANT

PROPERTY INFORMATION

Assessor's Map # H-4 and M-83 Lot(s) #0 and 5, 6, 9, 10, 11, 12, 13 (within existing transmission ROW)

Address of Property: East of Freshet Road at Madbury town line, and west of Overlook Drive east to Quaker Lane

Zoning District(s) I-4 Assembly and Office, and R-40 Rural Residential Overlay District(s) Conservation and Wetland Protection

Existing Use of Property: Actively maintained PSNH 307 Line electrical transmission ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

Public Service of New Hampshire (PSNH) d/b/a Eversource Energy intends to perform maintenance work on the 345kV 307 Transmission Line involving a single utility structure replacement and optical ground wire (OPGW) replacement along the existing utility ROW in Dover as part of a larger project involving seven other communities. Prior to working on the OPGW, Structure 58 will need to be replaced in the same general location, i.e., within 10 feet to east and outside of the existing wetland. Adjustments are made to pole locations to account for existing conditions in the ROW and for access during construction. OPGW replacement work will also be done aerially, i.e., by helicopter. Pull pads will need to be established to either side of Structure 58. Construction matting will be necessary to establish the Structure 58 work pad, part of which is located within a small wetland and within the municipal 50-foot wetland buffer. In addition, pulling pads will be necessary to the east and west of Structure 81, near the Madbury town line. A portion of the western pulling pad is located within the wetland (which will be matted) and within the municipal 50-foot wetland buffer. A very small portion of the eastern pulling pad is located within the 50-foot wetland buffer. All work locations in Dover are shown on the attached Project Plans.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: NHDES Utility Maintenance Activity Statutory Permit by Notification (SPN) and NHDES Alteration of Terrain Permit. Both are currently being drafted

Name of Professional That Prepared Plans: Jacob J. Tinus, CWS, CPESC

Address 2 Bedford Farms Drive, Suite 200, Bedford, NH 03110 Telephone #:603-391-3899

Professional License #: CWS 228 and CPESC 3900 E-mail address: jtinus@vhb.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner: _____ Date: 1/24/23

Signature of Applicant (if different from owner): _____Date: _____

Signature of Agent: Shenie Trefry _____Date: 1/24/23

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner: _____ Date:

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Existing Utility ROW	(Easement Rights)	PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS
Kurt Nelson	PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Sherrie Trefry	VHB	2 Bedford Farms Drive, Suite 200, Bedfor, NH 03110

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

PLANNING BOARD FEE SCHEDULE/INVOICE

(Revised July 1, 2021)

Below are the fees associated with plan review and are subject to a nonrefundable application fee to cover administrative expenses. Please complete the information below and provide payment with your application submittal. **Plan Review Fees shall be paid prior to technical review committee (TRC) being scheduled.** For plans not requiring TRC review, **fees are due 21 days prior** to the Planning Board meeting. Staff will coordinate abutter/notice fees, which will be invoiced and must be paid 28 hours before the Planning Board meeting for an application to be heard. Fees shall be paid by cash or check made payable to "City of Dover".

A. Plan Review Fees

1. Application fee for the following (SELECT ALL THAT APPLY):

- ☐ SUBDIVISION Application fee $200.00 + $150.00 x # _____ new lots created = $_____
- ☐ LOT LINE ADJUSTMENT Application fee $200.00 + $100.00 X # ___ of lots involved = $_____
- ☐ TRANSFER OF DEVELOPMENT RIGHTS Application fee $200.00 = $_____
- ☐ SITE REVIEW – RESIDENTIAL Application fee $200.00+ $100.00 x # __ per dwelling unit =$_____
- ☐ SITE REVIEW – NON-RESIDENTIAL Application fee $200.00 + (not to exceed $10,000)
  - New construction $.15 sq. ft. x # _____ sq. ft.= $_____
  - Additions (new floor space) $.10 per sq. ft. x # _____sq. ft.= $_____
- ☐ MOTEL/HOTEL $35.00 x # ___ per lodging unit= $_____
- ☐ CHANGE OF USE Application fee $200.00 + (not to exceed $5,000)
  - Existing floor spaces $.10 per sq. ft. x # _____ sq. ft. = $_____
- ☒ CONDITIONAL USE PERMIT Application fee $200.00 x # **1** per Application = $**200.00**
- ☐ GRAVEL PIT/ EXCAVATIONS
  - Application fee $50.00= $_____
  - Permit fee $75.00= $_____
- ☐ EXTENSIONS/AMENDMENTS/WAIVERS FOR AN APPROVED PLAN Application fee $200.00 = $_____
- ☐ REQUEST FOR REZONING Application fee $200.00 = $_____
- ☐ DRIVEWAY WAIVER Application fee $200.00 = $_____

2. TOTAL IMPERVIOUS PAVED AREA (for new development, roadways or additions to existing parking lots, (not to exceed $10,000)) Application fee of $200.00 is N/A if it is part of a Site Review or Subdivision Plan. $200.00 + $.07 per sq. ft. x # _____ sq. ft. = $_____

SUBTOTAL PLAN REVIEW FEE (A) = $200.00

AND

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will review the list for accuracy and provide to us the engineer, architect, licensed land surveyor (LLS), licensed landscape architect (LLA) and/or soil scientist whose professional seal appears on the plan with names and addresses for notices.

- ☐ Applicant & Owner, engineer, architect, LLS, LLA and/or soil scientist
  - Certified letters fee # _____ of x $8.00= $_____
- ☐ Certified letters fee: # of abutters _____ X $8.00= $_____
- ☐ First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X $1.00= $_____
- ☐ Creating/Printing Abutter Labels in triplicate per sheet _____ x $10.00= $_____

C. Foster's newspaper public notice fee $100.00 x # _____ applications = $_____

SUBTOTAL NOTICE FEE (B & C) = $_____

TOTAL INVOICE AMOUNT (A, B & C) = $_____

PLAN REVIEW FEE COLLECTED/PAID = $ _____

BALANCE DUE = $ _____

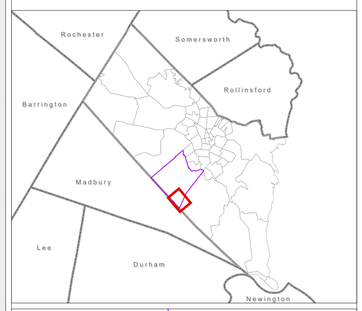
The balance due must be paid 28 hours prior to the Planning Board Meeting, to be heard.

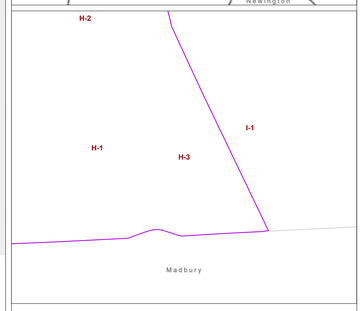
CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: H-3



- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





200 100 0 200 Feet

1:1,200
1 " = 100 '

This map is for assessment and planning purposes only. It is not intended to be used for description, conveyance, authoritative definition of any legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation associated with the data on which this map is based for information related to its accuracy, currentness and limitations.

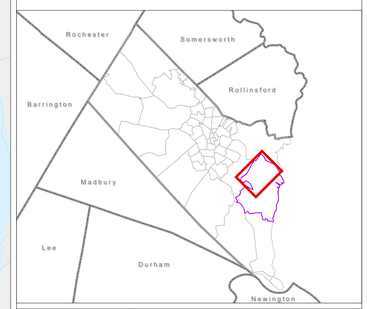
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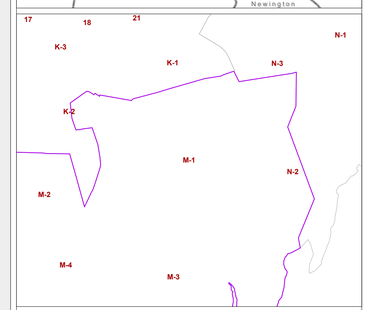
AppGeo

CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: M-1

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





400 200 0 400 Feet

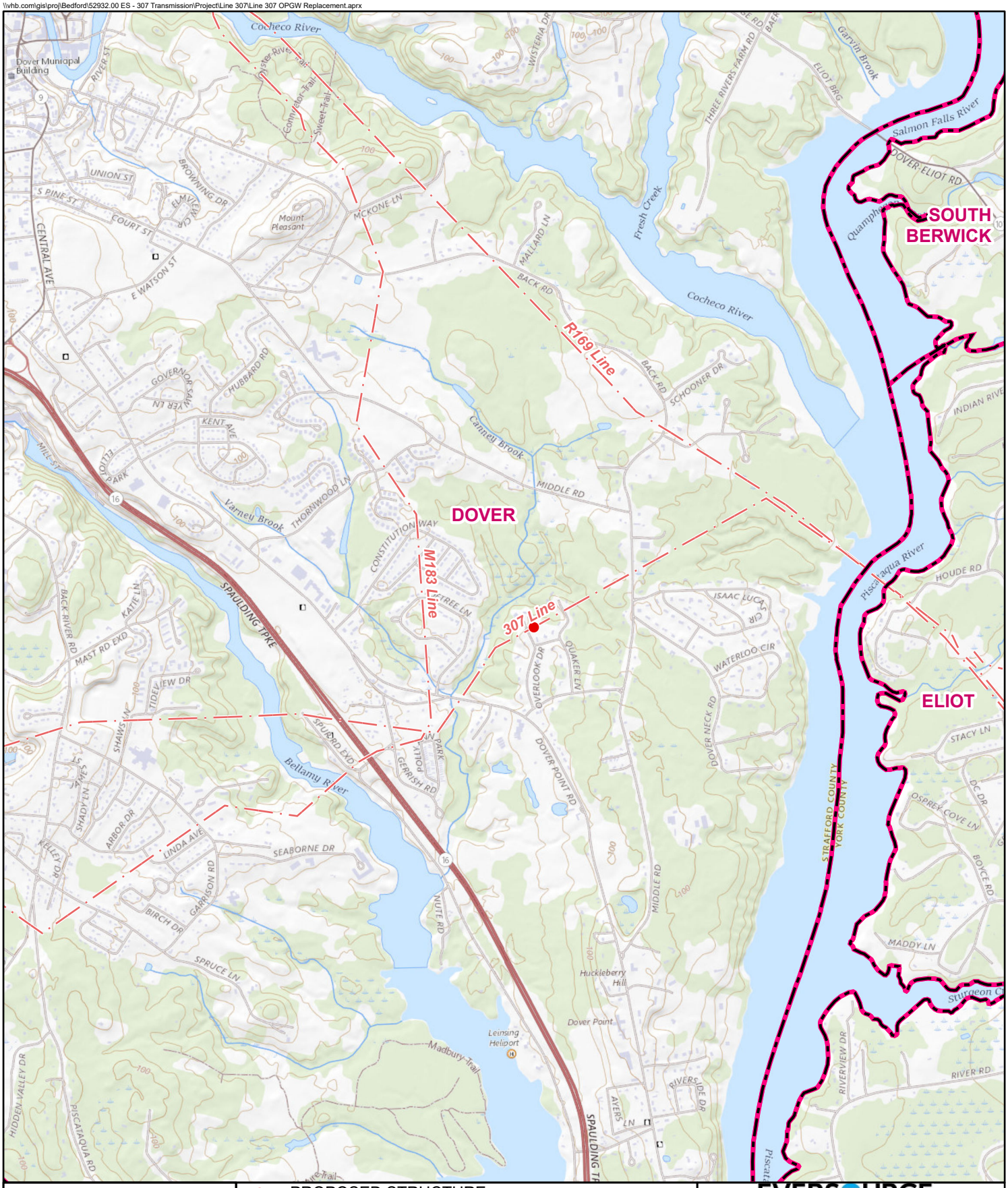
1:2,400
1 " = 200 '

This map is for assessment and planning purposes only. It is not intended to be used for description, conveyance, authoritative definition of any legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation associated with the data on which this map is based for information related to its accuracy, currentness and limitations.

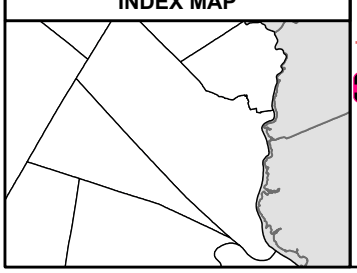
Map Generated: Thursday, July 5, 2018

AppGeo

\\vhb.com\gis\proj\Bedford\52932.00 ES - 307 Transmission\Project\Line 307\Line 307 OPGW Replacement.aprx



INDEX MAP



- PROPOSED STRUCTURE
- OVERHEAD EVERSOURCE LINE
- MUNICIPAL BOUNDARY

N

1 Inch = 2,000 feet

0 1,000 2,000 Feet

EVERSOURCE ENERGY

307 Line Structure Replacement Project
USGS Locus Map
Dover, NH

Date: January 18, 2023

vhb

Representative Site Photographs – 1/9/22
Line 307 OPGW Replacement Project – Dover, NH



Photo 1: View northeast of proposed wetland timber matting location at Structure 58 off Overlook Drive.



Photo 2: View of northwest edge of emergent and scrub-shrub wetland along Overlook Drive by Structure 58 where timber matting is proposed.

Representative Site Photographs – 1/9/22
Line 307 OPGW Replacement Project – Dover, NH



Photo 3: View northeast across emergent and scrub-shrub wetland adjacent to Structure 58 where timber matting is proposed.



Photo 4: View northeast along ROW off Overlook Drive toward Structure 57 where pull-pad will be located in upland area.

Representative Site Photographs – 1/9/22
Line 307 OPGW Replacement Project – Dover, NH



Photo 5: View southeast toward Overlook Drive from Structure 58 with Structure 59 in the distance. Pull-pad to be established in upland area between Overlook Drive and Structure 59.



Photo 6: View east from Freshet Road looking Structure 81. Scrub-shrub wetland and matting location in foreground.



Photo 7: View north of scrub-shrub wetland at matting location adjacent to Structure 81 off Freshet Road.



Photo 8: View east along transmission line ROW, Structure 81 near and Structure 80 in distance. Pull-pad to be established in upland between Structure 81 and Structure 80.



Photo 9: View northeast of Structure 81 where OPGW replacement is proposed as part of Project.



Photo 10: View west along transmission ROW from Structure 81 and existing access from Freshet Road near the Madbury and Dover municipal boundary.

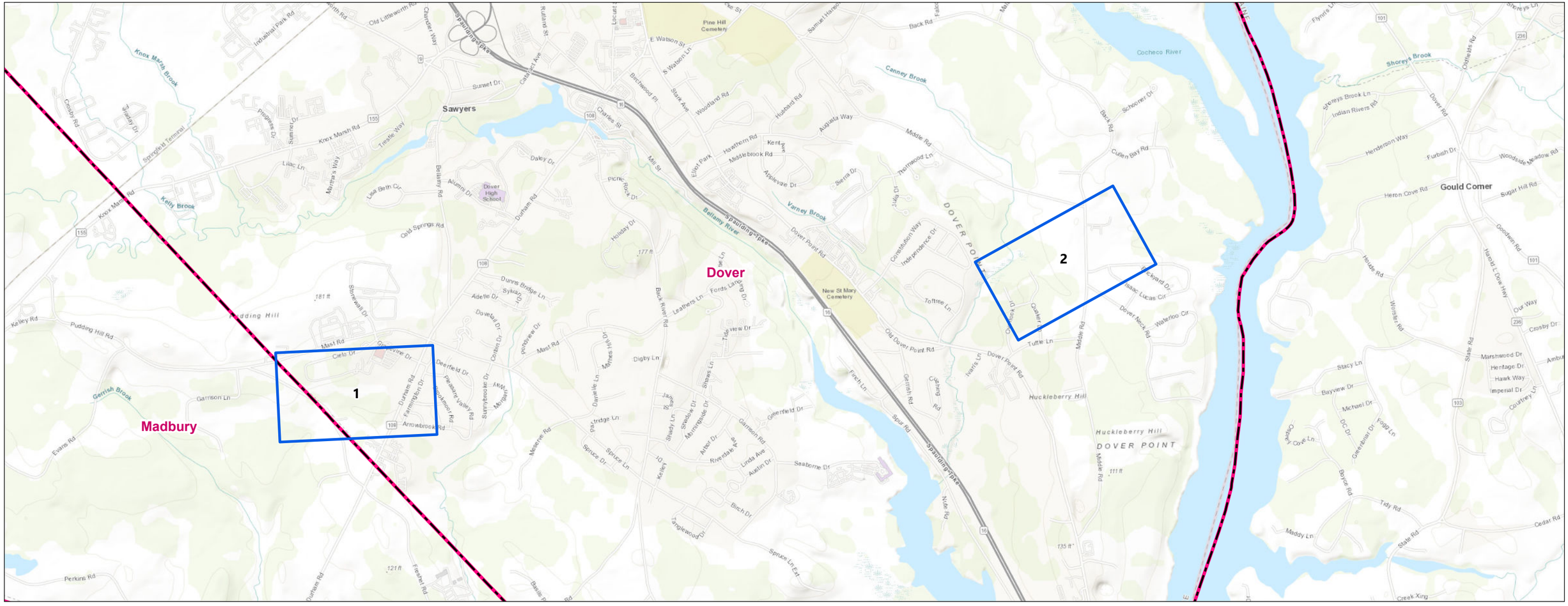
307 Line - OPGW Replacement Project

Dover, NH

Dover Permitting Plan

FINAL Map Set

Date: January 17, 2023



Map Index

Municipal Boundary

N

0 0.5 1 Miles

INDEX OF FIGURES

Title Sheet / Index Map

Map Sheets 1-2

NO.	DATE	REVISIONS

PREPARED FOR:

EVERSOURCE ENERGY

107 Selden Street
Berlin, CT 06037

PREPARED BY:

vhb

2 Bedford Farms Drive, Suite 200
Bedford, NH 03110

Parcel ID	Owner Name	Address	Town	State	Zip Code
H0002-A00000	Johnson, Joanne	18 Freshnet Road	Dover	NH	03820
H0004-003000	Dover Fields Condominum C/O Dover Investments LLC	48 Constitution Drive	Bedford	NH	03110
H0004-000000	Heron Bay Partners Llc	242 Central Avenue	Dover	NH	03820
H0004-000001	Heron Bay Partners Llc	243 Central Avenue	Dover	NH	03820
H0004-000002	Kotlus Anne	2 Cielo Drive	Dover	NH	03820
H0004-000004	Comeau Esther M Trustee	4 Cielo Drive	Dover	NH	03820
H0004-000005	Langa Michelle A	5 Cielo Drive	Dover	NH	03820
H0004-000006	Edwards Judith A Trustee	6 Cielo Drive	Dover	NH	03820
H0004-000007	Caddle William Jeffrey & Janet Caddle	7 Cielo Drive	Dover	NH	03820
H0004-000008	Langdon Joanne E	8 Cielo Drive	Dover	NH	03820
H0004-000009	Plante Kevin R & Diane S Trustees	9 Cielo Drive	Dover	NH	03820
H0004-000010	Gauvin Albert J & Kathy P Perron	10 Cielo Drive	Dover	NH	03820
H0004-000011	Rivoire David J & Joyce C Trustees	11 Cielo Drive	Dover	NH	03820
H0004-000012	Dixon Peter J & Sally J Trustees	12 Cielo Drive	Dover	NH	03820
H0004-000013	Barr Deborah A Trustee	13 Cielo Drive	Dover	NH	03820
H0004-000014	Nardella Linda Trustee	14 Cielo Drive	Dover	NH	03820
H0004-000015	Noyes Debra Trustee	15 Cielo Drive	Dover	NH	03820
H0004-000016	Scott Richard A & Carolyn Scott	16 Cielo Drive	Dover	NH	03820
H0004-000017	Croteau Linda M	17 Cielo Drive	Dover	NH	03820
H0004-000018	Kilmain Stephen J	18 Cielo Drive	Dover	NH	03820
H0004-000019	Ashman John C	19 Cielo Drive	Dover	NH	03820
H0004-000020	Brothwell John & Barbara Brothwell	20 Cielo Drive	Dover	NH	03820
H0004-000021	Morris Lucille	21 Cielo Drive	Dover	NH	03820
H0004-000022	Poyant Mark F & Sandra J Trustees	22 Cielo Drive	Dover	NH	03820
H0004-000023	Daigle David C & Catherine A Daigle	23 Cielo Drive	Dover	NH	03820
H0004-000024	Athans-Hoogeveen Barbara Trustee	89 Boxwood Lane	Dover	NH	03820
H0004-000025	Kline Joseph K & Susan Trustees	25 Cielo Drive	Dover	NH	03820
H0004-000026	Rouff Priscilla Trustee	26 Cielo Drive	Dover	NH	03820
H0004-000028	Baur Ulrich & Sybille	28 Cielo Drive	Dover	NH	03820
H0004-000029	Stearns Charlene	29 Cielo Drive	Dover	NH	03820-4146
H0004-000030	Herpich Susan L Trustee	30 Cielo Drive	Dover	NH	03820
H0004-000031	Sandberg Barry & Mona R	31 Cielo Drive	Dover	NH	03820
H0004-000032	Netzel Jeanette Trustee	32 Cielo Drive	Dover	NH	03820

H0004-000033	Schulten Carolyn H & Stephen B Co-Trustees	18 Cote Drive	Dover	NH	03820
H0004-000034	Beane Pamela S Successor Trustee	34 Cielo Drive	Dover	NH	03820
H0004-000035	Theoret Roger A & Pauline C Trustees	35 Cielo Drive	Dover	NH	03820-5608
H0004-000036	Duffy J Patrick & Karen B	536 Middle Road	Dover	NH	03820-4933
H0004-000037	Echols Nancy J	37 Cielo Drive	Dover	NH	03820
H0004-000038	Carlson Victor R & Barbara C Trustees	38 Cielo Drive	Dover	NH	03820-5607
H0004-000039	Goscinski Louis J & Donna Co-Trustees	39 Cielo Drive	Dover	NH	03820
H0004-000040	Kelley Kevin D	PO Box 141	Milton	NH	03851-0141
H0004-000041	Blew David S Iii	41 Cielo Drive	Dover	NH	03820
H0004-000042	Richards Beatrice E Trustee	42 Cielo Drive	Dover	NH	03820
H0004-000043	Nichols Aaron R & Anne M Trustees	80 Cottonwood Drive	Dover	NH	03820
H0004-000044	Morphew James A Jr &	44 Cielo Drive	Dover	NH	03820
H0004-000045	Turmelle Thomas C & Quin Kevin Jd Trustee	45 Cielo Drive	Dover	NH	03820
H0004-000046	Norden Valle G & Daily B Trustees	46 Cielo Drive	Dover	NH	03820
H0004-000047	Dolbec Richard E & Elaine M Trustee	47 Cielo Drive	Dover	NH	03820
H0004-000048	Morjaria Nicole M Trustee	48 Cielo Drive	Dover	NH	03820
H0004-000049	Martin Bradbury Susan L Trustee	49 Cielo Drive	Dover	NH	03820
H0004-000050	Haskell Susan L Trustee	50 Cielo Drive	Dover	NH	03820
H0004-000051	Blackburn John R	55 Hemlock Court	Newfields	NH	03856
H0004-000052	Mcphee Robert L & Lynda R Trustees	52 Cielo Drive	Dover	NH	03820
H0004-000053	Monteiro Alexandrino J Trustee	53 Cielo Drive	Dover	NH	03820
H0004-000054	Keefe William S & Shelley C Co-Trustees	54 Cielo Drive	Dover	NH	03820
H0004-000055	Canino Michael A & Brenda K	55 Cielo Drive	Dover	NH	03820
H0004-000056	Brayton Jacqueline L Trustee	56 Cielo Drive	Dover	NH	03820
H0004-000058	Schulte Nancy L & James H Trustees	58 Cielo Drive	Dover	NH	03820
H0004-000060	Ricker Donna M Trustee	60 Cielo Drive	Dover	NH	03820
H0004-000062	Greco Michael B	62 Cielo Drive	Dover	NH	03820
H0004-000064	Jones Heather Trustee	64 Cielo Drive	Dover	NH	03820-5607
H0004-000066	Atherton Wayne M & Janice M Trustees	66 Cielo Drive	Dover	NH	03820-5607
H0004-000068	Vassallo Diane	70 Cielo Drive	Dover	NH	03820
H0004-000070	Boothby Louise	72 Cielo Drive	Dover	NH	03820
H0004-000072	Lindsay Timothy & Cheryl Trustees	4 Bayview Road	Dover	NH	03820
H0004-000076	Larson Roland E	76 Cielo Drive	Dover	NH	03820
H0004-000078	Menez Joan E Trustee	78 Cielo Drive	Dover	NH	03820

H0004-000080	Heron Bay Partners Llc	242 Central Avenue	Dover	NH	03820
H0004-000082	Merrill Lissa A	82 Cielo Drive	Dover	NH	03820

Temporary Impact Summary	
Temporary Matting Impact (SF)	**Temporary Municipal Buffer Impact**
773	624

TEMPORARY WETLAND IMPACT: 773 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 92 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 532 SF

H0004-000000 H0004-000001 H0004-000002 H0004-000004 H0004-000005 H0004-000006 H0004-000007 H0004-000008 H0004-000009 H0004-000010 H0004-000011 H0004-000012 H0004-000013 H0004-000014 H0004-000015 H0004-000016 H0004-000017 H0004-000018 H0004-000019 H0004-000020 H0004-000021 H0004-000022 H0004-000023 H0004-000024 H0004-000025 H0004-000026 H0004-000028 H0004-000029 H0004-000030 H0004-000031 H0004-000032 H0004-000033 H0004-000034 H0004-000035 H0004-000036 H0004-000037 H0004-000038 H0004-000039 H0004-000040 H0004-000041 H0004-000042 H0004-000043 H0004-000044 H0004-000045 H0004-000046 H0004-000047 H0004-000048 H0004-000049 H0004-000050 H0004-000051 H0004-000052 H0004-000053 H0004-000054 H0004-000055 H0004-000056 H0004-000058 H0004-000060 H0004-000062 H0004-000064 H0004-000066 H0004-000070 H0004-000072 H0004-000074 H0004-000076 H0004-000078 H0004-000080 H0004-000081 H0004-000082 H0004-000083 H0004-000085 H0004-000087 H0002-A0000

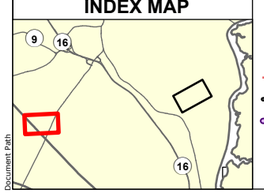
307 Line M183 Line

Cielo Drive Grapevine Drive Deerfield Drive Timrod Road Brookmoor Road Durham Road Farmington Drive Freshet Road Chartergrant Road Deepwood Drive Cloverdale Circle Arrowbrook Road

Dover Madbury

19 20 21 22 23 24 25 78 79 80 81 82

INDEX MAP



Document Path:

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Access
- Existing Off ROW Access
- Watercourse (not delineated)
- Delineated Stream
- 50-ft Wetland Buffer
- 50-ft Stream Buffer
- Delineated Wetland Boundary
- Field Delineated Wetland
- Open Water
- FEMA 100-Year Flood Zone
- Gate
- Culvert Inlet/Outlet
- Stablized Construction Exit
- Erosion Control Barrier
- Temporary Construction Matting
- Temporary Upland Matting
- Pull Pad/Work Pad
- Temporary Municipal Buffer Impact
- 2-ft Contours
- 10-ft Contours
- Parcel Boundary
- Municipal Boundary
- Eversouce Owned Property
- Existing Right-of-Way

JACOB J. TINUS No. 228

N

1:2,400

0 50 100 200 Feet

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

307 Line Structure Replacement - Dover Permitting Plans

Dover, NH | Page 1 of 2

Date: January, 2023

vhb

Parcel ID	Owner Name	Address	Town	State	Zip Code
M0083-030000	City of Dover	228 Central Avenue	Dover	NH	03820
M0083-005000	McGary Daniel A & Kerianne M	38 Overlook Drive	Dover	NH	03820
M0083-006000	Leslie Brian & Susan	48 Overlook Drive	Dover	NH	03820
M0083-007000	Prince, Nicholas Ray & Vanessa Rose	52 Overlook Drive	Dover	NH	03820
M0083-008000	Ernsting Susan M Trustee	51 Overlook Drive	Dover	NH	03820
M0083-009000	Ferrell Eric N	47 Overlook Drive	Dover	NH	03820
M0083-010000	Lacasse Christopher M & Jillian M	39 Overlook Drive	Dover	NH	03820
M0083-011000	Blomstrom Michael T & Cotton-Blomstrom, Kathleen	8 Canney Lane	Dover	NH	03820
M0083-012000	Kernanader Adam J & Erika	34 Quaker Lane	Dover	NH	03820
M0083-013000	Treadwell Gary A & Kim O	44 Quaker Lane	Dover	NH	03820
M0083-014000	Costello Mark M & Maria C	60 Quaker Lane	Dover	NH	03820
M0083-015000	Comeford, Jeremiah	PO Box 1173	Dover	NH	03820
M0083-016000	Trochalakis Nicholas P & Makaela M	59 Quaker Lane	Dover	NH	03820
M0083-017000	Demarco Gordon A	49 Quaker Lane	Dover	NH	03820
M0083-018000	Butt R Peter II & Ruth Anne M	45 Quaker Lane	Dover	NH	03820
M0083-019000	Spinney David A & Rosemarie	33 Quaker Lane	Dover	NH	03820
M0083-024000	Strong Nicholas E & Melanie A	9 Canney Lane	Dover	NH	03820
M0083-025000	Kula Stephen G & Joan M	3 Canney Lane	Dover	NH	03820

Temporary Impact Summary	
Temporary Matting Impact (SF)	**Temporary Municipal Buffer Impact**
2,023	12,847

TEMPORARY MUNICIPAL BUFFER IMPACT: 99 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,276 SF

TEMPORARY WETLAND IMPACT: 2,023 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 2,170 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 5,417 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,941 SF

TRAFFIC DETAIL NEEDED DURING WIRE PULLING ACTIVITIES

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,944 SF

Canney Brook

M0083-005000 M0083-006000 M0083-007000 M0083-008000 M0083-009000 M0083-010000 M0083-011000 M0083-012000 M0083-013000 M0083-014000 M0083-015000 M0083-016000 M0083-017000 M0083-018000 M0083-019000 M0083-024000 M0083-025000 M0083-030000

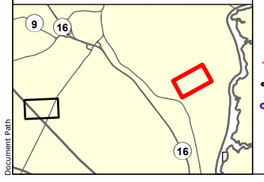
Quaker Lane Canney Lane Overlook Drive Back Road Middle Road Dover Neck Road Isaac Lucas Circle Brickyard Drive

307 Line

55 56 57 58

Dover

INDEX MAP



Document Path:

- Existing Structure
- Existing Structure to be Removed
- Proposed Structure
- Overhead Eversource Line
- Existing Access
- Existing Off ROW Access
- Watercourse (not delineated)
- Delineated Stream
- 50-ft Wetland Buffer
- 50-ft Stream Buffer
- Delineated Wetland Boundary
- Field Delineated Wetland
- Open Water
- FEMA 100-Year Flood Zone
- Gate
- Culvert Inlet/Outlet
- Stablized Construction Exit
- Erosion Control Barrier
- Temporary Construction Matting
- Temporary Upland Matting
- Pull Pad/Work Pad
- Temporary Municipal Buffer Impact
- 2-ft Contours
- 10-ft Contours
- Parcel Boundary
- Municipal Boundary
- Eversouce Owned Property
- Existing Right-of-Way

JACOB J. TINUS No. 226

1:2,400

0 50 100 200 Feet

NO.	DATE	REVISIONS

EVERSOURCE ENERGY

307 Line Structure Replacement - Dover Permitting Plans

Dover, NH | Page 2 of 2

Date: January, 2023

vhb

January 17, 2023

Ref: 52966.00

Ms. Gina Cruikshank, Chairperson
Dover Planning Board
City Hall
288 Central Avenue
Dover, NH 03820

Re: City of Dover Conditional Use Permit Application
PSNH M183 Transmission Line Structure Replacement Project, Dover, NH

Dear Ms. Cruikshank:

On behalf of Public Service Company of New Hampshire (PSNH) d/b/a Eversource Energy, VHB is submitting this Conditional Use Permit (CUP) Application to the City of Dover Planning Board for proposed utility maintenance on the existing 115kV M183 transmission line in Dover, New Hampshire. This project qualifies for a Conditional Use Permit approval as a power line project within a utility right-of-way (ROW) within the Conservation and Wetland Protection Overlay Districts in accordance with *Article VIII Sections 170-27(C)(1)* and *170-27.1(F)(1),* respectively, of the City's Zoning Ordinance (as amended 10/13/2021). This CUP Application is being submitted in accordance with *Sections 170-27* and *170-27.1* of the zoning ordinance and is required for the proposed work to allow temporary impacts to wetlands and streams (and their associated buffers) protected under the Conservation and Wetland Protection Districts.

In accordance with NH RSA 482-A:3, XV, routine utility maintenance work is exempt from the standard wetland permitting process at the state level. However, PSNH is required to submit a Utility Maintenance Activity Statutory Permit-by-Notification (SPN), Shoreland Permit-by-Notification (PBN), and Alteration of Terrain (AoT) permit application to New Hampshire Department of Environmental Services (NHDES) to cover the temporary wetland impact associated with the use of timber matting within wetlands required to complete the proposed pole replacement work, impacts within the Protected Shoreland of the Cocheco River, and proposed upland ground disturbance, respectively. VHB is currently assisting PSNH with these filings. As part of the permitting process. The City of Dover will receive a copy of these filings, anticipated for early spring 2023.

Existing Conditions

The project area involves a maintained electric transmission line ROW that varies in width from 100 feet to 200 feet and contains one transmission line (the M183 Line) in Dover, NH extending from the Madbury municipal boundary to the Dover Substation. The project ROW is comprised of Eversource owned-property or Eversource-controlled easements. The project is bisected by a portion of the Bellamy River between Structures 50 and 51, Varney Brook between Structures 58 and 59, and the Cocheco River between Structures 87 and 88. The ROW is further intersected by public roadways and state routes, including Perkins Road, Evans Road, Garrison Road, Freshet Road, Meserve Road, Finch Lane, NH Route 16, Dover Point Road,

Engineers | Scientists | Planners | Designers

2 Bedford Farms Drive
Suite 200
Bedford, New Hampshire 03110
P 603.391.3900
F 603.518.7495

Toftree Lane, Thornwood Lane, Middle Road, and Cocheco Street. The project ROW contains dense emergent and scrub-shrub wetland and upland vegetation that is maintained (cut) on a three to five-year cycle to achieve vertical clearance requirements between ground vegetation and overhead transmission lines. The surrounding land use is a mix of forested, fields, open space, and residential and commercial properties.

Project Description

The Public Service Company of New Hampshire (PSNH) d/b/a Eversource Energy intends to perform maintenance work on the 115kV M183 Transmission Line involving utility structure replacements along the existing utility ROW in Dover and Madbury. In total, the project extends approximately 6.7 miles, from the Madbury Substation, in Madbury to the Dover Substation in Dover, although work is not occurring on all structures along the ROW. Structures proposed for replacement have been recently identified by project engineers as deficient due to weathering, internal rot, and/or woodpecker damage. In Dover, fourteen (14) wooden utility structures will be replaced with weathered steel in the same configuration in accordance with current utility standards. Weathered steel structures are more resilient to insect and woodpecker damage, pole rot, and can further withstand typical New Hampshire storms and severe weather events. The proposed project is part of PSNH's ongoing maintenance program conducted to ensure reliable electric service for their customers. The PSNH transmission system is an integral part of the regional power system delivering electricity to customers throughout New England. It is critical that this system remains operational without interruption from preventable outages. Contingent upon permit approvals, work is planned to commence in March 2023 and continue through June 2023.

All of the replacement structures will be installed within 10 feet of the existing structure footprints (back or forward on-line). Replacement structures will be connected to the existing overhead circuit prior to the removal of the existing structures. The height of the new structures will generally increase between 5 and 25 feet to gain compliance with current regulatory standards, meet safety clearance requirements, accommodate the site topography, and minimize environmental impacts. Lastly, associated guy support wires and anchors will be replaced. All of the proposed work will be contained within the existing cleared utility ROW, and no additional tree clearing or widening of the ROW is proposed. Some routine vegetation mowing within the limits of the existing cleared ROW might be required along the proposed access roads and structural work pads to permit clear and safe crew access. Work crews will access structures targeted for replacement from existing public roadways that intersect the transmission line ROW and will travel within the limits of the existing cleared ROW corridor to reach the structures. In Dover, access to the ROW is proposed at Meserve Road, Garrison Road, Dover Point Road, Thornwood Lane, Henry Law Avenue, and Cocheco Street. Temporary access permission for off-ROW access routes shown on the plans will be requested and documented prior to accessing or crossing private property for the proposed work. All work locations in Dover are shown on the **Project Plans**.

Ground disturbance and grading within upland areas will be kept to a minimum during the structure replacements, and the largest work pad to be established around proposed replacement structures will be limited to approximately 75'x75' in size. Where the proposed access or the 75'x75' structural work pads intersect wetlands and/or streams, timber mats (typically with dimensions of 16 feet wide by 4 feet long) will be installed in order to safely stage equipment and crews while minimizing soil disturbance and rutting within these resources. Some work pads may need to be two-tiered or off-set due to site topography or to

avoid wetland impacts. Varney Brook, located along the project ROW, will be spanned with timber mats from beyond the jurisdictional banks in order to avoid bank and bed impacts and allow flow to pass freely during construction.

Any construction laydown areas required for equipment and material staging during pole replacement will be situated in upland areas along the existing ROW corridor. All access and work pads will be restored following construction as described in more detail below.

Erosion and Sediment Controls

Prior to accessing the ROW with construction equipment, crews will install wildlife friendly erosion and sediment control barriers in accordance with permitting plans and details, New Hampshire Department of Environmental Services (NHDES) conditions, and the *Best Management Practices Manual for Utility Maintenance in and Adjacent to Wetlands and Waterbodies in New Hampshire* (or "Utility BMP Manual," March 2019), published by the New Hampshire Department of Natural and Cultural Resources (NHDNCR). Selected erosion and sediment control barriers may include silt sock, silt fence, and/or wood chip/compost berms/tubes. Additional Best Management Practices (BMPs) such as stabilized construction exits, water bars, and erosion control blankets will also be utilized along proposed access ways and adjacent to structure locations in order to manage stormwater run-off, reduce erosion and stabilize soils.

Installed erosion controls and other installed utility BMPs will be inspected daily by the contractor crews and weekly by a qualified environmental monitor, hired by PSNH, to ensure proper functionality and maintenance. Erosion and sediment control barriers will not be removed until project work is complete, and all project areas are stabilized in accordance with NHDES guidance.

As soon as possible after the completion of the structure replacement work, timber matting and all construction debris will be removed from the project ROW and properly disposed of off-site. Timber matting will not remain in place for longer than one growing season. Stabilization and restoration of disturbed areas/exposed soils will be initiated as soon as possible once timber mats are pulled and structural work is completed. Due to the use of timber mats, it is anticipated that minimal restoration within the ROW will be required, and that natural vegetative re-colonization of impacted areas will occur during summer vegetative growth periods in 2023. VHB will visit the project ROW post-construction to assess conditions, provide guidance to work crews on restoration, and determine whether or not additional promotion of vegetation (seeding) is required. If necessary, a NHDES approved upland and/or wetland seed mix will be applied to any areas where cover is slow to develop. Additionally, straw or weed-free hay will be applied in conjunction with seed. In accordance with Env-Wt 307.12(f), if the temporarily impacted areas do not have at least 75% revegetation after two growing seasons, replanting, or reseeding would occur in those areas.

Invasive Species Management

Multiple invasive plant species, varying in density, are present within the project ROW based on field observations made by VHB. Species include honeysuckle (*Lonicera sp*.) and oriental bittersweet (*Celastrus orbiculatus*). Prior to the commencement of work, clearing and pole/line construction crews will be briefed on invasive plant species present within the ROW and the modes of dispersal and spread of these species. Invasive species management during project construction will adhere to guidance provided in the Utility BMP Manual.

All equipment, including timber mats, arriving to the site will be visually inspected to ensure that it is clean prior to off-loading. "Clean" is defined as being free of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials. Additionally, any equipment that has been placed or used within areas containing invasive species within the ROW will be cleaned of plant matter (stems, flowers, roots, etc.), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the ROW to minimize the spread of invasive species from one area to another. Equipment will be cleaned prior to being removed at the completion of the project. Cleaning will be accomplished by utilizing hand tools, shaking/dropping mats to dislodge any attached material, and/or compressed air.

Delineated Natural Resources

Portions of the proposed project fall within the City of Dover's Wetland Protection District as defined in *Article VIII Section 170-27.1(C)* of the zoning ordinance to include all wetlands that were delineated within the project area by a NH Certified Wetland Scientist in accordance with the applicable regulations. Jurisdictional wetlands and surface waters along the length of the M183 ROW were originally delineated by GZA Wetland Scientists and were recently field verified and reflagged by VHB Wetland Scientists in January 2023. The wetland delineation was conducted in accordance with the procedures and standards outlined in the *1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region,* Version 2.0 (January 2012). Wetland delineation also relied upon the *Field Indicators for Identifying Hydric Soils in the United States,* Version 8.2, published by the Natural Resource Conservation Service and the *Field Indicators for Identifying Hydric Soils in New England,* Version 4.0, published by the New England Interstate Water Pollution Control Commission in April 2019. Dominant wetland vegetation was assessed using the *2018 National Wetland Plant List* published by the U.S. Army Corps of Engineers.

In Dover, palustrine emergent (PEM) or palustrine scrub-shrub (PSS) wetlands intersect the existing M183 Line ROW, along with Varney Brook, the Bellamy River, and the Cocheco River. Delineated resources are depicted on the attached **Project Plans** and are described below. **Representative Site Photographs** are also attached.

Wetland Vegetation

Emergent and scrub-shrub palustrine wetlands are present within the existing utility ROW. Wetland and upland vegetation along the ROW is periodically mechanically cut to maintain safe vertical and horizontal clearance distances from the existing overhead distribution lines, thus maintaining a dense shrub-type habitat. Species typically found within these wetlands include tree species, which are not permitted to grow beyond a sapling growth stage, including red maple (*Acer rubrum*) and species of birch (*Betula* spp.). Common dominant shrub species found within these wetlands include white meadowsweet (*Spiraea alba*), steeplebush (*Spiraea tomentosa*), maleberry (*Lyonia ligustrina*), arrowwood (*Viburnum recognitum*), and speckled alder (*Alnus incana*).

Palustrine emergent portions of these wetlands are typically dominated by cinnamon fern (*Osmundastrum cinnamomeum*), sensitive fern (*Onoclea sensibilis*), various species of sedge (*Carex* spp.), rough-stemmed goldenrod (*Solidago rugosa*), soft rush (*Juncus effusus*), swamp dewberry (*Rubus hispidus*), narrowleaf cattail (*Typha angustifolia*), arrow-leaved tearthumb (*Persicaria sagittata*), reed canary grass (*Phalaris arundinacea*), white meadowsweet, and peat moss (*Sphagnum* sp.).

Streams

The Cocheco River is a tidally influenced perennial river that is classified as Estuarine, Subtidal, Unconsolidated Bottom, Sand, Subtidal (E1UB2L) and abuts the project ROW to the west of Dover Substation. The Bellamy River is also a tidally influenced perennial river that is classified as Estuarine, Subtidal, Unconsolidated Bottom (E1UBL) and abuts the project ROW between Structures 50 and 51. No impact to either river is expected to result from the proposed utility maintenance work.

Varney Brook is classified as a Lower, Perennial Stream (R2UBH) with permanent water usually flowing over a bottom of silt, sand, clay, or fine gravel. Temporary impacts to streams have been avoided by using timber mats that will span the streams from beyond their jurisdictional banks.

Functions and Values

Most of the wetlands within the ROW are currently maintained as either scrub-shrub or emergent habitat (or a mix thereof). Scrub-shrub wetlands, when associated with a stream, often receive over bank flooding and are significant in flood alteration and often protect stream banks from erosion. Scrub-shrub wetlands are productive in terms of food resources where they support berried varieties of shrubs. These wetlands tend to be more structurally diverse and can support diverse wildlife species. This is especially true when they are associated with streams that can act as wildlife corridors or that offer a wider range of local habitat conditions. However, when not associated with a stream, hydrologically isolated, and small, these wetlands tend to exhibit limited functions and values.

None of the proposed impacts associated with this project are expected to permanently alter the hydrology of wetlands (i.e., no inflow/outflow restrictions) along the existing or proposed ROW resulting from the timber mats (which will be in place for less than one growing season) as they minimize soil compaction and water can pass beneath and through the timber matting while it is in place. Therefore, the proposed project will not permanently impact water quality and hydrologic functions. These functions include groundwater recharge/discharge, flood flow alteration, sediment and nutrient trapping, production export, or shoreline stabilization which are performed by wetlands within the project ROW. Some temporary, short-term impacts to the wildlife habitat wetland function are anticipated during the construction period due to temporary construction-related noise and the presence of work crews and equipment.

Proposed Overlay District Impacts

Impacts to wetlands were minimized to the maximum extent practical during project planning. This included modifications to ROW access, the positioning of the proposed utility poles, the utilization of timber matting and/or tracked equipment, and the location/orientation of work pads. It should also be noted that direct stream impacts were avoided by using timber mats that will span the jurisdictional streambanks. Given the overlapping overriding districts and associated buffers, temporary impacts in **Table 1** below are quantified as "delineated wetland" and "municipal buffer" impacts.

Table 1: Proposed Temporary Impacts

Impact Type	Impact Area (Square Feet)
Delineated Wetland	15,399
Upland Matting	4,462
Municipal Buffer	30,883

Total	**50,744**

Conditional Use Permit Procedures and Requirements

The Dover Zoning Ordinance provides that CUP applications can be approved for limited and regulated uses by the Planning Board if it is found that the use is consistent with the ordinance and does not have an adverse impact on the natural resources and jurisdictional areas within the overriding districts.

Conservation District

A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27(C)(2)* for the Conservation District*:*

(a) *The applicant shall demonstrate that the proposed use is essential to the productive use of land not in the district; is located and constructed to minimize any detrimental impact of such use upon the surface waters or other environmentally sensitive areas, where it is physically impossible to locate such use on land not in the district; and economic advantage alone shall not be deemed a sufficient reason for such proposed use.*

The proposed maintenance work is required to maintain the reliability of the existing infrastructure that provides electricity to the regional grid. Maintaining the flow of electricity to developed regions of the state is essential to the safety and productivity of those communities. All work has been designed to avoid and minimize impacts to the Conservation and Wetland Protection Districts to the extent practical while accomplishing the project objectives of replacing the target poles.

(b) *A soil erosion and sedimentation control plan is submitted and followed to verify the planned avoidance of sediment pollutant runoff to bodies of water. This plan will address the following (if applicable), but should not be limited to:*

(i) *stabilization of exposed soils and soil stockpiles;* **Exposed upland soils will be seeded and stabilized with straw mulch to prevent erosion while vegetation is establishing. Following removal of timber mats from wetland areas, any exposed soils will be stabilized with weed-free straw and allowed to reestablish within the next growing season. If some areas are slow to establish, NHDES-approved wetland seed mixes may be applied. Temporary soil stockpiles, if applicable, will be temporarily stabilized and surrounded by erosion controls (i.e., silt sock), as necessary, to contain the sediment.**

(ii) *protection of steep SLOPEs from erosion;* **Work in steep slope areas is not part of this project. The steep slope associated with the bank of the Cocheco River will not be impacted by this project. Site work will be limited to areas above the delineated top of bank.**

(iii) *construction site waste management;* **Old poles, equipment, and any construction debris will be removed from the site and properly disposed.**

(iv) *inspection and maintenance of runoff control measures (BMPs);* **An environmental monitor hired by PSNH will be responsible for conducting weekly monitoring of the project to ensure the work is occurring in accordance with the approved plans and that erosion controls are functioning as intended (and recommend corrective actions if/as**

applicable). Furthermore, the selected contractor will be responsible for daily monitoring of the erosion controls.

(v) *minimization of land clearing;* **No tree clearing is proposed as part of this project; however, brush removal along the existing access roads within the ROW may be required.**

(vi) *stabilization of drainage ways;* **Not applicable to this project.**

(vii) *installation of perimeter controls;* **Various erosion control lines are shown on the plans where silt fence and/or silt sock are proposed to protect the adjacent natural resources.**

(viii) *installation of sediment trapping devices; and* **Not applicable to this project.**

(ix) *storm drain inlet protection.* **Not applicable to this project.**

(c) *Necessary state and federal approvals have been applied for. Said permits shall be received prior to the issuance of the Conditional Use Permit by the Planning and Community Development Department.*

A Utility Maintenance Activity SPN, Shoreland PBN, and AoT permit application for the proposed project will be submitted to NHDES to cover environmental permitting at the state level.

(d) *A written review by the Conservation Commission of the environmental effects of the proposed use upon the area in question has been submitted. The Commission's review shall address the following, but is not limited to:*

(i) *attempted avoidance of the impact;*

(ii) *minimization of the impact;*

(iii) *planned mitigation of the effects of the impact; and*

(iv) *efficacy of the soil erosion and sedimentation control plan.*

We request that the Conservation Commission compose a letter to the Planning Board addressing these items and stating any recommendations and concurrence for the project. These items are addressed elsewhere in this application.

Wetland Protection District

A CUP may be issued in accordance with the criteria detailed in *Article VIII Section 170-27.1(F)(1)* of the Wetland Protection District:

(a) *Practicable Alternative: There is no practicable alternative that would have a less adverse impact on the area.*

Avoidance and minimization of natural resource impacts was a main consideration throughout the project design and implementation, coupled with construction feasibility and safety. All access routes were selected through site walks with PSNH, and work pads were positioned to avoid natural resource impacts to the extent practical while still accomplishing the project objectives. Given the avoidance and minimization efforts employed throughout the plan development, it is our opinion that there is no practicable alternative that would have less impact. It should also be noted that impacts associated with this work are temporary and will be restored.

(b) *Avoidance: The potential impacts have been avoided to the maximum extent practicable. The APPLICANT will demonstrate by plan and example that the proposed construction represents the least impacting alternative.*
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Conservation and Wetland Protection Districts have been avoided to the extent practical while still accomplishing the project objectives. Where stream crossings are proposed, they will be spanned from beyond their jurisdictional banks with timber mats to avoid stream impacts.

(c) *Minimization: Any unavoidable impacts have been minimized. No reasonable Alternative to the proposed construction exists which does not impact a wetland or which has less detrimental impact on a wetland. Design, construction, and maintenance methods will be prepared by a registered engineer to minimize detrimental impacts to the wetlands and will include restoration of the site as nearly as possible to its original grade.*
Refer to the response for (a) above. Impacts to natural resources and buffers comprising the Conservation and Wetland Protection Districts have been minimized to the extent practical while still accomplishing the project objectives. The use of timber matting further minimizes impacts by reducing ground pressure and preventing rutting within wetlands. Where feasible, wetlands that span the ROW width will be crossed at their narrowest areas to minimize impacts.

(d) *Mitigation: If the APPLICANT is required by State rules to prepare a compensatory mitigation plan, the APPLICANT shall provide the Conservation Commission and PLANNING BOARD with one copy each of said plan for their review.*
Not applicable.

(e) *Approval for the wetlands impact has been received from the NHDES Wetlands Bureau pursuant to Section G (3), below.*
A Utility Maintenance Activity SPN for the proposed project will be submitted to the NHDES Wetlands Bureau to cover environmental permitting at the state level for the proposed temporary wetland impacts.

Property Ownership and Abutters

It is our understanding that the City of Dover will prepare the abutting property list and invoice the applicant for the applicable fee (which must be paid at least 28 hours in advance of the Planning Board meeting).

Please do not hesitate to contact me if you have any questions at (603) 391-3951 or strefry@vhb.com.

Sincerely,

Sherrie Trefry

Sherrie Trefry, CSS
Energy Market Lead

cc: Kurt Nelson, PSNH

Attachments:

- City of Dover Conditional Use Permit Application Form
- Tax Maps
- USGS Map
- Representative Site Photos
- Project Plans

City of Dover, New Hampshire
ONDITIONAL USE PERMIT APPLICATION

[Revision Date: October 19, 2020]

Office Use Only	Project #:		Date Received:	
	Amount Paid:		Time Received:	

APPLICANT AND OWNER INFORMATION

Name of Applicant: PSNH d/b/a Eversource Energy c/o Kurt Nelson Telephone # 603-714-3031

Address of Applicant: 13 Legends Drive, Hooksett, NH 03106

E-Mail Address: kurt.nelson@eversource.com

Name of Property Owner (if different from applicant): SAME Telephone # SAME

Address of Property Owner: SAME AS APPLICANT

PROPERTY INFORMATION

Assessor's Map # I1, I5, I6, M2, M1, K2, 22, 24 Lot(s) # Various - existing and maintained utility right-of-way (ROW)

Address of Property: Existing utility ROW from Dover Substation (Cocheco Street) to the Madbury municipal boundary (Structure 21)

Zoning District(s) CWD (Cocheco Waterfront District), R40 (Rural Residential), R12 (Medium Density Residential) Overlay District(s) Conservation District (CD) and Wetlands Protection District (WPD)

Existing Use of Property: Existing and actively maintained PSNH utility ROW

CONDITIONAL USE PERMIT INFORMATION

Type of Conditional Use Permit (Check All That Apply):

☒ Conservation District	☐ RCM Use Overlay District	☐ Gateway District
☐ Groundwater Protection	☐ Off-Street Parking and Loading	☐ Alternative Treatment Center
☒ Wetland Protection District	☐ Central Business District	☐ Heritage Residential District

Describe Proposed Use or Activity That Requires Conditional Use Permit and Describe Any Impacts:

The proposed project involves the replacement of 14 wooden utility poles with weathered steel structures along the M183 Electric Transmission Line in Dover in accorance with current utility standards. Weathered steel structures are more resilient to insect and woodpecker damage, pole rot, and can further withstand typical New Hampshire storms and severe weather events. All of the replacement structures wil be installed within 10 feet of the existing structure footprints. The proposed project is part of Eversource's ongoing maintenance program conducted to ensure reliable electric service to their customers. This work will require temporary impact to wetlands and streams through the use of timber matting at unavoidable access road and work pad crossings. No permanent natural resource impacts are proposed. All temporary impacts will be stabilized and restored post construction, as dictated by site conditions. Timber matting wil be utilized at all wetland crossings, often allowing for natural vegetation to re-establish during the next growing season.

List Any Associated State or Federal Permits That Have Been or Will Be Applied For and Indicate Their Status: New Hampshire Department of Environmental Services (NHDES) Utility Maintenance Activity Statutory Permit by Notification (SPN), NHDES Shoreland Permit-by-Notification (PBN), and an NHDES Alteration of Terrain Permit (AoT) which are currently being drafted.

Name of Professional That Prepared Plans: Kristopher Wilkes, CWS

Address 2 Bedford Farms Drive, Suite 200, Bedford, NH 03110 Telephone #: 603-391-3944

Professional License #: CWS 288 E-mail address: kwilkes@vhb.com

SIGNATURES

I/We hereby submit this application to the City of Dover Planning Board and attest that to the best of my knowledge all of the information on this application form and in the accompanying application materials and documentation is true and accurate. As applicant or as agent, I attest that I am duly authorized to act in this capacity.

Signature of Property Owner:  for PSNH dba Eversource Date: 1/23/23

Signature of Applicant (if different from owner): SAME Date: _____

Signature of Agent: Sherrie Trefry Date: 1/17/23

AUTHORIZATION TO ENTER SUBJECT PROPERTY

I, and my successors, hereby authorize members of the Dover Planning Board, Planning Department and other pertinent City Departments and boards to enter my property for the purpose of evaluating this application, including performing inspections during the application phase, post-approval phase, construction phase and occupancy phase. It is understood that these individuals must use all reasonable care, courtesy, and diligence when on the property.

Signature of Property Owner:  for PSNH dba Eversource Date: 1/23/23

CITY OF DOVER CONDITIONAL USE
LIST OF ABUTTERS

Pursuant to RSA 676:4, the State Law of New Hampshire, the City of Dover is required to notify the applicant, abutters (including holders of conservation easements), and any professional whose seal is on the plan, of the public hearing by certified mail, return receipt requested. Staff will provide the abutter information, while the applicant must provide accurate contact information for the owner, applicant and professional agents representing the project.

Owner:

TAX MAP	LOT #	PROPERTY OWNER	MAILING ADDRESS
Existing Utility ROW	(Easment Rights)	PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Applicant (if different from owner):

APPLICANT NAME	APPLICANT COMPANY	MAILING ADDRESS
Kurt Nelson	PSNH d/b/a Eversource Energy	13 Legends Drive, Hooksett, NH 03106

Surveyor and/or Engineer/Professional Agent:

NAME	COMPANY	MAILING ADDRESS
Sherrie Trefry	VHB	2 Bedford Farms Drive, Suite 200, Bedford, NH 03110

Conservation Easement Holder:

TAX MAP	LOT #	NAME OF EASEMENT HOLDER	MAILING ADDRESS

PLANNING BOARD FEE SCHEDULE/INVOICE

(Revised July 1, 2021)

Below are the fees associated with plan review and are subject to a nonrefundable application fee to cover administrative expenses. Please complete the information below and provide payment with your application submittal. **Plan Review Fees shall be paid prior to technical review committee (TRC) being scheduled.** For plans not requiring TRC review, **fees are due 21 days prior** to the Planning Board meeting. Staff will coordinate abutter/notice fees, which will be invoiced and must be paid 28 hours before the Planning Board meeting for an application to be heard. Fees shall be paid by cash or check made payable to "City of Dover".

A. Plan Review Fees

1. Application fee for the following (SELECT ALL THAT APPLY):

- ☐ SUBDIVISION Application fee $200.00 + $150.00 x # _____ new lots created = $N/A
- ☐ LOT LINE ADJUSTMENT Application fee $200.00 + $100.00 X # ___ of lots involved = $N/A
- ☐ TRANSFER OF DEVELOPMENT RIGHTS Application fee $200.00 = $N/A
- ☐ SITE REVIEW – RESIDENTIAL Application fee $200.00+ $100.00 x # __ per dwelling unit = $N/A
- ☐ SITE REVIEW – NON-RESIDENTIAL Application fee $200.00 + (not to exceed $10,000)
  - New construction $.15 sq. ft. x # _____ sq. ft.= $N/A
  - Additions (new floor space) $.10 per sq. ft. x # _____sq. ft.= $N/A
- ☐ MOTEL/HOTEL $35.00 x # ___ per lodging unit= $N/A
- ☐ CHANGE OF USE Application fee $200.00 + (not to exceed $5,000)
  - Existing floor spaces $.10 per sq. ft. x # _____ sq. ft. = $N/A
- ☒ CONDITIONAL USE PERMIT Application fee $200.00 x # 1 per Application = $200.00
- ☐ GRAVEL PIT/ EXCAVATIONS
  - Application fee $50.00= $N/A
  - Permit fee $75.00= $N/A
- ☐ EXTENSIONS/AMENDMENTS/WAIVERS FOR AN APPROVED PLAN Application fee $200.00 = $N/A
- ☐ REQUEST FOR REZONING Application fee $200.00 = $N/A
- ☐ DRIVEWAY WAIVER Application fee $200.00 = $N/A

2. TOTAL IMPERVIOUS PAVED AREA (for new development, roadways or additions to existing parking lots, (not to exceed $10,000)) Application fee of $200.00 is N/A if it is part of a Site Review or Subdivision Plan. $200.00 + $.07 per sq. ft. x # _____ sq. ft. = $N/A

SUBTOTAL PLAN REVIEW FEE (A) = $200.00

AND

B. Abutter Notification/Mailing Labels - this office will create and print the abutter list and provide labels in triplicate for each abutter. The applicant/owner will review the list for accuracy and provide to us the engineer, architect, licensed land surveyor (LLS), licensed landscape architect (LLA) and/or soil scientist whose professional seal appears on the plan with names and addresses for notices.

- ☐ Applicant & Owner, engineer, architect, LLS, LLA and/or soil scientist
  - Certified letters fee # _____ of x $8.00= $_____
- ☐ Certified letters fee: # of abutters _____ X $8.00= $_____
- ☐ First Class Mail fee (for individual owner of units within a condominium or other collective form of ownership): # of abutters _____ X $1.00= $_____
- ☐ Creating/Printing Abutter Labels in triplicate per sheet _____ x $10.00= $_____

C. Foster's newspaper public notice fee $100.00 x # _____ applications = $_____

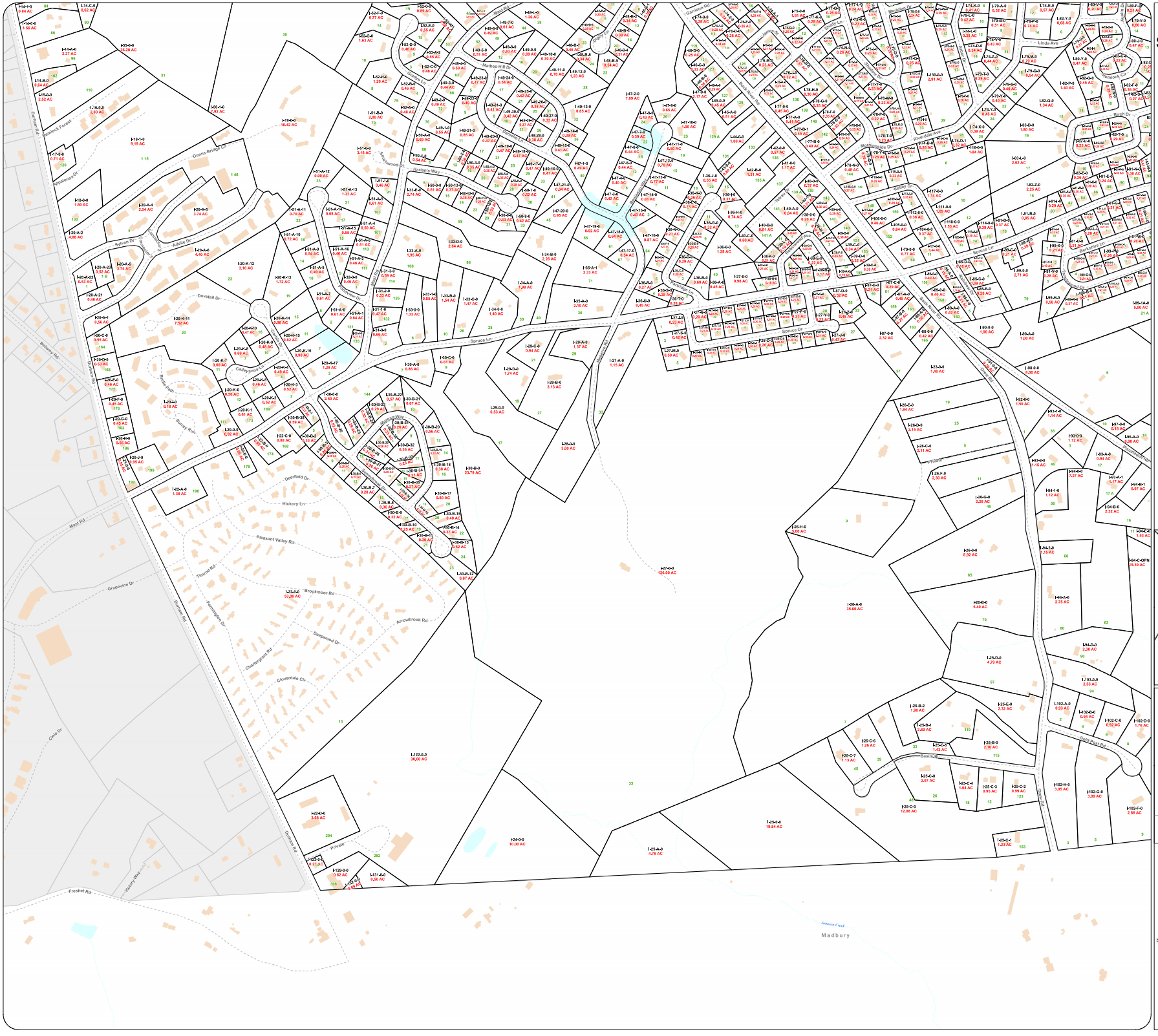
SUBTOTAL NOTICE FEE (B & C) = $_____

TOTAL INVOICE AMOUNT (A, B & C) = $_____

PLAN REVIEW FEE COLLECTED/PAID = $ _____

BALANCE DUE = $ _____

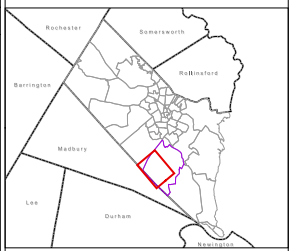
The balance due must be paid 28 hours prior to the Planning Board Meeting, to be heard.

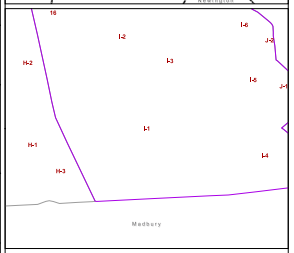


CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: I-1

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





400 200 0 400 Feet

1:2,400
1 " = 200 '

This map is for assessment and planning purposes only. It is not intended to be used for description, conveyance, authoritative definition of any legal boundary, or property title. This is not a survey product. Users are encouraged to examine the documentation associated with the data on which this map is based for information related to its accuracy, currentness and limitations.

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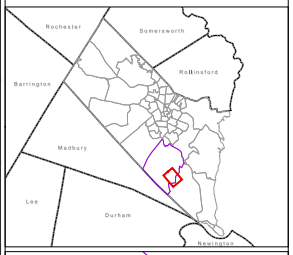
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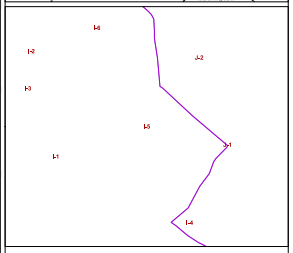


CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: I-5

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





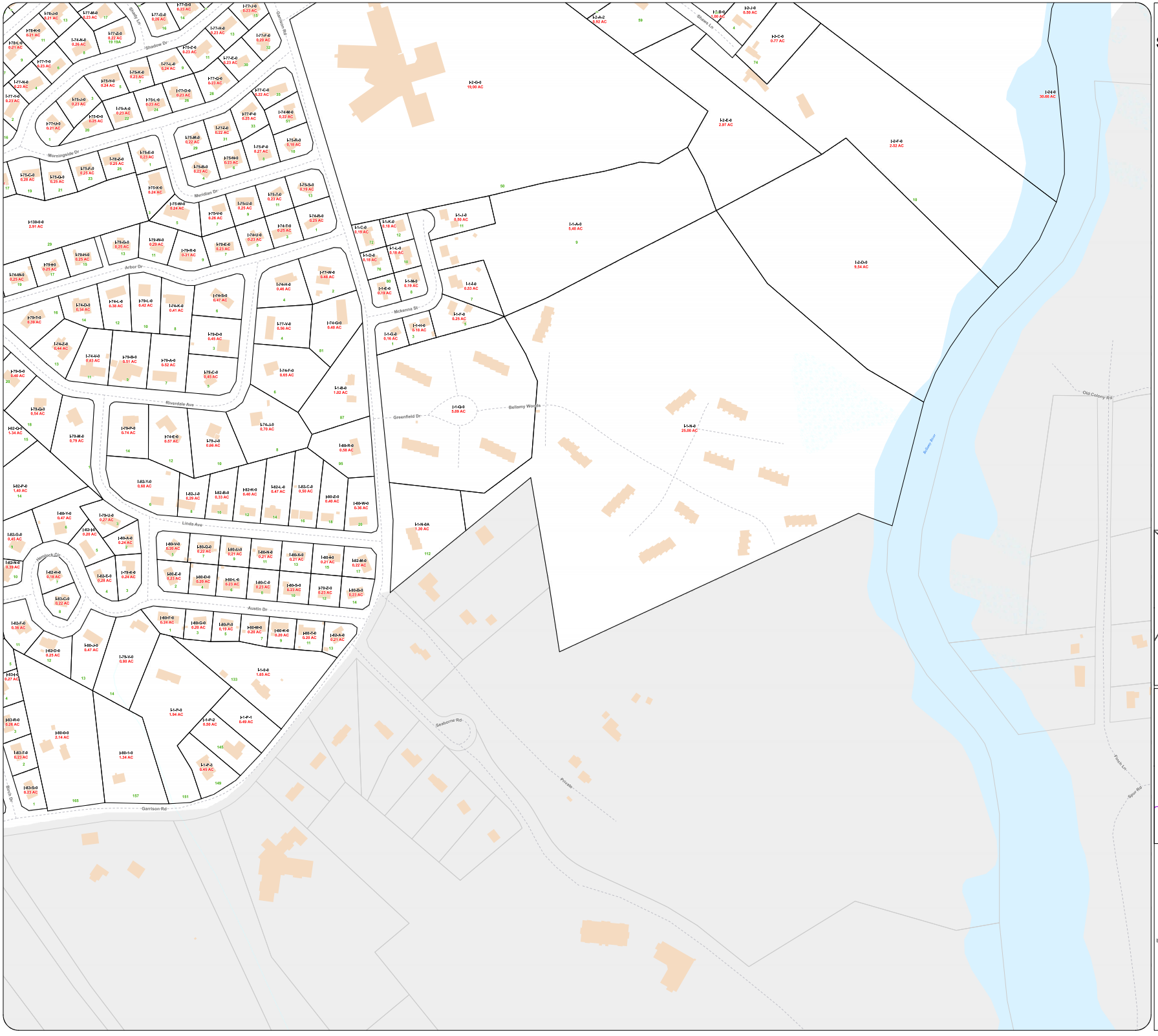
200 100 0 200 Feet

1:1,200
1 " = 100 '

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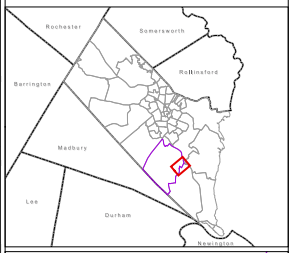
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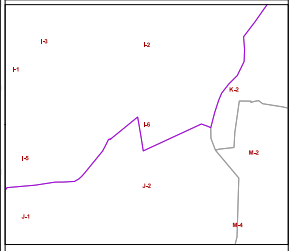


CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: I-6

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





200 100 0 200 Feet

1:1,200
1 " = 100 '

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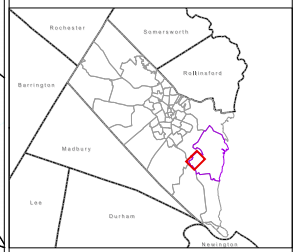
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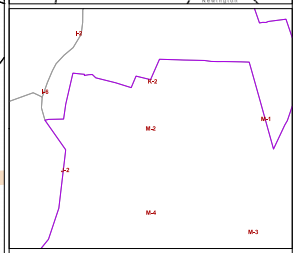
AppGeo

CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: M-2

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





200 100 0 200 Feet

1:1,200
1 " = 100 '

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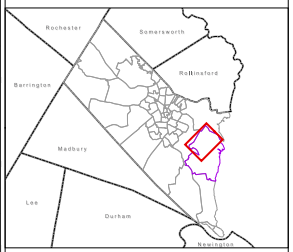
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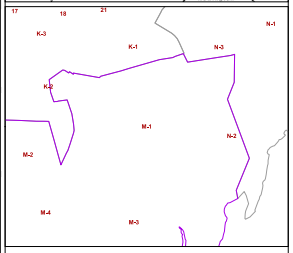
AppGeo

CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: M-1

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





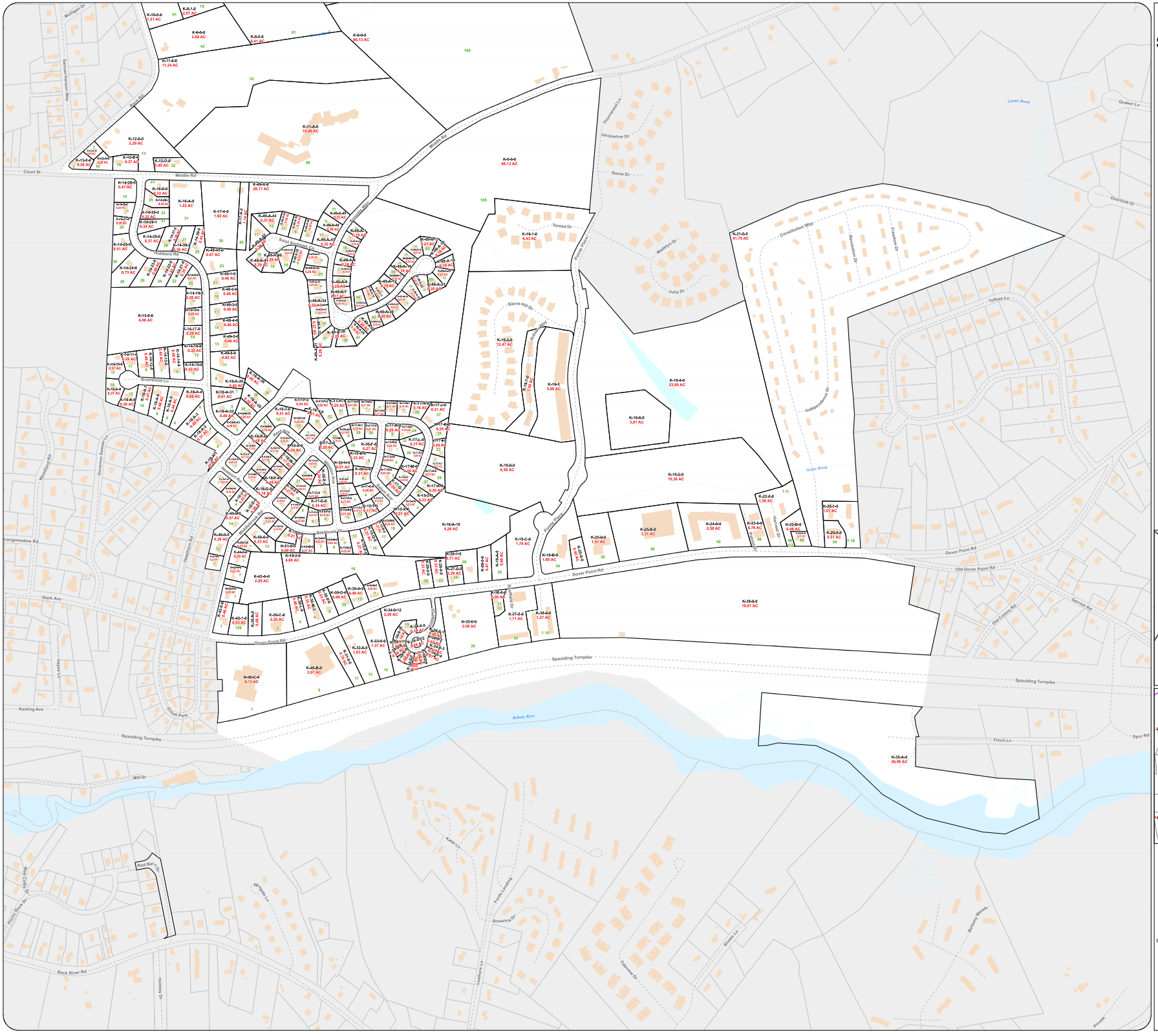
400 200 0 400 Feet

1:2,400
1 " = 200 '

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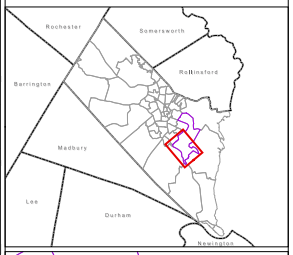
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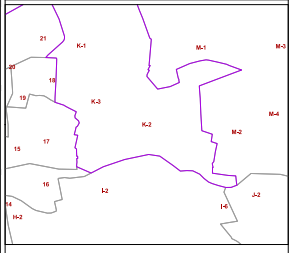


CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: K-2

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





400 200 0 400 Feet

1:2,400
1 " = 200 '

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Map Generated: Wednesday, March 21, 2018

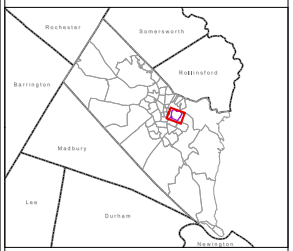
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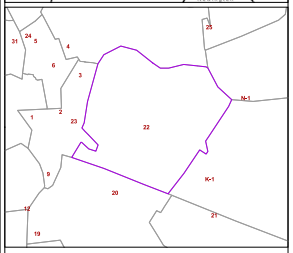
CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: 22

N

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number





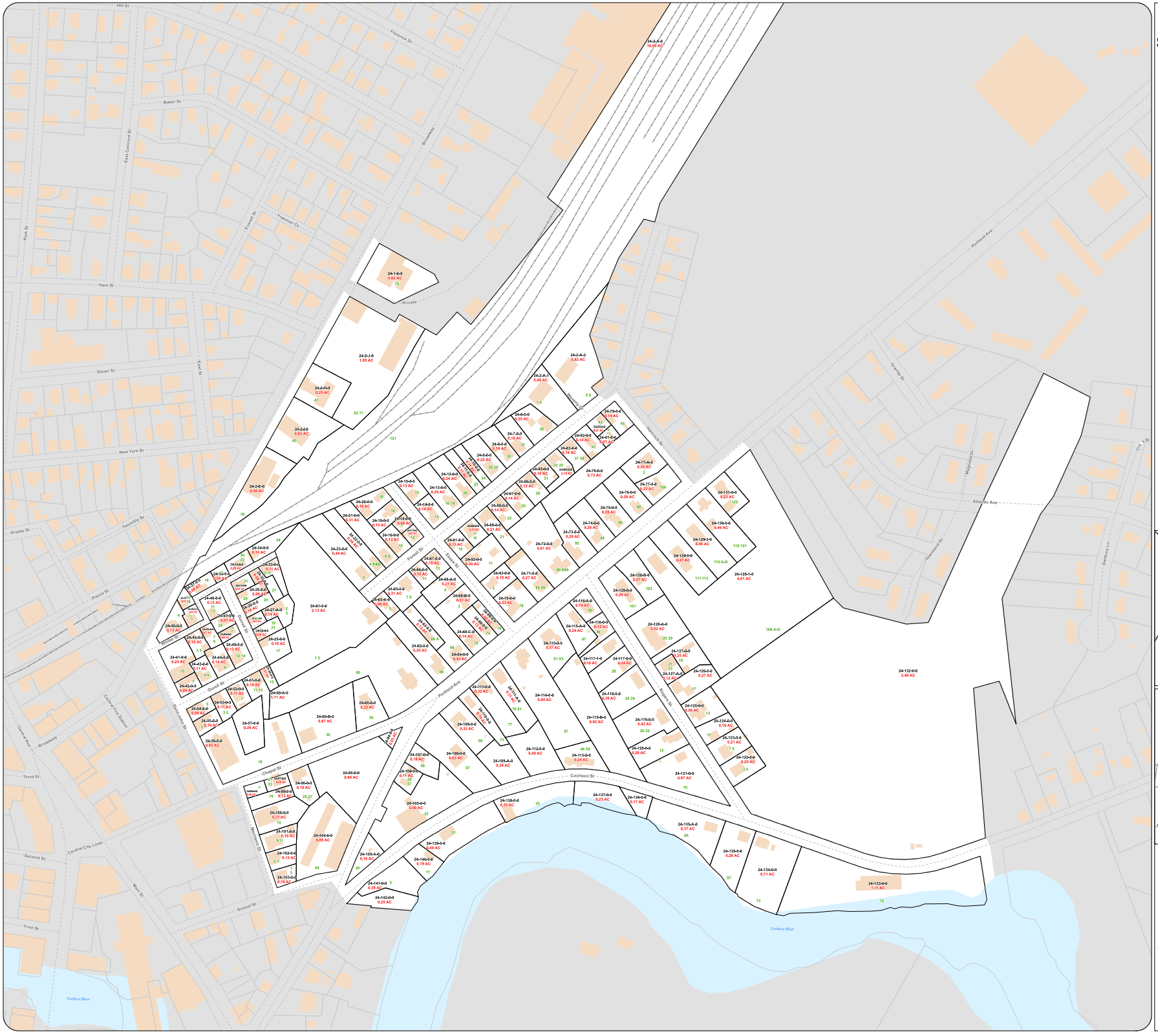
200 100 0 200 Feet

1:1,200
1 " = 100 '

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Map Generated: Wednesday, March 21, 2018

AppGeo

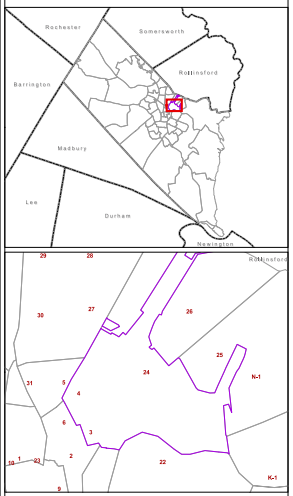


CITY OF DOVER
STAFFORD COUNTY NH
TAX ASSESSORS MAP

Map Page: 24

N

- Parcels
- Parcel on Adjacent Maps
- Buildings
- Rail Road
- Water Body
- Swamp/Marsh
- Streams
- A-20-0-0 Parcel Number
- 0.24 AC Parcel Acreage
- 240 Address Number



200 100 0 200 Feet

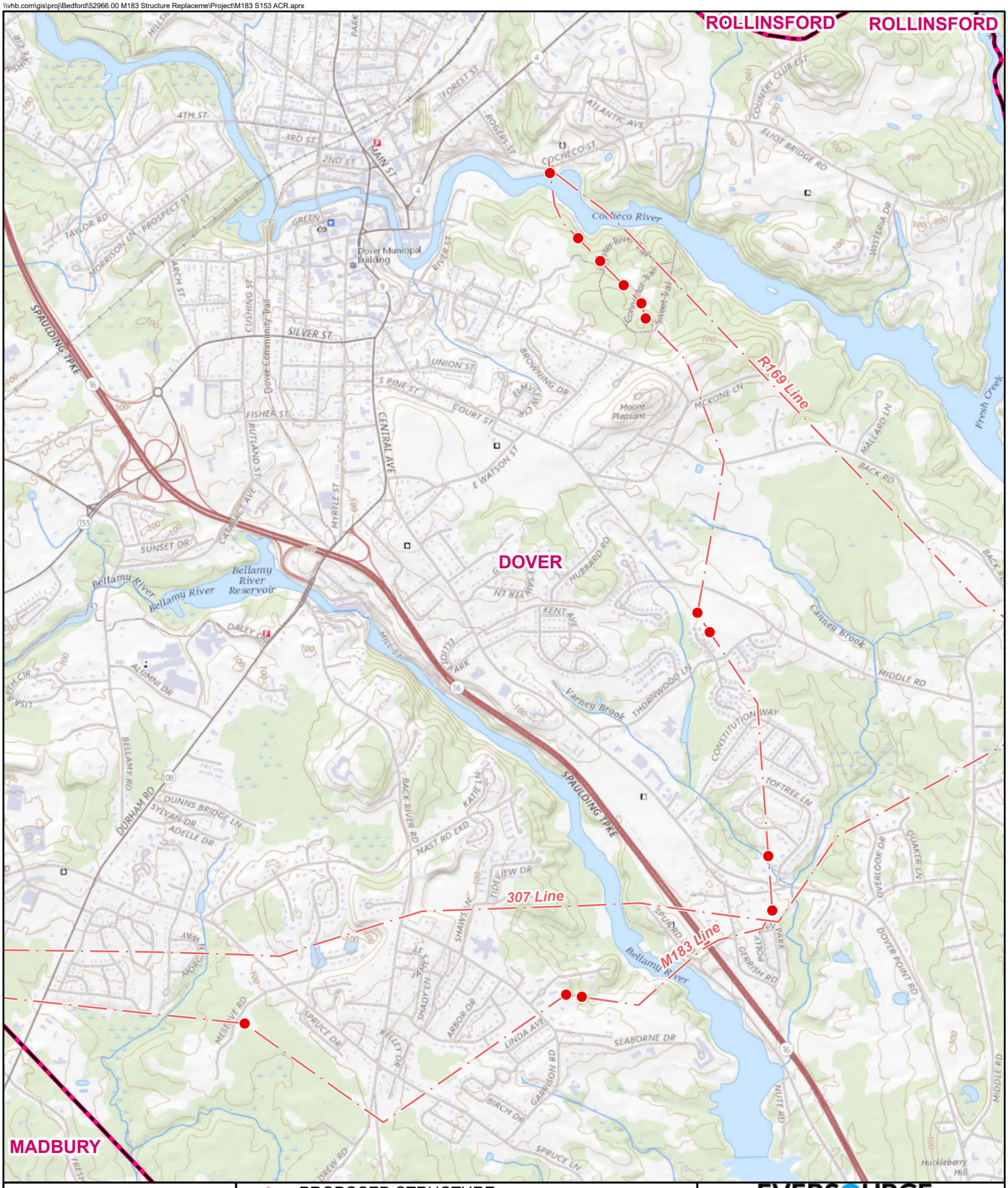
1:1,200
1 " = 100 '

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Map Generated: Wednesday, March 21, 2018

AppGeo

\\vhb.com\gis\proj\Bedford\52966.00 M183 Structure Replaceme\Project\M183 S153 ACR.aprx



INDEX MAP



- PROPOSED STRUCTURE
- OVERHEAD EVERSOURCE LINE
- MUNICIPAL BOUNDARY

N

1 Inch = 2,000 feet

0 1,000 2,000 Feet

EVERSOURCE ENERGY

M183 Line Structure Replacement Project
USGS Locus Map
Dover, NH

Date: January 12, 2023

vhb

Representative Site Photographs – 1/9/22
M183 Line Structure Replacement Project – Dover, NH



Photo 1: View northeast at proposed access location along Garrison Road adjacent to Structure 44.



Photo 2: View of southeast edge of large emergent wetland system at the corner of Dover Point Road and Toftree Lane where access to Structure 58 is proposed.



Photo 3: View northwest along large emergent wetland system located at the corner of Dover Point Road and Toftree Lane where access to Structure 58 is proposed.



Photo 4: View directly north across large emergent wetland system located at the corner of Dover Point Road and Toftree Lane where access to Structure 58 is proposed.



Photo 5: View north along transmission line ROW from Dover Point Road to Old Dover Point Road at Structure 57, which is proposed to be replaced as part of the Project.



Photo 6: View south of proposed matting location toward scrub-shrub wetland system off Toftree Lane at Structure 59 which is proposed to be replaced as part of the Project.



Photo 7: View south of proposed matting location off Toftree Lane at Structure 59 which is proposed to be replaced as part of the Project.



Photo 8: View north along transmission line ROW off Toftree Lane toward Structure 60.

Representative Site Photographs – 1/9/22
M183 Line Structure Replacement Project – Dover, NH



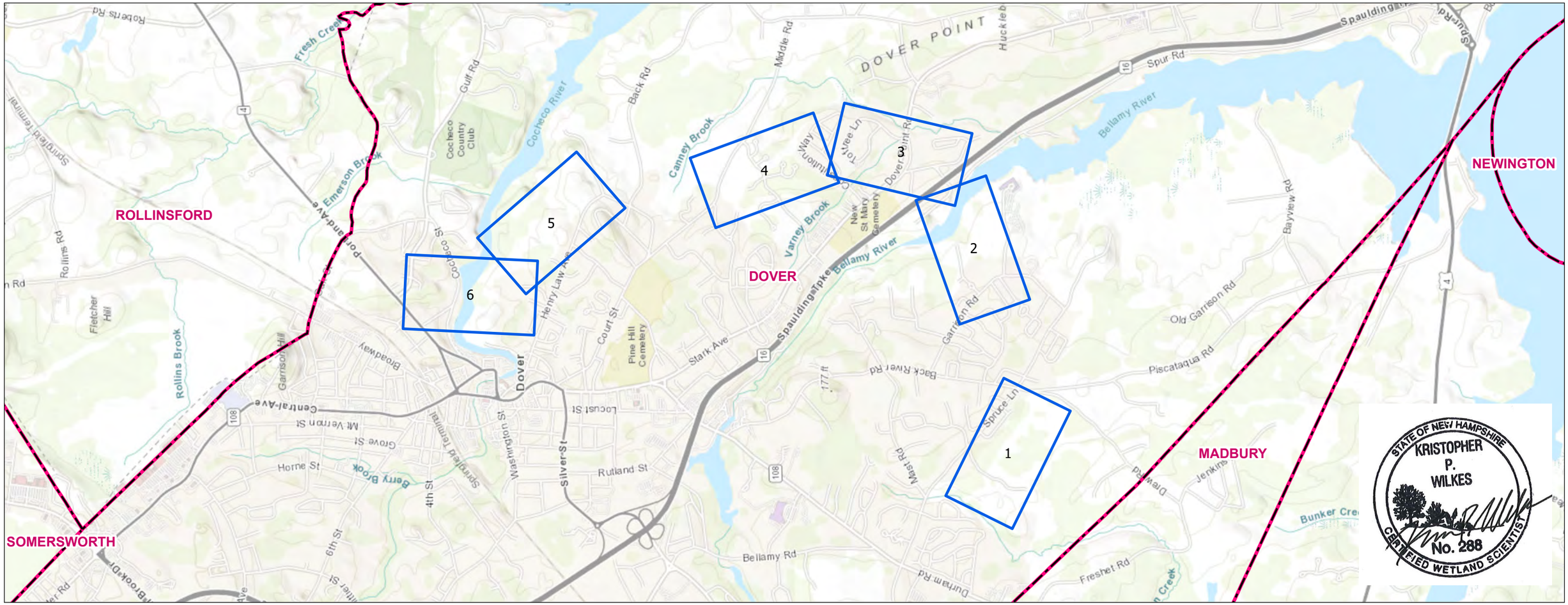
Photo 9: View south along scrub-shrub wetland system off Toftree Lane toward Structure 58 which is proposed to be replaced as part of the Project.



Photo 10: View east through scrub-shrub wetland system in between Structures 59 and 58 to the south of Toftree Lane.

M183 Line - Structure Replacement Project

Dover, NH
Dover Permitting Plan
FINAL Map Set
Date: January 26, 2023



Legend
- Map Sheet
- Municipal Boundary

N

0 0.5 1 Miles

INDEX OF FIGURES

Title Sheet / Index Map
Map Sheet 1-6

NO.	DATE	REVISIONS

PREPARED FOR:

EVERSOURCE ENERGY

13 Legends Drive
Hooksett, NH 03106

PREPARED BY:

vhb

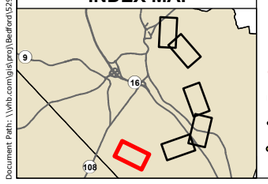
2 Bedford Farms Drive, Suite 200
Bedford, NH 03110

STATE OF NEW HAMPSHIRE
KRISTOPHER P. WILKES
No. 288
CERTIFIED WETLAND SCIENTIST

Parcel ID	Owner Name	Address	Town	State	Zip Code
I0088-000000	Tobin Kelly S & Tobin Andrew J	165 Back River Road	Dover	NH	03820
I0026-E00000	Holgate Limited Partnership	130 Central Avenue	Dover	NH	03820
I0023-000000	Public Service Company of NH (Eversource)	PO Box 330	Manchester	NH	03105-0330
I0028-000000	Stephen W & Phebe C Revocable Living Trust	33 Meserve Road	Dover	NH	03820
I0027-000000	Stephen W & Phebe C Revocable Living Trust	33 Meserve Road	Dover	NH	03820
I0087-000000	Hardy, Jr John A & Hardy Susan C	57 Spruce Lane	Dover	NH	03820
I0030-B00000	White Enterprises Incorporated	Route 108	Durham	NH	03824



INDEX MAP



- Existing Structure
- Structure to be Replaced
- Proposed Structure
- Eversource Overhead Line
- Approximate Right-of-Way (ROW)
- Existing Access
- Proposed Access
- Proposed Off ROW Access
- Watercourse (not delineated)
- Delineated Stream
- Delineated Wetland Boundary
- 50-ft Wetland Buffer
- Field Delineated Wetland
- Stablized Construction Exit
- Sediment Control Barrier
- FEMA 100-year Floodplain
- Temporary Upland Matting
- Temporary Construction Matting
- Temporary Municipal Buffer Impact
- 2-ft Contours
- 10-ft Contours
- Work Pad
- Eversource Owned Property
- Municipal Boundary
- Parcel Boundary

N

1:2,400

0 100 200 Feet

EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

Dover, NH	MAP SHEET 1 of 6
Date: January, 2023	vhb

Document Path: \\vhb.com\gis\proj\Bedford\52466.00 M183 Structure Replacement\Project\M183 S153 ACR.aprx

Parcel ID	Owner Name	Address	Town	State	Zip Code
I0082-J00000	Carrier Joshua A	8 Linda Avenue	Dover	NH	03820
I0082-B00000	Fish Edward D	10 Linda Avenue	Dover	NH	03820
I0080-Z00000	Antoinette Mudgett Living Trust & Cornell, Successor Trustee Pamela	2150 South Ocean Boulevard Apt 6B	Delray Beach	FL	33483
I0080-W00000	Sullivan Corey S & Sullivan Shannon L	20 Linda Avenue	Dover	NH	03820
I0082-K00000	Macdonald Family Revocable Trust & Macdonald, Trustees John B & M Georgia	12 Linda Avenue	Dover	NH	03820
I0082-L00000	White Ryan D & White Stacey A	14 Linda Avenue	Dover	NH	03820
I0082-C00000	Lagasse Tyler D	16 Linda Avenue	Dover	NH	03820
I0074-E00000	Stolzenburg Herman H & Stolzenburg Thelma E	12 Riverdale Avenue	Dover	NH	03820
I0080-R00000	Brazeau Roy & Wheeler Ilene	95 Garrison Road	Dover	NH	03820
I0079-J00000	Gross Friedlinde	10 Riverdale Avenue	Dover	NH	03820
I0082-Y00000	Lawton Robert E & Lawton Mugino I	6 Linda Avenue	Dover	NH	03820-4518
I0074-J00000	Ford Elena V	8 Riverdale Avenue	Dover	NH	03820
M0015-000000	Leaver Sherry L & Leaver Robin Alan	10 Finch Lane	Dover	NH	03820
I0001-N000A0	Pat Par Incorporated	385 6th Stret	Dover	NH	03820
J0001-D00000	Gasses Family Revocable Trust of 2008 & Gasses, Co- Trustees Lorrie & Paul	166 Garrison Road	Dover	NH	03820
J0001-E00000	Gasses Marcia	114 Garrison Road	Dover	NH	03820-4589
J0001-000000	Gasses Farm Revocable Trust of 2009 & Gasses, Co- Trustees Paul & Alice	116 Garrison Road	Dover	NH	03820
I0001-Q00000	Greenfield Commons (Condos)	Greenfield Drive	Dover	NH	03820
I0001-N00000	Bellamy Woods (Condos)	17 Commerce Drive Suite 3	Bedford	NH	03110-6981
I0001-Q00007	Macklin Carl	2A Greenfield Drive	Dover	NH	03820
I0001-Q00008	Collins John W & Collins Karen I	2B Greenfield Drive	Dover	NH	03820
I0001-N00071	Gewirtz Anna Marie & Gewirtz Michael James	80 Crispin Drive	South Burlington	VT	05403
I0001-N00096	Berry Shantelle L	96 Bellamy Woods	Dover	NH	03820
I0001-Q00009	Johnson Janice	2C Greenfield Drive	Dover	NH	03820
I0001-Q00010	Jennifer M Manning Revocable Trust	2D Greenfield Drive	Dover	NH	03820
I0001-Q00011	Gagnon Christine M	2E Greenfield Drive	Dover	NH	03820
I0001-Q00012	Smith Shane	2F Greenfield Drive	Dover	NH	03820
I0001-Q00019	Theophyne & Francine Kontos Trustees	4A Greenfield Driver	Dover	NH	03820
I0001-Q00020	Kageleiry John	4B Greenfield Drive	Dover	NH	03820
I0001-Q00021	Bosquet-Fleurival Darnelle &	4C Greenfield Drive	Dover	NH	03820
I0001-Q00022	Dellacroce Nancy J & Dellacroce Kali R	4D Greenfield Drive	Dover	NH	03820
I0001-Q00023	Sherwood Mallory I	153 Bluefish Blvd	Portsmouth	NH	03801
I0001-Q00024	Mcintire Laura A & Cutter Jr George R	345 Weymouth Road	Morrill	ME	04952-5013

TEMPORARY UPLAND IMPACT:
1,847 SF

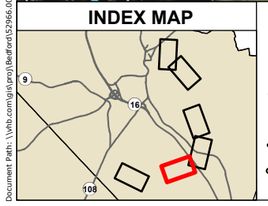
PREFERRED OFF-ROW ACCESS.
MINOR TREE TRIMMING REQUIRED.

ARBOR DRIVE
GARRISON ROAD
MCKENNA STREET
RIVERDALE AVENUE
GREENFIELD DRIVE
LINDA AVENUE
AUSTIN DRIVE
HEMLOCK CIRCLE
BELLAMY WOODS
GASSES LANE
SEABORNE DRIVE
FINCH LANE
DOVER

M183 Line
307 Line
Bellamy River

I0001-N00000
I0001-N00071
I0001-N00096
I0001-N000A0
I0001-Q00020
I0001-Q00024
I0001-Q00019
I0001-Q00022
I0001-Q00000
I0001-Q00023
I0001-Q00009
I0001-Q00008
I0001-Q00012
I0001-Q00011
I0001-Q00010
I0001-Q00007
I0080-R00000
I0074-J00000
I0079-J00000
I0074-E00000
I0080-W00000
I0080-Z00000
I0082-C00000
I0082-B00000
I0082-L00000
I0082-K00000
I0082-J00000
I0082-Y00000
J0001-E00000
J0001-D00000
J0001-000000
M0015-C00000
M0015-000000

43 44 45 46 47 48 49 50 51



Existing Structure
Structure to be Replaced
Proposed Structure
Eversource Overhead Line
Approximate Right-of-Way (ROW)
Existing Access
Proposed Access

Proposed Off ROW Access
Watercourse (not delineated)
Delineated Stream
Delineated Wetland Boundary
50-ft Wetland Buffer
Field Delineated Wetland

Stablized Construction Exit
Sediment Control Barrier
FEMA 100-year Floodplain
Temporary Upland Matting
Temporary Construction Matting
Temporary Municipal Buffer Impact

2-ft Contours
10-ft Contours
Work Pad
Eversource Owned Property
Municipal Boundary
Parcel Boundary

N

1:2,400
0 100 200 Feet

EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

Dover, NH | MAP SHEET 2 of 6

Date: January, 2023

vhb

Document Paths: \\vhb.com\gis\proj\Bedford\52966.00 M183 Structure Replaceme\Project\M183 S153 ACR.aprx

Parcel ID	Owner Name	Address	Town	State	Zip Code
M0015-C00000	Marchisio Trust & Marchisio, Trustees G & V	9 Finch Lane	Dover	NH	03820
M0151-000000	Crowley Janis P & Crowley Ronald S	24 Toftree Lane	Dover	NH	03820
M0033-A00000	Mattox Ian	25 Gerrish Road	Dover	NH	03820
M0139-000000	Vermette Norman P & Vermette Aubrie A	67 Toftree Lane	Dover	NH	03820
M0152-000000	Diamond Steven G	26 Toftree Lane	Dover	NH	03820
M0155-000000	Grondin Danielle	32 Toftree Lane	Dover	NH	03820
M0154-000000	Nepal Bipul & Mepal Samjhana Subedi	30 Toftree Lane	Dover	NH	03820
M0159-000000	Theresa S Snook Revocable Trust & Snook Theresa S	40 Toftree Lane	Dover	NH	03820
M0138-000000	Chaffin Neil C	65 Toftree Lane	Dover	NH	03820
M0153-000000	Lynch Dawn B & Lynch Michael J	28 Toftree Lane	Dover	NH	03820
M0124-000000	Mitts, Jr Jerry J & Mitts Allison M	37 Toftree Lane	Dover	NH	03820
M0137-000000	Jones Shawn K & Jones Heather M	63 Toftree Lane	Dover	NH	03820
M0038-000000	Murphy Robert M & Roberts Juliana H	30 Gerrish Road	Dover	NH	03820-4671
M0040-000000	Zheng Dun Xian	39 Gerrish Road	Dover	NH	03820
M0157-000000	Hook Trustees Andrew M & Jessica M	36 Toftree Lane	Dover	NH	03820
M0142-000000	Wilson Michael T & Wilson Susan L	6 Toftree Lane	Dover	NH	03820-4625
M0143-000000	Cannon Nootem & Cannon James R	4 Toftree Lane	Dover	NH	03820
M0158-000000	Wells Adam J	38 Toftree Lane	Dover	NH	03820
M0125-000000	Khamvongsa Khammouan & Khamvongsa Manichan	39 Toftree Lane	Dover	NH	03820
M0049-000000	Vendasi William R & Vendasi Karen L	89 Old Dover Point Road	Dover	NH	03820
M0084-G00001	City of Dover	288 Central Avenue	Dover	NH	03820
M0163-000000	Breton Karen L & Breton Dennis L	2 Toftree Lane	Dover	NH	03820
M0050-000000	Patricia M Barton 2011 Revocable Trust	24 Boston Harbor #17	Dover	NH	03820
M0051-000000	Pollock Evan N & Tucker Ashleigh B	101 Dover Point Road	Dover	NH	03820
M0047-A00000	Henry F & Cova M Greig Revocable Living Trust	91 Old Dover Point Road	Dover	NH	03820
M0033-C00000	Gustin, Sr Douglas E	23 Gerrish Road	Dover	NH	03820
M0050-A00000	Fedder Bryce & Fedder Nicole	93 A Old Dover Point Road	Dover	NH	03820
M0047-E00000	Rasmussen Laura L & Rasmussen Dean S	81 Old Dover Point Road	Dover	NH	03820
M0052-008000	Conway Family Revocable Trust	17 Ivans Lane	Dover	NH	03820
M0038-A00000	Driscoll Kurt I & Mailhot Beth M	24 Gerrish Road	Dover	NH	03820-4671
M0037-000000	Frost, Sr Steven & Frost Elizabeth	20 Gerrish Road	Dover	NH	03820
M0047-C00000	Dover Point Cooperative Incorporated	44 Polly Ann Trailer Pak	Dover	NH	03820
K0021-000000	Doverbrook LLC	56 Briant Drive	Sudbury	MA	01776-1380
K0021-000000	Doverbrook LLC	56 Briant Drive	Sudbury	MA	01776-1380

Temporary Impact Summary		
Temporary Matting Impact (SF)	Temporary Upland Matting Impact (SF)	Temporary Municipal Buffer Impact (SF)
9,416	4,462	9,835

TEMPORARY MUNICIPAL BUFFER IMPACT: 353 SF

TEMPORARY WETLAND IMPACT: 2,748 SF

TEMPORARY WETLAND IMPACT: 440 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 245 SF

TEMPORARY WETLAND IMPACT: 5,026 SF

TEMPORARY WETLAND IMPACT: 1,202 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 761 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 3,006 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 4,794 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 424 SF

TEMPORARY UPLAND MATTING IMPACT: 4,462 SF

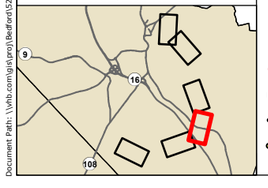
TEMPORARY MUNICIPAL BUFFER IMPACT: 252 SF

M0015-000000 M0033-C00000 M0033-A00000 M0038-A00000 M0037-000000 M0040-000000 M0038-000000 M0039-000000 M0047-E00000 M0047-A00000 M0047-C00000 M0049-000000 M0050-000000 M0050-A00000 M0051-000000 M0052-008000 M0084-G00001 M0163-000000 M0143-000000 M0142-000000 M0139-000000 M0138-000000 M0159-000000 M0158-000000 M0151-000000 M0152-000000 M0153-000000 M0154-000000 M0155-000000 M0125-000000 M0124-000000 M0157-000000 M0137-000000 K0021-000000

DOVER POINT ROAD · INDEPENDENCE DRIVE · SPUR ROAD · GERRISH ROAD · POLLY ANN PARK · TOFTREE LANE · DOVER · M183 Line · 301 Line · Varney Brook · Canney Brook

51 52 53 54 55 56 58 59 60 61 62

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EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

Dover, NH | MAP SHEET 3 of 6

Date: January, 2023

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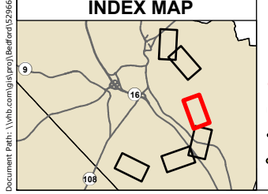
Document Paths: \\vhb.com\gis\proj\Bedford\52966.00 M183 Structure Replacme\Project\M183_S153_ACR.aprx

Parcel ID	Owner Name	Address	Town	State	Zip Code
K0011-000000	Andrea L Andrea L Ross Revocable Trust & Ross, Trustee	33 Back Road	Dover	NH	03820
K0011-A00000	Langdon Place of Dover	101 East State Street	Kennett Square	PA	19398
K0006-000000	Cbf2 LLC & Torr Thomas F Trustee	154 Middle Road	Dover	NH	03820
M0005-000000	Wentworth Sharon & Wentworth Mark	161 Middle Road	Dover	NH	03820
K0021-000000	Doverbrook LLC	56 Briant Drive	Sudbury	MA	01776-1380
M0004-000000	Thornwood Commons Unit Owner's Association C/O Great North Property Management	3 Holland Way	Exeter	NH	03833
K0019-001000	Changing Places LLC	42 J Dover Point Road	Dover	NH	03820
K0049-A00000	Meadowood at Dover Homeowner's Association C/O Ron Poulin	60 Augusta Way	Dover	NH	03820
K0021-000014	Hunter Benjamin C & Hunter Faye N	28 Constitution Way	Dover	NH	03820
K0021-000064	Mathieu Norman & Mathieu Geraldine	25 Constitution Way	Dover	NH	03820
K0021-000063	Lavoie Guy & Lavoie Cheryl	16 Independence Drive	Dover	NH	03820
K0021-000062	Pierce Robert C & Pierce Annette	14 Indepemdence Drive	Dover	NH	03820
K0021-000061	Doughan Edwina H	12 Independence Drive	Dover	NH	03820
K0021-000037	Mcintire Susan P & Mcintire Salina J	13 Independence Drive	Dover	NH	03820
K0021-000067	Boulanger Michele J	2 Revolution Drive	Dover	NH	03820
K0021-000086	Bennett Janice	15 Indepedendence Drive	Dover	NH	03820
K0021-000065	Rocheford Jr Wayne & Rocheford Colleen	17 Independence Drive	Dover	NH	03820
K0021-000015	Dirck Family Trust & Dirck, Trustees Roger & Deborah	30 Constitution Way	Dover	NH	03820
M0004-000022	Roberge John R & Roberge Paula C	1 Sonia Drive	Dover	NH	03820
M0004-000021	Graf Kenneth M & Graf Beth D	3 Sonia Drive	Dover	NH	03820
M0004-000020	Scher Ian H & Davoli Monica	5 Sonia Drive	Dover	NH	03820
M0004-000019	Wilkes Elieen S & Wilkes B Jr Robert B	306 Columbus Street	Panama City	FL	32407
K0019-001008	Margaret Olsen Declaration Of Trust	16 Teresa Drive	Dover	NH	03820
K0019-001007	Burge Kathleen M & Burge Betty A	18 Teresa Drive	Dover	NH	03820
K0019-001006	Madison Michael J & Madison Laurie A	17 Teresa Drive	Dover	NH	03820
K0019-001005	Russo Joseph Anthony & Russo Carol Jean	15 Teresa Drive	Dover	NH	03820
K0019-001004	Suzanne & David Withee Trustees	9 Teresa Drive	Dover	NH	03820
K0019-001003	Vitko, Jr Joseph E & Vitko Jean L	7 Teresa Drive	Dover	NH	03820
K0019-001002	Glennon Family Revocable Trust	5 Teresa Drive	Dover	NH	03820
K0019-001001	Kimball Robert & Kimball Karen	3 Teresa Drive	Dover	NH	03820
M0004-000028	Abrahamson, Jr Eldon A & Abrahamson Brenda J	11 Madelyn Drive	Dover	NH	03820
M0004-000027	Thornwood Commons LLC	42 J Dover Point Road	Dover	NH	03820
M0004-000026	Spence Revocable Trust & Spence, Trustees Richard T & Susan D	8 Madelyn Drive	Dover	NH	03820

Temporary Impact Summary	
Temporary Matting Impact (SF)	**Temporary Municipal Buffer Impact**
2,494	6,915

SIERRA DRIVE
SIERRA HILL DRIVE
AUGUSTA WAY
K0049-A00000
MIDDLE ROAD
POINTE PLACE
K0019-001008
K0019-001007
K0019-001000
K0019-001004
K0019-001005
K0019-001006
TERESA DRIVE
K0019-001002
K0019-001003
K0019-001001
TEMPORARY MUNICIPAL BUFFER IMPACT: 6,289 SF
M183 Line
K0021-000037
INDEPENDENCE DRIVE
K0021-000061
K0021-000062
K0021-000064
K0021-000014
M0004-000000
JULIA DRIVE
MADELYN DRIVE
M0004-000026
M0004-000028
M0004-000027
K0011-A00000
K0006-000000
K0021-000067
K0021-000086
K0021-000065
K0021-000063
K0021-000015
K0021-000000
M0004-000022
M0004-000020
M0004-000021
M0004-000019
TEMPORARY WETLAND IMPACT: 2,494 SF
TEMPORARY MUNICIPAL BUFFER IMPACT: 626 SF
DOVER
K0011-000000
REVOLUTION DRIVE
SONIA DRIVE
JACQUELINE DRIVE
THORNWOOD LANE
CONSTITUTION WAY
K0006-000000
M0005-000000
Maine GeoLibrary, Maxar, Microsoft

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- Temporary Construction Matting
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- 10-ft Contours
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- Parcel Boundary

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0 100 200 Feet

EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

Dover, NH	MAP SHEET 4 of 6
Date: January, 2023	vhb

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Parcel ID	Owner Name	Address	Town	State	Zip Code
K0004-C00000	City of Dover	288 Central Avenue	Dover	NH	03820
K0002-000000	State of New Hampshire & C/O New Hampshire Fish & Game	11 Hazen Drive	Concord	NH	03301
N0022-C00008	Pruyn Trustee Robert A	10 Gerry's Lane	Dover	NH	03820
K0001-000000	Rousseau Susan J & Rousseau Peter	200 Henry Law Avenue	Dover	NH	03820
K0001-000000	Rousseau Susan J & Rousseau Peter	200 Henry Law Avenue	Dover	NH	03820

Temporary Impact Summary	
Temporary Matting Impact (SF)	**Temporary Municipal Buffer Impact**
3,489	12,100

OFF-ROW ACCESS FROM HENRY LAW AVENUE THROUGH GATED NH F&G PROPERTY. EXISTING GRAVEL ROAD TO ROW FROM PREVIOUS PROJECT TO BE RESTORED AT PROJECT COMPLETION PER REQUEST OF NH F&G.

TEMPORARY MUNICIPAL BUFFER IMPACT: 2,394 SF

TEMPORARY WETLAND IMPACT: 519 SF

TEMPORARY WETLAND IMPACT: 1,856 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 675 SF

TEMPORARY WETLAND IMPACT: 1,114 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,158 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 1,183 SF

TEMPORARY MUNICIPAL BUFFER IMPACT: 6,690 SF

HENRY LAW AVENUE

PENNY LANE

THOMPSON ROAD

MCKONE LANE

DOVER

K0001-000000

K0002-000000

K0004-C00000

22042-000000

N0023-000000

N0022-C00008

Cocheco River

M183 Line

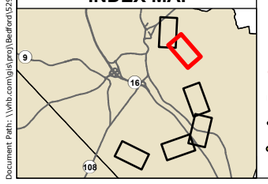
R169 Line

77.5 78 78.5 79 80 81 82 83 84 85

112 113 114 115 116 117

Maxar, Microsoft

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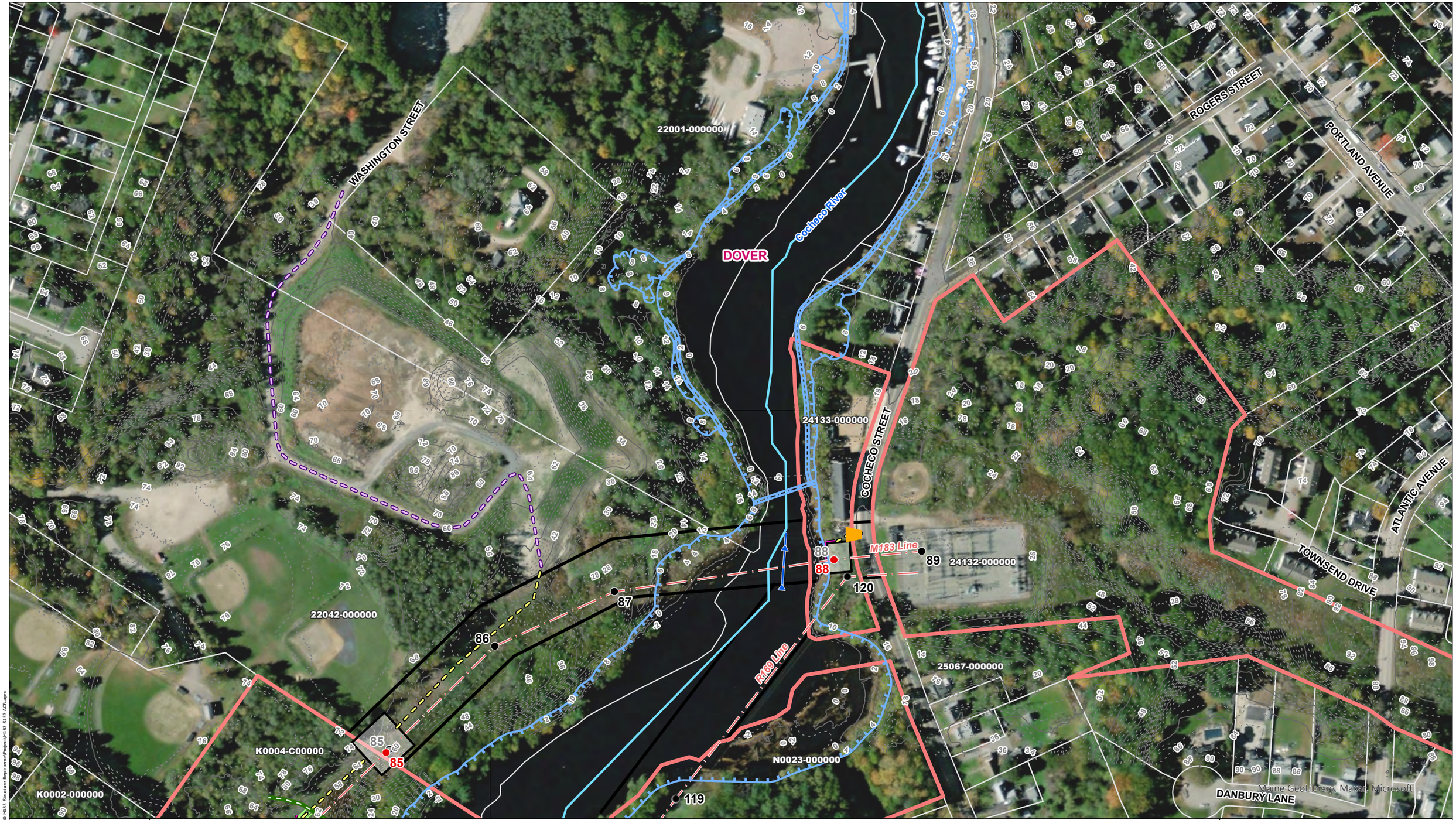
EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

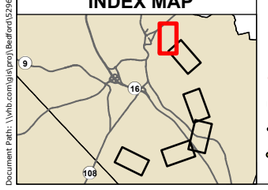
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Parcel ID	Owner Name	Address	Town	State	Zip Code
24133-000000	Public Service Company of New Hampshire (Eversource)	PO Box 330	Manchester	NH	03105-0330
N0023-000000	Public Service Company of New Hampshire (Eversource)	PO Box 330	Manchester	NH	03105-0330
25067-000000	Jones Remi F & Cally G Trustees	88 Cocheco Street	Dover	NH	03820
24132-000000	Public Service Company of New Hampshire (Eversource)	PO Box 330	Manchester	NH	03105-0330
22042-000000	City of Dover	288 Central Avenue	Dover	NH	03820
22001-000000	City of Dover	288 Central Avenue	Dover	NH	03820



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1:2,400

0 100 200 Feet

EVERSOURCE ENERGY

M183 Line Structure Replacement - Dover Local Permitting Plans

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Date: January, 2023	vhb

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AMBIT ENGINEERING,INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

1 January 2023

Wetland Inspector
New Hampshire Department of Environmental Services
Wetlands Bureau
29 Hazen Drive / P.O. Box 95
Concord, New Hampshire 03302

Re: NHDES Major Impact Wetland Permit Application
Tax Map N, Lot 8-1
Saddle Trail Drive
Dover, New Hampshire

Dear Wetland Inspector:

This letter transmits a New Hampshire Department of Environmental Services (NHDES) Major Impact Wetland Permit Application request to construct a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands.

Attached to this application you will find a "NH DES Dock Permit Plan-C2" which depicts the existing lot, jurisdictional areas, abutting parcels, existing structures, proposed work, and permanent impact areas.

Per Env-Wt 306.05, Certified Wetland Scientist Steve Riker from Ambit Engineering, Inc. classified all jurisdictional areas and identified the predominant functions off all relevant resources. The Highest Observable Tide Line marks the reference line for the 100' TBZ, as well the beginning of Tidal Wetland on the attached plan set. Attached to this application is a Wetland Functions and Values Assessment and Coastal Vulnerability Assessment summarizing these functions; as this project is subject to the requirements of Env-Wt 603.04 and Env-Wt 603.05.

The proposed structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. The project will have no impact on the functions and values of the adjacent tidal wetland. The docking structure has been designed to allow the adjacent tidal resource to maintain its current functions and values. The docking structure will not contribute to additional storm water or pollution. It is anticipated that there will be no affect on any fish and wildlife species that currently use the site for food, cover, and/or habitat. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. The float and gangway will be temporary docking structures and will be removed during winter months as to not interfere with ice floe.

The docking structure has been designed to provide recreational boating access utilizing the natural grade of the dock location. There is no grading of the shoreline required to construct the dock. There will be no construction activity that will disturb the area adjacent to the use. All work will be performed from a crane barge at low tide. The barge floats into position and the piles are driven by the crane equipped with a

vibratory hammer. This method eliminates any contact of construction equipment with the protected resource. Portions of the docking structure are pre-fabricated off site and transported to the site via crane barge.

The construction sequence for the proposed structure are as follows:

- Mobilization of a crane barge, push boat, work skiff, materials and prefabricated components such as the gangway and float to the site via the Cocheco River.
- Mobilization of equipment trucks to the site.
- The barge will be positioned alongside the proposed location of the new dock and waterward of any emergent vegetation to minimize impacts.
- Installation of the sub structure will be performed from a crane barge or skiff to reduce the amount of foot traffic in the intertidal area.
- All work will be performed at low tide to minimize sedimentation.
- Piles will be driven by a vibratory hammer eliminating any excavation for installation of the pilings. Piles are driven to refusal.
- Piles are cut and beam caps are installed and the super structure of the pier is built. Materials are lifted from the barge and set into position by the crane.
- Once the pier is complete, the gangway and float are brought into position and installed.

The project represents the alternative with the least adverse impacts to areas and environments while allowing reasonable use of the property.

Per Env-Wt 603.02(b), attached to this application you will find a plan set which depicts the existing lot, jurisdictional areas, all natural resources in the area, abutting parcels, existing structures, and proposed structures. Also included in this application are maps created in accordance with Env-Wt 603.03 and Env-Wt 603.05.

In order to complete the application package for this project, the DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(2) has been evaluated and addressed below.

(2) a. Contains any documented occurrences of protected species or habitat for such species, using the NHB DataCheck tool;

Attached to this application are the results of the NHB review and it was determined that low brackish riverbank marsh and great bur-reed (Sparganium eurycarpum) has the potential to occur within the project area. Ambit Engineering, Inc. surveyed the property for salt marsh and has depicted the locations on the attached plan set. Ambit Engineering will coordinate with NHB regarding the presence of great bur-reed and comments will be forwarded to NH DES upon receipt.

(2) b. Is a bog;

Utilizing the NH DES WPPT, the subject property is not a bog, nor does it contain any portion of a bog.

(2) c. Is a floodplain wetland contiguous to a tier 3 or higher watercourse;
Utilizing the NH DES WPPT, the subject property does contain a floodplain wetland contiguous to a tier 3 or higher watercourse.

(2) d. Does the property contain a designated prime wetlands or a duly established 100-foot buffer; or
The property does not contain a prime wetland or duly established 100 foot buffer.

(2) e. Does the property contain a sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone;
The property does not contain a sand dune. The property does contain a tidal wetland and tidal waters.

The DES Wetlands Bureau rules in Chapter Env-Wt 306.05 (a)(4) and (a)(7) has been evaluated and addressed below.

(4) a. Is the subject property within LAC jurisdiction;
The property does not fall within an area of LAC jurisdiction.

(4) b. Does the subject property fall within or contain any areas that are subject to time of year restrictions under Env-Wt 307;
The property does not fall within or contain any areas that are subject to time of year restrictions.

(7) Does the project have potential to impact impaired waters, class A waters, or outstanding resource waters;
I do not believe the nature of the proposed project has the potential to impact an impaired water.

The DES Wetlands Bureau rules in Chapter Env-Wt 603.02 (e) & (f) have been evaluated and addressed below.

(e)(1) The project meets the standard conditions in Env-Wt 307;
The project meets the standard conditions in Env-Wt 307 as the proposed docking structure meets the standards of Env-Wq 1000, RSA 483-B and Env-Wq 1400. Sediment and erosion controls will also be used and maintained during the proposed construction ensuring protection of water quality on the site. Since the construction will be conducted during low tide conditions, it is not anticipated that there will be any impacts to fish or shellfish. Under Env-Wt 306.05 (a)(2)a. a NHB review has been performed to ensure there are no impacts to protected species or habitats of such species. The protection of Prime Wetlands or Duly-Established 100 foot buffers does not apply as none exist on or adjacent to the subject lot.

(e)(2) The project meets the approval criteria in Env-Wt 313.01;
The project meets the approval criteria in Env-Wt 313.01 as the project requires a functional assessment (attached), meets the avoidance and minimization requirements specified in Env-Wt 313.03, does not require compensatory mitigation, meets applicable conditions specified in Env-Wt 307 (above), meets project specific criteria listed in Env-Wt 600 (above), and the project is located entirely within the boundary of the applicants property.

(f)(1) The project design narrative as described in Env-Wt 603.06;

The project design narrative is provided above.

(f)(2) Design plans that meet the requirements of Env-Wt 603.07;
The design plans meet the above standard.

(f)(3) The water depth supporting information required by Env-Wt 603.08;
The design plans provide water depth information.

(f)(4) A statement regarding impact on navigation and passage required by Env-Wt 603.09.
The Permit Plan Set will be provided to the Pease Development Authority, Division of Ports and Harbors, for formal review and comment by the Harbormaster. That documentation will be provided to NH DES upon receipt.

The proposed tidal docking structures will serve a group of residences which are members of good standing within the Saddle Trail Drive Homeowners Association. I believe that since the dock will provide recreational boating access to multiple residences, the proposed application meets the criterion defined in Env-Wt 606.07(d) and (f).

In accordance with New Hampshire Administrative Rule Env-Wt 606.02(a) and 606.06(e), the marine contractor which will be constructing the proposed dock modification utilizes a vibratory hammer to install piles. The vibratory hammer uses vibration to install the pile in the marine sediment, instead of a standard hammer which uses a physical force to drive the pile, and subsequently a much greater noise impact. Using the vibratory hammer is the least impacting alternative to drive piles for dock construction.

The proposed pile locations for the dock are located above the Mean Low Water (MLW) line will be installed at low tide. Installation during "the dry" greatly reduces the amount of noise that is transmitted into the water column, as no water will be present at the pile location.

Lastly, the proposed structure will use CCA (Chromated Copper Arsenate) treated lumber. The proposed piles will be CCA treated 12" diameter southern yellow pine. Attached to this application is a Safety Data Sheet for CCA treated wood. Per the data sheet, toxicity is limited to inhalation of wood dust originating from CCA treated lumber. Additionally, per the Safety Data Sheet, 12. Ecological Information (page 12) "The product is not classified as environmentally hazardous. However, this does exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment." The product is also insoluble in water. The marine contractor that will be constructing the proposed docking structure receives the timber piles and lumber pre-treated. The marine contractor does not treat the lumber, and therefore there is no risk of spilling the treatment chemical in or near resource areas.

Please contact me if you have any questions or concerns regarding this application.

Respectfully submitted,

Steven D. Riker, CWS
NH Certified Wetland Scientist/Permitting Specialist
Ambit Engineering, Inc.

20 December, 2022

To Whom It May Concern:

RE: State of New Hampshire DES Wetlands Bureau Standard Dredge and Fill Application for proposed shoreline stabilization within the previously developed 100' Tidal Buffer Zone and jurisdictional wetlands for *Saddle Trail Homeowners Association at Saddle Trail Drive Dover, NH 03820*

This letter is to inform the City of Dover in accordance with State Law that the following entities:

Riverside Marine Construction, Inc.
Ambit Engineering, Inc

Are authorized to represent me as my agent in the approval process.

Please feel free to call me if there is any question regarding this authorization.

Sincerely,

Daniel A. Meyers &Carla Meyers Revocable Trust
Carla Meyers, Trustee
Lot #3
44 Saddle Trail Drive
Dover, NH 03820

The Lawrence F. Morris & Laura M. Morris Revocable Living Trust
Lawrence F. Morris, Trustee
74 Saddle Trail Drive
Dover, NH 03820

Bonterra Farms, LLC Trust
Blythe Brown, Trustee
Lot#1 26 Saddle Trail Dr.
Lot #10 31 Saddle Trail Dr.
Lot #2 Vacant Land
Dover, NH 03820

Blythe Brown, Trustee

Peter T Paul Living Trust
Peter Paul, Trustee
56 Saddle Trail Drive
Dover, NH 03820

Peter Paul

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: **Saddle Trail Drive Homeowners Association** **TOWN NAME:** Dover

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the Waiver Request Form.

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	☐ Yes ☒ No
• Protected species or habitat? o If yes, species or habitat name(s): low brackish riverbank marsh, great bur-reed o NHB Project ID #: 22-3168	☒ Yes ☐ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☒ Yes ☐ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): • A copy of the application was sent to the LAC on Month: Day: Year: N/A	☐ Yes ☒ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.

The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands.

SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS: Saddle Trail Drive

TOWN/CITY: Dover

TAX MAP/BLOCK/LOT/UNIT: Map N, Lot 8-1

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME: Cocheco River
☐ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): X: 1,204,176.2357° North
Y: 252,594.3057° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: Saddle Trail Drive Homeowners Association C/O Carla Meyers		
MAILING ADDRESS: 56 Saddle Trail Drive		
TOWN/CITY: Dover	STATE: NH	ZIP CODE: 03820
EMAIL ADDRESS: cmeyers178@att.net		
FAX:	PHONE: 978-752-5334	

ELECTRONIC COMMUNICATION: By initialing here: , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))

☐ N/A

LAST NAME, FIRST NAME, M.I.: Riker, Steven, D.		
COMPANY NAME: Ambit Engineering, Inc.		
MAILING ADDRESS: 200 Griffin Road, Unit 3		
TOWN/CITY: Portsmouth	STATE: NH	ZIP CODE: 03801
EMAIL ADDRESS: sdr@ambitengineering.com		
FAX:	PHONE: 603-430-9282	

ELECTRONIC COMMUNICATION: By initialing here SR, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))

If the owner is a trust or a company, then complete with the trust or company information.

☐ Same as applicant

NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):
Please see attached narrative.

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)).* Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization and the Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet. For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the Avoidance and Minimization Checklist, the Avoidance and Minimization Narrative, or your own avoidance and minimization narrative.

**See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.*

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month: Day: Year:

(☒ N/A - Mitigation is not required)

SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

(☒ N/A – Compensatory mitigation is not required)

SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. *Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.*

For perennial streams/rivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland			☐			☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ	96		☐			☐
	Docking - Tidal Water	1410		☐			☐
TOTAL		1506					

SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)

☐ **MINIMUM IMPACT FEE**: Flat fee of $400.

☐ **NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of $400 (refer to RSA 482-A:3, 1(c) for restrictions).

☒ **MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking):	SF	× $0.40 =	$	
Seasonal docking structure:	750 SF	× $2.00 =	$	1500
Permanent docking structure:	756 SF	× $4.00 =	$	3024
Projects proposing shoreline structures (including docks) add $400 =			$	400
Total =			$	4924

The application fee for minor or major impact is the above calculated total or $400, whichever is greater = $

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05) Indicate the project classification.		
☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)	
Initial each box below to certify:	
Initials: SR	To the best of the signer's knowledge and belief, all required notifications have been provided.
Initials: SR	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
Initials: SR	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
Initials: SR	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)		
SIGNATURE (OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE): Steven Riker	PRINT NAME LEGIBLY: Steven D. Riker	DATE: 1/1/2023

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))	
As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE:	PRINT NAME LEGIBLY:
TOWN/CITY:	DATE:

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:
Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to “Treasurer – State of NH”.

COASTAL RESOURCE WORKSHEET

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 600

APPLICANT LAST NAME, FIRST NAME, M.I.: **Saddle Trail Drive Homeowners Association**

Applicability: This worksheet may be used to present the information required for projects in coastal areas in addition to the information required for Lower-Scrutiny Approvals, Expedited Permits, and Standard Permits under Env-Wt 603.01.

Please refer to Env-Wt 605.03 for impacts requiring compensatory mitigation.

SECTION 1 - REQUIRED INFORMATION (Env-Wt 603.02; Env-Wt 603.06; Env-Wt 603.09)
The following information is required for projects in coastal areas.

Describe the purpose of the proposed project, including the overall goal of the project, the core project purpose including a concise description of the facilities and work that could impact jurisdictional areas, and the intended project outcome. Specifically identify all natural resource assets in the area proposed to be impacted and include maps created through a data screening in accordance with Env-Wt 603.03 (refer to Section 2) and Env-Wt 603.04 (refer to Section 3) as attachments.

The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. The dock has been designed to represent least impacting alternative with the least amount of surface area located over salt marsh while also maintaining a 20 foot setback to property lines extended.The proposed tidal docking structure will provide recreational boating access to Fresh Creek and the Cocheco River.

For standard permit projects, provide:

☒ A Coastal Functional Assessment (CFA) report (refer to Section 3); and

☒ A vulnerability assessment (refer to Section 4).

Explain all recommended methods and other considerations to protect the natural resource assets during and as a result of project construction in accordance with Env-Wt 603.04, Env-Wt 311.07, and Env-Wt 313.

A Coastal Functional Assessment and a Coastal Vulnerability Assessment is attached to this application per Env-Wt 603.04. An Avoidance & Minimization Form is attached to this application, and also described in the attached narrative letter per Env-Wt 311.07 and Env-Wt 313.

Provide a narrative showing how the project meets the standard conditions in Env-Wt 307 and the approval criteria in Env-Wt 313.01.

The project plan set, specifically the Details-Sheet D1 includes all notes demonstrating compliance with Env-Wt 307 and Env-Wt 313.01.

Provide a project design narrative that includes the following:

☒ A discussion of how the proposed project:

- Uses best management practices and standard conditions in Env-Wt 307;
- Meets all avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;
- Meets approval criteria in Env-Wt 313.01;
- Meets evaluation criteria in Env-Wt 313.01(c);
- Meets CFA requirements in Env-Wt 603.04; and
- Considers sea-level rise and potential flooding evaluated pursuant to Env-Wt 603.05;

☒ A construction sequence, erosion/siltation control methods to be used, and a dewatering plan; and

☒ A discussion of how the completed project will be maintained and managed.

The completed project will result in a permanent fixed pier, with an attached gangway and associated float. The gangway and float are/will be seasonal structures and will be removed in the non-boating season. Other than removal and re-installation, there is no maintenance or management of the tidal docking structure over its expected life span, which is 50-100 years.

☒ Provide design plans that meet the requirements of Env-Wt 603.07 (refer to Section 5);

☒ Provide water depth supporting information required by Env-Wt 603.08 (refer to Section 6); and

☒ For any major project that proposes to construct a structure in tidal waters/wetlands or to extend an existing structure seaward, provide a statement from the Pease Development Authority Division of Ports and Harbors ("DP&H") chief harbormaster, or designee, for the subject location relative to the proposed structure's impact on navigation. If the proposed structure might impede existing public passage along the subject shoreline on foot or by non-motorized watercraft, the applicant shall explain how the impediments have been minimized to the greatest extent practicable.

Review and comment by the Pease Development Authority will be provided to NH DES upon receipt.

SECTION 2 - DATA SCREENING (Env-Wt 603.03, in addition to Env-Wt 306.05)

Please use the Wetland Permit Planning Tool, or any other database or source, to indicate the presence of:

☒ Existing salt marsh and salt marsh migration pathways;

☒ Eelgrass beds;

☒ Documented shellfish sites;

☒ Projected sea-level rise; and

☒ 100-year floodplain.

Conduct data screening as described to identify documented essential fish habitat, and tides and currents that may be impacted by the proposed project, by using the following links:

☒ National Oceanic and Atmospheric Administration (NOAA) Tides & Currents; and

☒ NOAA Essential Fish Habitat Mapper.

☒ Verify or correct the information collected from the data screenings by conducting an on-site assessment of the subject property in accordance with Env-Wt 406 and Env-Wt 603.04.

SECTION 3 - COASTAL FUNCTIONAL ASSESSMENT/ AVOIDANCE AND MINIMIZATION (Env-Wt 603.04; Env-Wt 605.01; Env-Wt 605.02; Env-Wt 605.03)

Projects in coastal areas shall:

☒ Not impair the navigation, recreation, or commerce of the general public; and

☒ Minimize alterations in prevailing currents.

An applicant for a permit for work in or adjacent to tidal waters/wetlands or the tidal buffer zone shall demonstrate that the following have been avoided or minimized as required by Env-Wt 313.04:

☒ Adverse impacts to beach or tidal flat sediment replenishment;

☒ Adverse impacts to the movement of sediments along a shore;

☒ Adverse impacts on a tidal wetland's ability to dissipate wave energy and storm surge; and

☒ Adverse impacts of project runoff on salinity levels in tidal environments.

For standard permit applications submitted for minor or major projects:

☒ Attach a CFA based on the data screening information and on-site evaluation required by Env-Wt 603.03. The CFA for tidal wetlands or tidal waters shall be:

- ☒ Performed by a qualified coastal professional; and
- ☒ Completed using one of the following methods:

  a. The US Army Corps of Engineers (USACE) Highway Methodology Workbook, dated 1993, together with the USACE New England District *Highway Methodology Workbook Supplement*, dated 1999; or

  b. An alternative scientifically-supported method with cited reference and the reasons for the alternative method substantiated.

For any project that would impact tidal wetlands or tidal waters or associated sand dunes, the applicant shall:

☐ Use the results of the CFA to select the location of the proposed project having the least impact to tidal wetlands, tidal waters or associated sand dunes;

☐ Design the proposed project to have the least impact to tidal wetlands, tidal waters or associated sand dunes;

☐ Where impact to wetland and other coastal resource functions is unavoidable, limit the project impacts to the least valuable functions, avoiding and minimizing impact to the highest and most valuable functions; and

☐ Include on-site minimization measures and construction management practices to protect coastal resource areas.

Projects in coastal areas shall use results of this CFA to:

☐ Minimize adverse impacts to finfish, shellfish, crustacea, and wildlife;

☐ Minimize disturbances to groundwater and surface water flow;

☐ Avoid impacts that could adversely affect fish habitat, wildlife habitat, or both; and

☐ Avoid impacts that might cause erosion to shoreline properties.

SECTION 4 - VULNERABILITY ASSESSMENT (Env-Wt 603.05)

Refer to the New Hampshire Coastal Flood Risk Summary Part 1: Science and New Hampshire Coastal Flood Risk Summary Part II: Guidance for Using Scientific Projections or other best available science to:

a. Determine the time period over which the project is designed to serve;

A Coastal Vulnerability Assessment is attached to this appication.

b. Identify the project's relative risk tolerance to flooding and potential damage or loss likely to result from flooding to buildings, infrastructure, salt marshes, sand dunes and other valuable coastal resource areas;

See attached CVA

c. Reference the projected sea-level rise (SLR) scenario that most closely matches the end of the project design life and the project's tolerance to risk or loss;

See attached CVA

d. Identify areas of the proposed project site subject to flooding from SLR;

See attached CVA

e. Identify areas currently located within the 100-year floodplain and subject to coastal flood risk;

See attached CVA

f. Describe how the project design will consider and address the selected SLR scenario within the project design life, including in the design plans;
See attached CVA

g. Where there are conflicts between the project's purpose and the vulnerability assessment results, schedule a pre-application meeting with the department to evaluate design alternatives, engineering approaches, and use of the best available science.

☐ Pre-application meeting date held: **N/A**

SECTION 5 - DESIGN PLANS (Env-Wt 603.07, in addition to Env-Wt 311)

Submit design plans for the project in both plan and elevation views that clearly depict and identify all required elements:

☒ The plan view shall depict the following:

- ☒ The engineering scale used, which shall be no larger than one inch equals 50 feet;
- ☒ The location of tidal datum lines depicted as a line with the associated elevation noted, based on North American Vertical Datum of 1988 (NAVD 88), derived from https://tidesandcurrents.noaa.gov/datum_options.html, as described in Section 6.
- ☒ An imaginary extension of property boundary lines into the waterbody and a 20-foot setback from those property line extensions;
- ☒ The location of all special aquatic sites at or within 100 feet of the subject property;
- ☒ Existing bank contours;
- ☒ The name and license number, if applicable, of each individual responsible for the plan, including:
  a. The agent for tidal docking structures who determined elevations represented on plans; and
  b. The qualified coastal professional who completed the CFA report and located the identified resources on the plan; and
- ☒ The location and dimensions of all existing and proposed structures and landscape features on the property;
- ☒ Tidal datum(s) with associated elevations noted, based on NAVD 88; and
- ☒ Location of all special aquatic sites within 100-feet of the property.

☒ The elevation view shall depict the following:

- ☒ The nature and slope of the shoreline;
- ☒ The location and dimensions of all proposed structures, including permanent piers, pilings, float stop structures, ramps, floats, and dolphins; and
- ☒ Water depths depicted as a line with associated elevation at highest observable tide, mean high tide, and mean low tide, and the date and tide height when the depths were measured. Refer to Section 6 for more instructions regarding water depth supporting information.

☒ See specific design and plan requirements for certain types of coastal projects:

- Overwater structures (Env-Wt 606);
- Dredging activities (Env-Wt 607);
- Tidal beach maintenance (Env-Wt 608);
- Tidal shoreline stabilization (Env-Wt 609);
- Protected tidal zone (Env-Wt 610);
- Sand Dunes (Env-Wt 611).

SECTION 6 - WATER DEPTH SUPPORTING INFORMATION REQUIRED (Env-Wt 603.08)

Using current predicted NOAA tidal datum for the location, and tying field measurements to NAVD 88, field observations of at least 3 tide events, including at least one minus tide event, shall be located to document the range of the tide in the proposed location showing the following levels:

☒ Mean lower low water;

☒ Mean low water;

☒ Mean high water;

☒ Mean tide level;

☒ Mean higher high water;

☒ Highest observable tide line; and

☒ Predicted sea-level rise as identified in the vulnerability assessment in Env-Wt 603.05.

The following data shall be presented in the application project narrative to support how water depths were determined:

☒ The date, time of day, and weather conditions when water depths were recorded; and

☒ The name and license number of the licensed land surveyor who conducted the field measurements.

☐ For tidal stream crossing projects, provide water depth information to show how the tier 4 stream crossing is designed to meet Env-Wt 904.07(c) and (d), and for repair, rehabilitation or replacement of tier 4 stream crossings, demonstrate how the requirements of Env-Wt 904.09 are met.

SECTION 7 - GENERAL CRITERIA FOR TIDAL BEACHES, TIDAL SHORELINE, AND SAND DUNES (Env-Wt 604.01)

Any person proposing a project in or on a tidal beach, tidal shoreline, or sand dune, or any combination thereof, shall evaluate the proposed project based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

New permanent impacts to sand dunes that provide coastal storm surge protection for protected species or habitat shall not be allowed except:

☐ To protect public safety; and

☐ Only if constructed by a state agency, coastal resiliency project, or for a federal homeland security project.

Projects in or on a tidal beach, tidal shoreline, or sand dune shall support integrated shoreline management that:

☒ Optimizes the natural function of the shoreline, including protection or restoration of habitat, water quality, and self-sustaining stability to flooding and storm surge; and

☒ Protects upland infrastructure from coastal hazards with a preference for living shorelines over hardened shoreline practices.

SECTION 8 - GENERAL CRITERIA FOR TIDAL BUFFER ZONES (Env-Wt 604.02)

The 100-foot statutory limit on the extent of the tidal buffer zone shall be measured horizontally. Any person proposing a project in or on an undeveloped tidal buffer zone shall evaluate the proposed project based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in or on a tidal buffer zone shall preserve the self-sustaining ability of the buffer area to:

☒ Provide habitat values;

☒ Protect tidal environments from potential sources of pollution;

☒ Provide stability of the coastal shoreline; and

☒ Maintain existing buffers intact where the lot has disturbed area defined under RSA 483-B:4, IV.

SECTION 9 - GENERAL CRITERIA FOR TIDAL WATERS/WETLANDS (Env-Wt 604.03)

Except as allowed under Env-Wt 606, permanent new impacts to tidal wetlands shall be allowed only to protect public safety or homeland security. Evaluation of impacts to tidal wetlands and tidal waters shall be based on:

☒ The standard conditions in Env-Wt 307;

☒ The avoidance and minimization requirements in Env-Wt 311.07 and Env-Wt 313.03;

☒ The approval criteria in Env-Wt 313.01;

☒ The evaluation criteria in Env-Wt 313.05;

☒ The project specific criteria in Env-Wt 600;

☒ The CFA required by Env-Wt 603.04; and

☒ The vulnerability assessment required by Env-Wt 603.05.

Projects in tidal surface waters or tidal wetlands shall:

☒ Optimize the natural function of the tidal wetland, including protection or restoration of habitat, water quality, and self-sustaining stability to storm surge;

☒ Be designed with a preference for living shorelines over hardened stabilization practices; and

☒ Be limited to public infrastructure or restoration projects that are in the interest of the general public, including a road, a bridge, energy infrastructure, or a project that addresses predicted sea-level rise and coastal flood risk.

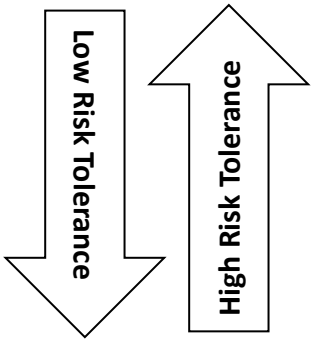
SECTION 10 – GUIDANCE

Your application must follow the New Hampshire Coastal Risk and Hazards Commission's Guiding Principles or other best available science. Below are some of these guidance principles:

- Incorporate science-based coastal flood risk projections into planning;
- Apply risk tolerance* to assessment, planning, design and construction;
- Protect natural resources and public access;
- Create a bold vision, start immediately, and respond incrementally and opportunistically as projected coastal flood risks increase over time; and
- Consider the full suite of actions including effectiveness and consequences of actions.

*Risk tolerance is a project's willingness to accept a higher or lower probability of flooding impacts. The diagram below gives examples of project with lower and higher risk tolerance:

Critical Infrastructures, historic sites, essential ecosystems, and high value assets typically have lower risk tolerance, and thus should be planned, designed, and constructed using higher coastal flood risk projections.



Sheds, pathways, and small docks typically have higher risk tolerance and thus may be planned, designed, and constructed using less protective coastal flood risk projections.

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT LAST NAME, FIRST NAME, M.I.: Saddle Trail Drive Homeowners Association

Attachment A can be used to satisfy some of the additional requirements for minor and major projects regarding avoidance and minimization, as well as functional assessment.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THE PROJECT PROPOSES THE CONSTRUCTION OF A TIDAL DOCKING STRUCTURE CONSISTING OF A 4' X 24' ACCESSWAY, A 4' X 165' FIXED WOOD PIER, A 3' X 50' GANGWAY AND A 8' X 75' FLOAT TOTALING 96 SQ. FT. OF PERMANENT IMPACT TO THE PREVIOUSLY DEVELOPED 100' TIDAL BUFFER ZONE AND 1,410 SQ. FT. OF PERMANENT IMPACT TO TIDAL WETLANDS.OVERALL STRUCTURE LENGTH WILL BE 223 FEET LOCATED ON FRONTAGE ALONG THE COCHECO RIVER. THE PROPOSED STRUCTURE HAS BEEN LOCATED ALONG THE SUBJECT SHORELINE TO IMPACT THE LEAST AMOUNT SALTMARSH AREA POSSIBLE, DEMONSTRATING THE LEAST IMPACTING ALTERNATIVE.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacea, shellfish and wildlife of significant value.

The proposed location represents the least impacting alternative as impacts to salt marshes to construct the proposed dock are located to impact the least amount of square footage over saltmarsh as possible .

SECTION I.III – HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. Since the docking structure will be constructed on piles, the structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

Per the NHB Review, low brackish riverbank marsh and great bur-reed has been idenitifeid on or near the project site. The proposed dock demonstrates the least impacting alternative in regards to square footage of structure placed over the natural community. Coordination with NHB regards to low brackish riverbank marsh and great bur-reed is expected and comments will be forwarded to NH DES upon receipt.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

The proposed tidal docking structure has been designed to not impede recreation, public commerce, and navigation. The docking structure does not extend into any federal or local navigation channel.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The project does not propose any impacts to floodplain wetlands as the dock will be constructed on piles therefore providing no significant decrease in flood storage potential.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB –MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The project does not propose impacts to riverine forested wetland systems and scrub shrub marsh complexes.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The wetland resources associated with the project site are not hydrologically connected to a groundwater aquifer or drinking water supply.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

The project does not propose any impacts to stream channels.

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: Wetland functions and values were assessed using the Highway Methodology Workbook, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. 1999. The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach. U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: STEVEN D. RIKER, CWS
DATE OF ASSESSMENT: APRIL 12, 2022
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☒ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

AVOIDANCE AND MINIMIZATION WRITTEN NARRATIVE

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1),b; Env-Wt 313.01(c)

APPLICANT LAST NAME, FIRST NAME, M.I.: Saddle Trail Drive Homeowners Association

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide this narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1))

Is the primary purpose of the proposed project to construct a water access structure?

Yes. The project proposes to construct a tidal docking structure for recreational boating access.

SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1))

Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?

No. This is not applicable.

SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2))

For any project that proposes permanent impacts of more than one acre or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?

Since the proposal includes the construction of a tidal docking structure, providing a water dependent function, this is not applicable.

SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values on the subject property or on other property that is reasonably available to the applicant as described in the *Wetlands Best Management Practice Techniques for Avoidance and Minimization*?

The project proposes the construction of a tidal docking structure consisting of a 4' x 24' accessway, a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 75' float totaling 96 sq. ft. of permanent impact to the previously developed 100' Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. The dock has been designed to represent least impacting alternative with the least amount of surface area located over salt marsh while also maintaining a 20 foot setback to property lines extended.

SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))

How does the project conform to Env-Wt 311.10(c)? Please note that for a minimum impact project, the applicant may replace this explanation with a certification signed by a certified wetland scientist that the project is located and designed to minimize impacts to wetlands functions and values.

The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts to the tidal wetland resource. The docking structure has been designed to allow the adjacent tidal resource to maintain its current functions and values. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. As a result, The project will have no impact on the functions and values of the adjacent tidal wetland. A Wetland Functions and Values Assessment is attached to this application.

Map by NH GRANIT



Legend

Parcels
- Parcel Polygons
- Attributes for Additional Lines

State

County

City/Town

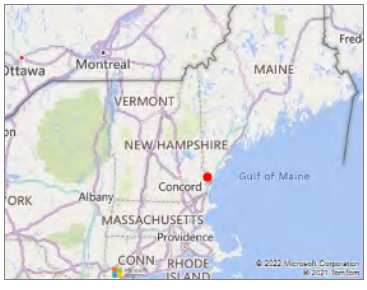
Map Scale

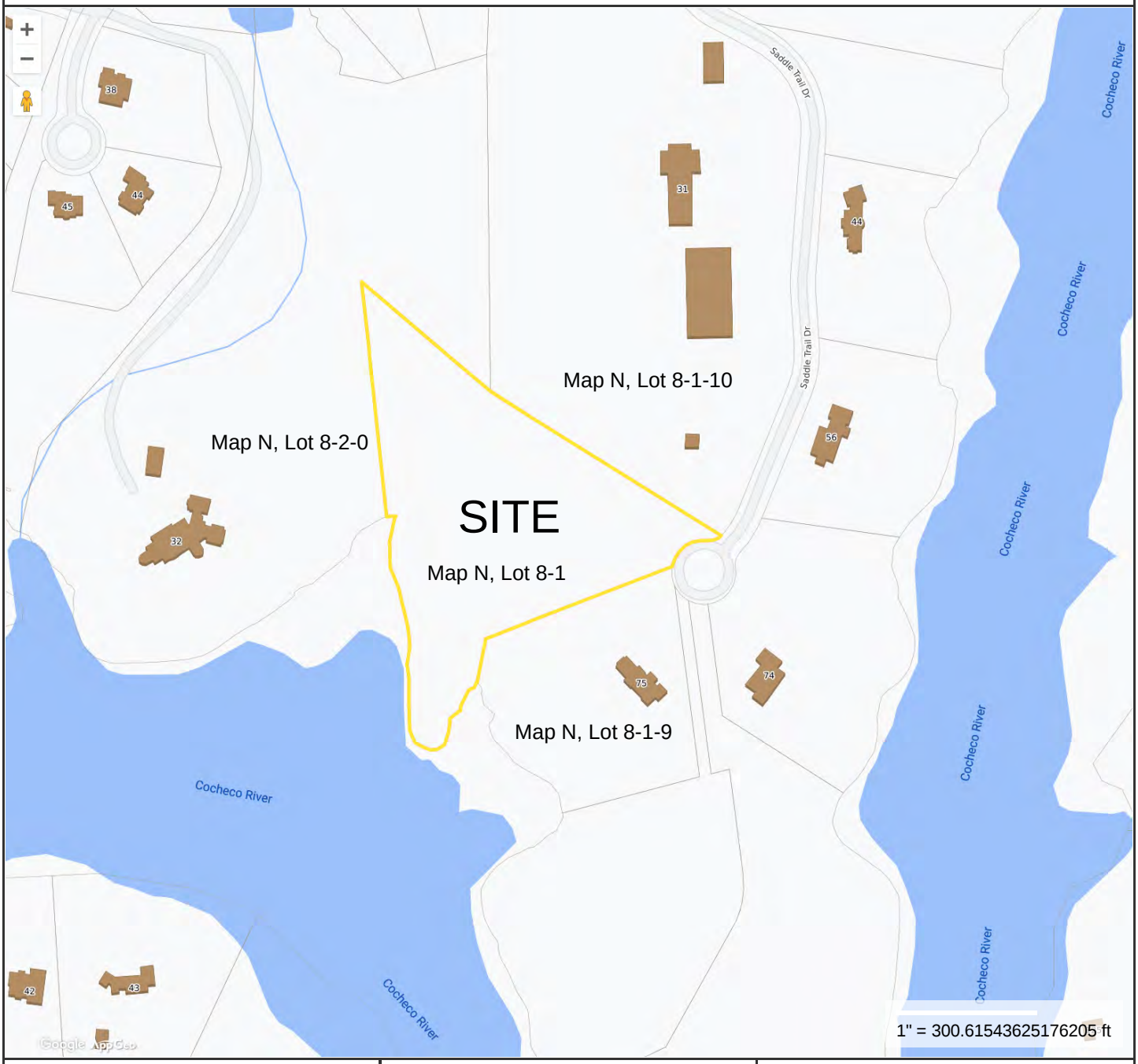
1: 6,494

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Map Generated: 9/23/2022

Notes





Property Information

Property ID	N0008-001000
Location	SADDLE TRAIL DR
Owner	SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATIO
Land Use	911
Zoning Code	R-40

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Dover, NH makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 5/3/2021
Data updated Daily

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Ambit Engineering Abutter List

Saddle Trail Drive Homeowners Association — Job # 3402.09

44 Saddle Trail Drive

Dover, NH

Applicant/Owner(s)

Map	Lot	Deed	Owner (s) First/Trust	Owner(s) Last, Trustee	Mailing Address	City	State	Zip
N	8-1		Saddle Trail Homeowners Association	C/O Carla Meyers	44 Saddle Trail Drive	Dover	NH	03820

Engineer	**Ambit Engineering Civil Engineers & Land Surveyors**		**200 Griffin Road, Unit #3**	**Portsmouth**	**NH**	**03801**

Other Consultants						
Other Consultants						
Other Consultants						

Job #	**3402.09**

Abutters

Map	Lot	Deed	Owner(s) First/Trust	Owner(s) Last /Trustee	Mailing Address	City	State	Zip
N	8-1-9		Martin J. Jr. & Marlene A. McKenna Trust	Martin J. Jr. & Marlene A. McKenna	17 Littleworth Road	Dover	NH	03820
N	8-1-10		Bonterra Farms, LLC		31 Saddle Trail Drive	Dover	NH	03820
N	8-2-0		David & Karen	Della Penta	32 Wisteria Drive	Dover	NH	03820

AMBIT ENGINEERING,INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

David & Karen Della Penta
32 Wisteria Drive
Dover, NH 03820

RE: New Hampshire Wetland Application for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

Dear Property Owner,

Under NH RSA 482-A, this letter is to inform you in accordance with State Law that a Wetlands Permit will be filed with the New Hampshire Department of Environmental Services (DES) Wetlands Bureau for a permit to **impact jurisdictional wetlands for the construction of a tidal docking structure,** on behalf of your abutter, **the Saddle Trail Drive Homeowners Association.**

This letter is sent to inform you as an abutter to the above-referenced property (according to local Municipal records) that **the Saddle Trail Drive Homeowners Association** proposes a project that requires construction in the previously developed tidal buffer zone, and jurisdictional wetland areas.

Plans are on file at this office, and once the application is filed, plans that show the proposed project and wetland and other jurisdictional impacts will be available for viewing during normal business hours at the office of the **Dover** clerk, **Dover city offices**, or once received by DES, at the offices of the DES Wetlands Bureau, (8 a.m. to 4 p.m.) (603) 271-2147. It is suggested that you call ahead to the appropriate office to ensure the application is available for review.

Please feel free to call if you have any questions or comments.

Sincerely,

Steven D. Riker
NH Certified Wetland Scientist – Permitting Specialist

CERTIFIED MAIL/Return Receipt Requested

AMBIT ENGINEERING,INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

Bonterra Farms, LLC
31 Saddle Trail Drive
Dover, NH 03820

RE: New Hampshire Wetland Application for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

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AMBIT ENGINEERING,INC. CIVIL ENGINEERS AND LAND SURVEYORS
200 Griffin Road, Unit 3, Portsmouth, NH 03801 Phone (603) 430-9282 Fax 436-2315

22 December 2022

Martin J. Jr. & Marlene A. McKenna Trust
17 Littleworth Road
Dover, NH 03820

RE: New Hampshire Wetland Application for construction of a tidal docking structure for the Saddle Trail Drive Homeowners Association, 44 Saddle Trail Drive, Dover, NH.

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Sincerely,

Steven D. Riker
NH Certified Wetland Scientist – Permitting Specialist

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- ☐ Adult Signature Restricted Delivery $

Postage
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Total Postage and Fees
$

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DEC 30 2022
USPS

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DELLA PENTA
Street and Apt. No., or PO Box No.
32 WISTERIA DRIVE
City, State, ZIP+4®
DOVER, NH 03820

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- ☐ Return Receipt (electronic) $
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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$

Total Postage and Fees
$

Postmark Here
GREENLAND POST OFFICE 03840
DEC 30 2022
USPS

Sent To
BONTERRA FARMS, LLC
Street and Apt. No., or PO Box No.
31 SADDLE TRAIL DRIVE
City, State, ZIP+4®
DOVER, NH 03820

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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- ☐ Adult Signature Required $
- ☐ Adult Signature Restricted Delivery $

Postage
$

Total Postage and Fees
$

Postmark Here
GREENLAND POST OFFICE 03840
DEC 30 2022
USPS

Sent To
MCKENNA TRUST
Street and Apt. No., or PO Box No.
17 LITTLEWORTH ROAD
City, State, ZIP+4®
DOVER, NH 03820

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

Site Photograph #1 September 2022



Site Photograph #2 September 2022



Site Photograph #3 September 2022



Map by NH GRANIT



Legend

Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines

Current Shellfish Beds
- Blue Mussel
- Oyster
- Razor Clam
- Softshell Clam
- Surf Clam

Coastal 2019 1-foot RGB
World Imagery
Low Resolution 15m Imager
High Resolution 60cm Image
High Resolution 30cm Image
Citations
1.2m Resolution Metadata

Map Scale

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Notes

Current Shellfish Beds



Map by NH GRANIT



Legend

Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines

2021
Coastal 2019 1-foot RGB
World Imagery
Low Resolution 15m Imager
High Resolution 60cm Image
High Resolution 30cm Image
Citations
1.2m Resolution Metadata

Map Scale

1: 3,247

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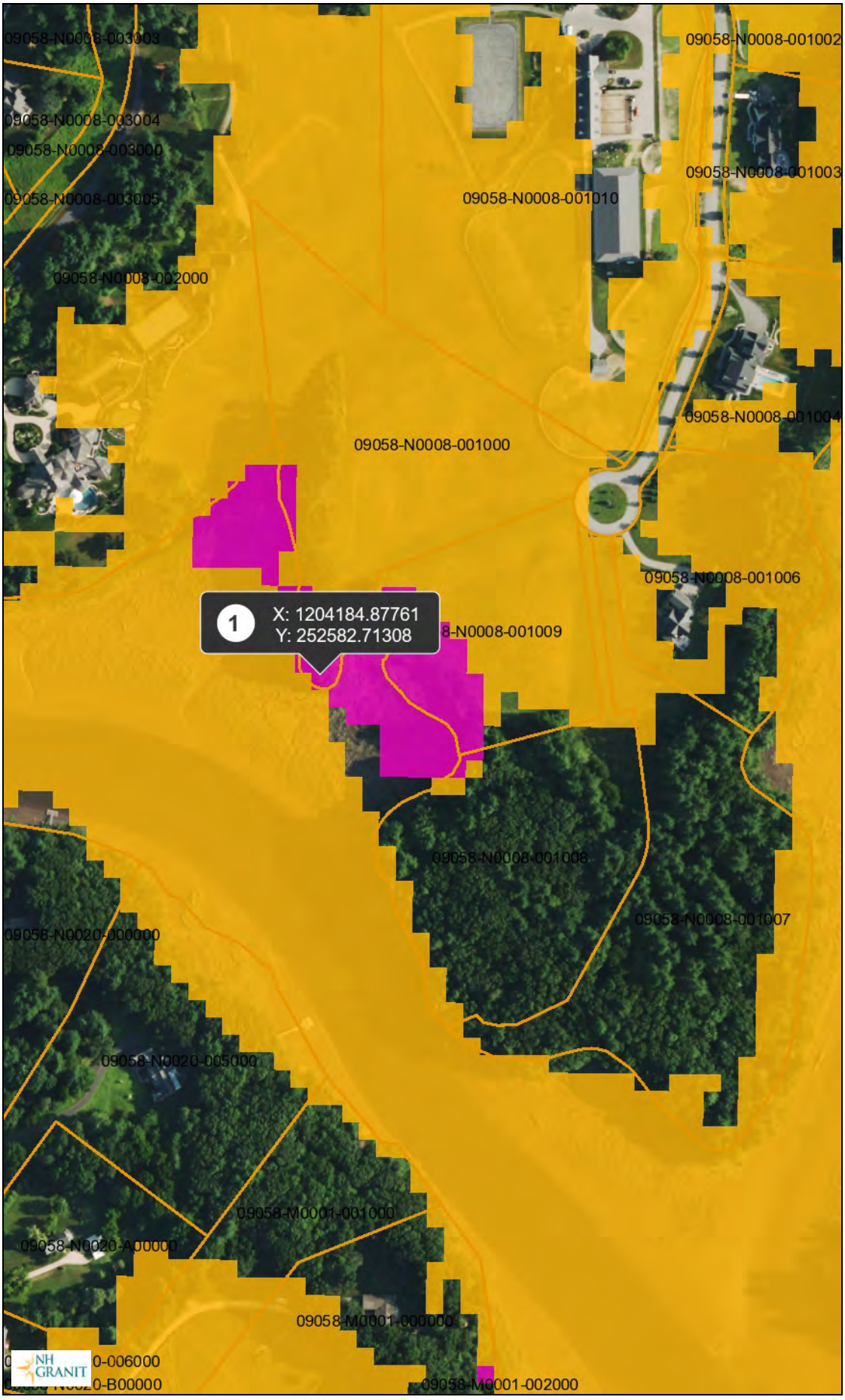
Map Generated: 9/23/2022

Notes

2021 Eelgrass



Map by NH GRANIT



Legend

Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines

Highest Ranked Wildlife Hab
- Not Top Ranked
- Highest Ranked Habitat in NH
- Highest Ranked Habitat in Region
- Supporting Landscape

Coastal 2019 1-foot RGB
World Imagery
Low Resolution 15m Imager
High Resolution 60cm Image
High Resolution 30cm Image
Citations
1.2m Resolution Metadata

Map Scale

1: 3,247

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Notes

Highest Ranked Wildlife Habitat



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.

To: John Chagnon, Ambit Engineering, Inc.
200 Griffin Road
Unit 3
Portsmouth, NH 03801

From: NHB Review, NH Natural Heritage Bureau
Date: 10/7/2022 (valid until 10/07/2023)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: **NHB22-3168** Town: Dover Location: Saddle Trail Drive
Description: The project proposes the construction of a tidal docking structure consisting of a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 100' float providing recreational boating access to the Cocheco River.

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

Comments **NHB: The proposed new tidal docking structure is within an exemplary Low Brackish Riverbank Marsh. Please evaluate if there are other potential locations where this structure could be placed that do not impact this natural community. If not possible, indicate how this project minimizes impacts to the community. Provide proposed conditions plans and photos of the project area during the growing season.**
F&G: No comments at this time.

Natural Community	State[1]	Federal	Notes
Low brackish riverbank marsh	--	--	

Plant species	State[1]	Federal	Notes
great bur-reed (*Sparganium eurycarpum*)*	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.

[1]Codes: "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.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

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.

Disclaimer: 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.

IMPORTANT: NHFG Consultation

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to https://wildlife.state.nh.us/wildlife/environmental-review.html. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB Datacheck results letter number and "Fis 1004 consultation request" in the subject line.**

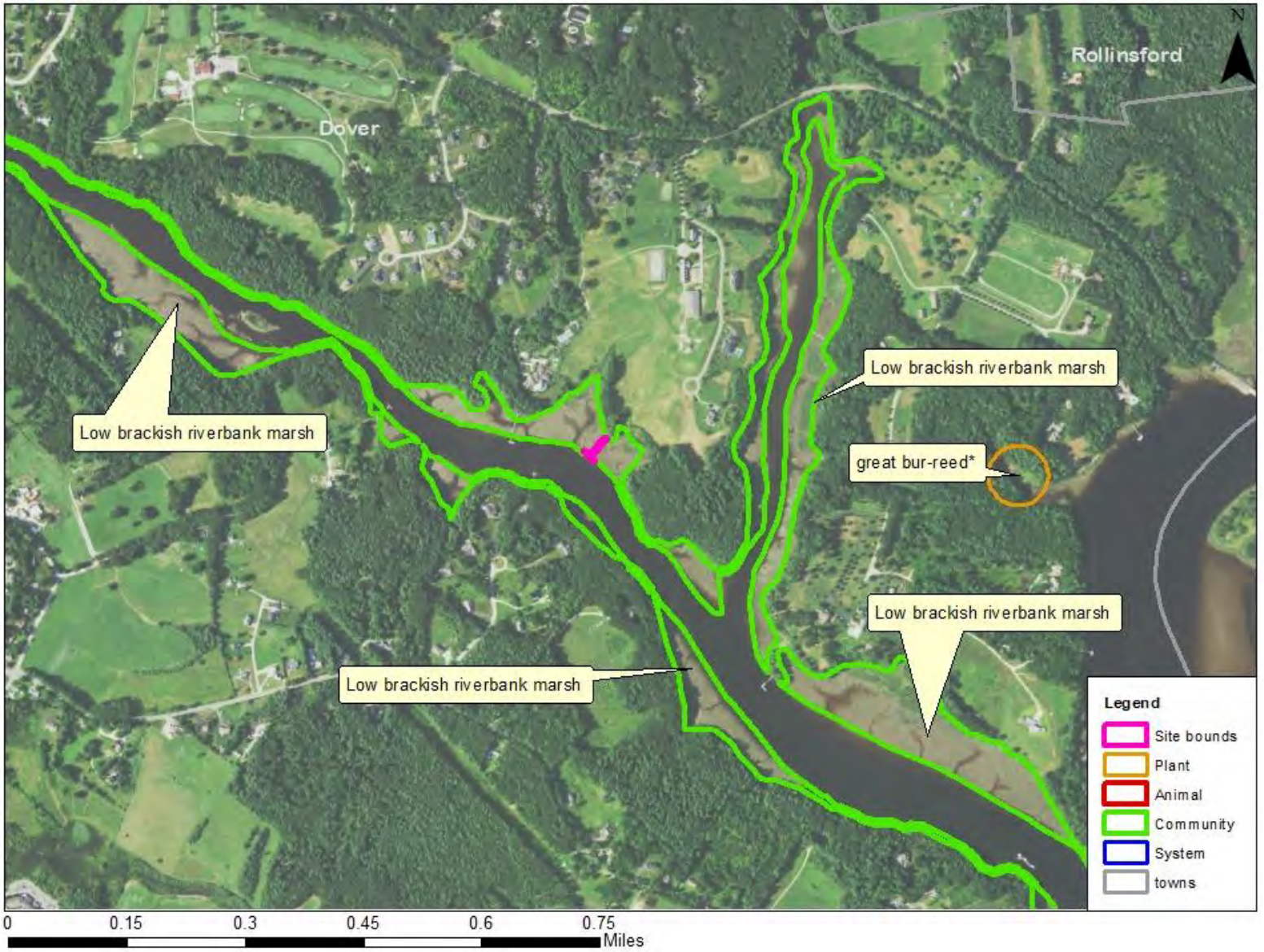
If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule)*, coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle *kim.tuttle@wildlife.nh.gov* with a copy to NHFGreview@wildlife.nh.gov, and include the NHB Datacheck results letter number and "review request" in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

NHB22-3168


N
Rollinsford
Dover
Low brackish riverbank marsh
Low brackish riverbank marsh
great bur-reed*
Low brackish riverbank marsh
Low brackish riverbank marsh
Legend
Site bounds
Plant
Animal
Community
System
towns
0
0.15
0.3
0.45
0.6
0.75
Miles

New Hampshire Natural Heritage Bureau - Community Record

Low brackish riverbank marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2004: Dominant species are *Spartina alterniflora* (smooth cord-grass), *Amaranthus cannabinus* (water hemp), and *Typha angustifolia* (narrow-leaved cattail). Less frequent are *Lemna minor* (lesser duckweed), *Polygonum hydropiper* (water-pepper), *Argentina egedii* (coastal silverweed), *Eleocharis parvula* (small spike-rush), *Ranunculus cymbalaria* (seaside crowfoot), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Samolus parviflorus* (false water pimpernel). 1988: Forms a narrow zone along the river, dominated by *Spartina alterniflora* (smooth cord-grass). A few stands of *Typha angustifolia* (narrow-leaved cattail) exist, mostly less than an acre in size. Rare plant species present are *Samolus parviflorus* (false water pimpernel), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Eleocharis parvula* (small spike-rush). *Spartina alterniflora* (smooth cord-grass) is dominant. A few stands of *Typha angustifolia* (narrow-leaved cat-tail) exist. Many exotic species are present. The bases of steep, rocky slopes support virtually no emergent vegetation.

General Area: 2004: This low marsh lies adjacent to a sparsely or narrowly vegetated ***high brackish tidal riverbank marsh***. The high tidal riverbank is often an unvegetated zone grading into the adjacent upland. Some characteristic species are *Solidago sempervirens* (seaside goldenrod) and *Spartina pectinata* (fresh-water cord-grass). Along most of the riverbank community, moderate residential and commercial development occurs on adjacent lands. High levels of development occur along the west end of the riverbank in downtown Dover. 1988: A narrow zone along the river. Bordered by steep forested slopes and heavily impacted areas.

General Comments: --

Management Comments: 2004: Several invasive species occur on the higher margins of the riverbank community, especially at the west end nearest downtown Dover. They include *Lythrum salicaria* (purple loosestrife), *Phalaris arundinacea* (reed canary-grass), *Rorippa nasturtium-aquaticum* (true watercress), *Polygonum cuspidatum* (Japanese knotweed), and *Solanum dulcamara* (nightshade). These plants should be monitored. 1988: Guard against future development. Current disturbance includes impacts by rock fill, dams, clearing, and power plant construction.

Location

Survey Site Name: Cocheco River Narrows
Managed By:

County: Strafford
Town(s): Dover
Size: 94.2 acres Elevation:

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

Directions: Cocheco River downstream of downtown Dover. 2004: The tidal riverbank marsh extends from downtown Dover (beginning downstream of Washington Street) to the mouth of the Cocheco. For the tidal marsh nearest downtown Dover, park at Henry Law Park. For the tidal marsh 0.75 miles eastward, from Henry Law Avenue, turn north onto access road to baseball fields. Park in lot for baseball fields and walk NE, across power line corridor, to Cocheco River. 1988: Tidal wetlands and shores along Cocheco River between upper and lower narrows, due east and just downstream of downtown Dover.

CONFIDENTIAL – NH Dept. of Environmental Services review

Dates documented

First reported:	1988-09-13	Last reported:	2004-09-23

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Plant Record

great bur-reed (*Sparganium eurycarpum*)

Legal Status		Conservation Status	
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:	Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank:	Few plants but area safe from development.
Detailed Description:	2007: Searched for but not found. 1985: 2 plants seen in mature fruit.
General Area:	1985: Brackish swamp or circumneutral basin swamp. With *Aster radula* (rough-leaved aster), *Calamagrostis canadensis* (bluejoint), *Eupatorium perfoliatum* (perfoliate boneset), *Viburnum nudum* var. *cassinoides* (witherod) and *Clematis virginiana* (virgin's bower). Uplands include old fields, regrowth forest, and agricultural fields. Slowly being developed. The only areas with minimal disturbance are directly along the Piscataqua River, where there are still frequent paths, boat storage, and moorings.
General Comments:	2007: New boat launch proposed on nearby private property. 1985: The habitat is large and possibly supports more large bur-reed plants.
Management Comments:	--

Location

Survey Site Name:	Piscataqua-Cocheco Point
Managed By:	Davis Easement
County:	Strafford
Town(s):	Dover
Size:	2.8 acres
Elevation:	

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

Directions: Piscataqua-Cocheco point. Take Rte. 101 south to Eliot bridge, walk south along shore to first major drainage.

Dates documented

First reported:	1985-08-13	Last reported:	1985-08-13

CONFIDENTIAL – NH Dept. of Environmental Services review

SAFETY DATA SHEET

1. Identification

Product identifier CCA Treated Wood

Other means of identification

SDS number 92-KPC

Recommended use Preservative Treated Wood for various weather protected and exterior uses.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company Name Koppers Performance Chemicals Inc.

Address 1016 Everee Inn Rd., Griffin, GA 30224

Telephone number 770-233-4200

Contact person Regulatory Manager, KPC Inc.

Emergency Telephone Number CHEMTREC 1-800-424-9300

E-mail KPCmgrsds@koppers.com

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Carcinogenicity (inhalation) Category 1A

OSHA defined hazards Combustible dust

Label elements



Signal word Danger

Hazard statement May cause cancer by inhalation. May form combustible dust concentrations in air.

Precautionary statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Wear protective gloves/protective clothing/eye protection/face protection. Prevent dust accumulation to minimize explosion hazard. Observe good industrial hygiene practices.

Response If exposed or concerned: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use water fog, foam, carbon dioxide, dry chemical for extinction. Collect spillage.

Storage Store away from incompatible materials.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5
Wood	N/A	<85

Composition comments	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. Components not listed are either non-hazardous or are below reportable limits. Depending on the additives applied to the treating solution, this wood may also contain <1 % of mold inhibitors, <1% of a non-hazardous oil emulsion, and <% of a colorant.

4. First-aid measures

Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals.
Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
Eye contact	Do not rub eye. Immediately flush eye(s) with plenty of water. Remove any contact lenses and open eyelids wide apart. If irritation persists get medical attention.
Ingestion	Rinse mouth thoroughly if dust is ingested. Get medical attention if any discomfort continues.
Most important symptoms/effects, acute and delayed	Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.
Indication of immediate medical attention and special treatment needed	If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder. Apply extinguishing media carefully to avoid creating airborne dust.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Depending on moisture content, and more importantly, particle diameter and airborne concentration, wood dust in a contained area may explode in the presence of an ignition source. Wood dust may similarly deflagrate (combustion without detonation like an explosion) if ignited in an open or loosely contained area. An airborne concentration of 40 grams (40,000 mg) of dust per cubic meter of air is often used as the LEL for wood dusts. Reference NFPA Standards- 654 and 664 for guidance. Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	May form combustible dust concentrations in air.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground. Inform appropriate managerial or supervisory personnel of all environmental releases.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Avoid release to the environment. Do not burn preserved wood. Do not use preserved wood as Mulch. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat, spark, open flames and other sources of ignition. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

U.S. - OSHA

Components	Type	Value	Form
Wood Dust (CAS N/A)	PEL	5 mg/m3	Respirable dust.
		15 mg/m3	Total fraction.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Trivalent Chromium (CAS 1308-38-9)	PEL	0.5 mg/m3

ACGIH

Components	Type	Value	Form
Wood Dust (CAS N/A)	TWA	1 mg/m3	Inhalable fraction.

US. ACGIH Threshold Limit Values

Components	Type	Value
Arsenic Pentoxide (CAS 1303-28-2)	TWA	0.01 mg/m3
Trivalent Chromium (CAS 1308-38-9)	TWA	0.5 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Arsenic Pentoxide (CAS 1303-28-2)	Ceiling	0.002 mg/m3	

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Copper Oxide (CAS 1317-39-1)	TWA	1 mg/m3	Dust and mist.
Trivalent Chromium (CAS 1308-38-9)			
Wood Dust (CAS N/A)	TWA	0.5 mg/m3	
	TWA	1 mg/m3	Dust.

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Arsenic Pentoxide (CAS 1303-28-2)	35 µg/l	Inorganic arsenic, plus methylated metabolites, as As	Urine	*

* - For sampling details, please see the source document.

Appropriate engineering controls
Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear dust-resistant safety goggles with side shields where there is danger of eye contact.

Skin protection

Hand protection
When handling wood, wear leather or fabric gloves.

Other
Wear suitable protective clothing. Use of an impervious apron is recommended.

Respiratory protection
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Use a NIOSH-approved respirator if there is a potential for exposure to dust exceeding exposure limits (See 29 CRF 1910.134, respiratory protection standard).

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
If wood dust contacts the skin, workers should wash the affected areas with soap and water. Clothing contaminated with wood dust should be removed, and provisions should be made for the safe removal of the chemical from the clothing. Persons laundering the clothes should be informed of the hazardous properties of wood dust. A worker who handles wood dust should thoroughly wash hands, forearms, and face with soap and water before eating, using tobacco products, using toilet facilities, applying cosmetics, or taking medication. Workers should not eat, drink, use tobacco products, apply cosmetics, or take medication in areas where wood dust is handled, or processed.

9. Physical and chemical properties

Appearance

Physical state
Solid.

Form
Solid.

Color
Yellow/green.

Odor
Wood odor.

Odor threshold
Not available.

pH
Not applicable.

Melting point/freezing point
Not available.

Initial boiling point and boiling range
Not available.

Flash point
Not available.

Evaporation rate
Not available.

Flammability (solid, gas)
Combustible solid.

Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Highly insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not applicable.
Other information	
Density	As wood.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Keep away from heat, sparks and open flame. Minimize dust generation and accumulation. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Toxic vapors from wood and preservative may be given off in a fire. Ash will contain free arsenic and chromium and may be toxic.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Wood dust, treated or untreated, is irritating to the nose, throat and lungs. Prolonged or repeated inhalation of wood dusts may cause respiratory irritation, recurrent bronchitis and prolonged colds. Some species may cause allergic respiratory reactions with asthma-like symptoms in sensitized individuals. Prolonged exposure to wood dusts by inhalation has been reported to be associated with nasal and paranasal cancer.
Skin contact	Handling may cause splinters. Prolonged contact with treated wood and/or treated wood dust, especially when freshly treated at the plant, may cause irritation to the skin. Abrasive handling or rubbing of the treated wood may increase skin irritation. Some wood species, regardless of treatment, may cause dermatitis or allergic skin reactions in sensitized individuals.
Eye contact	Dust may irritate the eyes.
Ingestion	Not likely, due to the form of the product. However, ingestion of dusts generated during working operations may cause nausea and vomiting. If one ounce of treated wood dust per 10 lbs. of body weight are ingested, acute arsenic intoxication is a possibility. Certain species of wood and their dusts may contain natural toxins, which can have adverse effects in humans.
Symptoms related to the physical, chemical and toxicological characteristics	Wood dust: May cause nasal dryness, irritation and mucostasis. Coughing, wheezing, sneezing, sinusitis and prolonged colds have also been reported. Depending on wood species may cause respiratory sensitization and/or irritation. Symptoms can include irritation, redness, scratching of the cornea, and tearing. May cause eczema-like skin disorders (dermatitis). Airborne treated or untreated wood dust may cause nose, throat, or lung irritation and other respiratory effects.

Information on toxicological effects

Acute toxicity	Not expected to be acutely toxic.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes.

Respiratory or skin sensitization

ACGIH Sensitization

Wood (CAS N/A)	Dermal sensitization Respiratory sensitization

Respiratory sensitization Exposure to wood dusts can result in hypersensitivity,

Skin sensitization Exposure to wood dust can result in the development of contact dermatitis. The primary irritant dermatitis resulting from skin contact with wood dusts consist of erythema, blistering, and sometimes erosion and secondary infections occur.

Germ cell mutagenicity No component of this product present at levels greater than or equal to 0.1% is identified as a mutagen by OSHA.

Carcinogenicity May cause cancer by inhalation.
This classification is based on an increased incidence of nasal and paranasal cancers in people exposed to wood dusts.

IARC Monographs. Overall Evaluation of Carcinogenicity

Arsenic Pentoxide (CAS 1303-28-2)	1 Carcinogenic to humans.
Trivalent Chromium (CAS 1308-38-9)	3 Not classifiable as to carcinogenicity to humans.
Wood (CAS N/A)	1 Carcinogenic to humans.

NTP Report on Carcinogens

Arsenic Pentoxide (CAS 1303-28-2)	Known To Be Human Carcinogen.
Wood Dust (CAS N/A)	Known To Be Human Carcinogen.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2)	Cancer

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

Chronic effects Chronic exposure to wood dusts can result in pneumonitis, and coughing, wheezing, fever and the other signs and symptoms associated with chronic bronchitis. Individuals with pre-existing disease in or a history of ailments involving the skin, kidney, liver, respiratory tract, eyes, or nervous system are at a greater than normal risk of developing adverse effects from woodworking operations with this product.

Further information The effects of industrial exposure to the chrome-copper-arsenic preservative used to treat CCA wood has been evaluated in three independent epidemiology studies. In each case the authors concluded that workers exposed on a daily basis to these preservatives were at no increased risk of death or disease as a result of their exposure.
Recreational exposure to children using CCA treated wood playground equipment has been evaluated. The results of this study indicate that the amount of arsenic transferred from the wood surface to the child is within the normal variation of total arsenic exposure to children and that the maximum risks of skin cancer associated with the exposure approximates the skin cancer risk from the sunlight experienced during play periods. Leaf, stem, and fruit of grape plants grown adjacent to CCA treated wood poles did not take up preservative components from the poles above background levels (limit of detection 0.2 and 0.05 ppm for chrome and arsenic, respectively).

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available on bioaccumulation.

Mobility in soil The product is insoluble in water.

Mobility in general The product is not volatile but may be spread by dust-raising handling.

Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. DO NOT BURN! Ash may be toxic and a hazardous waste; combustion vapors may be toxic. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

US RCRA Hazardous Waste P List: Reference

Arsenic Pentoxide (CAS 1303-28-2) P011

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are listed on or exempt from the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Arsenic Pentoxide (CAS 1303-28-2)	Cancer
	Liver
	Skin
	Respiratory irritation
	Nervous system
	Acute toxicity

CERCLA Hazardous Substance List (40 CFR 302.4)

Arsenic Pentoxide (CAS 1303-28-2)	LISTED
Copper Oxide (CAS 1317-39-1)	LISTED
Trivalent Chromium (CAS 1308-38-9)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - No
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Arsenic Pentoxide	1303-28-2	1		100	10000

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Arsenic Pentoxide	1303-28-2	<3
Copper Oxide	1317-39-1	<1.5
Trivalent Chromium	1308-38-9	<3.5

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations

US. Massachusetts RTK - Substance List

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)

US. New Jersey Worker and Community Right-to-Know Act

Arsenic Pentoxide (CAS 1303-28-2)
Copper Oxide (CAS 1317-39-1)
Trivalent Chromium (CAS 1308-38-9)
Wood Dust (CAS N/A)

US. Pennsylvania Worker and Community Right-to-Know Law

Arsenic Pentoxide (CAS 1303-28-2)
Trivalent Chromium (CAS 1308-38-9)
Wood Dust (CAS N/A)

US. Rhode Island RTK

Arsenic Pentoxide (CAS 1303-28-2)
Copper Oxide (CAS 1317-39-1)
Trivalent Chromium (CAS 1308-38-9)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Wood Dust (CAS N/A)

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 05-April-2015
Revision date 01-June-2015
Version # 02

Further information

HMIS® is a registered trade and service mark of the NPCA.
E - Safety Glasses, Gloves, Dust Respirator

PERCENTAGE OF HAZARDOUS INGREDIENTS COMPONENT %:

0.25 pcf
Arsenic Pentoxide 0.3%, Copper Oxide 0.15%, Chromium Trioxide 0.4%, Wood Dust* 84.28%
0.4 pcf
Arsenic Pentoxide 0.4%, Copper Oxide 0.2%, Chromium Trioxide 0.6%, Wood Dust* 83.98%
0.6 pcf
Arsenic Pentoxide 0.6%, Copper Oxide 0.3%, Chromium Trioxide 0.9%, Wood Dust* 83.47%
1.0 pcf
Arsenic Pentoxide 1.0%, Copper Oxide 0.6%, Chromium Trioxide 1.4%, Wood Dust* 82.45%
2.5 pcf
Arsenic Pentoxide 2.6%, Copper Oxide 1.3%, Chromium Trioxide 3.3%, Wood Dust* 78.88%

* This represents the maximum amount of wood dust that could be generated if the wood was completely machined.

The above percentages are based on the applicable retention, a wood density of 32 pcf., and a moisture contact of 15%, the above values may vary due to the variability of treatment and the natural variability of wood.

HMIS® ratings

Health: 1*
Flammability: 1
Physical hazard: 0
Personal protection: E

NFPA ratings



Disclaimer

Koppers Performance Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Wetland Functions and Values Assessment

Prepared for:

Saddle Trail Drive Homeowners Association
Saddle Trail Drive
Dover, New Hampshire 03820

Prepared By:
Ambit Engineering, Inc
200 Griffin, Unit 3
Portsmouth, New Hampshire 03801

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Date: September 23, 2022

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APPENDICES

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Appendix B Photo Log
Appendix C NH Natural Heritage Bureau Letter

INTRODUCTION

The applicant is proposing the construction of a tidal docking structure off Saddle Trail Drive, Dover, New Hampshire. The project site is identified on Dover Tax Map N as Lot 8-1 and is approximately 6.07 acres in size. As currently designed, the proposed project would require impacts to tidal wetlands associated with the Cocheco River.

The purpose of this report is to present the existing functions and values of the tidal wetlands and to assess any impacts the proposed project may have on their ability to continue to perform these functions and values. The tidal wetlands being impacted were assessed with consideration to their association with Little Bay and the larger marine ecosystem and was not limited to the tidal wetlands immediately on-site.

METHODS

DATA COLLECTION

The tidal wetlands associated with this project area were identified and characterized through field survey and review of existing information. Ambit Engineering, Inc. (Ambit) conducted a site visit in April 2022 to characterize the tidal wetlands and collect the necessary information to complete a functions and values assessment. In addition, Ambit contacted the New Hampshire Natural Heritage Bureau (NHB) regarding existing information of documented rare species or natural communities within the vicinity of the project site.

WETLAND FUNCTIONS AND VALUES ASSESSMENT

Ambit assessed the ability of the tidal wetlands to provide certain functions and values and analyzed the potential affects the proposed project may have on their ability to continue to provide those functions and values. Wetland functions and values were assessed using the *Highway Methodology Workbook, Wetland Functions and Values: A Descriptive Approach*.[1] This method bases function and value determinations on the presence or absence of specific criteria for each of the 13 wetland functions and values (see definitions below). These criteria are assessed through direct field observations and a review of existing resource maps and databases. As part of the evaluation, the most important functions and values associated with the on-site wetlands are identified. In addition, the ecological integrity of the wetlands is evaluated based on the existing levels of disturbance and the overall significance of the wetlands within the local watershed.

° **Groundwater Interchange (Recharge/Discharge)**
This function considers the potential for the project area wetlands to serve as groundwater recharge and/or discharge areas. It refers to the fundamental interaction between wetlands and aquifers, regardless of the size or importance of either.

° **Floodwater Alteration (Storage and Desynchronization)**
This function considers the effectiveness of the wetlands in reducing flood damage by attenuating floodwaters for prolonged periods following precipitation and snow melt events.

° **Fish and Shellfish Habitat**
This function considers the effectiveness of seasonally or permanently flooded areas within the subject wetlands for their ability to provide fish and shellfish habitat.

° **Sediment/Toxicant Retention**
This function reduces or prevents degradation of water quality. It relates to the effectiveness of the wetland to function as a trap for sediments, toxicants, or pathogens, and is generally related to factors such as the type of soils, the density of vegetation, and the position in the landscape.

° **Nutrient Removal/Retention/Transformation**
This wetland function relates to the effectiveness of the wetland to prevent or reduce the adverse effects of excess nutrients entering aquifers or surface waters such as ponds, lakes, streams, rivers, or estuaries.

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[1] U.S. Army Corps of Engineers. 1999. *The Highway Methodology Workbook Supplement, Wetland Functions and Values: A Descriptive Approach.* U.S. Army Corps of Engineers. New England Division. 32pp. NAEEP-360-1-30a.

° **Production Export (Nutrient)**
This function relates to the effectiveness of the wetland to produce food or usable products for humans or other living organisms.

° **Sediment/Shoreline Stabilization**
This function considers the effectiveness of a wetland to stabilize stream banks and shorelines against erosion, primarily through the presence of persistent, well-rooted vegetation.

° **Wildlife Habitat**
This function considers the effectiveness of the wetland to provide habitat for various types and populations of animals typically associated with wetlands and the wetland edge. Both resident and/or migrating species must be considered.

° **Recreation (Consumptive and Non-Consumptive)**
This value considers the suitability of the wetland and associated watercourses to provide recreational opportunities such as hiking, canoeing, boating, fishing, hunting, and other active or passive recreational activities.

° **Educational/Scientific Value**
This value considers the effectiveness of the wetland as a site for an "outdoor classroom" or as a location for scientific study or research.

° **Uniqueness/Heritage**
This value relates to the effectiveness of the wetland or its associated water bodies to provide certain special values such as archaeological sites, unusual aesthetic quality, historical events, or unique plants, animals, or geologic features.

° **Visual Quality/Aesthetics**
This value relates to the visual and aesthetic qualities of the wetland.

° **Endangered Species Habitat**
This value considers the suitability of the wetland to support threatened or endangered species.

FUNCTIONS AND VALUES ASSESSMENT

Results of the wetland functions and values assessment are presented below. This assessment includes a discussion of potential changes to existing wetland functions and values that may occur as a result of the proposed project:

Groundwater Interchange (Recharge/Discharge)
Because there is no identified sand and gravel aquifer underlying the project area, and the wetlands are not underlain by sands or gravel, it is unlikely that significant groundwater recharge is occurring within the tidal wetlands.

Floodwater Alteration (Storage and Desynchronization)
The tidal wetlands associated with the Cocheco River receive floodwaters from the surrounding watershed and connected waterways; therefore, is considered a principal function considering the large size of the combined waterways.

Fish and Shellfish Habitat
The greater tidal wetland does provide fish and shellfish habitat, is associated with the Cocheco River and the Piscataqua River; therefore, is considered a principal function.

Sediment/Toxicant Retention
The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Nutrient Removal/Retention/Transformation
The greater tidal wetland contains dense vegetation and a significant source of sediments or toxicants; therefore, is considered a principal function.

Production Export (Nutrient)
Production export is a wetland function that typically occurs in the form of nutrient or biomass transport via watercourses, foraging by wildlife species, and removal of timber and other natural products. Because the greater tidal wetland provides fish and wildlife habitat, commercial and recreational fisheries opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.

Sediment/Shoreline Stabilization
Due to the tidal nature and wave action of this wetland; sediment/shoreline stabilization is considered a principal function.

Wildlife Habitat
The greater tidal wetland and the Cocheco River provide a variety of coastal and marine habitats, therefore would be considered a principal function.

Recreation (Consumptive and Non-Consumptive)
The greater tidal wetland and the Cocheco River provides a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.

Education/Scientific Value
The greater tidal wetland and the Coicheco River are part of a larger marine ecosystem with multiple areas of public access making this a principal value.

Uniqueness/Heritage
The tidal wetland and the Cocheco River are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with the Cocheco River and the surrounding areas making this a principal value.

Visual Quality/Aesthetics
The Cocheco River provides aesthetically pleasing coastal views that are viewable from surrounding uplands as well as from the water, making this a principal function.

Endangered Species Habitat
An online inquiry with the NHB resulted in the potential for low brackish riverbank marsh and great bur-reed to occur near the project area. Ambit Engineering has survey located the salt marsh communities associated with the property and these locations are depicted on the NH DES Wetland Application plan set. This information will be provided to NHB and comment will be provided to NH DES upon receipt.

PROPOSED IMPACTS

This report is accompanying a New Hampshire Department of Environmental Services (NHDES) Major Impact Wetland Permit Application request to construct to construct a tidal docking structure consisting of a 4’ x 24’ accessway, a 4’ x 165’ fixed wood pier, a 3’ x 50’ gangway and a 8’ x 75’ float totaling 96 sq. ft. of permanent impact to the previously developed 100’ Tidal Buffer Zone and 1,410 sq. ft. of permanent impact to tidal wetlands. Overall structure length will be 223 feet located on frontage along the Cocheco River. Since the proposed tidal dock will serve to provide a water dependent function, practicable alternatives along the shoreline are reduced due to the presence of saltmarsh and maintaining a 20 foot setback to property lines extended.

SUMMARY AND CONCLUSIONS

The jurisdictional tidal wetland is part of a large marine system and provides eleven principal functions and values when evaluated as a whole. These functions and values include: floodflow alteration, fish and shellfish habitat, production export, sediment/shoreline stabilization, wildlife habitat, recreation, education/scientific value, uniqueness/heritage, and visual quality aesthetics. While the entire marine system provides these principal functions and values, the proposed impacts associated with the dock modification will not have any effect on its ability to continue to provide them.

The proposed impacts have been minimized to the greatest extent practicable, while allowing reasonable use of the property. The proposed docking structure will be constructed on piles within the tidal wetland further reducing permanent impacts. The docking structure will not contribute to additional storm water or pollution. It is anticipated that there will be no effect on any fish or wildlife species that currently use the site for food, cover, and/or habitat. The tidal docking structure will not impede tidal flow or alter hydrology, it will not deter use by wildlife species that currently use the wetland area, and it will not impede any migrational fish movement. The float and gangway will be temporary docking structures and will be removed during winter months as to not interfere with ice floe.

The docking structure has been designed to provide recreational boating access utilizing the natural grade of the dock location. There is no grading of the shoreline required to construct the dock. There will be no construction activity that will disturb the area adjacent to the use. All work will be performed from a crane barge at low tide. A majority of the piles to be driven are above the Mean Low Water line and there is no need for erosion control as there will be no water in this location during pile driving and therefore no temporary disturbance associated with construction. The barge floats into position and the piles are driven by the crane equipped with a vibratory hammer. This method eliminates any contact of construction equipment with the protected resource. Portions of the docking structure are pre-fabricated off site and transported to the site via crane barge.

Based on our assessment of the current functions and values, the proposed tidal docking structure including methods of construction & design and DES Rules under Env-Wt 606.06 Residential Tidal Docks Criteria and Env-Wt 606.07 Residential Tidal Docks: Design Standards; it is our belief that the proposed project will have no significant impact on the tidal wetlands or greater marine systems ability to continue to provide their functions and values.

APPENDIX A

WETLAND FUNCTION - VALUE EVALUATION FORM

Wetland Function – Value Evaluation Form

Wetland Description: Wetland A is a tidal wetland associated with the Cocheco River.	**File number**: 3402.09	
	Wetland identifier: Wetland A	
	Latitude:X:1,204,176.23	Longitude:Y:252,594
	Preparer(s): Ambit Engineering, Inc.	
	200 Griffin Road	
	Date: September 23, 2022	

Function/Value	Capability Y	Capability N	Summary	Principal Yes/No
Groundwater Recharge/Discharge		X	This wetland does not possess the characteristics needed to provide this function as there are no identified underlying sand or gravel aquifers.	—
Floodwater Alteration	X		The tidal wetland and the Cochecho River do receive floodwater from the surrounding watershed and connected waterways; therefore, this would be considered a principal function.	Y
Fish and Shellfish Habitat	X		The tidal wetland and the Cochecho River are part of a larger coastal marine system and provide both fish and shellfish habitat. This is considered a Principal Function.	Y
Sediment/Toxicant Retention	X		The immediate tidal wetland contains dense vegetation and a source of sediments and toxicants, therefore a principal function.	Y
Nutrient Removal	X		The immediate tidal wetland contains dense vegetation and a source of nutrients, therefore a principal function.	Y
Production Export	X		Because the tidal wetland provides fish and wildlife habitat, commercial and recreational fishing opportunities, and nutrients are transferred over several trophic levels in the marine ecosystem, this is considered a principal function.	Y
Sediment/Shoreline Stabilization	X		Due to the tidal nature and wave action of this wetland; sediment/shoreline stabilization is considered a principal function.	Y
Wildlife Habitat	X		The greater tidal wetland and the Cochecho River provides a variety of coastal and marine habitat, therefore would be considered a principal function.	Y
Recreation	X		The adjacent tidal wetland provides a variety of consumptive and non-consumptive recreational opportunities including hunting, fishing and bird watching; therefore, would be considered a principal function.	Y
Education/Scientific Value	X		The tidal wetland and the Cochecho River are part of a larger marine ecosystem with multiple areas of public access making this a principal value.	Y
Uniqueness/Heritage	X		The tidal wetland and the Cochecho River are unique to the seacoast area. Additionally, there are pre and post-colonial historical components associated with the Cochecho River and the surrounding areas making this a principal value.	Y
Visual Quality/Aesthetics	X		The Cochecho River provides aesthetically pleasing coastal views that are seeable from surrounding uplands as well as from the water, making this a principal function.	Y
ES Endangered Species Habitat	X		An online inquiry with the NH Natural Heritage Bureau resulted in an occurrence of a sensitive species near the project area. Ambit Engineering will coordinate with NHB and NHF & G and will forward comment to NH DES upon receipt.	—
Other				

Notes:

* Attach list of considerations.

APPENDIX B

PHOTO LOG

Site Photograph #1 September 2022



Site Photograph #2 September 2022



Site Photograph #3 September 2022



APPENDIX C

NEW HAMPSHIRE NATURAL HERITAGE BUREAU CORRESPONDENCE

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.

To: John Chagnon, Ambit Engineering, Inc.
200 Griffin Road
Unit 3
Portsmouth, NH 03801

From: NHB Review, NH Natural Heritage Bureau
Date: 10/7/2022 (valid until 10/07/2023)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit

NHB ID: **NHB22-3168** Town: Dover Location: Saddle Trail Drive
Description: The project proposes the construction of a tidal docking structure consisting of a 4' x 165' fixed wood pier, a 3' x 50' gangway and a 8' x 100' float providing recreational boating access to the Cocheco River.

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

Comments **NHB: The proposed new tidal docking structure is within an exemplary Low Brackish Riverbank Marsh. Please evaluate if there are other potential locations where this structure could be placed that do not impact this natural community. If not possible, indicate how this project minimizes impacts to the community. Provide proposed conditions plans and photos of the project area during the growing season.**
F&G: No comments at this time.

Natural Community	State[1]	Federal	Notes
Low brackish riverbank marsh	--	--	

Plant species	State[1]	Federal	Notes
great bur-reed (*Sparganium eurycarpum*)*	T	--	Threats to aquatic species include changes in water quality, e.g., due to pollution and stormwater runoff, and significant changes in water level.

[1]Codes: "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.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

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.

Disclaimer: 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.

IMPORTANT: NHFG Consultation

If this NHB Datacheck letter DOES NOT include ANY wildlife species records, then, based on the information submitted, no further consultation with the NH Fish and Game Department pursuant to Fis 1004 is required.

If this NHB Datacheck letter includes a record for a threatened (T) or endangered (E) wildlife species, consultation with the New Hampshire Fish and Game Department under Fis 1004 may be required. To review the Fis 1000 rules (effective February 3, 2022), please go to https://wildlife.state.nh.us/wildlife/environmental-review.html. All requests for consultation and submittals should be sent via email to NHFGreview@wildlife.nh.gov or can be sent by mail, and **must include the NHB Datacheck results letter number and "Fis 1004 consultation request" in the subject line.**

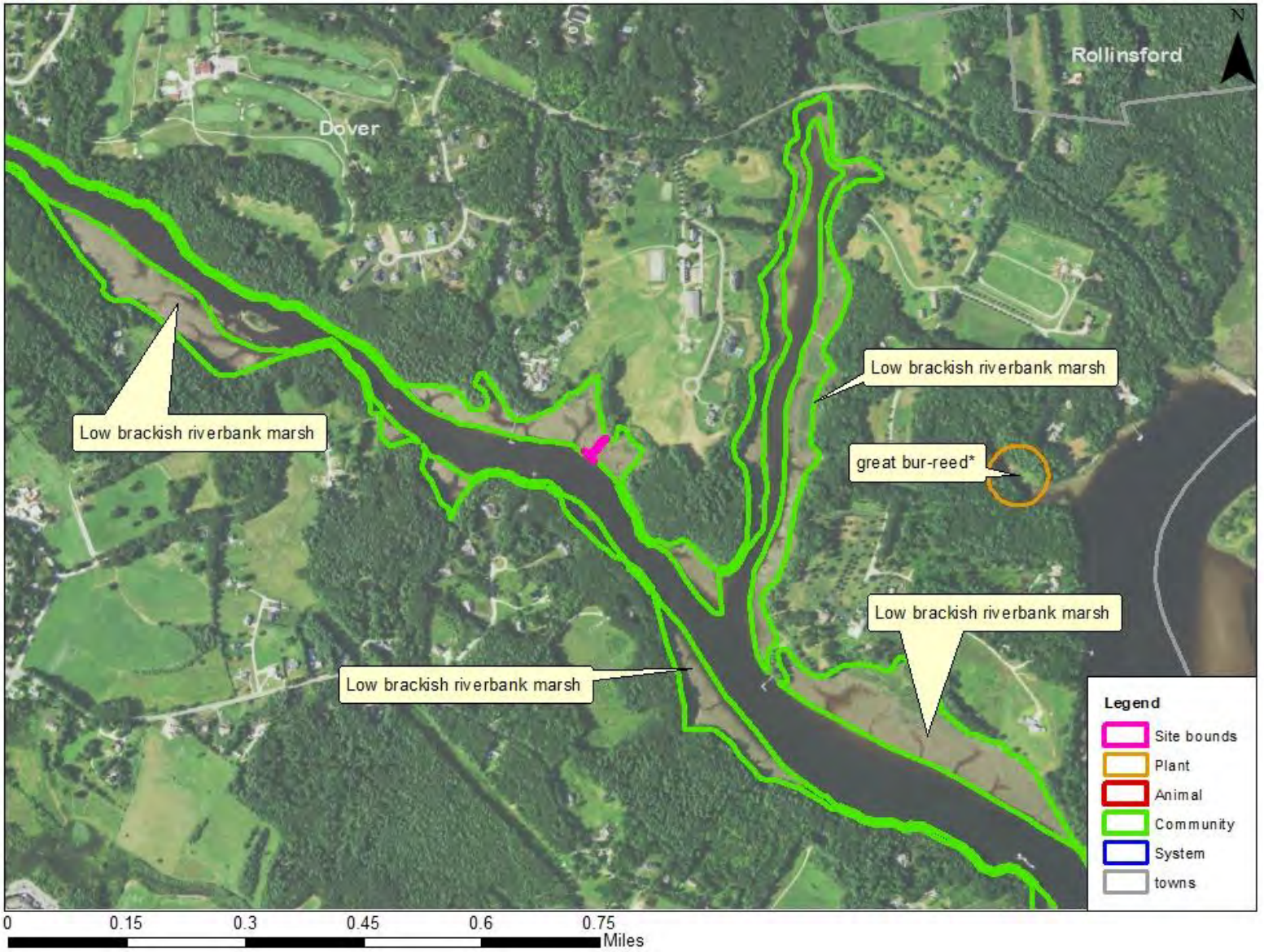
If the NHB DataCheck response letter does not include a threatened or endangered wildlife species but includes other wildlife species (e.g., Species of Special Concern), consultation under Fis 1004 is not required; however, some species are protected under other state laws or rules, so coordination with NH Fish & Game is highly recommended or may be required for certain permits. While some permitting processes are exempt from required consultation under Fis 1004 (e.g., *statutory permit by notification, permit by rule, permit by notification, routine roadway registration, docking structure registration, or conditional authorization by rule)*, coordination with NH Fish & Game may still be required under the rules governing those specific permitting processes, and it is recommended you contact the applicable permitting agency. For projects not requiring consultation under Fis 1004, but where additional coordination with NH Fish and Game is requested, please email: Kim Tuttle *kim.tuttle@wildlife.nh.gov* with a copy to NHFGreview@wildlife.nh.gov, and include the NHB Datacheck results letter number and "review request" in the email subject line.

Contact NH Fish & Game at (603) 271-0467 with questions.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

NHB22-3168


N
Rollinsford
Dover
Low brackish riverbank marsh
Low brackish riverbank marsh
great bur-reed*
Low brackish riverbank marsh
Low brackish riverbank marsh
Legend
Site bounds
Plant
Animal
Community
System
towns
0
0.15
0.3
0.45
0.6
0.75
Miles

New Hampshire Natural Heritage Bureau - Community Record

Low brackish riverbank marsh

Legal Status	Conservation Status
Federal: Not listed	Global: Not ranked (need more information)
State: Not listed	State: Critically imperiled due to rarity or vulnerability

Description at this Location

Conservation Rank: Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank: --

Detailed Description: 2004: Dominant species are *Spartina alterniflora* (smooth cord-grass), *Amaranthus cannabinus* (water hemp), and *Typha angustifolia* (narrow-leaved cattail). Less frequent are *Lemna minor* (lesser duckweed), *Polygonum hydropiper* (water-pepper), *Argentina egedii* (coastal silverweed), *Eleocharis parvula* (small spike-rush), *Ranunculus cymbalaria* (seaside crowfoot), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Samolus parviflorus* (false water pimpernel). 1988: Forms a narrow zone along the river, dominated by *Spartina alterniflora* (smooth cord-grass). A few stands of *Typha angustifolia* (narrow-leaved cattail) exist, mostly less than an acre in size. Rare plant species present are *Samolus parviflorus* (false water pimpernel), *Lilaeopsis chinensis* (eastern lilaeopsis), and *Eleocharis parvula* (small spike-rush). *Spartina alterniflora* (smooth cord-grass) is dominant. A few stands of *Typha angustifolia* (narrow-leaved cat-tail) exist. Many exotic species are present. The bases of steep, rocky slopes support virtually no emergent vegetation.

General Area: 2004: This low marsh lies adjacent to a sparsely or narrowly vegetated ***high brackish tidal riverbank marsh***. The high tidal riverbank is often an unvegetated zone grading into the adjacent upland. Some characteristic species are *Solidago sempervirens* (seaside goldenrod) and *Spartina pectinata* (fresh-water cord-grass). Along most of the riverbank community, moderate residential and commercial development occurs on adjacent lands. High levels of development occur along the west end of the riverbank in downtown Dover. 1988: A narrow zone along the river. Bordered by steep forested slopes and heavily impacted areas.

General Comments: --

Management Comments: 2004: Several invasive species occur on the higher margins of the riverbank community, especially at the west end nearest downtown Dover. They include *Lythrum salicaria* (purple loosestrife), *Phalaris arundinacea* (reed canary-grass), *Rorippa nasturtium-aquaticum* (true watercress), *Polygonum cuspidatum* (Japanese knotweed), and *Solanum dulcamara* (nightshade). These plants should be monitored. 1988: Guard against future development. Current disturbance includes impacts by rock fill, dams, clearing, and power plant construction.

Location

Survey Site Name: Cocheco River Narrows
Managed By:

County: Strafford
Town(s): Dover
Size: 94.2 acres Elevation:

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

Directions: Cocheco River downstream of downtown Dover. 2004: The tidal riverbank marsh extends from downtown Dover (beginning downstream of Washington Street) to the mouth of the Cocheco. For the tidal marsh nearest downtown Dover, park at Henry Law Park. For the tidal marsh 0.75 miles eastward, from Henry Law Avenue, turn north onto access road to baseball fields. Park in lot for baseball fields and walk NE, across power line corridor, to Cocheco River. 1988: Tidal wetlands and shores along Cocheco River between upper and lower narrows, due east and just downstream of downtown Dover.

CONFIDENTIAL – NH Dept. of Environmental Services review

Dates documented

First reported:	1988-09-13	Last reported:	2004-09-23

CONFIDENTIAL – NH Dept. of Environmental Services review

New Hampshire Natural Heritage Bureau - Plant Record

great bur-reed (*Sparganium eurycarpum*)

Legal Status		Conservation Status	
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:	Fair quality, condition and/or landscape context ('C' on a scale of A-D).
Comments on Rank:	Few plants but area safe from development.
Detailed Description:	2007: Searched for but not found. 1985: 2 plants seen in mature fruit.
General Area:	1985: Brackish swamp or circumneutral basin swamp. With *Aster radula* (rough-leaved aster), *Calamagrostis canadensis* (bluejoint), *Eupatorium perfoliatum* (perfoliate boneset), *Viburnum nudum* var. *cassinoides* (witherod) and *Clematis virginiana* (virgin's bower). Uplands include old fields, regrowth forest, and agricultural fields. Slowly being developed. The only areas with minimal disturbance are directly along the Piscataqua River, where there are still frequent paths, boat storage, and moorings.
General Comments:	2007: New boat launch proposed on nearby private property. 1985: The habitat is large and possibly supports more large bur-reed plants.
Management Comments:	--

Location

Survey Site Name:	Piscataqua-Cocheco Point
Managed By:	Davis Easement
County:	Strafford
Town(s):	Dover
Size:	2.8 acres
Elevation:	

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

Directions: Piscataqua-Cocheco point. Take Rte. 101 south to Eliot bridge, walk south along shore to first major drainage.

Dates documented

First reported:	1985-08-13	Last reported:	1985-08-13

CONFIDENTIAL – NH Dept. of Environmental Services review

Coastal Vulnerability Assessment

Prepared for:

Saddle Trail Drive Homeowners Association
Saddle Trail Drive
Dover, New Hampshire 03820

Prepared By:
Ambit Engineering, Inc
200 Griffin, Unit 3
Portsmouth, New Hampshire 03801

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors

Introduction
This Coastal Vulnerability Assessment (CVA) is being provided in support of a New Hampshire Department of Environmental Services (NHDES) Wetland Permit Application for the construction of a tidal docking structure off Saddle Trail Drive, Dover, NH (herein referred to as "project site"). The project site is a vacant lot located to the south of the terminal end of Saddle Trail Drive and to the north of the Cocheco River. The subject lot is owned by a homeowners association and the proposed tidal docking structure will serve the recreational boating needs of several residences. The surrounding land use is residential with similar docking structures.

Methods
On April 12, 2022, Steven D. Riker, CWS from Ambit Engineering, Inc. conducted a site visit to evaluate coastal characteristics of the project site, as well as the functions and values of the tidal wetland area (see attached Coastal Functions and Values assessment). This CVA was completed utilizing the NH Coastal Flood Risk Science and Technical Advisory Panel (2019). New Hamsphire Coastal Flood Risk Summary Part: Guidance for Using Scientific Projections. Report Published by the University of New Hampshire (herein refered to as Guidance Document).

Part 1.1 – Project Type
This project proposes the construction of a tidal docking structure on a vacant lot adjacent to the Cocheco River.. The purpose for the docking structure is to provide the applicant with recreational boating access to the Cocheco River. For more details regarding construction of the docking structure and construction sequences; please refer to the NH DES Wetlands Bureau Application Letter to the Wetlands Inspector and attached NHDES Permit Plan – C2 and Detail Sheet D1.

Part 1.2 – Project Location
The project location is Saddle Trail Drive, Dover, NH, Tax Map N, Lot 8-1 and consists of 6.07 acres of upland and shoreline frontage along the Cocheco River. Access to the project site will be from Saddle Trail Drive for the staging of equipment, and the Cocheco River for the staging of the barge to be used for dock and pile installation.

Part 1.3 – Timeline for Desired Useful Life
The desired useful life for this project is considered to be 2100 (50-100 years) due to the fact that it is a docking structure which has a life expectancy of approximately 50-75 years.

2.1 – Project Risk Tolerance
The proposed project is considered to have a high risk tolerance considering that the docking structure has a relatively low cost, is relatively easy to modify, proposes little to no implications on public function and/or safety; and has relatively low sensitivity to inundation, as docks are designed to withstand fluctuating tidal conditions including storm surge.

2.2 – Risk Tolerance of Important Access and Service Areas
The risk tolerance of surrounding access and service areas is not applicable to this project, as the project occurs on a residential, private lot and is intended for private use; primary access of which would be by foot.

3.1 – Relative Sea Level Rise Scenario (RSLS)

Based on Table 3 in the Guidance Document (see table below), the RSLS for this project (based on the previously determined high risk tolerance) is considered to be on the lower magnitude, and higher probability. The following table depicts the probable see level rise from 2000 through 2150.

Table 3 from the Guidance Document:

Risk Tolerance	High	Medium	Low	Extremely Low
Example Project	Walking Trail *Docking structure & Stone Revetment	Local Road Culvert	Wastewater Treatment Facility	Hospital
Timeframe	Manage to the following sea level rise (ft*) *Compared to the sea level in the year 2000*			
	Lower magnitude Higher probability	⟷		Higher magnitude Lower probability
2030	**0.7**	**0.9**	**1.0**	**1.1**
2050	**1.3**	**1.6**	**2.0**	**2.3**
2100	**2.9**	**3.8**	**5.3**	**6.2**
2150	**4.6**	**6.4**	**9.9**	**11.7**

*Added by Ambit Engineering, Inc. based on the application of the Guidance Document towards our project.

3.2 – RSLR Impacts to the Project Evaluation

Please see the attached Figure 1 – Projected SLR's; which depicts the project site and relevant Highest Observable Tide Line (HOTL), MHHW, and the projected SLR's for the year 2100. Relative to surrounding topography and considering the High Risk Tolerance of this project; it is not expected the projected RSLR for this project needs to be a strong consideration. The fixed pier will be constructed at elevation 12. The projected sea level rise in year 2100 is 2.9 feet resulting in future HOTL elevation of 10.54 feet. MHW and projected SLR is depicted in the profile view on Details-Sheet D1 in relation to the proposed dock elevation.

3.3 – Other Factors

Other factors were evaluated in conjunction with RSLR including surface water levels, groundwater levels, and current velocities which will increase with sediment erosion and deposition, which will also change. The projects position in the landscape was also considered relative to other infrastructure. The closest surface water to the project site is the adjacent Little Bay, projections of RSLR of which have already been depicted and discussed. There are no current restrictions on the project site or associated with the proposed project. The HOTL associated with the project site is located approximately at elevation 7.64. Considering a 2.9 foot RSLR in the year 2100 resulting in an elevation of 10.54, and the proposed tidal docking structure constructed at elevation 12 the structure will function as intended throughout the expected useful life of the residential structure they will serve, simply by the means in which it will be constructed.

4.1 – RSLR and Coastal Storms

Due to the project site location being immediately adjacent to the Cocheco River, it is anticipated that RSLR and storm surge on the proposed project site will be comparable to adjacent properties with similar docking structures. Considering the high risk tolerance of this project, it is not

anticipated that this project has a significant level of vulnerability to RSLR and coastal storms given the method in which tidal docks are constructed.

4.2 – Other Factors
Other factors such as surface water levels, groundwater levels, wind and current velocities have been considered. Considering the high risk tolerance of this project, it is not anticipated that this project has a significant level of vulnerability to groundwater levels, wind and current velocities given the method in which tidal docks are constructed.

5.1 – Projected RSL-Induced Groundwater Rise
Based on the Sea-Level Rise Mapper, there is projected groundwater rise associated with RSLR on the project site, however given that the project provides a structure that has a water dependent use, we do not believe groundwater rise should be a strong consideration.

5.2 – Projected Groundwater Depth at the Project Location
Based on knowledge of the site and soil morphology of the site, groundwater depth (Estimated Seasonal High Water Table) is between 30-40" below the soil surface.

6.1 – Best Available Precipitation Estimates
Please see the attached Extreme Precipitation Tables from the Northeast Regional Climate Center.

7.1 – Cumulative Coastal Flood Risk to the Project
Based on the high risk tolerance of this project combined with all other factors including RSLR, coastal storms, RSLR-induced groundwater rise, extreme precipitation and/or freshwater flooding occurring together; this project is not considered to be at high risk from coastal flooding.

7.2 – Possible Actions to Mitigate Coastal Flood Risk
Given the high risk tolerance of the proposed project, it is not anticipated that it is necessary to mitigate for coastal flood risk beyond what has already been incorporated into the design plan for the docking structure. The projected SLR scenario through 2100 is 2.9' (See profile view on Sheet D1), and the proposed docking structure has been designed to account for this projection.

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	
Location	
Longitude	70.745 degrees West
Latitude	43.071 degrees North
Elevation	0 feet
Date/Time	Tue, 21 Jan 2020 12:37:30 -0500

Precipitation estimates multiplied by 1.15 are listed below:

1-yr: 3.06
2-yr: 3.69
10-yr: 5.59
50-yr: 8.49

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.26	0.40	0.50	0.65	0.81	1.04	**1yr**	0.70	0.98	1.21	1.56	2.03	2.66	2.92	**1yr**	2.35	2.81	3.22	3.94	4.55	**1yr**
2yr	0.32	0.50	0.62	0.81	1.02	1.30	**2yr**	0.88	1.18	1.52	1.94	2.49	3.21	3.57	**2yr**	2.84	3.43	3.94	4.68	5.33	**2yr**
5yr	0.37	0.58	0.73	0.98	1.25	1.61	**5yr**	1.08	1.47	1.89	2.43	3.14	4.07	4.58	**5yr**	3.60	4.40	5.04	5.94	6.70	**5yr**
10yr	0.41	0.65	0.82	1.12	1.45	1.89	**10yr**	1.25	1.73	2.23	2.90	3.75	4.86	5.53	**10yr**	4.30	5.32	6.09	7.11	7.98	**10yr**
25yr	0.48	0.76	0.97	1.34	1.78	2.34	**25yr**	1.54	2.15	2.78	3.64	4.74	6.17	7.10	**25yr**	5.46	6.83	7.81	9.02	10.05	**25yr**
50yr	0.54	0.86	1.10	1.54	2.08	2.77	**50yr**	1.79	2.53	3.30	4.33	5.67	7.38	8.58	**50yr**	6.54	8.25	9.43	10.81	11.97	**50yr**
100yr	0.60	0.97	1.25	1.78	2.43	3.27	**100yr**	2.09	2.99	3.92	5.17	6.77	8.85	10.37	**100yr**	7.83	9.98	11.39	12.96	14.26	**100yr**
200yr	0.68	1.11	1.43	2.05	2.84	3.85	**200yr**	2.45	3.53	4.63	6.14	8.09	10.60	12.54	**200yr**	9.38	12.06	13.76	15.54	17.00	**200yr**
500yr	0.80	1.32	1.72	2.50	3.50	4.79	**500yr**	3.02	4.40	5.79	7.72	10.23	13.47	16.13	**500yr**	11.92	15.51	17.68	19.77	21.47	**500yr**

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	0.72	0.88	**1yr**	0.62	0.86	0.93	1.33	1.69	2.25	2.48	**1yr**	1.99	2.38	2.87	3.20	3.91	**1yr**
2yr	0.31	0.49	0.60	0.81	1.00	1.19	**2yr**	0.86	1.16	1.37	1.82	2.33	3.06	3.45	**2yr**	2.71	3.32	3.82	4.55	5.09	**2yr**
5yr	0.35	0.54	0.67	0.92	1.17	1.40	**5yr**	1.01	1.37	1.61	2.11	2.73	3.78	4.18	**5yr**	3.35	4.02	4.72	5.53	6.23	**5yr**
10yr	0.39	0.59	0.73	1.03	1.33	1.60	**10yr**	1.14	1.56	1.80	2.38	3.05	4.36	4.85	**10yr**	3.86	4.66	5.43	6.40	7.18	**10yr**
25yr	0.44	0.67	0.83	1.19	1.56	1.90	**25yr**	1.35	1.86	2.10	2.75	3.52	4.74	5.87	**25yr**	4.20	5.64	6.62	7.77	8.66	**25yr**
50yr	0.48	0.73	0.91	1.31	1.76	2.16	**50yr**	1.52	2.12	2.34	3.06	3.91	5.36	6.76	**50yr**	4.75	6.50	7.69	9.01	9.99	**50yr**
100yr	0.53	0.81	1.01	1.46	2.01	2.46	**100yr**	1.73	2.41	2.62	3.40	4.32	6.03	7.80	**100yr**	5.34	7.50	8.92	10.47	11.53	**100yr**
200yr	0.59	0.89	1.13	1.63	2.27	2.81	**200yr**	1.96	2.75	2.93	3.76	4.76	6.77	8.99	**200yr**	5.99	8.64	10.34	12.17	13.33	**200yr**
500yr	0.68	1.02	1.31	1.90	2.70	3.36	**500yr**	2.33	3.28	3.41	4.28	5.40	7.89	10.84	**500yr**	6.99	10.43	12.56	14.89	16.15	**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	0.44	0.54	0.72	0.89	1.09	**1yr**	0.77	1.06	1.26	1.74	2.20	2.97	3.17	**1yr**	2.63	3.05	3.58	4.37	5.04	**1yr**
2yr	0.34	0.52	0.64	0.87	1.07	1.27	**2yr**	0.92	1.24	1.48	1.96	2.52	3.42	3.71	**2yr**	3.03	3.57	4.10	4.84	5.62	**2yr**
5yr	0.40	0.62	0.77	1.05	1.34	1.62	**5yr**	1.15	1.59	1.89	2.54	3.26	4.34	4.97	**5yr**	3.84	4.78	5.38	6.39	7.17	**5yr**
10yr	0.47	0.72	0.89	1.25	1.61	1.98	**10yr**	1.39	1.94	2.29	3.11	3.97	5.34	6.22	**10yr**	4.72	5.98	6.84	7.86	8.77	**10yr**
25yr	0.58	0.88	1.09	1.56	2.05	2.58	**25yr**	1.77	2.52	2.96	4.08	5.17	7.74	8.37	**25yr**	6.85	8.05	9.20	10.36	11.43	**25yr**
50yr	0.67	1.03	1.28	1.84	2.47	3.14	**50yr**	2.13	3.07	3.61	5.02	6.35	9.69	10.50	**50yr**	8.57	10.10	11.51	12.76	13.99	**50yr**
100yr	0.79	1.20	1.50	2.17	2.98	3.83	**100yr**	2.57	3.74	4.39	6.18	7.81	12.11	13.17	**100yr**	10.72	12.66	14.41	15.74	17.13	**100yr**
200yr	0.93	1.40	1.77	2.57	3.58	4.68	**200yr**	3.09	4.57	5.36	7.61	9.61	15.19	16.53	**200yr**	13.44	15.89	18.08	19.41	20.97	**200yr**
500yr	1.16	1.72	2.21	3.21	4.57	6.07	**500yr**	3.94	5.94	6.96	10.07	12.67	20.50	22.33	**500yr**	18.14	21.48	24.39	25.60	27.40	**500yr**

Powered by ACIS
Northeast Regional Climate Center

Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons
- Attributes for Additional Lines

MHHW + 1-ft SLR

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247

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Map Generated: 9/23/2022

Notes

1 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines

MHHW + 2-ft SLR
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

Coastal 2019 1-foot RGB
World Imagery
Low Resolution 15m Imager
High Resolution 60cm Image
High Resolution 30cm Image
Citations
1.2m Resolution Metadata

Map Scale

1: 3,247

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Map Generated: 9/23/2022

Notes

2 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons
- Attributes for Additional Lines

MHHW + 4-ft SLR

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247

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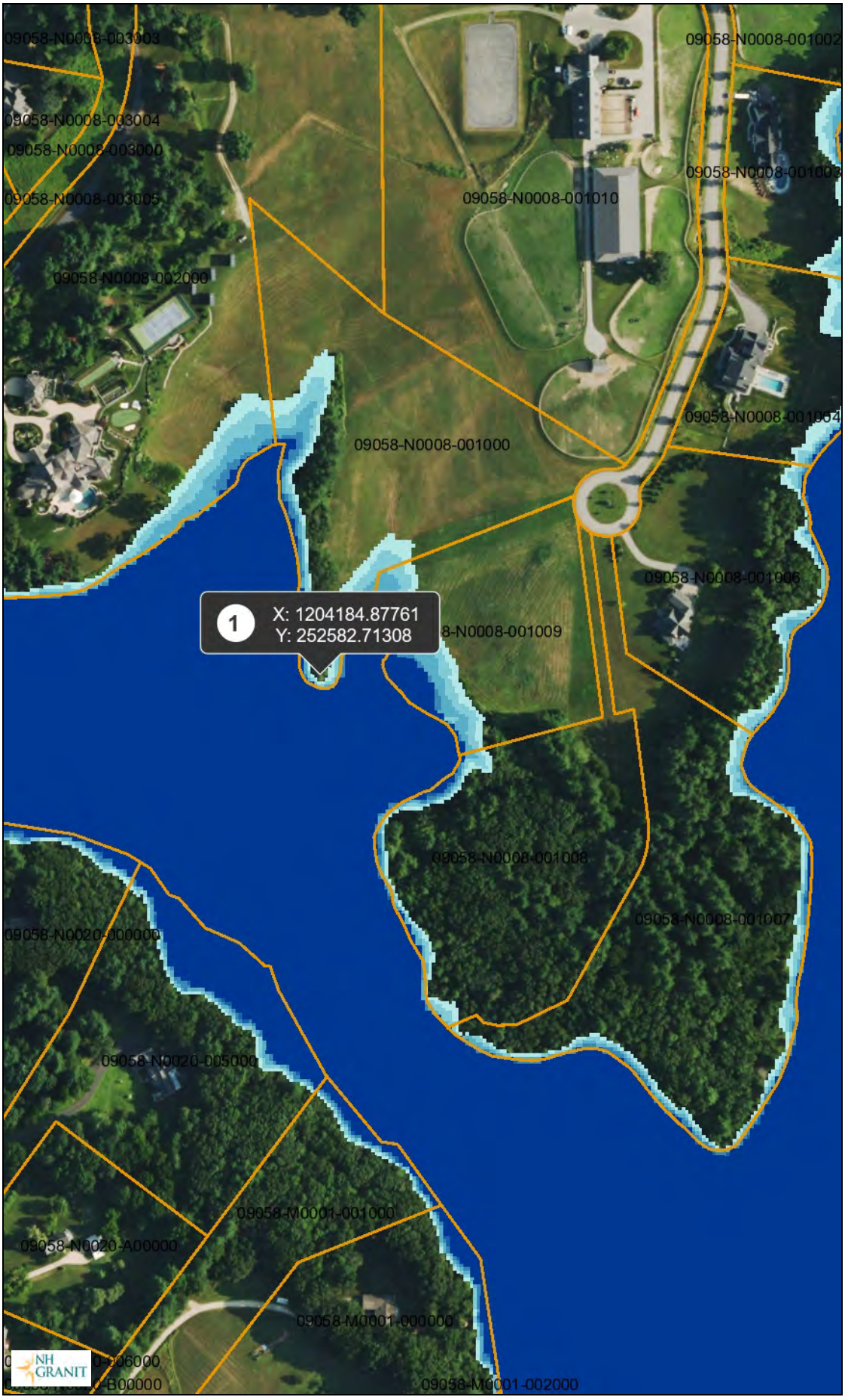
Map Generated: 9/23/2022

Notes

4 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons
- Parcel Polygons
- Attributes for Additional Lines

MHHW + 6-ft SLR
- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

Coastal 2019 1-foot RGB
World Imagery
Low Resolution 15m Imager
High Resolution 60cm Image
High Resolution 30cm Image
Citations
1.2m Resolution Metadata

Map Scale

1: 3,247

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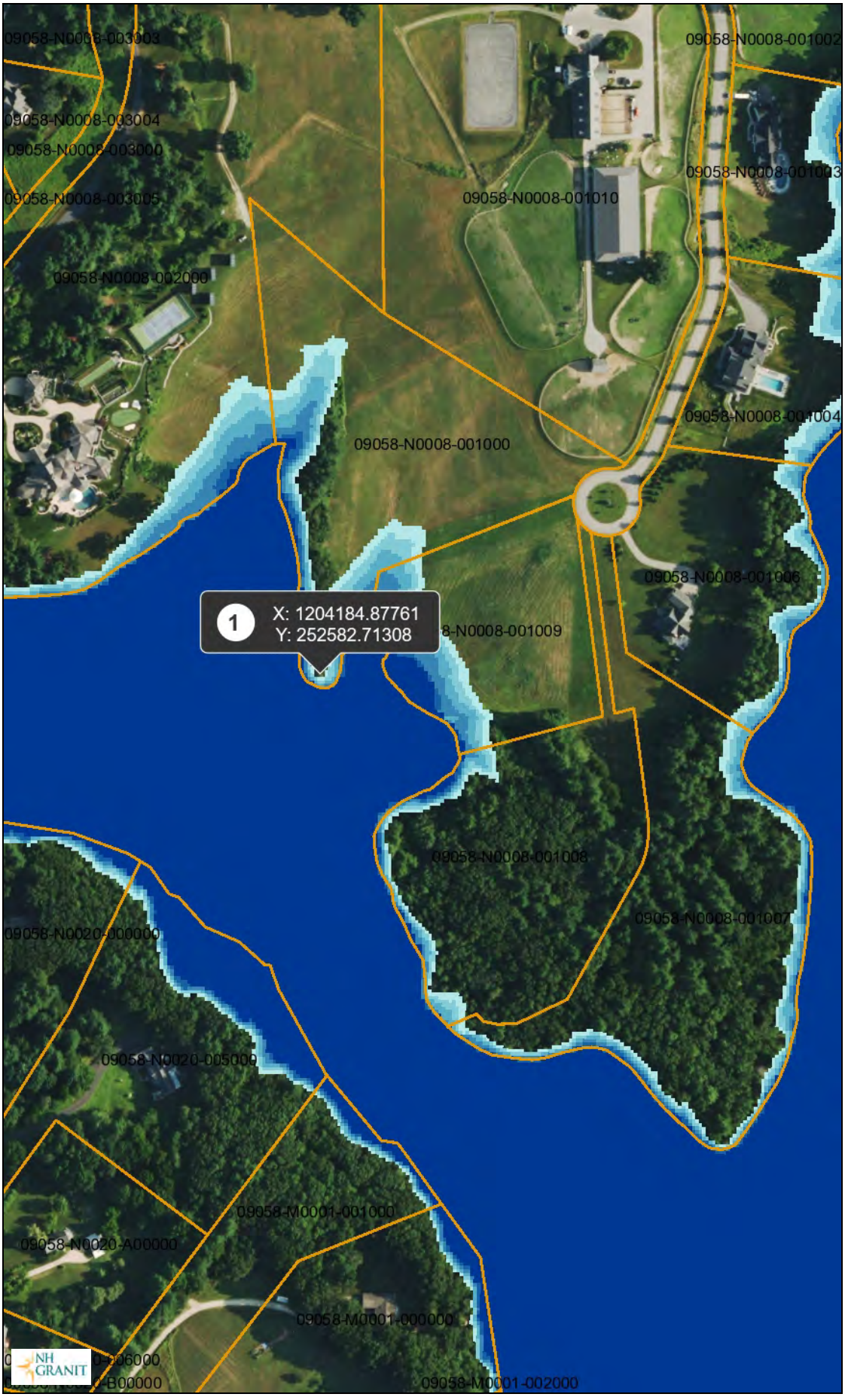
Map Generated: 9/23/2022

Notes

6 Foot SLR



Map by NH GRANIT



Legend

Parcels - polygons

- Parcel Polygons
- Attributes for Additional Lines

MHHW + 8-ft SLR

- 0 - 2
- 2 - 4
- 4 - 6
- 6 - 8
- 8 - 10
- 10 +

Coastal 2019 1-foot RGB

World Imagery

Low Resolution 15m Imager

High Resolution 60cm Image

High Resolution 30cm Image

Citations

1.2m Resolution Metadata

Map Scale

1: 3,247

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Map Generated: 9/23/2022

Notes

8 Foot SLR



E-Doc # 210021054 10/18/2021 12:40:56 PM
Book 4967 Page 397 Page 1 of 6
CATHERINE A. BERUBE
Register of Deeds, Strafford County
LCHIP STA187823 25.00

Return to:
Baroff & Craven PA
740 Chestnut Street
Manchester, NH 03104
Transfer Tax: $0.00

QUITCLAIM DEED

KNOW ALL MEN BY THESE PRESENTS that Bonterra Farms, LLC, a New Hampshire limited liability company, with a mailing address of 31 Saddle Trail Drive, Dover, New Hampshire 03820, for consideration paid grants to Saddle Trail Drive Homeowners' Association, a New Hampshire non-profit corporation, with a mailing address of 44 Saddle Trail Drive, Dover, New Hampshire 03820, with quitclaim covenants the following describe premises:

Three certain tracts or parcels of land, and any improvements thereon, located in the City of Dover, County of Strafford and State of New Hampshire, described as follows:

Tract 1: Saddle Trail Drive

Parcel 1
The private roadway shown as "Saddle Trail Drive" on a plan of land entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Parcel 2
Area B as shown on plan entitled, "BOUNDARY LINE ADJUSTMENT PLAN FOR WOODWIND FARMS, LLC," prepared by Doucet Survey, Inc. and recorded in the Strafford County Registry of Deeds as Plan No. 101-99.

Tract 2: Open Space A

"Open Space 'A' as shown on a plan of land entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Tract 3: Open Space B

"Open Space 'B' as shown on a plan of land entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

Subject to the following:

1. Current Land Use as filed with the City of Dover by Elie A. Sehnaoui & Carolyn Sehnaoui recorded June 21, 1984 at Book 1135, Page 731.
2. Matters including 100' City of Dover Conservation District, "Proposed Septic Easement", utility easements, 100' buffer, conditions, restrictions, notes, etc. as incorporated in deed into the current owner recorded at Book 4582, Page 497, as well as depicted on Plans 93-55 and 93-56, Plans 101-99, 100 and 101, 93-68, 105-10.
3. Requirement for Open Space to be owned by a homeowners association and permanently preserved as undeveloped open space, as noted on Plan 93-55.
4. Utility easement to Public Service Company of New Hampshire and Verizon New England, Inc. as described in deed of Woodwind Farms, LLC dated April 3, 2006 and recorded at Book 3357, Page 362.
5. Well Maintenance and Easement Agreement by and between Woodwind Farms, LLC and Linda M. Gorman, Trustee of The Linda M. Gorman 2006 Revocable Trust dated December 1, 2008 and recorded at Book 3696, Page 488.
6. Rights of owners of Lots 1, 2, 3, 4, 6, 7, 8, 9, and 10 of The Paddocks at Tidewater Farm, for ingress and egress, including appurtenant rights in "Saddle Trail Drive" and/or "Open Spaces A & B.
7. Septic Easement over a portion of Open Space A shown on Plans 93-55 and 56, as well as a utility easement over Area B, both benefitting Lot 8 shown on Plan 101-99, as conveyed to Tidewater Farm, LLC by deed dated September 6, 2011 and recorded at Book 3937, Page 676.
8. Restrictive Covenants —Woodwind Farms, LLC dated April 6, 2005 and recorded at Book 3169, Page 182, Re-Recorded at Book 3172, Page 355.
9. Declaration of Restrictive Covenants — The Paddocks at Tidewater Farms Subdivision, dated 3/5/2008 and recorded at Book 3622, Page 18, with Amended and Restated Declaration of Restrictive Covenants The Paddocks at Tidewater Farm Subdivision dated 1/25/2013 and recorded at Book 4097, Page 246, as affected by First Amendment to the Amended and Restated Declaration of Restrictive Covenants at Tidewater Farm

Subdivision dated 11/5/2013 and recorded at Book 4179, Page 187, including Blanket Road/ Utility Easement.

10. The Paddocks at Tidewater Farm Homeowners Association, Dover, NH By-Laws, dated January 25, 2013 and recorded at Book 4097, Page 257, as affected by First Amendment to The Paddocks at Tidewater Farm Homeowners Association By-Laws dated November 5, 2013 and recorded at Book 4179, Page 185.

11. Wetland and Non-Site Specific Permit by New Hampshire Department of Environmental Services, dated November 13, 2003, Expiration Date: November 13, 2008, recorded at Book 2943, Page 716.

12. Easement to Twin State Gas and Electric Company as described in deed of Ellen R. Hollister and Sarah R. Childs dated 9/19/1940 recorded at Book 498, Page 153.

13. Flowage release to the State of New Hampshire as described in deed of Grace W. Rollins, Sarah H. Childs and Ellen R. Hollister dated 8/2/1948, recorded at Book 562, Page 444.

14. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Grace W. Rollins, Sarah R. Childs and Ellen R. Hollister, dated August 2, 1948 and recorded at Book 562, Page 445.

15. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Grace W. Rollins dated October 25, 1949 and recorded at Book 574, Page 499.

16. Slope and embankment release and drainage easement to the State of New Hampshire, as described in deed of Sarah R. Childs and Ellen R. Hollister dated October 10, 1949 and recorded at Book 575, Page 489.

17. Riparian rights in and to Cocheco River.

18. Matters, including City of Dover Conservation District Boundary, as shown on a set of plans entitled, "OPEN SPACE SUBDIVISION (WITH COMMERCIAL COMPONENT) FOR WOODWIND FARMS, LLC, TAX ASSESSORS MAP N, LOT 8-1 GULF ROAD, DOVER, NEW HAMPSHIRE COUNTY OF STRAFFORD," dated July 17, 2007, revised through February 12, 2008, prepared by Doucet Survey, Inc., and recorded in the Strafford County Registry of Deeds as Plan Nos. 93-55 and 93-56.

19. Matters shown on a set of plans entitled, "BOUNDARY LINE ADJUSTMENT PLAN FOR WOODWIND FARMS, LLC," prepared by Doucet Survey, Inc. and recorded in the Strafford County Registry of Deeds as Plan Nos. 101-99, 101-100, and 101-101.

RESERVING to the Grantor, the right, but not the obligation, to install, at Grantor's expense, an electronic gate and all associated components thereof across Saddle Trail Drive near the intersection of Saddle Trail Drive and Gulf Road ("Gate"), and once installed, the Gate shall belong to the Grantee and shall be maintained, repaired, replaced and insured by the Grantee so that Saddle Trail Drive at all times remains a gated private way. Grantor, its successors and assigns shall be entitled to enforce the provisions hereof.

The Grantee hereby indemnifies and holds the Grantor harmless from and against any and all claims associated with (a) the Gate once installed; and (b) title to the parcels conveyed hereby including all of the Grantor's reasonable attorneys' fees and costs incurred in defending any such action.

Meaning and intending to describe and convey a portion of the same premises conveyed to Bonterra Farms, LLC by Deed of Linda M. Gorman, Trustee of The Linda M. Gorman 2006 Revocable Trust dated July 6, 2018 and recorded in the Strafford County Registry of Deeds at Book 4582, Page 497. See also, Foreclosure Deed from People's United Bank to Linda M. Gorman, as Trustee of the Linda M. Gorman 2006 Revocable Trust dated January 17, 2013 and recorded in the Strafford County Registry of Deeds at Book 4090, Page 0726.

This is not homestead property of the within Grantor.

This is a non-contractual transfer pursuant to RSA 78-B:2, IX.

Witness my hand this 13 day of Oct, 2021.

Bonterra Farms, LLC

By: Blythe Brown

Blythe G. Brown, Manager
Duly Authorized

STATE OF New Hampshire
COUNTY OF Strafford

On this 13 day of October, 2021, before me, the undersigned officer, personally appeared Blythe G. Brown, who acknowledged herself to be (or satisfactorily proven to be) the Manager of Bonterra Farms, LLC, a New Hampshire limited liability company, and that she, in this capacity, being authorized to do so, executed the foregoing instrument for the purposes therein contained by signing her name on behalf of the LLC.

BRITA L PEDERSEN
Notary Public - New Hampshire
My Commission Expires May 1, 2024

~~Justice~~ of the Peace/Notary Public
My Commission Expires: 05/01/2024

<signatures continue on next page>

The Grantee, Saddle Trail Drive Homeowners' Association, is signing this deed to acknowledge the rights and obligations set forth herein.

Saddle Trail Drive Homeowners' Association

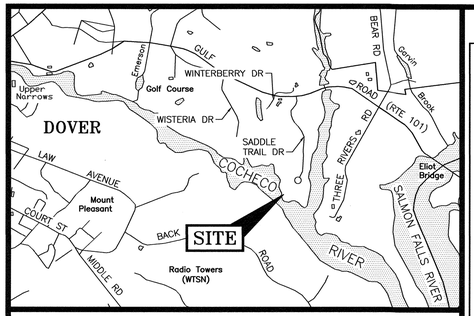
By: _____
Carla Meyers
Its duly authorized President

STATE OF NEW HAMPSHIRE
COUNTY OF STRAFFORD

Then personally appeared the above-named Carla Meyers, the President of Saddle Trail Drive Homeowners' Association, this 13 day of October, 2021, known to me or satisfactorily proven to be the person whose name is subscribed to the foregoing instrument, and acknowledges that she executed the same as her free act and deed for the purposes therein contained on behalf of Saddle Trail Drive Homeowners' Association.

BRITA L PEDERSEN
Notary Public - New Hampshire
My Commission Expires May 1, 2024

_____
Notary Public/Justice of the Peace
Commission Expires: 05/01/2024



LOCATION MAP SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
———	BOUNDARY
- - - - -	SETBACK
MHW	MEAN HIGH WATER LINE
MLW	MEAN LOW WATER LINE
MLLW	MEAN LOWER LOW WATER LINE
HOTL	HIGHEST OBSERVABLE TIDE LINE
SM	EDGE OF SALTMARSH
100	CONTOUR
	WOODS / TREE LINE
	TEMPORARY BENCHMARK
	SALTMARSH GRASS
TYP.	TYPICAL
EL.	ELEVATION

PLAN REFERENCES:

1) LOT LINE ADJUSTMENT PLAN FOR TAX MAP N LOT 8–10–0 SADDLE TRAIL DRIVE HOMEOWNERS ASSOCIATION TAX MAP N LOT 8–2–0 DAVID DELLA PENTA & KAREN DELLA PENTA GULF ROAD, SADDLE TRAIL DRIVE & WISTERIA DRIVE DOVER, NEW HAMPSHIRE PREPARED BY DOUCET SURVEY, LLC DATED JANUARY 2022. S.C.R.D. PLAN #12621

WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y–87–1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA–NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).

C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS–79/31 (1997).

E) "IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE" (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) HOTL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

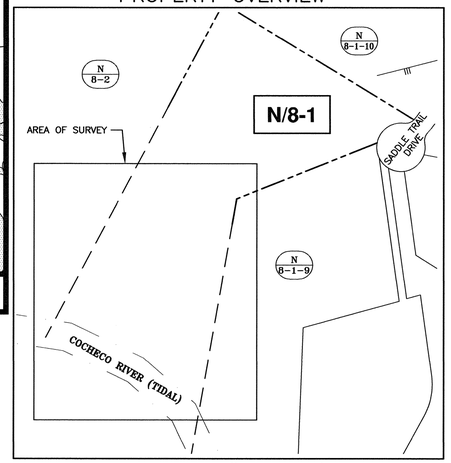
"I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000."

11.29.22

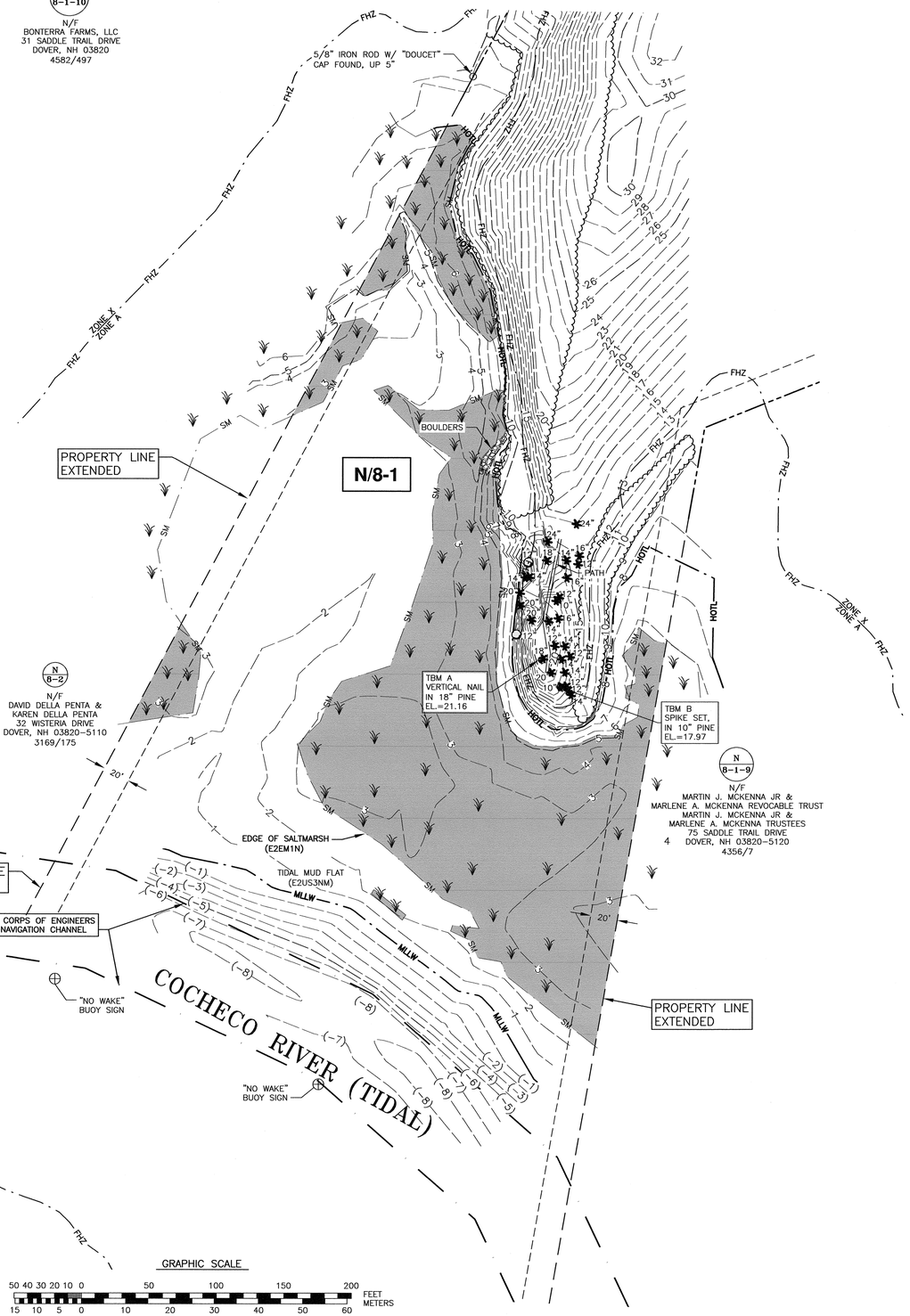
JOHN R. CHAGNON, LLS #738 DATE

STATE OF MAINE JOHN CHAGNON No. 738 PROFESSIONAL LAND SURVEYOR

PROPERTY OVERVIEW



SCALE: 1" = 200'



NORTH NAD83(2011) GRID NHSPC

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801–7114
Tel (603) 430–9282
Fax (603) 436–2315

NOTES:

1) PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8–1.

2) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397

3) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.

4) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW

5) PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R–40) DISTRICT.

6) DIMENSIONAL REQUIREMENTS:

MIN. LOT SIZE:		40,000 S.F.
MAX. LOT COVERAGE:		10%
FRONTAGE:		150 FEET
SETBACKS:	FRONT	40 FEET
	SIDE	25 FEET
	REAR	30 FEET
MAXIMUM STRUCTURE HEIGHT:		35 FEET

7) THE PURPOSE OF THIS PLAN IS TO SHOW THE RESULTS OF AN EXISTING CONDITIONS SURVEY ON A PORTION OF ASSESSOR'S MAP N LOT 8–1.

8) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/–0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

SADDLE TRAIL DRIVE HOA PROPERTY SADDLE TRAIL DRIVE DOVER, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	11/29/22

REVISIONS

STATE OF NEW HAMPSHIRE STEVEN D. RIKER 11/29/22 No. 219 CERTIFIED WETLAND SCIENTIST

SCALE: 1"=50' SEPTEMBER 2022

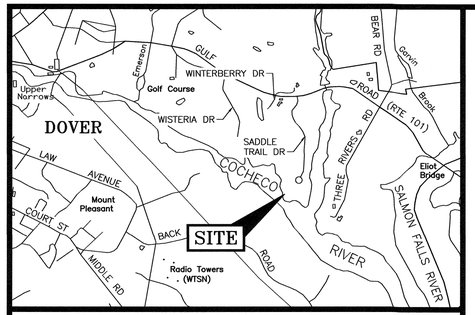
EXISTING CONDITIONS PLAN

C1

FB 386 PG 40

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J:\PROJ\3402.09\CAD\3402.09 Saddle Trail HOA Saddle Trail Drive, Dover, NH\2022 Permit\Plans & Specs\Dover\3402.09 Bathymetry 2022.dwg, 11/29/2022 3:54:54 PM, Tim Hoekstra
© 1999-2022 Ambit Engineering, Inc.



LOCATION MAP SCALE 1"=2,000'

LEGEND:

N/F	NOW OR FORMERLY
RP	RECORD OF PROBATE
RCRD	STRAFFORD COUNTY REGISTRY OF DEEDS
11/21	MAP 11 / LOT 21
———	BOUNDARY
– – –	SETBACK
MHW	MEAN HIGH WATER LINE
MLW	MEAN LOW WATER LINE
MLLW	MEAN LOWER LOW WATER LINE
HOTL	HIGHEST OBSERVABLE TIDE LINE
SM	HIGHEST OBSERVABLE TIDE LINE
100	CONTOUR
	WOODS / TREE LINE
	TEMPORARY BENCHMARK
	SALTMARSH GRASS
TYP.	TYPICAL
EL.	ELEVATION

WETLAND NOTES:

1) HIGHEST OBSERVABLE TIDE LINE DELINEATED BY STEVEN D. RIKER, CWS ON 4/12/2022 IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

A) U.S. ARMY CORPS OF ENGINEERS WETLANDS DELINEATION MANUAL. TECHNICAL REPORT Y-87-1 (JAN. 1987). AND REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION, VERSION 2.0, JANUARY 2012.

B) FIELD INDICATORS OF HYDRIC SOILS IN THE UNITED STATES, VERSION 8.2, USDA-NRCS, 2018 AND (FOR DISTURBED SITES) FIELD INDICATORS FOR IDENTIFYING HYDRIC SOILS IN NEW ENGLAND, VERSION 4. NEIWPCC WETLANDS WORK GROUP (2019).

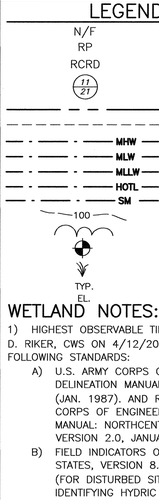
C) NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS: NORTHEAST (REGION 1). USFWS (MAY 1988).

D) CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES. USFW MANUAL FWS/OBS-79/31 (1997).

E) ''IDENTIFICATION AND DOCUMENTATION OF VERNAL POOLS IN NEW HAMPSHIRE'' (1997). NEW HAMPSHIRE FISH AND GAME DEPARTMENT.

2) HOTL LINE WAS FIELD LOCATED BY AMBIT ENGINEERING, INC.

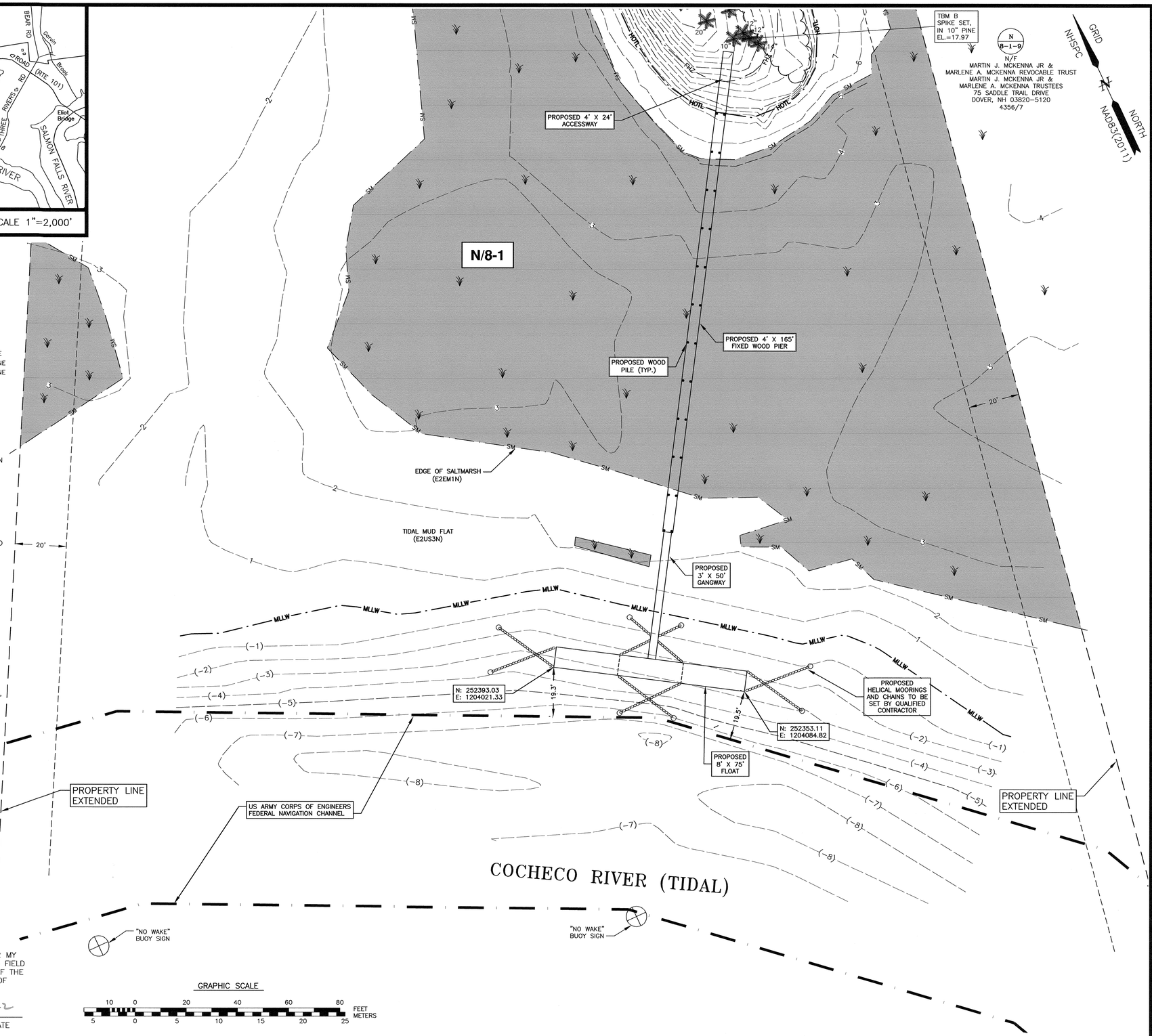
N 8-2
N/F
DAVID DELLA PENTA &
KAREN DELLA PENTA
32 WISTERIA DRIVE
DOVER, NH 03820-5110
3169/175



''I CERTIFY THAT THIS PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION, THAT IT IS THE RESULT OF A FIELD SURVEY BY THIS OFFICE AND HAS AN ACCURACY OF THE CLOSED TRAVERSE THAT EXCEEDS THE PRECISION OF 1:15,000.''

9.29.22

JOHN R. CHAGNON, LLS #738 DATE



GRAPHIC SCALE

10 0 20 40 60 80 FEET
5 0 5 10 15 20 25 METERS

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

NOTES:

PARCEL IS SHOWN ON THE CITY OF DOVER ASSESSOR'S MAP N AS LOT 8-1.

1) OWNERS OF RECORD:
SADDLE TRAIL DRIVE HOMEOWNER'S ASSOCIATION
44 SADDLE TRAIL DRIVE
DOVER, NH 03820
4967/397

2) PARCEL IS PARTIALLY IN A SPECIAL FLOOD HAZARD AREA (ZONE A) AS SHOWN ON FIRM PANEL 33017C0330E, DATED 9/30/15.

3) EXISTING LOT AREA:
264,736 S.F. ± TO MHW
6.0775 ACRES ± TO MHW

4) PARCEL IS LOCATED IN THE RURAL RESIDENTIAL (R-40) DISTRICT.

5) DIMENSIONAL REQUIREMENTS:

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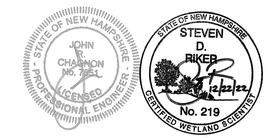
6) THE PURPOSE OF THIS PLAN IS TO SHOW THE PROPOSED TIDAL DOCKING STRUCTURE ON A PORTION OF ASSESSOR'S MAP N LOT 8-1.

7) VERTICAL DATUM IS MEAN LOWER LOW WATER (MLLW). BASIS OF VERTICAL DATUM IS REDUNDANT RTN GNSS OBSERVATIONS (+/-0.2'). REDUCTION FRM NAVD88 TO MLLW BASED ON NOAA STATION 8420411 DOVER, COCHECO RIVER. MLLW BEING 3.93 FEET LOWER THAN 0.00 NAVD88.

SADDLE TRAIL DRIVE HOA PROPERTY SADDLE TRAIL DRIVE DOVER, N.H.

NO.	DESCRIPTION	DATE
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REVISIONS



SCALE: 1"=20' SEPTEMBER 2022

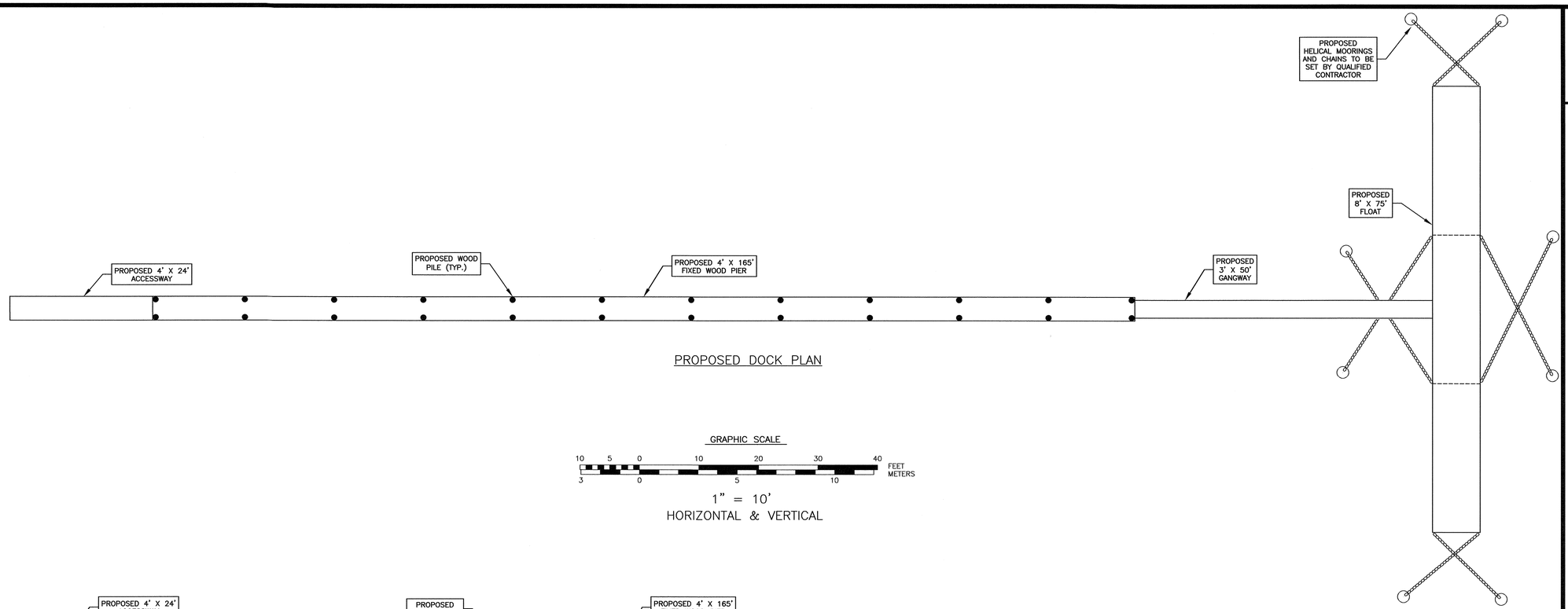
NH DES PERMIT PLAN

C2

FB 386 PG 40

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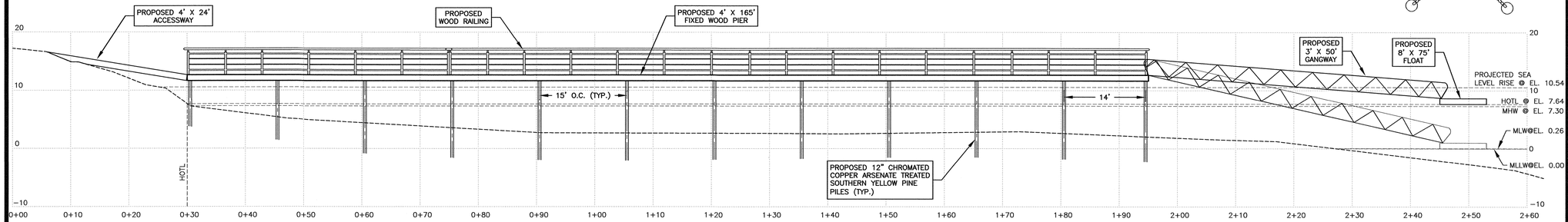


PROPOSED DOCK PLAN

GRAPHIC SCALE

10 5 0 10 20 30 40 FEET
3 0 5 10 METERS

1" = 10'
HORIZONTAL & VERTICAL



PROPOSED DOCK ELEVATION

PROPOSED PIER, GANGWAY & FLOAT

SEQUENCE OF CONSTRUCTION

1) MOBILIZATION OF A CRANE BARGE, PUSH BOAT, WORK SKIFF, MATERIALS AND PREFABRICATED COMPONENTS SUCH AS THE GANGWAY AND FLOAT TO THE SITE VIA APPROVED ACCESS.
2) MOBILIZATION OF EQUIPMENT TRUCKS TO THE SITE.
3) THE BARGE WILL BE POSITIONED ALONGSIDE THE PROPOSED LOCATION OF THE NEW DOCK AND WATERWARD OF ANY EMERGENT VEGETATION TO MINIMIZE IMPACTS
4) INSTALLATION OF THE SUB STRUCTURE WILL BE PERFORMED FROM A CRANE BARGE OR SKIFF TO REDUCE THE AMOUNT OF FOOT TRAFFIC IN THE INTERTIDAL AREA.
5) ALL WORK WILL BE PERFORMED AT LOW TIDE TO MINIMIZE SEDIMENTATION.
6) PILINGS WILL BE MECHANICALLY DRIVEN BY A CRANE ELIMINATING ANY EXCAVATION FOR INSTALLATION OF THE PILINGS. PILING ARE DRIVEN TO REFUSAL.
7) PILINGS ARE CUT AND BEAM CAPS ARE INSTALLED AND THE SUPER STRUCTURE OF THE PIER IS BUILT. MATERIALS ARE LIFTED FROM THE BARGE AND SET INTO POSITION BY THE CRANE.
8) ONCE THE PIER IS COMPLETE, THE GANGWAY AND FLOAT ARE BROUGHT INTO POSITION AND INSTALLED.

DISCHARGES, AVOIDANCE, MINIMIZATION AND MITIGATION

DISCHARGES OF DREDGED OR FILL MATERIAL INTO WATERS OF THE U.S. AND ANY SECONDARY IMPACTS SHALL BE AVOIDED AND MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE. PERMITTEES MAY ONLY FILL THOSE JURISDICTIONAL WETLANDS AND WATERWAYS THAT THE CORP AND NHDES AUTHORIZES TO BE FILLED AND IMPACT THOSE AREAS THAT THE CORPS AND AND NHDES AUTHORIZES AS SECONDARY IMPACTS. IF NOT SPECIFICALLY AUTHORIZED BY USACOE AND AND NHDES, ANY UNAUTHORIZED FILL OR SECONDARY IMPACT TO WETLANDS MAY BE CONSIDERED AS A VIOLATION OF THE CWA.

- UNLESS SPECIFICALLY AUTHORIZED USACOE AND AND NHDES, NO WORK SHALL DRAIN A WATER OF THE U.S. BY PROVIDING A CONDUIT FOR WATER ON OR BELOW THE SURFACE.

HEAVY EQUIPMENT IN FRESH WATER WETLANDS

HEAVY EQUIPMENT OTHER THAN FIXED EQUIPMENT (DRILL RIGS, FIXED CRANES, ETC.) WORKING IN WETLANDS SHALL NOT BE STORED, MAINTAINED OR REPAIRED IN WETLANDS, UNLESS IT IS LESS ENVIRONMENTALLY DAMAGING OTHERWISE, AND AS MUCH AS POSSIBLE SHALL NOT BE OPERATED WITHIN THE INTERTIDAL ZONE. WHERE CONSTRUCTION REQUIRES HEAVY EQUIPMENT OPERATION IN WETLANDS, THE EQUIPMENT SHALL EITHER HAVE LOW GROUND PRESSURE (<3 PSI), OR SHALL NOT BE LOCATED DIRECTLY ON WETLAND SOILS AND VEGETATION; IT SHALL BE PLACED ON SWAMP MATS THAT ARE ADEQUATE TO SUPPORT THE EQUIPMENT IN SUCH A WAY AS TO MINIMIZE DISTURBANCE OF WETLAND SOIL AND VEGETATION. SWAMP MATS ARE TO BE PLACED IN THE WETLAND FROM THE UPLAND OR FROM EQUIPMENT POSITIONED ON SWAMP MATS IF WORKING WITHIN A WETLAND. DRAGGING SWAMP MATS INTO POSITION IS PROHIBITED. OTHER SUPPORT STRUCTURES THAT ARE LESS IMPACTING AND ARE CAPABLE OF SAFELY SUPPORTING EQUIPMENT MAY BE USED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. SIMILARLY, NOT USING MATS DURING FROZEN, DRY OR OTHER CONDITIONS MAY BE ALLOWED WITH WRITTEN CORPS AND NHDES AUTHORIZATION. AN ADEQUATE SUPPLY OF SPILL CONTAINMENT EQUIPMENT SHALL BE MAINTAINED ON SITE. CORDUROY ROADS AND SWAMP/CONSTRUCTION MATS ARE CONSIDERED AS FILL WHETHER THEY'RE INSTALLED TEMPORARILY OR PERMANENTLY.

TIME OF YEAR WORK WINDOW AND NOISE RESTRICTIONS

I. PILES INSTALLED IN-THE-DRY DURING LOW WATER OR IN-WATER BETWEEN NOV. 8TH – APR. 9TH, OR
II. MUST BE DRILLED AND PINNED TO LEDGE, OR
III. VIBRATORY HAMMERS USED TO INSTALL ANY SIZE AND QUANTITY OF WOOD, CONCRETE OR STEEL PILES, OR
IV. IMPACT HAMMERS LIMITED TO ONE HAMMER AND <50 PILES INSTALLED/DAY WITH THE FOLLOWING: WOOD PILES OF ANY SIZE, CONCRETE PILES ≤18-INCHES DIAMETER, STEEL PILES 12-INCHES DIAMETER IF THE HAMMER IS ≤3000 LBS. AND A WOOD CUSHION IS USED BETWEEN THE HAMMER AND STEEL PILE.

FOR II-IV ABOVE:

I. IN-WATER NOISE LEVELS SHALL NOT >187dB SEL RE μPa OR 206dB PEAK RE μPa AT A DISTANCE >10M FROM THE PILE BEING INSTALLED, AND
II. IN-WATER NOISE LEVELS >155dB PEAK RE μPa SHALL NOT EXCEED 12 CONSECUTIVE HOURS ON ANY GIVEN DAY AND A 12 HOUR RECOVERY PERIOD (I.E., IN-WATER NOISE BELOW 155dB PEAK RE μPa) MUST BE PROVIDED BETWEEN WORK DAYS.

WORK SITE RESTORATION

- UPON COMPLETION OF CONSTRUCTION, ALL DISTURBED WETLAND AREAS SHALL BE PROPERLY STABILIZED. ANY SEED MIX SHALL CONTAIN ONLY PLANT SPECIES NATIVE TO NEW ENGLAND.
- THE INTRODUCTION OR SPREAD OF INVASIVE PLANT SPECIES IN DISTURBED AREAS IS PROHIBITED.
- IN AREAS OF AUTHORIZED TEMPORARY DISTURBANCE, IF TREES ARE CUT THEY SHALL BE CUT AT GROUND LEVEL AND NOT UPROOTED IN ORDER TO PREVENT DISRUPTION TO THE WETLAND SOIL STRUCTURE AND TO ALLOW STUMP SPROUTS TO REVEGETATE THE WORK AREA, UNLESS OTHERWISE AUTHORIZED.
- WETLAND AREAS WHERE PERMANENT DISTURBANCE IS NOT AUTHORIZED SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND ELEVATION, WHICH UNDER NO CIRCUMSTANCES SHALL BE HIGHER THAN THE PRE-CONSTRUCTION ELEVATION. ORIGINAL CONDITION MEANS CAREFUL PROTECTION AND/OR REMOVAL OF EXISTING SOIL AND VEGETATION, AND REPLACEMENT BACK TO THE ORIGINAL LOCATION SUCH THAT THE ORIGINAL SOIL LAYERING AND VEGETATION SCHEMES ARE APPROXIMATELY THE SAME, UNLESS AUTHORIZED.

SEDIMENTATION AND EROSION CONTROL

ADEQUATE SEDIMENTATION AND EROSION CONTROL MANAGEMENT MEASURES, PRACTICES AND DEVICES, SUCH AS PHASED CONSTRUCTION, VEGETATED FILTER STRIPS, GEOTEXTILE SILT FENCES, STORMWATER DETENTION AND INFILTRATION SYSTEMS, SEDIMENT DETENTION BASINS, OR OTHER DEVICES SHALL BE INSTALLED AND PROPERLY MAINTAINED TO REDUCE EROSION AND RETAIN SEDIMENT ON-SITE DURING AND AFTER CONSTRUCTION. THEY SHALL BE CAPABLE OF PREVENTING EROSION, OF COLLECTING SEDIMENT, SUSPENDED AND FLOATING MATERIALS, AND OF FILTERING FINE SEDIMENT. THE DISTURBED AREAS SHALL BE STABILIZED AND THESE DEVICES SHALL BE REMOVED UPON COMPLETION OF WORK. THE SEDIMENT COLLECTED BY THESE DEVICES SHALL BE REMOVED AND PLACED AT AN UPLAND LOCATION, IN A MANNER THAT WILL PREVENT ITS LATER EROSION INTO A WATERWAY OR WETLAND. ALL EXPOSED SOIL AND OTHER FILLS SHALL BE PERMANENTLY STABILIZED AT THE EARLIEST PRACTICABLE DATE.

SPAWNING AREAS.

DISCHARGES OF DREDGED OR FILL MATERIAL, AND/OR SUSPENDED SEDIMENT PRODUCING ACTIVITIES IN FISH AND SHELLFISH SPAWNING OR NURSERY AREAS, OR AMPHIBIAN AND MIGRATORY BIRD BREEDING AREAS, DURING SPAWNING OR BREEDING SEASONS SHALL BE AVOIDED. IMPACTS TO THESE AREAS SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE DURING ALL TIMES OF THE YEAR. INFORMATION ON SPAWNING HABITAT FOR SPECIES MANAGED UNDER THE MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (I.E., EFH FOR SPAWNING ADULTS) CAN BE OBTAINED FROM THE NMFS WEBSITE AT: WWW.NERO.NOAA.GOV/HCD.

STORAGE OF SEASONAL STRUCTURES.

COASTAL STRUCTURES SUCH AS PIER SECTIONS, FLOATS, ETC., THAT ARE REMOVED FROM THE WATERWAY FOR A PORTION OF THE YEAR (OFTEN REFERRED TO AS SEASONAL STRUCTURES) SHALL BE STORED IN AN UPLAND LOCATION, LOCATED ABOVE HIGHEST OBSERVABLE TIDE LINE (HOTL) AND NOT IN TIDAL WETLANDS. THESE SEASONAL STRUCTURES MAY BE STORED ON THE FIXED, PILE-SUPPORTED PORTION OF THE STRUCTURE THAT IS SEAWARD OF HOTL. THIS IS INTENDED TO PREVENT STRUCTURES FROM BEING STORED ON THE MARSH SUBSTRATE AND THE SUBSTRATE SEAWARD OF MHW.

ENVIRONMENTAL FUNCTIONS AND VALUES

THE PERMITTEE SHALL MAKE EVERY REASONABLE EFFORT TO 1) CARRY OUT THE CONSTRUCTION OR OPERATION OF THE WORK AUTHORIZED BY USACOE AND NHDES HEREIN IN A MANNER THAT MINIMIZES ADVERSE IMPACTS ON FISH, WILDLIFE AND NATURAL ENVIRONMENTAL VALUES, AND 2) PROHIBIT THE ESTABLISHMENT OR SPREAD OF PLANT SPECIES IDENTIFIED AS NON-NATIVE INVASIVE SPECIES BY ANY FEDERAL OR STATE AGENCY. SEE THE SECTION ON INVASIVE SPECIES AT HTTP://WWW.NAE.USACE.ARMY.MIL/REGULATORY/ FOR CONTROL METHODS.

INSPECTIONS

THE PERMITTEE SHALL ALLOW THE CORPS AND NHDES TO MAKE PERIODIC INSPECTIONS AT ANY TIME DEEMED NECESSARY IN ORDER TO ENSURE THAT THE WORK IS BEING OR HAS BEEN PERFORMED IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PERMIT. THE CORPS AND NHDES MAY ALSO REQUIRE POST-CONSTRUCTION ENGINEERING DRAWINGS FOR COMPLETED WORK, AND POST-DREDGING SURVEY DRAWINGS FOR ANY DREDGING WORK.

AMBIT ENGINEERING, INC.
Civil Engineers & Land Surveyors
200 Griffin Road – Unit 3
Portsmouth, N.H. 03801-7114
Tel (603) 430-9282
Fax (603) 436-2315

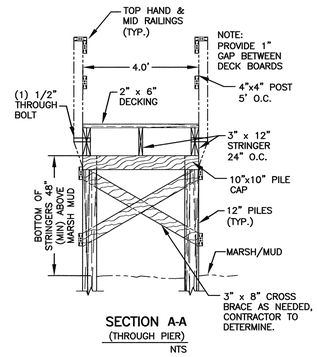
NOTES:

1) THE CONTRACTOR SHALL NOTIFY DIG SAFE AT 1-888-DIG-SAFE (1-888-344-7233) AT LEAST 72 HOURS PRIOR TO COMMENCING ANY EXCAVATION ON PUBLIC OR PRIVATE PROPERTY.

2) UNDERGROUND UTILITY LOCATIONS ARE BASED UPON BEST AVAILABLE EVIDENCE AND ARE NOT FIELD VERIFIED. LOCATING AND PROTECTING ANY ABOVEGROUND OR UNDERGROUND UTILITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR THE OWNER. UTILITY CONFLICTS SHOULD BE REPORTED AT ONCE TO THE DESIGN ENGINEER.

3) EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH MAINE EROSION AND SEDIMENT CONTROL PRACTICES FIELD GUIDE FOR CONTRACTORS, MARCH 2015.

4) NUMBER OF PILES TO BE DRIVEN FOR DOCKING STRUCTURE NOT TO EXCEED 24 AS DEPICTED ON PROPOSED DOCK ELEVATION. ALSO NOTE TIME OF YEAR AND NOISE RESTRICTIONS FOR DRIVING OF PILES.



SECTION A-A
(THROUGH PIER)
NTS

PROPOSED PIER DETAIL
NTS

SADDLE TRAIL DRIVE HOA PROPERTY SADDLE TRAIL DRIVE DOVER, N.H.

NO.	DESCRIPTION	DATE
0	ISSUED FOR COMMENT	11/29/22

REVISIONS

JOHN R. CHAGNON NO. 7651 LICENSED PROFESSIONAL ENGINEER – STATE OF NEW HAMPSHIRE

STATE OF NEW HAMPSHIRE STEVEN D. RIKER 11/29/22 No. 219 CERTIFIED WETLAND SCIENTIST

SCALE: AS SHOWN SEPTEMBER 2022

DOCK DETAILS

D1

FB 386 PG 40

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Z:\DOCS\3402\3402.09 SADDLE TRAIL HOA\3402.09 Saddle Trail HOA Saddle Trail Drive, Dover, NH\2022 Permit\Plans & Specs\Dock\3402.09 Bathymetry 2022.dwg
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