



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



February 22, 2019

TOWN OF DURHAM
C/O MICHAEL LYNCH
8 NEWMARKET RD
DURHAM NH 03824

RE: File # 2019-00405
Subject Property: Durham Tax Map/Lot # 11 / 8-2

Dear Mr. Lynch:

Attached please find Wetlands Permit # 2019-00405 to impact 14,071 square feet of tidal wetlands plus 13,507 square feet of previously-developed upland tidal buffer zone as part of an overall restoration effort to restore lost and degraded salt marsh habitat, minimize further erosion, prepare for sea-level rise, install an engineered stormwater treatment swale and to provide educational opportunities for the general public. In addition, 2,652 square feet of previously-developed upland tidal buffer zone will be temporarily impacted for construction access and staging.

The decision to approve this application was based on the following findings:

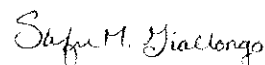
1. This is a Minimum Impact Project per NH Administrative Rule Env-Wt 303.04(t), restoration of altered or degraded wetlands provided the project:
 - a. Receives financial support and direct supervision of a New Hampshire state agency, the US Environmental Protection Agency, the US Army Corps of Engineers, the US Natural Resources Conservation Service, or the US Fish and Wildlife Service;
 - b. Shall not be used to perform restoration where the applicant is subject to a removal or restoration order;
 - c. Is not located in or adjacent to prime wetlands; and
 - d. Does not meet the criteria of NH Administrative Rule Env-Wt 303.02(k).
2. The Town of Durham has received support and/or been overseen by the University of New Hampshire (UNH) Coastal Habitat Restoration Team, the NH Department of Environmental Services (NHDES) Coastal Program, the Strafford Regional Planning Commission and the Piscataqua Regional Estuaries Partnership throughout development and planning of this restoration project.
3. The project was awarded a \$250,000 grant from the NHDES Aquatic Resource Mitigation (ARM) fund. All ARM projects require 5 years of post-construction monitoring.
4. The Town of Durham has owned Wagon Hill Farm, including 4,847 linear feet of frontage along the Oyster River, and maintained public access to the shoreline since 1989. During this time, the Town has made continuous efforts to manage erosion along the shoreline including, riprap installation and, most recently, installation of a 30 foot long temporary wave/ice barrier pilot structure to collect data for the living shoreline design (NHDES Wetlands Permit 2016-03492).
5. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per NH Administrative Rule Env-Wt 302.03.

6. The project will restore lost or degraded salt marsh habitat along the Oyster River shoreline at Wagon Hill Farm. The project will minimize further erosion and has been designed to prepare for imminent sea level rise. The project includes a combination of re-grading, planting native salt marsh and tidal shoreline species, armoring the toe of the newly established salt marsh and enacting stringent control of public use of the site by providing designated access areas and education/outreach materials.
7. Restoration of the project area, using best management practices and state-of-the-science living shoreline techniques, will support direct and indirect benefits to coastal species along the entire Atlantic Coast.
8. The applicant has demonstrated by plan and example that each factor listed in NH Administrative Rule Env-Wt 302.04(b) Requirements for Application Evaluation, has been considered in the design of the project.
9. Per correspondence dated June 19, 2018, a Phase IA Archaeological Sensitivity Assessment and Phase IB Intensive Archaeological Investigation for the proposed Bioretention and Shoreline Stabilization project was conducted by Monadnock Archaeological Consulting, LLC.
10. The Natural Heritage Bureau (NHB) reports submitted with the application package (NHB19-0067) identified three exemplary natural communities (Red maple-red oak-cinnamon fern forest; sparsely vegetated intertidal system and subtidal system) plus two endangered plant species including: green rockcress (*Boechera missouriensis*) and hair wood brome (*Bromus pubescens*).
11. The applicant has coordinated with NHB and it was determined, in correspondence dated February 01, 2019, that the project is not expected to impact these sensitive resources.
12. On January 24, 2019, the Durham Conservation Commission signed the NHDES Wetlands Permit Application, thereby waiving their right to intervene pursuant and indicating no objection to permitting the proposed work.
13. In correspondence dated February 19, 2019, the Pease Development Authority, Division of Ports and Harbors, determined that the project would have no negative effect on navigation in the channel.

Any person aggrieved by this decision may appeal to the New Hampshire Wetlands Council (the Council) by filing an appeal that meets the requirements specified in RSA 482-A:10, RSA 21-O:14, and the rules adopted by the Council, Env-WtC 100-200. The appeal must be filed **directly with the Council within 30 days** of the date of this decision and must set forth fully **every ground** upon which it is claimed that the decision complained of is unlawful or unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council. Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/wetlands/index.htm>.) Copies of the rules also are available from the New Hampshire Department of Environmental Services (NHDES) Public Information Center at (603) 271-2975.

Your permit must be signed, and a copy must be posted in a prominent location on site during construction. If you have any questions, please contact our office at (603) 271-2147.

Sincerely,



Stefanie M. Giallongo
NHDES Wetlands Bureau
Land Resources Management

cc: Durham Conservation Commission & Municipal Clerk
ec: Todd Selig, Town of Durham
Tom Ballestero, Dave Burdick and Joel Ballestero, Gregg Moore; UNH Coastal Habitat Restoration Team
Kirsten Howard, NHDES Coastal Program
Lori Sommer, Cheryl Bondi; NHDES Wetlands Bureau
Lindsey Lefebvre, US Army Corps of Engineers



The State of New Hampshire
Department of Environmental Services



Robert R. Scott, Commissioner

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WETLANDS AND NON-SITE SPECIFIC PERMIT 2019-00405

NOTE CONDITIONS

PERMITTEE: TOWN OF DURHAM
C/O MICHAEL LYNCH
8 NEWMARKET RD
DURHAM NH 03824

PROJECT LOCATION: WAGON HILL FARM RTE 4, DURHAM
TAX MAP #11, LOT #8-2

WATERBODY: OYSTER RIVER

APPROVAL DATE: FEBRUARY 22, 2019

EXPIRATION DATE: FEBRUARY 22, 2024

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Based upon review of the above referenced application, in accordance with RSA 482-A and RSA 485-A:17, a Wetlands Permit and Non-Site Specific Permit was issued by the New Hampshire Department of Environmental Services (NHDES). This permit shall not be considered valid unless signed as specified below.

PERMIT DESCRIPTION: Impact 14,071 square feet of tidal wetlands plus 13,507 square feet of previously-developed upland tidal buffer zone as part of an overall restoration effort to restore lost and degraded salt marsh habitat, minimize further erosion, prepare for sea-level rise, install an engineered stormwater treatment swale and to provide educational opportunities for the general public. In addition, 2,652 square feet of previously-developed upland tidal buffer zone will be temporarily impacted for construction access and staging.

THIS APPROVAL IS SUBJECT TO THE FOLLOWING PROJECT SPECIFIC CONDITIONS:

1. All work shall be in accordance with plans by the University of New Hampshire Coastal Habitat Restoration Team titled "Wagon Hill Farm Shoreline Restoration" dated February 02, 2019, as received by the NH Department of Environmental Services (NHDES) on February 05, 2019; plans by Ross Engineering titled "Observation Deck Wagon Hill Farm" dated December 14, 2018, as received by NHDES on January 31, 2019, and; plans by University of New Hampshire Coastal Habitat Restoration Team titled "Wagon Hill Farm Stormwater Control" dated December 13, 2017, as received by NHDES on January 31, 2019.
2. This permit is not valid until the permittee obtains written approval from NHDES for the final design of the proposed granite slab access way and a final design for the proposed method of accessing the work area seaward of the highest observable tide line.
3. This permit is not valid until the permittee obtains written approval from NHDES for the final project monitoring plan, including construction and post-construction monitoring requirements, to be reviewed by NHDES and the US Army Corps of Engineers (ACOE). A map of photo station locations shall be included in the monitoring plan.
4. Any revision of, deviation from, or addition to the approved plan set(s) cited above, or any further alteration of area on this property that is subject to RSA 482-A jurisdiction, will require review and written approval by NHDES. Additional permitting or an amendment to this permit, pursuant to RSA 482-A:3 XIV(e), may apply.
5. A qualified professional or professionals with expertise and demonstrated success in the field of salt marsh restoration shall supervise and be on-site during construction.

6. The permittee shall notify the NHDES Wetlands Bureau, in writing, of the qualified professional(s) that have been retained to ensure that the restoration is constructed in accordance with the approved plans. The permittee shall re-notify the NHDES Wetlands Bureau if the identity of the qualified professional(s) changes during the project.
7. The permittee shall schedule a pre-construction meeting with NHDES Land Resources Management Program and Watershed Management Bureau staff to occur at least 48 hours prior to the start of any work authorized by this permit to review the conditions of this wetlands permit.
8. The preconstruction meeting shall be held on-site. The meeting shall be attended by the permittee; the professional engineer(s); wetlands scientist(s), environmental consultant(s) and qualified professional(s); and the contractor(s) responsible for performing the work.
9. This permit does not authorize the removal of trees or saplings within the waterfront buffer that would result in a tree and sapling point score below the minimum required per RSA 483-B:9, V, (a)(2)(D)(iv).
10. No person undertaking any activity shall cause or contribute to, or allow the activity to cause or contribute to, any violations of the surface water quality standards in RSA 485-A and New Hampshire Code of Administrative Rules Chapter Env-Wq 1700. Work shall be carried out in a time and manner to avoid disturbances to migratory waterfowl breeding and nesting areas as well as migratory fish spawning and rearing habitat.
11. To prevent the introduction of invasive plant species to the site, the permittee's contractor(s) shall inspect and clean all soils and vegetation from construction equipment before it is moved to the site.
12. The contractor responsible for completion of the work shall appropriately address invasive species in accordance with the NHDOT Best Management Practices for Roadside Invasive Plants (2008).
13. Work shall be performed during low tide.
14. Any fill used shall be clean sand, gravel, rock, or other suitable material selected to match the grain size of the existing substrate to the extent practicable.
15. Geotextile filter fabric shall be installed under temporary fill areas to isolate temporary fill from the natural substrate.
16. Appropriate siltation, erosion and turbidity controls shall be in place prior to construction, shall be maintained during construction, and shall remain until the area is stabilized. Temporary erosion controls shall be removed once the area has been stabilized.
17. Work shall be conducted in a manner so as to minimize turbidity and sedimentation to surface waters and wetlands.
18. The final disposition of all dredged and excavated material and construction related debris shall be placed outside of areas subject to RSA 482-A.
19. The contractor responsible for completion of the work shall use techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
20. Construction equipment shall be inspected daily for leaking fuel, oil, and hydraulic fluid prior to entering surface waters or wetlands or operating in an area where such fluids could reach groundwater, surface waters, or wetlands.
21. The contractor responsible for completion of the work shall maintain appropriate oil/diesel fuel spill kits on site that are readily accessible at all times during construction, and shall train each operator in the use of the kits.
22. All refueling of equipment shall occur outside of surface waters or wetlands during construction. Machinery shall be staged and refueled in upland areas only, unless approved by NHDES prior to refueling.
23. Faulty equipment shall be repaired immediately prior to entering areas that are subject to RSA 482-A jurisdiction.
24. Within three (3) days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or jute matting and pinning on slopes steeper than 3:1.
25. Where construction activities occur between November 30 and May 1, all exposed soil areas shall be stabilized within one (1) day of establishing the grade that is final or that otherwise will exist for more than five (5) days. Stabilization shall include placing 3-inches of base course gravels, or loaming and mulching with tack or jute matting and pinning on slopes steeper than 3:1.

MONITORING

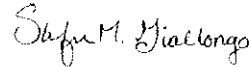
26. The qualified professional shall monitor the project during construction to verify that all work is done in accordance with the approved plans and narratives, adequate siltation and erosion controls are properly implemented, and no water quality violations occur.
27. The qualified professional shall inspect the construction areas and submit a monitoring report to NHDES Wetlands Bureau after any rain event of 1/2 inch or greater, within a 24 hour period, during construction.
28. A wet weather monitoring report(s) shall be submitted within 1 week of the rain event and shall include, but not be limited to, documentation of erosion control deployment, status of construction activities, sequence at time of monitoring, results of turbidity monitoring, remedies enacted to correct deficiencies in water quality protection measures.
29. The qualified professional shall submit an As-Built Report to the NHDES Wetlands Bureau within 60 days of final site stabilization.
30. The As-Built Report shall include, but not be limited to, the following components:
 - a. An as-built (post-construction) survey to ensure that restoration areas, target elevations and slopes were achieved;
 - b. A description of the regular monitoring that occurred to document the installation, maintenance and daily inspection of erosion and sediment control measures;
 - c. Photos and a description of photo documentation that occurred to depict all stages of construction, and;
 - d. An assessment of each aspect required by the final approved monitoring plan to serve as a reference for post-construction Performance Monitoring Reports.
31. The qualified professional shall submit annual Performance Monitoring Reports by January 30th following each of five full growing seasons, post-construction, to the NHDES Wetlands Bureau, the NHDES Coastal Program, the NH Natural Heritage Bureau and the ACOE.
32. Performance Monitoring Reports shall be completed in accordance with the final approved monitoring plan.
33. The qualified professional shall monitor the success of restoration plantings to ensure at least 75% successful establishment of vegetation and to ensure that the site has not become invaded by nuisance or invasive species after five (5) full growing seasons, or they shall be replanted and re-established in a manner satisfactory to the NHDES Wetlands Bureau.
34. The permittee, qualified professional(s), and permittee's contractor(s) shall coordinate with NHDES and ACOE to adaptively manage the project to optimize restoration potential and to take remedial actions as may be necessary to create stable salt marsh and tidal buffer zone habitat. Remedial actions may include, though shall not be limited to, changing material gradation and depth, amending compacted fill areas, changing the shape, elevation or configuration of the sill, addition or replacement of plantings or management of invasive species.
35. If determined necessary by the permittee, qualified professional(s), the permittee's contractor(s), NHDES and ACOE, adaptive management and remedial actions shall only commence after obtaining written approval from the NHDES Wetlands Bureau.
36. Following department approval of the remediation plan, the permittee shall implement the plan and submit Performance Monitoring Reports following each of the next three full growing seasons.

GENERAL CONDITIONS THAT APPLY TO ALL NHDES WETLANDS PERMITS:

1. A copy of this permit shall be posted on site during construction in a prominent location visible to inspecting personnel;
2. This permit does not convey a property right, nor authorize any injury to property of others, nor invasion of rights of others;
3. The NHDES Wetlands Bureau shall be notified upon completion of work;
4. This permit does not relieve the applicant from the obligation to obtain other local, state or federal permits, and/or consult with other agencies as may be required (including US EPA, US Army Corps of Engineers, NH Department of Transportation, NH Division of Historical Resources (NH Department of Cultural Resources), NHDES Alteration of Terrain, etc.);

5. Transfer of this permit to a new owner shall require notification to and approval by NHDES;
6. This project has been screened for potential impacts to **known** occurrences of protected species and exemplary natural communities in the immediate area. Since many areas have never been surveyed, or have only received cursory inventories, unidentified sensitive species or communities may be present. This permit does not absolve the permittee from due diligence in regard to state, local or federal laws regarding such communities or species;
7. Review enclosed sheet for status of the US Army Corps of Engineers' federal wetlands permit.

APPROVED:



Stefanie M. Giallongo
Wetlands Bureau
Land Resources Management

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BY SIGNING BELOW I HEREBY CERTIFY THAT I HAVE FULLY READ THIS PERMIT AND AGREE TO ABIDE BY ALL PERMIT CONDITIONS.

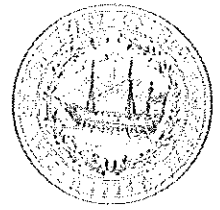
OWNER'S SIGNATURE (required)

CONTRACTOR'S SIGNATURE (required)



The State of New Hampshire
Department of Environmental Services

Robert R. Scott, Commissioner



**NOTICE TO RECIPIENTS OF
MINIMUM IMPACT NH WETLANDS PERMITS**

Your permit was approved by the New Hampshire Wetlands Bureau as a minimum impact project, and your project is automatically approved under the Army Corp's New Hampshire Programmatic General Permit.

For the purpose of the NH PGP, Minimum Impact Projects do not include new construction of:

- Dams;
- Dikes;
- Water withdrawal of diversion projects which require fill in wetlands or surface waters;
- Wetlands restoration projects, or any projects which involve work in other than low flow conditions (July 1 – September 30);
- Any projects involving more than 3,000 square feet of a water body or wetland fill and secondary impacts.

Also, not included under Minimum Impact Projects are those projects that include the reconstruction or replacement of currently unserviceable structures/fills. The projects must be reviewed through the screening procedures of minor impact projects. The activities in section 10 waters not regulated by the Wetlands Bureau formerly authorized under the Nationwide Permit Program and listed in Appendix A of this document are designated non-reporting activities.

These approvals do not relieve you from obtaining any necessary local permits that may be required by your town.

If you have any questions, feel free to give us a call at 603-271-2147.

This notice was sent with minimum impact permit.