

Attachment A



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.: UNH/Durham Water System

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.

LEE TRAFFIC CIRCLE WATER LINE EXTENSION:

THE NHDOT WILL NOT ALLOW THE PROPOSED WATER MAIN TO BE INSTALLED BENEATH THE ROADWAY OR IN THE DRAINAGE DITCHES OFF THE SIDE OF THE ROADWAY. THE PROJECT RUNS PARALLEL WITH THE ROAD WAY. THE PROPOSED ALIGNMENT IS OFF THE ROAD (PRIMARILY WITHIN THE ROW). WETLAND DELINEATIONS OF THE AREA DETERMINED THAT THERE ARE WETLANDS ON EITHER SIDE OF THE ROADWAY. NORTH SIDE VS SOUTH SIDE ALIGMENTS WERE CONSIDERED TO MINIMIZE THE AMOUNT OF WETLAND IMPACTS. IMPACTS TO FORESTED WETLANDS AND THE DUBE BROOK WILL BE AVOIDED BY DIRECTIONAL DRILLING BENEATH THE JURISDICTIONAL WETLANDS.

MAIN STREET/ROUTE 155A WATER MAIN IMPROVEMENTS:

THE NHDOT WILL NOT ALLOW THE PROPOSED WATER MAIN TO BE INSTALLED BENEATH THE ROADWAY. THE EXISTING 10" WATER MAIN IS PROPOSED TO BE ABANDONED IN PLACE. THE PROPOSED 12" WATER MAIN IS TO BE CONSTRUCTED SEVERAL FEET AWAY FROM THE EXISTING WATER MAIN WITHIN THE SAME WETLAND. THERE ARE NO PRACTICAL ALTERNATIVES ALIGNMENTS AVAILABLE TO TIE BACK INTO THE EXISTING WATER MAIN.

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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.

Lee Traffic Water Line Extension: N/A; no marshes

Main Street/Route 155A Water Main Improvements: N/A; no marshes

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

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

Lee Traffic Water Line Extension:

N/A; no hydrologic connections impacted. In addition, all proposed impacts to jurisdictional wetland areas are classified as temporary impacts and will be restored to existing conditions.

Main Street/Route 155A Water Main Improvements:

The proposed water main alignment crosses the College Brook. When excavating the trench, installing the pipe, backfilling, etc., it is proposed to provide construction sheeting and a bypass pump to maintain flow. The pump discharge will run through a sediment trap (typ. hay bales and crushed stone) to mitigate the transport of sediment from pump suction to discharge. The brook crossing and its hydrologic connection will be restored after water line construction. In addition, all proposed impacts to jurisdictional wetland areas are classified as temporary impacts and will be restored to existing conditions.

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.

Avoidance considerations were taken into account to minimize impacts to jurisdictional wetlands. Note that impacts to the Dube Brook in Lee (STA 51+50; Wetland ID 9 from Functional Assessment report; function value = 12) have been avoided by specifying the the proposed water main be installed by directional drilling methods. In addition, approx. 8,000 SF of wetland impacts and tree clearing have also been avoided along the water main extension to the Lee Traffic Circle (STA 18+00 to STA 24+00) by also specifying the use of trenchless methods to install the water main.

In addition to the avoidance considerations above, both projects will implement the following construction measures to minimize impacts to jurisdictional areas where impacts are unable to be avoided:

- Install double erosion control measures such as silt fence with hay bales to mitigate sediment transport to adjacent wetlands.
- Excavate, segregate, and stockpile the existing top 12" - 18" of soils separately and re-use them for the top 12"-18" after backfilling the trench.
- "Wildlife friendly" erosion matting without welded plastic will be used where applicable. It will be specified for contractors to provide products from the NHDOT Qualified Products List.
- Contractor will be required to provide a dewatering plan as part of their Storm Water Pollution Prevention Plan (SWPPP) submittal, including discharge locations with pump discharge sediment traps (such as hay bales and crushed stone).
- Specific wetlands construction monitoring services will be provided in areas as required by NHDES.

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.

Proposed impacts to jurisdiction wetland areas for both project areas will not eliminate, depreciate, or obstruct public commerce, navigation, or recreation. In addition, all proposed impacts to jurisdictional wetland areas are classified as temporary impacts and will be restored to existing conditions.

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.

N/A; neither of the project areas are within floodplain wetlands that provide flood storage. In addition, all proposed impacts to jurisdictional wetland areas are classified as temporary impacts and will be restored to existing conditions.

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.

Per the Wetlands Functional Assessment completed by Mark Jacobs, dated March 11, 2020, there are no proposed impacts to wetlands of "ecological integrity" (page 20). Note that Wetland ID #9 and ID #12 are identified as wetlands of "ecological integrity", but impacts to these wetlands have been avoided.

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.

Per the Wetlands Functional Assessment completed by Mark Jacobs, dated March 11, 2020, potential exists for public or private wells downstream of Wetland ID #1 and ID #2. However, proposed impacts are classified as temporary impacts and restored to existing conditions, thus they will have no detrimental impacts to adjacent drinking water supply or groundwater aquifer levels.

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.

Lee Traffic Water Line Extension:

All proposed wetland impacts are classified as temporary impacts. Wetlands will be restored to existing condition, thus they will have no adverse impacts to stream channels or the ability of such channels to handle runoff water.

Main Street/Route 155A Water Main Improvements:

The proposed water main alignment crosses the College Brook. When excavating the trench, installing the pipe, backfilling, etc., it is proposed to provide construction sheeting and a bypass pump to maintain flow. The pump discharge will run through a sediment trap (typ. hay bales and crushed stone) to mitigate the transport of sediment from pump suction to discharge. The brook crossing and its hydrologic connection will be restored after water line construction.

PART II: FUNCTIONAL ASSESSMENT
<p>REQUIREMENTS Ensure that project meets requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).</p>
<p>FUNCTIONAL ASSESSMENT METHOD USED: USACE Highway Methodology</p>
<p>NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: MARC JACOBS</p>
<p>DATE OF ASSESSMENT: MARCH 11, 2020</p>
<p>Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: <input checked="" type="checkbox"/></p>
<p>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: <input checked="" type="checkbox"/></p> <p>Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.</p>