



Date: January 21, 2025

To: Waterford Conservation Commission

From: Maureen FitzGerald, Environmental Planner

**Re: Inland Wetland Permit Application #C-25-02
441 Boston Post Road: Oswegatchie Fire Station
Application Review and Findings for Consideration**

The application is for demolition of an existing fire station and associated paved parking area and the construction of a new fire station building and associated parking areas, driveways and stormwater treatment system on approximately 2.0 acres at 441 Boston Post Road. A portion of the proposed building and new parking area, and demolition of a portion of the existing paved area occurs within the 100 ft. upland review area of two wetlands areas. The proposed activity will impact approximately 16,000 sq. ft. of the upland review area (URA) bordering wetland #1, an off-site intermittent channel, and 4,000 sq. feet of the upland review area of wetland #2, a wetland swale located on the project property easterly of the construction area.

Stormwater treatment mechanisms proposed include a dry grassed swale and a rain garden designed to capture and treat the full water quality volume from the developed site before discharging to a level spreader outlet.

Regulated activity associated with this proposal include:

1. Site demolition activity within the upland review area of inland wetlands.
2. Construction of a new fire station building and associated parking areas and stormwater rain garden within the upland review area of inland wetlands.
3. Discharge of treated stormwater run-off from the developed site to upland area adjacent to inland wetlands.

Review of Application

The proposed facility and associated parking is located on the existing developed envelope of the current fire station. A wetland delineation report dated August 2024 identifies 2 wetland areas on and adjacent to the parcel. No additional encroachment into the upland review areas of the intermittent wetland channel north of the site (Wetland #1) or the wet swale located east of the site (Wetland #2) is proposed. The new edge of pavement will be 55 – 60 ft. away from the intermittent channel of Wetland #1 increasing the width of a vegetated buffer between the facility and the wetland resource.

The re-development plan reduces total impervious surface area by 40% or @ 20,700 sq. ft. With the use of yards drains, paved leak-offs and roof leaders discharging to the proposed vegetated swale and rain garden, the site plan reduces directly connected impervious area by 90% from the existing condition.

The capacity of the rain garden to capture and treat the water quality volume (1.3 inch of rainfall run-off) from the proposed site conditions provides reduction of pollutant loads and attenuation of run-off volumes, consistent with the Town's stormwater management regulations, the recommendations in the Stony Brook watershed management plan and the CTDEEP Stormwater Manual. Post-construction peak run-off volumes are reduced below existing conditions.

The receiving waters from the intermittent channel are tributary to Stony Brook. The lower portion of Stony Brook south of Rte. 1 has been designated as an impaired waterbody by the State of CT for not meeting a designated use for recreation due to detected e. coli bacteria levels. Retention and bio-infiltration of the water quality volume mitigates potential bacterial loading from the site's impervious surfaces to Stony Brook.

Findings per Consideration per Section 10:

The following findings have been developed for the Commission's consideration of this application in accordance with SECTION 10.2 - Considerations For Decision.

10.2a - The proposal does not have direct impacts to the adjacent wetland area. The new edge of pavement has been further removed from the wetland perimeter increasing vegetated buffer adjacent to the wetland channel north of the site. The capacity and opportunity of the wetlands to function in supply and protection of surface and groundwater, control sediment and pollutants, prevent flooding and facilitate drainage are not adversely impacted by the re-development of the site. The wetlands are intermittent and do not provide fish or wildlife habitat functions.

10.2b - The purpose of the activity is to construct a new fire station on the site of an existing station to maintain service to the area. The extent of the development envelop and area of pavement within the 100 ft. URA is reduced. Stormwater volume and quality are attenuated by capturing the water quality volume of stormwater run-off from the site.

10.2c - Short term impacts to wetlands are minimized through implementation of a phased construction sequence, and detailed erosion and sediment control plan. Long term impacts are mitigated by the stormwater management system and maintenance plan protocols.

10.2d - The proposal does not involve permanent loss of inland wetland resources.

10.2e - The proposal is not anticipated to affect abutting or downstream properties. No loss of aquatic habitat or wetland function is anticipated.

10.2f - Impacts to off-site wetlands or watercourses are not anticipated. The proposed plan includes measures to mitigate potential impacts to wetland water quality and maintains hydrology.

Conditions for Permit Approval

Below are recommendations for conditions of permit approval to insure the development is conducted in accordance with the approved plans and that all measures to minimize the potential for direct and indirect impacts to wetlands and watercourses are implemented.

1. The limits of clearing and disturbance shall be marked in the field and approved by the Commission's agent prior to the start of site work and construction.
2. All stormwater run-off control measures shall be installed and maintained in accordance with the approved plans to control and treat discharge of stormwater generated on-site. An as-built plan and written inspection report from the design engineer shall be submitted to the Commission to document that the grassed swale and rain garden and level spreader controls were constructed in accordance with the approved plans prior to issuance of a certificate of permit compliance.
3. The final plan shall include installation of native shrub plantings along the northern site development boundary to enhance vegetated buffer within the upland review area.

4. The final plan shall include installation of signage at the northern edge of the developed site indicating a wetland protection area and “no dumping or discharge”.
5. An operation and management plan shall be prepared by the project engineer identifying the frequency and type of inspection and maintenance actions required for each element of the stormwater treatment train. The manual shall be kept on-site and a yearly report submitted to the Planning Department indicating inspection and maintenance measures have been implemented.