
TURTLE PROTECTION PLAN

INTRODUCTION

The Town of Andover proposes to improve and provide accessibility to approximately 1 mile of existing rail trail located between Haggetts Pond Road and High Plain Road in Andover, Massachusetts. The Haggetts Pond Rail Trail is proposed within the footprint of an abandoned railbed, existing parking areas, upland area, and existing paved roadways within the Town of Andover. A such, new impacts to resource areas will be minimal based upon the proposed project design.

Land use adjacent to the trail includes areas of residential development and areas of mixed forest. The railbed transects several soil types from northeast to southwest, primarily including areas of Freetown muck, Hinckley loamy sand, Canton fine sandy loam, and Windsor loamy sand. Along its route, the existing trail passes a number of wetland resources. These include areas of Bordering Vegetated Wetland (BVW), intermittent streams, vernal pools, hydrologic connections, and Haggetts Pond. The project proposes no new stream or hydrologic connections crossings and proposes no direct wetland alteration.

The Blanding's Turtle (*Emydoidea blandingii*) has been documented within the Haggetts Pond Rail Trail Project area. In coordination with the Massachusetts Natural Heritage & Endangered Species Program, this Turtle Protection Plan (TPP) is presented as a part of the project's compliance with the Massachusetts Endangered Species Act (MESA).

PROJECT SUMMARY

The Haggetts Pond Rail Trail Project (the Project) is located in Andover, MA. The Town is proposing to improve approximately an existing rail trail between Haggetts Pond Road and High Plain Road, creating an 8-ft wide asphalt trail surface, and making the trail ADA compliant. A short spur trail (~0.2 miles), will also be constructed, leading to a viewpoint across Haggetts Pond. The spur trail will consist of a board walk supported on helical piles, which will traverse areas of upland as well as one wetland. Of the total trail length, approximately 0.75 miles of the main trail, and the 0.2 miles of spur trail, are located within NHESP mapped Priority Habitat for Blanding's turtle.

Through pre-filing meetings with NHESP, avoidance, minimization, and mitigation of work affecting Blanding's Turtle habitat have been incorporated in the project proposal. As part of the trail improvements, the existing dirt Haggetts Pond parking area and High Plain parking area will be paved to create 28 parking spaces (14 spaces in each parking lot). Stormwater from paved areas (the parking lots and trail) and from adjacent road segments (not currently receiving stormwater treatment), will be managed through sub-surface stormwater management devices. The proposed asphalt trail will be located entirely within the footprint of the existing rail bed trail (a compacted organic material over railbed ballast). No direct impacts to wetlands are proposed, and no mature trees will be removed within Priority Habitat to construct the trail, though some trees are proposed for removal in the northern parking lot. Once construction of the trail is complete, disturbed areas will be restored, and habitat enhancements will be performed as detailed in the Notice of Intent and subsequent filings in response to peer review comments. Trail margins will be loamed and seeded with a shade-tolerant wildlife or pollinator seed mix, and sweet pepperbush (*Clethra alnifolia*) will be planted to improve vegetative cover around two vernal pools adjacent to the trail.

Project timeline is not known at this time. Turtle Protection Measures will require adjustment based upon the project construction timeline as it becomes established.

GENERAL CONSTRUCTION PHASING

- Install TEC devices for the Haggetts Pond Parking area (southern) and the Haggetts Pond Road outlets.
- Construct the Haggetts Pond Road Rain Garden.
- Construct the Haggetts Pond Parking lot to Binder. This parking area will be used as the trail and High Plain Road Parking area staging area.
- Clean existing culverts ensure that they are working properly and install all TEC devices.
- Construct the High Plain Parking Area.
- Construct the Boardwalk
- Construct the Haggetts Pond Rail Trail
- Install Top Paving at the Haggetts Pond Parking area.
- Remove TEC measures once all disturbed areas are stabilized.

TURTLE PROTECTION MEASURES DURING CONSTRUCTION

The following measures are proposed for construction activities in state listed turtle habitat during the active season. *The active season is typically considered April 1 to November 1 of any year. These measures are not considered necessary for activities occurring within the inactive season:*

Definitions:

- **Qualified Biologist:** A biologist with a strong knowledge of local habitat and turtle species whose credentials have been approved by NHESP.
- **Environmental Monitor:** A dedicated monitor who has received specific training from a Qualified Biologist on general turtle biology and identification and is able to perform the following daily activities at the site:
 1. To look for and generally identify turtles.
 2. To sweep work zone for turtles ahead of equipment being moved as needed.
 3. To stop work if a turtle is encountered within or near the work zone.

Contractor Education and Awareness Program:

- Construction crews that will be working in the subject habitat areas will complete a tailboard training on general turtle biology, identification, and ecology, conducted by a qualified biologist.
- If a turtle is encountered during work, crews will be instructed to notify the approved Environmental Monitor.
- Increased human activity in the vicinity of turtle habitat can potentially attract nest predator species, such as raccoons and skunks. To avoid attracting predatory species to the work site, crews will be required to practice good housekeeping, and securely dispose of all food wrappers and rubbish.

Active Season Restrictions, Best Management Practices, and Monitoring

If possible, construction activities will be conducted between November 1 and April 1, outside of the turtle active season. In coordination with the NHESP and Andover Conservation Commission, it has been agreed that exclusion fencing for the entire work zone is not a preferred approach to turtle protection on the Site.

If work is scheduled to be performed during the turtle active season (April 1 – November 1), the following Best Management Practices (BMPs), will be implemented:

- During the active season (April 1st to November 1st), an approved and qualified Environmental Monitor will remain on site each day to visually sweep all impact areas prior to equipment access and earthwork.
- Excavations that cannot be completed within one (1) workday will be covered or enclosed within entrenched protective silt fencing at least 2-1/2 feet tall, to prevent turtle entrapment.
- Stockpiles of any materials that will be in place for more than one day shall be protected within entrenched protective silt fencing at least 2-1/2 feet tall to prevent turtle nesting.
- Prior to movement of heavy equipment along the trail, the Environmental Monitor will walk ahead, sweeping the work zone for turtles. Smaller equipment such as UTVs and pick-up trucks must travel with an appropriately trained crew personnel sweeping ahead.
- If a state-listed turtle is encountered, the Environmental Monitor will:
 - Notify the Qualified Biologist via text and provide photographs of the turtle.
 - Photo-document the turtle and note it's exact location.
 - Record observations on "rare animal observation form," including all standard morphological measurements and characteristics, as well as description of the surrounding microhabitat.
 - **Prior to or after nesting season:** Relocate the turtle in the direction they are traveling (and not across/in the vicinity of paved roads).
 - **During nesting season (May – June):** avoid disturbance of any nest digging and identify nest location with flagging. Contact NHESP if the nest cannot be avoided.
 - Within 10 days of observation, submit the Rare Animal Observation Form to NHESP.