
State-Listed Turtle Protection Plan

Mirror Lake Parking Lot Expansion Project

Devens, Massachusetts

NHESP File Number 25-19508

PREPARED FOR



Devens: A MassDevelopment Community

99 Buena Vista Street, Devens MA 01434

PREPARED BY



120 Front Street Ste 500
Worcester, MA 01608
508.752.1001

May 2025

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Introduction

Mirror Lake, a glacial kettle pond located south of Patton Road within the former Fort Devens Army Installation in Devens, Massachusetts (the Project Site) (see Figure 1), is a popular destination for swimming, fishing, canoeing, and hiking. As the Devens Community grows, demand for recreational opportunities is continuing to increase. The Mirror Lakes Area was identified for a number of improvements, and the 2002 Mirror Lake Improvements Plan involved the investigation of programmatic alternatives, but potential improvements were not fully implemented. A Master Plan for the area has been under development for many years and has been identified as a reserved right in the Mirror Lake Conservation Restriction (CR). The plan was most recently updated in 2023 and includes concepts for future improvements. There are no plans to proceed on any improvements beyond the parking lot expansion at this time. Summer use at Mirror Lake has steadily increased in recent years, driven by growth of the Devens community. On peak-use days, up to 400 vehicles may seek to use parking in the area. Patton Road, a heavily trafficked arterial route for trucks, lacks on-street parking and pedestrian infrastructure for visitors to access the trailhead to the lake. When the designated parking lot (approx. 48 parking spaces) reaches capacity, visitors often resort to parking along the shoulder of Patton Road and walking alongside the active roadway. In response to these safety concerns, expanding the existing parking lot has emerged as a priority for MassDevelopment.

MassDevelopment proposes expansion of their existing parking lot at Mirror Lake (the Project). Exploratory borings are scheduled for mid-May and construction is anticipated to begin in September 2025.

The Project Site occurs within Division of Fisheries and Wildlife (Division) Natural Heritage and Endangered Species Program (NHESP) Priority Habitat polygon 1643 (see Figure 2) for Blanding's turtle (*Emydoidea blandingii*; Threatened), which triggers review under the Massachusetts Endangered Species Act (MESA; M.G.L. c. 131 A and 321 CMR 10.00). Currently no work associated with a proposed project has been reviewed or approved by the Division and no MESA determination has been issued by the Division. MassDevelopment has no intentions to conduct site work (e.g., land clearing, grubbing, staging of materials, or use of construction equipment) for the Project until a final determination has been rendered by the Division, however, recognizes timely implementation of pre-construction protection measures is essential. On behalf of MassDevelopment, VHB contacted the NHESP for pre-filing consultation and confirmed general turtle protective measures that would likely be included in the Division's determination. Emails with the NHESP indicated that May 15th is the required deadline for turtle fence installation. During a phone conversation, NHESP Endangered Species Review Biologist, Tim McGuire verbally indicated that exclusionary fence installation is allowed to commence at the Project Site to prevent turtle nesting within proposed work areas. Mr. McGuire indicated that the fence must be inspected within the first week of installation and he verbally authorized VHB senior ecologist, Brett Trowbridge to serve as the Project Wildlife Biologist (the Biologist) and survey for and remove state-listed turtles from within the exclusionary fencing while a Scientific Collection Permit application is being processed.

This Turtle Protection Plan (TPP) has been prepared to protect state-listed turtles during Project construction. Protection measures include turtle mortality avoidance and contractor education. For the purposes of this TPP, the Blanding's turtle active season is defined as March 15 through October 31

annually. A Scientific Collection Permit application for handling state-listed turtles is included with this TPP.

Turtle Protection Measures

Turtle Exclusionary Barrier

A turtle exclusion barrier was installed by S&M Farms on 13 May 2025 around proposed work areas that are currently vegetated (see Figure 3). The barrier consists of 36-inch tall silt fence trenched 6 inches deep (backfilled and compacted on both sides), securely attached with half-inch staples to 48 inch tall by 1 inch square hardwood stake supports. Mr. Trowbridge inspected the fence on 16 May 2025 and concluded the intact fence will effectively exclude turtles from the future work area. Surveys for Blanding's turtles were conducted inside the turtle exclusion barrier immediately after fence inspection and no turtles were observed. Because the fence was installed prior to 15 May, it is presumed that no active turtle nests exist within the barrier and planned barrier maintenance will ensure that turtles do not attempt nesting within the future work area.

A portion of the fence may be temporarily opened to conduct exploratory borings, however, the fence will be restored at the end of work each day. The fence will be maintained by MassDevelopment until construction starts, when the development contractor will assume maintenance of the fence throughout the remainder of the active season. VHB will coordinate with the development contractor to establish effective gates for construction equipment access.

The barrier will be inspected by the construction contractor daily to ensure that the barrier is taut between the stakes, without slumping and there are no gaps in or beneath the fence fabric. Contract documents will require identified maintenance or repair needs to be resolved before the contractor leaves the Site at the end of the day. The construction contractor shall keep an inspection log to be reviewed by the project Biologist that includes inspection dates, descriptions of barrier damage, and corrective actions taken.

For work during the turtle dormant season, the turtle fence and gates do not need to be functional. In the unlikely event that construction activities extend into the 2026 turtle active season, the turtle barrier will be reconstituted and reinspected by the Biologist to confirm effectiveness by 15 March 2026.

The contractor will completely remove the turtle exclusion barrier after construction is complete.

Contractor Education

Prior to construction, the Biologist will provide a turtle training to make work crews, including all construction, landscaping, and other sub-contractors associated with the Project, aware of the likely presence of state-listed species on or near the Site and the protective measures that are required for the Project. The training will cover Blanding's turtle identification information, the importance of maintaining the turtle barrier, actions that must be taken if the fence is damaged or a turtle is

observed, and the Biologist's contact information for questions or turtle sightings. The wildlife Biologist will provide the construction contractor with turtle training slides to be referenced throughout the Project.

If a state-listed turtle is discovered within or near the work area, the contractor will stop work immediately and contact the Biologist for specific instructions. In general, the following procedure will be implemented after consulting with the Biologist.

- Photo-documentation of the turtle
- Capture of the turtle for immediate release it beyond the limit of work barrier
- Within 24-hours send photographs and observation location to the Biologist

Alternative courses of action may entail confining the turtle in a clean container with native vegetation (e.g., leaves) in a secure, cool environment or halting operations until the Biologist arrives on-site to measure and release the turtle. Any rare species found onsite will be reported to NHESP via their Heritage Hub website within ten days of the initial encounter.

Other Protective Measures

Because plastic or wire mesh can ensnare turtles and other animals resulting in mortality, the use of these materials (e.g., certain erosion control barriers and soil erosion blankets) is prohibited from design material and final Site restoration.

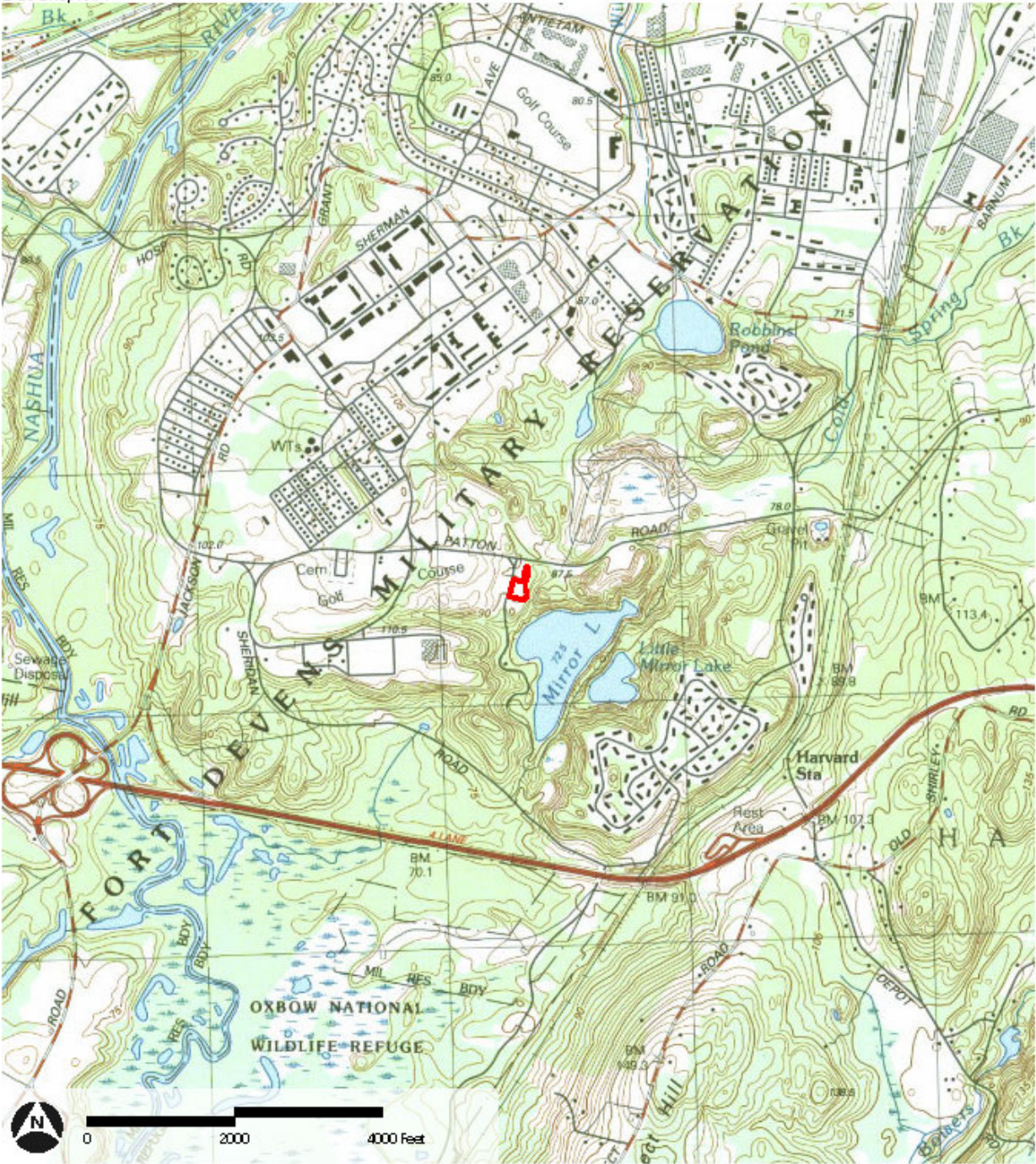
Any trenches and/or excavations (e.g., for subsurface conduits or drainage structures) that are required to integrate the existing and proposed parking area infrastructure will be covered at the end of each day to prevent turtles from falling into them (e.g., construction mats, steel plates). The construction contractor will coordinate with the Biologist to inspect and approve excavation area covers.

MassDevelopment or their representative will notify the NHESP of any proposed changes to the approved Project design or TPP for review and response.

Reporting

An annual report will be submitted to the NHESP at the end of each year or at the end of construction, whichever occurs first. The report will provide an update on Project status and turtle protection activities that were conducted during the previous calendar year. As noted above, state-listed species observations will be submitted using the NHESP Heritage Hub reporting portal.

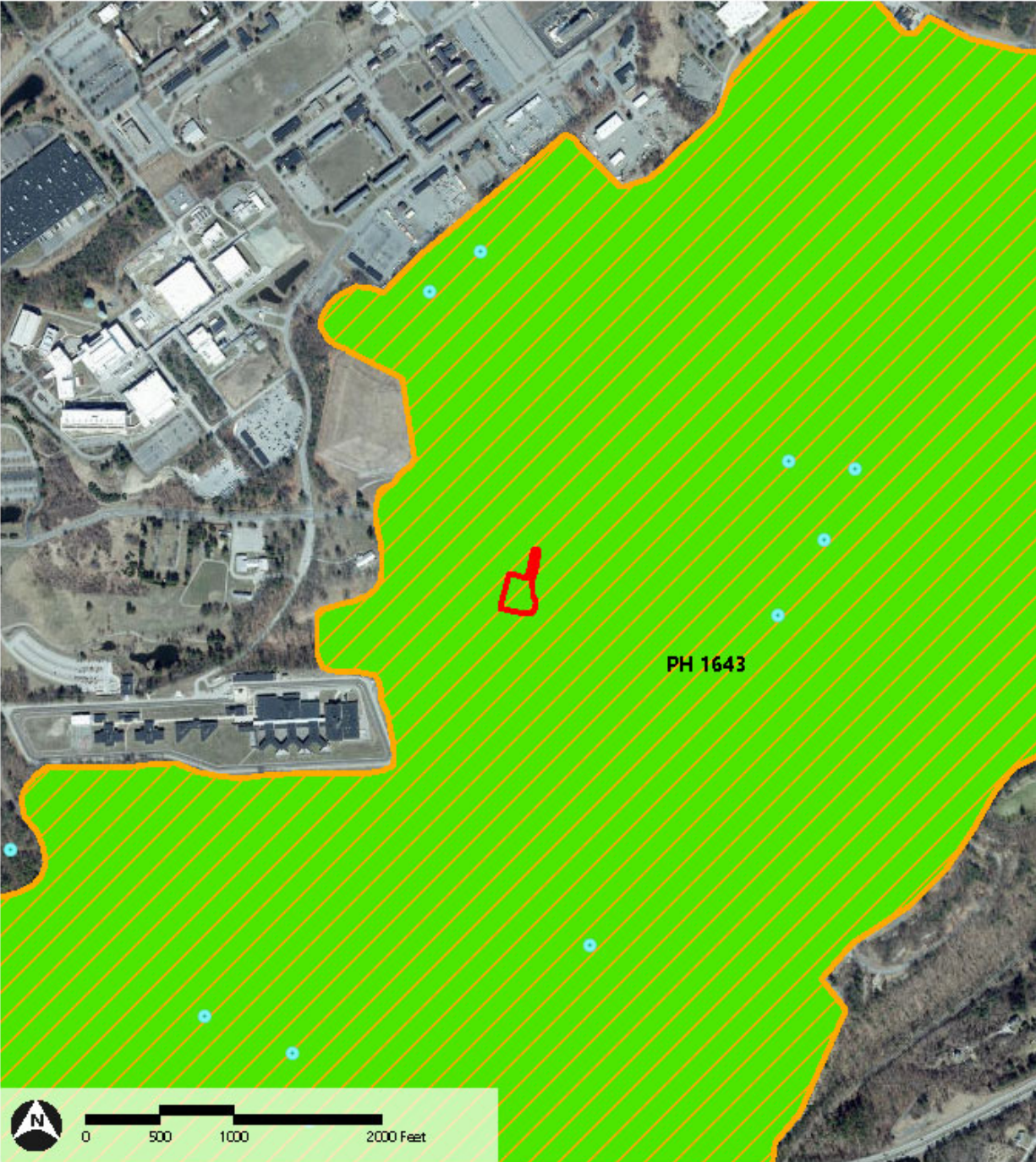
Figure 1: USGS Site Location
Mirror Lake Parking Lot Expansion
Devens, MA



Project Location

Sources: VHB, MassGIS

Figure 2: Priority Habitat Map
Mirror Lake Parking Lot Expansion
Devens, MA



Path: \\v\hb.com\gis\library\resources\Toolboxes\NHFiguresUtility\Proj\NH_Template.aprx (gmsa\GIS\ 5/16/2025)

- Project Location

NHESP Potential Vernal Pools

NHESP Certified Vernal Pools

NHESP Estimated Habitats of Rare Wildlife

NHESP Priority Habitats of Rare Species
- Project Comments: figure 3 comments

Sources: VHB, MassGIS

Figure 3: Approximate Turtle Barrier Location
Mirror Lake Parking Lot Expansion
Devens, MA



— Approximate Turtle Barrier Location

Sources: VHB, MassGIS

Attachment 1

Draft Contractor Turtle Training Presentation

DRAFT

Mirror Lake, Devens
State-listed Turtle Protection



State-listed Turtle Presentation Overview

- State-listed Turtle details
 - Identification
 - Life history
 - Onsite habitat areas
- Turtle Protection
- Protection Plan requirements
 - Contractor training
 - Exclusionary fencing
 - Reporting
- Resources & contact information



Photo source: https://www.sdherps.org/species/emydoidea_blandingii

Blanding's Turtle (*Emydoidea Blandingii*)

- 7- to 9-inch-long turtle with pale speckles on a dark upper shell and a bright yellow chin and throat
- Prefer wetland habitats with permanent, shallow water bodies and emergent vegetation
- Often travel through upland habitats for migration between wetlands and for nesting
- Protected under the Massachusetts Endangered Species Act (MGL § 131A; 321 CMR 10.00)



Blanding's Turtle (*Emydoidea Blandingii*)

- Active mid-March to November
- Dormant within wetlands between November and mid-March
- Nesting during summer within open areas
- Hatchlings emerge during late summer/early fall
- Prefer wetlands: swamps, marshes, and vernal pools
- Diet includes plants, invertebrates, amphibian larvae, and carrion





Photo source:
<https://www.mass.gov/files/documents/2016/08/tl/em-ydoidea-blandingii.pdf>



Eastern Box Turtle (*Terrapene carolina*)

- 4.5- to 7-inch-long turtle with yellow and black carapace
- Terrestrial (upland) species
- Occurs in woodlands, fields, ROWs, wet meadows, etc.
- Protected under Massachusetts Endangered Species Act (MGL § 131A; 321 CMR 10.00)



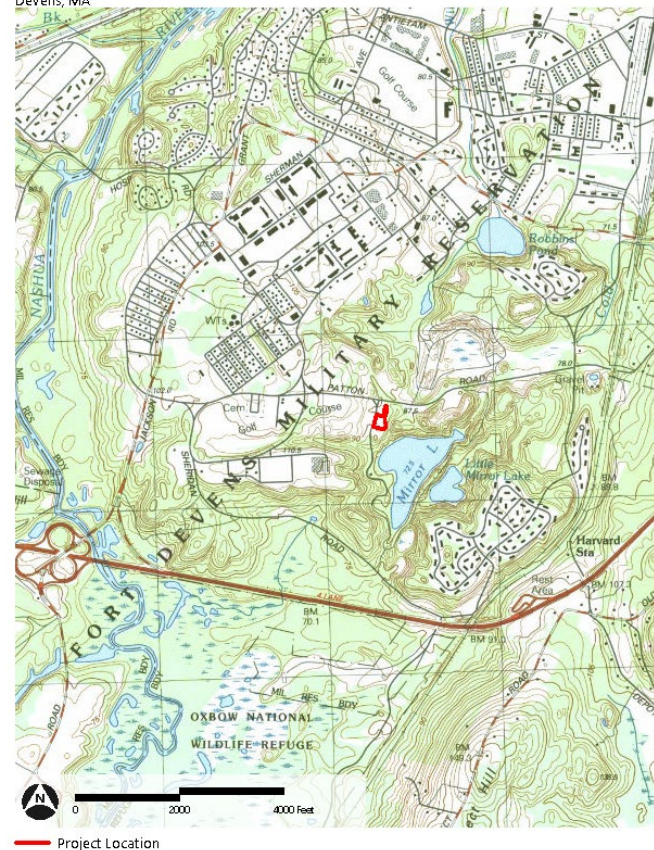


Blanding's Turtle Habitat

- Throughout and around Mirror Lake Project Site

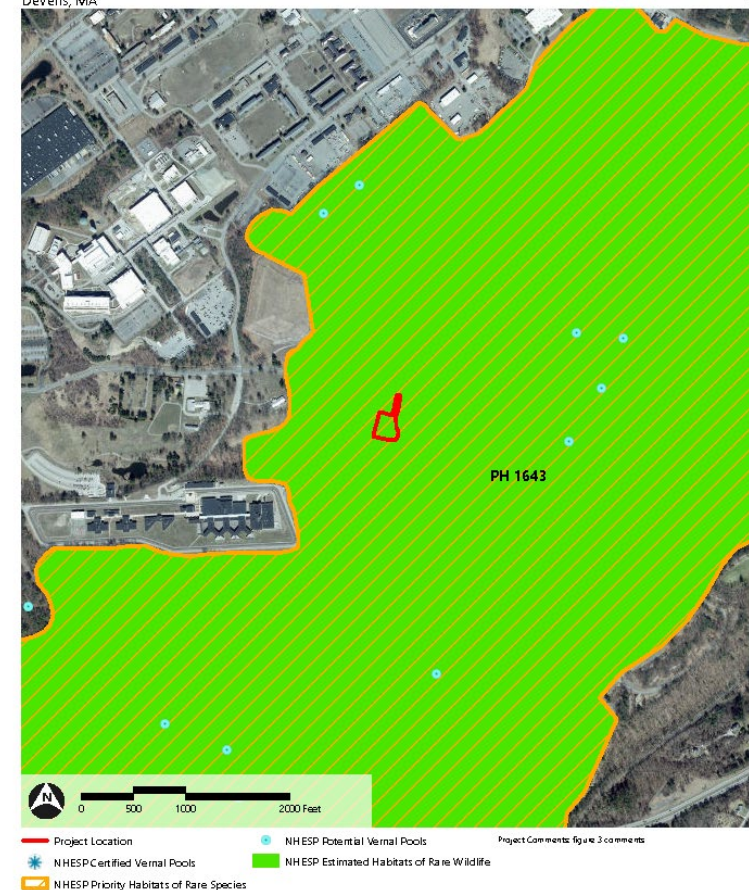


Figure 1: USGS Site Location
Mirror Lake Parking Lot Expansion
Devens, MA



Sources: VHB, MassGIS

Figure 2: Priority Habitat Map
Mirror Lake Parking Lot Expansion
Devens, MA



Sources: VHB, MassGIS

Rare Species in Massachusetts

- Massachusetts Endangered Species Act
M.G.L. § 131 A
- Implementing Regulations
321 CMR 10.00
 - unlawful for any person to take any state-listed species
 - No person may Take,



any plant or animal or part thereof on the state list or federal list.

10.04: Taking and Possession of Species on State and Federal Lists

(1) **Prohibitions.** Except as otherwise provided in 321 CMR 10.04(2) and (3), no person may take, possess, transport, export, process, sell or offer for sale, buy or offer to buy, nor shall a common or contract carrier knowingly transport or receive for shipment, any plant or animal or part thereof on the state list or federal list; provided, however, that ownership, sale, or purchase of real property on which such plant or animal occurs is not prohibited.

State-list means the Massachusetts list of Endangered, Threatened, and Special Concern species found at 321 CMR 10.90.

State-listed Species means any species on the state list.

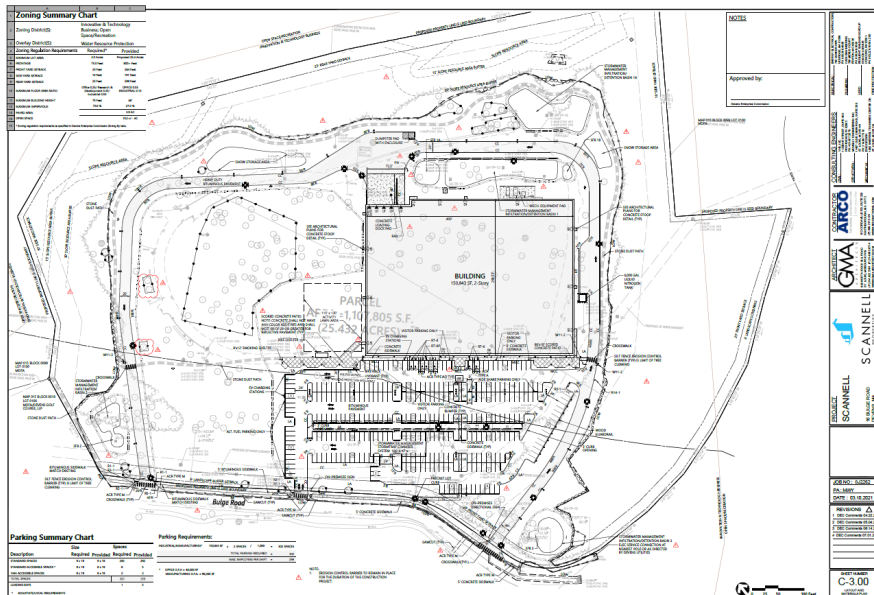
Take, in reference to animals, means to harass, harm, pursue, hunt, shoot, hound, kill, trap, capture, collect, process, disrupt the nesting, breeding, feeding or migratory activity or attempt to engage in any such conduct, or to assist such conduct, and in reference to plants, means to collect, pick, kill, transplant, cut or process or attempt to engage or to assist in any such conduct. Disruption of nesting, breeding, feeding or migratory activity may result from, but is not limited to, the modification, degradation or destruction of Habitat.

Threatened Species means any species of plant or animal listed as a Threatened species pursuant to 321 CMR 10.03 and so listed at 321 CMR 10.90.

Viability of a Significant Habitat to Support a Population of Endangered or Threatened Species means the ability of a Significant Habitat to sustain one or more populations of Endangered or Threatened species in the short and long term and may be expressed as the likelihood that the local population(s) of a given size will persist in a Significant Habitat.

Rare Species in Massachusetts

- Permit approvals for project construction require rare species protection
- Qualified biologist required



DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6300 | f: (508) 389-7800
MASS.GOV/MASSWILDLIFE

December 28, 2020

Edmund Starzec
MassDevelopment
99 High Street, 11th Floor
Boston, MA 02110

RE: Applicant: Edmund Starzec, Mass Development
Project Location: 16 Bulge Rd, Devens
Project Description: Construction of biotech office building with option for future expansion, associated landscaping, parking, drainage
NHESP File No.: 20-39634
Plans Referenced: "Concept Site Improvements" (dated October 2, 2020; prepared by VHB, 1 page) the "Site Plan";
"Figure 4. Proposed Site Alteration 2019 Orthophotograph" (dated 24 November 2020; prepared by Oxbow Associates inc., 1 page) the "LOW Plan";

Dear Applicant:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") received the MESA Project Review Checklist, plans including the Site Plan and LOW Plan, and other required materials for review pursuant to the Massachusetts Endangered Species Act (MESA) (MGL c.131A) and its implementing regulations (321 CMR 10.00).

The MESA is administered by the Division and prohibits the Take of state-listed species. The Take of state-listed species is defined as "in reference to animals...harm...kill...disrupt the nesting, breeding, feeding or migratory activity...and in reference to plants...collect, pick, kill, transplant, cut or process...Disruption of nesting, breeding, feeding, or migratory activity may result from, but is not limited to, the modification, degradation, or destruction of Habitat" of state-listed species (321 CMR 10.02).

The Division has determined that this Project, as currently proposed, will occur within the actual habitat of the Blanding's Turtle (*Emydoidea blandingii*), a Threatened species. This species and its habitats are protected in accordance with the MESA.

Based on the information provided and the information contained in our database, the Division finds that a portion of this project, as currently proposed, must be conditioned in order to avoid a prohibited Take of state-listed species (321 CMR 10.18(2)(a)). To avoid a prohibited Take of state-listed species, the following condition must be met:

1. **Turtle Protection Plan:** Prior to the start of Work, the Applicant shall submit a Blanding's Turtle Protection Plan to the Division for review and written approval. Said plan shall detail procedures for protecting state-listed turtles during construction, and be prepared and

MASSWILDLIFE

Turtle Protection Plan Summary

- Protection measures:
 - Contractor training
 - Exclusionary fencing
 - Reporting

State-Listed Turtle Protection Plan

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Devens: A MassDevelopment Community
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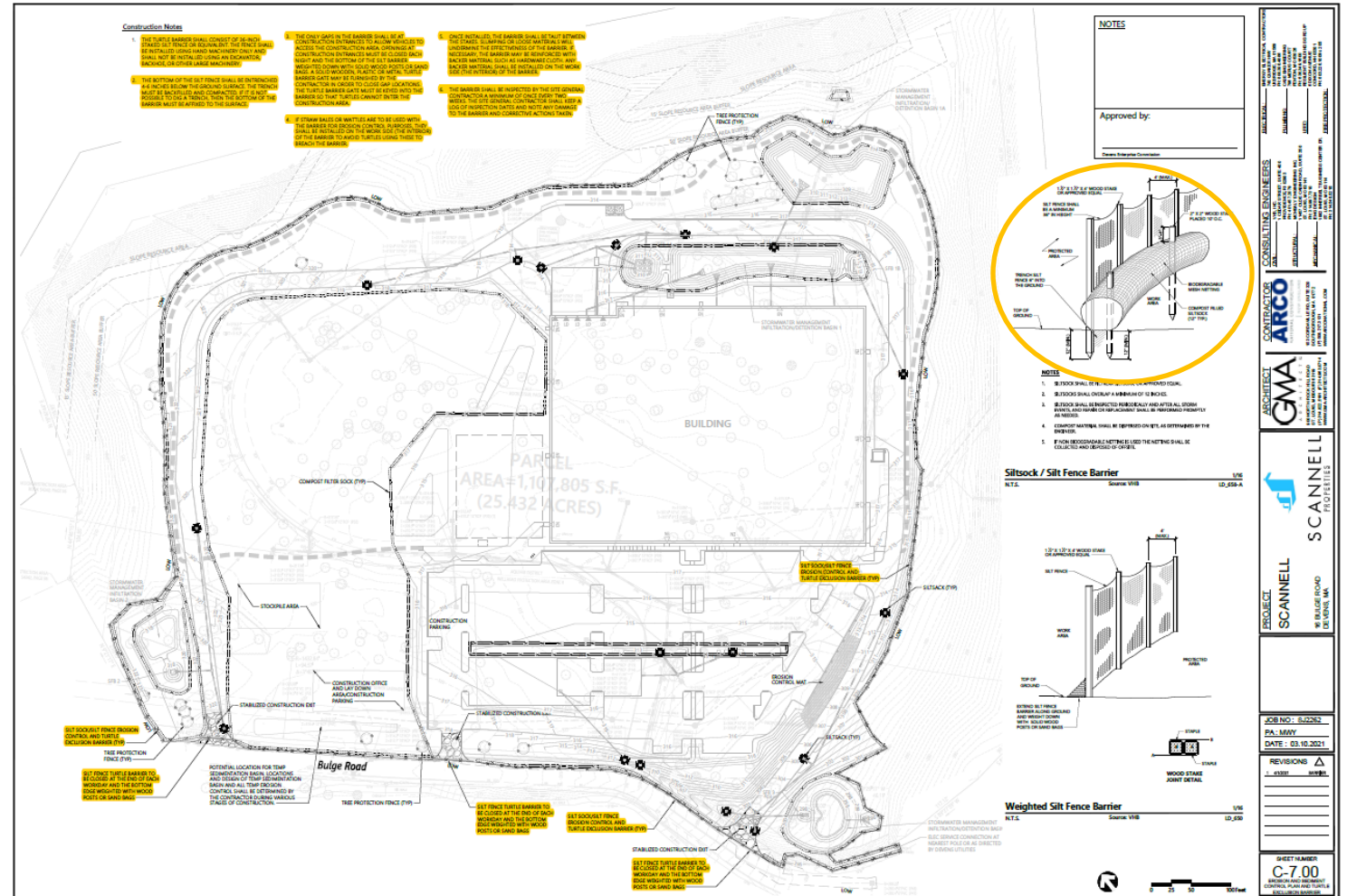
Turtle Protection

- Contractor training
 - Describe protection measures
 - Clarify contractor responsibilities
 - Provide resources and contact information




Turtle Protection

- Exclusionary fencing
 - Perimeter fence
 - Defines work area
 - Establishes a wildlife barrier
 - Provides erosion control
 - Needs to be maintained throughout construction
 - Inspected regularly
 - Inspection/maintenance log required
 - Contact biologist for turtle observations
 - Provide location reference and photos



Turtle Protection

- Reporting
 - Performed by biologist
 - Observation forms
 - Information required
 - Species
 - Location
 - Date
 - Age/Stage
 - Disposition
- Contact biologist for turtle observations
 - Provide location reference and photos



MASSACHUSETTS
ANIMAL OBSERVATION FORM

TRESPASSING NOTICE: In making this observation form available for public use, MassWildlife does not authorize or condone entry onto private property without the owner's knowledge and permission. The unlawful trespass onto private property may subject a trespasser to the criminal or civil sanctions available under the law. For these reasons, MassWildlife strongly recommends that the permission of the landowner be obtained prior to entering private property to collect information for this form. It is the sole responsibility of each person collecting information for this form to ensure that their activities comply with the law.

Observation Details

*Species Name (scientific preferred): _____ *Species/Target Found (Y / N)? _____

*Town(s): _____ Site Name: _____

*Directions to the observation location (if found) using permanent landmarks and cardinal directions. Please include potential accessibility obstacles or dangers (e.g., river crossing, tides). _____

*Date(s) of observation (exact or date range): _____

*Description of the diagnostic characteristics upon which the ID was based (including how distinguished from similar species): _____

*Are you confident of this species ID (Y / N)? If No, please explain: _____

*Was a specimen collected for deposition in a biological research collection (Y / N)? *If yes, please indicate the repository: _____ Collection # (optional): _____

*Number of individuals observed [Precise count]: _____ OR [Estimate] minimum #: _____ maximum #: _____

Location Information

*Please attach a copy of the appropriate section of a USGS topo map, aerial photograph, or similar map (e.g., Google Earth map, GIS map, etc.), and carefully mark the specific site where you observed this rare species.

Site Coordinates (if available): Coord. projection (circle one): (UTM / Lat-Long / Mass. State Plane / Other _____)

Source of coordinates (circle one): (GPS / Google Earth / other GIS system (please specify _____))

Coordinates at original observation location _____ if reporting >1 one location, please indicate count per site: _____


Obs #1: _____

Obs #2: _____

Obs #3: _____

*Required Fields: For this report to be accepted into MassWildlife's database, all required fields, including signature field, must be completed. MassWildlife may request additional information following report submission. Please submit field forms, maps with specific location clearly marked, and all supporting documentation to: NHESP Data Management, MassWildlife Field Headquarters, 1 Rabbit Hill Road, Westborough, MA 01581.

Mass.gov | Executive Office of Energy & Environmental Affairs (EEA) | An official application of the Commonwealth of Massachusetts

 **Division of Fisheries and Wildlife**
Natural Heritage & Endangered Species Program

STATE EMPLOYEE LOGIN

Welcome to MassWildlife's Heritage Hub!

Login or create an account to begin.

Commonwealth employees should login using State Employee Login button above.

[LOGIN/REGISTER](#)

Overview of the Heritage Hub


MassWildlife's Heritage Hub is a reporting and filing system supporting the Natural Heritage & Endangered Species Program's (NHESP) core functions. The system allows citizen scientists, consultants, and researchers to report rare species, vernal pools, natural communities or survey efforts.


Coming Soon! The system will also provide an avenue to request species information or apply for MESA project reviews associated with development projects.


For more information, visit www.mass.gov/heritagehub

CONTACT

Heritage Hub Contact Information

 **Address**
1 Rabbit Hill Road
Westborough, MA 01581
[directions](#)

 **Phone**
(508) 389-6300

 **Online**
HeritageHub@mass.gov

Turtle Resources

- Turtle Protection Plan
- Brett Trowbridge, Senior Ecologist
 - Btrowbridge@vhb.com
 - Cell: 518-573-2487
- DFW NHESP Website:
 - <https://www.mass.gov/files/documents/2016/08/tl/emydoidea-blandingii.pdf>
 - <https://www.mass.gov/doc/easter-n-box-turtle/download>
 - <https://www.mass.gov/guides/turtles-of-massachusetts>

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Q & A

Thank you!

