



## DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581  
p: (508) 389-6300 | f: (508) 389-7890  
**MASS.GOV/MASSWILDLIFE**

### MA ENDANGERED SPECIES ACT (G.L. c.131A) CONSERVATION AND MANAGEMENT PERMIT

DATE	June 21, 2018
CONSERVATION PERMIT NO.:	018-324.DFW
NHESP FILE NO.	98-3735
PERMIT HOLDER	Massachusetts Department of Transportation c/o of Jean Fox 10 Park Plaza Boston, MA 02116
PROJECT	South Coast Rail Project, Phase 1 (Interim Commuter Rail Service from Boston to New Bedford, Fall River and Taunton)

Pursuant to the authority granted in the Massachusetts Endangered Species Act ("MESA") (G.L. c. 131A) and its implementing regulations (321 CMR 10.23), the Director of the Massachusetts Division of Fisheries & Wildlife (the "Division") hereby issues a Conservation and Management Permit (the "Permit") to the Massachusetts Department of Transportation (the "Permit Holder"). This Permit authorizes the Take of the State-listed Eastern Box Turtle (*Terrapene carolina*), which is listed as "Special Concern," pursuant to the MESA, arising out of the construction of Phase 1 of the South Coast Rail Project (the "Project"), portions of which are located in the Towns of Middleborough, Raynham, Taunton, Berkley, Lakeville, Freetown, and New Bedford, Massachusetts (the "Property"; see recording information below).

<u>Segment</u>	<u>County</u>	<u>Book</u>	<u>Page</u>
Middleborough Secondary	Plymouth	14597	286
Middleborough Secondary	Bristol	3364	52
New Bedford Main Line	Plymouth	38616	81
New Bedford Main Line	Bristol	9739	48
Fall River Secondary	Plymouth	38616	81
Fall River Secondary	Bristol	10117	207

Provided that the Permit Holder adheres to the conditions outlined in the Division's determination letter (dated March 22, 2018, included herein as Attachment 1), the Project will not result in a prohibited Take of the Wood Turtle (*Glyptemys insculpta*) or Plymouth Gentian (*Sabatia kennedyana*), state-listed as "Special Concern," or the Three-angled Spike-sedge (*Eleocharis tricostata*), state-listed as "Endangered." These conditions include but

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are not limited to implementation of Division-approved protection plans to protect state-listed species during and after construction.

The Division has determined that the Project will result in a Take of the Eastern Box Turtle due to the loss of ±6.27 acres of suitable habitat and interference with the feeding, breeding, overwintering and migratory behaviors of this species. The Permit Holder has made the Division aware that it may propose additional work in the future that is part of a common plan or scheme associated with the Project. Said additional work includes Phase 2 of the South Coast Rail Project, which includes provision of commuter rail service from Boston to Taunton via the Stoughton Electric Alternative. In accordance with 321 CMR 10.16, “projects shall not be segmented or phased to evade or defer the review requirements” of MESA. Therefore, the Division will consider the impacts of this Project with the impacts of any future proposed projects that are part of the same common plan or scheme.

Under the authority granted by and in accordance with MGL c131A§3 and 321 CMR 10.23, the Director may permit the Take of a State-listed species for conservation and management purposes provided that there is a long-term Net Benefit to the conservation of the impacted species. If the Director determines that the applicant for a permit has avoided, minimized and mitigated impacts to the State-listed species consistent with the following Performance Standards, then the Director may issue a conservation and management permit, provided:

- (a) the applicant has adequately assessed alternatives to both temporary and permanent impacts to State-listed species;
- (b) an insignificant portion of the local population would be impacted by the Project or Activity, and;
- (c) the applicant agrees to carry out a conservation and management plan that provides a long-term Net Benefit to the conservation of the State-listed species that has been approved by the Director, as provided in 321 CMR 10.23(5), and shall be carried out by the applicant.

The Director has determined that the applicant for this Permit has met the above noted Performance Standards and that the conservation and management plan described herein provides a long-term Net Benefit to the conservation of the Eastern Box Turtle.

Pursuant to this Permit, the Permit Holder is proposing to: (a) provide restricted funding in the amount of \$77,961.00 for land protection, conservation research, habitat management, and or conservation planning to benefit the Eastern Box Turtle in Massachusetts; (b) install and maintain appropriate wildlife crossings to improve habitat connectivity for State-listed species and other wildlife; and (c) implement Division-approved plans to protect State-listed species during and after construction.

Therefore, the Project can be permitted pursuant to the MESA. This Permit is issued to condition the Project and to provide a long-term Net Benefit to Eastern Box Turtle.

In accordance with the documents submitted to the Division entitled:

- “Conservation and Management Permit Application” (dated May 24, 2018; prepared VHB, Inc.; the “Application”);
- MESA Determination Letter (dated March 22, 2018; issued by the Division; [Attachment 1](#));
- Aerial Maps (thirty-five [35] sheets; April 9, 2016; prepared by VHB, Inc.; the “Project Plans”; [Attachment 2](#));
- Wildlife Crossings (prepared by VHB, Inc.; the “Crossing Plan”; [Attachment 3](#));
- Construction Period Protection Plans (prepared by VHB, Inc.; the “Protection Plans”; [Attachment 4](#));
- Invasive Species Management and Control Plan (prepared by VHB, Inc.; [Attachment 5](#));

and any other plans and documents referenced herein, this Permit is issued with the following conditions:

**General Conditions:**

1.	The Project authorized by this Permit shall be completed within five (5) years from the date of issuance. If needed, the Permit Holder shall submit a written request to the Division for an extension of time to complete said Project and the Division will review the Project pursuant to MESA for any continuing impacts as described herein and for any new impacts to any State-listed species found subsequent to the issuance date of this Permit.
2.	This Permit shall not preclude the review of future projects on the Property that are subject to the Wetlands Protection Act regulations (310 CMR 10.37, 10.58(4)(b), 10.59), as applicable, by the Natural Heritage & Endangered Species Program ("NHESP") of the Division.
3.	The work authorized by this Permit involves the construction of Phase 1 of the South Coast Rail Project, as shown on the Project Plans (the "Work"; Attachment 2). Phase 1 includes provision of interim commuter rail service from Boston to New Bedford, Fall River and Taunton using the existing, active freight rail corridors known as the Middleborough Secondary, Fall River Secondary and New Bedford Main Line. Work associated with Phase 1 specifically involves (a) track reconstruction and infrastructure improvements on the Southern Triangle; (b) track reconstruction from Pilgrim Junction to Cotley Junction along the Middleborough Secondary; (c) construct maintenance-of-way siding along the Middleborough Secondary in Taunton; and (d) upgrade five railroad at-grade roadway crossings along the Middleborough Secondary. The Work also includes any other on-site activity within Priority Habitat required by the Division as a condition of this Permit.
4.	Division representatives shall have the right to enter and inspect the Property subject to this Permit at reasonable hours to evaluate Permit compliance and require the submittal of any reasonable information not otherwise required by this Permit but deemed necessary by the Division to complete its evaluation. At the Division's request, and in accordance with MassDOT's railway worker safety requirements, the Permit Holder shall provide access to Division representatives to evaluate Permit compliance.
5.	Any proposed change to any plan identified in this Permit, or to the State-listed species conservation plan required by way of this Permit, shall require the Permit Holder to inquire of the Division, in writing, whether the change is significant enough to require the filing of a new Conservation and Management Permit Application, and or require additional long-term Net Benefit for affected State-listed species. The Division retains the right to require the submittal of additional, reasonable information to evaluate the plan change.
6.	This Permit shall apply to, and inure to the benefit of, the Permit Holder and any successor-in-interest of the Permit Holder, or to a subsequent successor-in-control of the Property or portion thereof subject to this Permit should the Permit Holder convey its record ownership of the Property to said successor-in-control, as well as to any contractor or other person performing Work conditioned by this Permit. Within three (3) days of the transfer of an interest in the Property or a portion thereof, any successor-in-interest or subsequent successor-in-control [i.e., subsequent owners or operators] of the Property or a portion thereof shall provide the Division with a letter indicating (1) that the successor is the successor-in-interest of the Permit Holder or the successor-in-control [i.e., current owner or operator] of the Property or a portion thereof, and (2) that said successor will perform the obligations of the Permit Holder as set forth in this Permit.
7.	<b>Prior to the start of Work</b> , the Permit Holder shall notify the Division in writing of the name, address, email, business and home telephone numbers of the project supervisor(s) and/or contractor(s) responsible for compliance with this Permit. The Permit Holder shall provide updated information in writing to the Division should new or additional project supervisors and/or contractors be hired after

	Work has commenced. <b>Within three (3) days of the start of Work</b> , the Permit Holder shall send a letter to the Division stating the date upon which Work commenced.
8.	<b>Prior to the start of Work</b> , the text of this Permit shall be recorded by the Permit Holder in the Registry of Deeds or the Land Court for the district in which the Property is located so as to become a record part of the chain of title of the Property. In the case of recorded land, the Permit shall be noted in the Registry's Grantor Index under the name of the owner of the Property upon which the proposed Work is to be done. In the case of registered land, the Permit shall be noted on the Land Court Certificate of Title of the owner of the Property upon which the proposed Work is done. The Permit Holder shall submit to the Division a date-stamped and signed copy of said recorded Permit showing the date and book and page of recording of said Permit <b>within five (5) days after recording and/or filing</b> , as applicable. No Work shall begin on the Property until the Permit is recorded and said recorded copy is submitted to the Division, except as otherwise approved by the Division in writing.
9.	<b>At the completion of Work</b> the Permit Holder shall submit to the Division a written request for a Certificate of Permit Compliance, including as-built plans and other supporting materials demonstrating the completion of Work and compliance with all conditions herein.
10.	Any land protected to achieve a long-term Net Benefit associated with this Permit, shall remain undeveloped and protected as habitat for State-listed species in perpetuity.
11.	The Permit Holder shall comply with all Conditions and Special Conditions contained within this Permit and complete the Project consistent with all Division-approved plans and supporting documents except as otherwise approved by the Division in writing.
12.	The Permit Holder shall submit in writing any documents, plans, reports, or other items required for submission in accordance with this Permit, for review and written approval by the Division, unless otherwise stipulated in this Permit or by the Division in writing.
13.	A violation of any condition of this Permit will result in an unauthorized Take pursuant to M.G.L. c. 131A and may be subject to civil and or criminal penalties pursuant to M.G.L. c. 131A.

### Special Conditions:

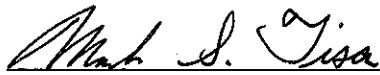
14.	<u>Authorized Construction and Uses</u> : This Permit authorizes construction and uses on the Property as described above. All Work shall be confined to the area of the Property within the limits of Work as shown on the Project Plans (Attachment 2).
15.	<u>Final Project Plans</u> : <b>Prior to the start of Work</b> , the Permit Holder shall submit final project plans to the Division for review and approval. The Division's approval shall be limited to verifying that final project plans are consistent with the Project Plans (Attachment 2).
16.	<u>State-listed Species Conservation/Research</u> : In order to provide a Net Benefit to the conservation of the State-listed species impacted by this Project, the Permit Holder has proposed, by way of the Permit Application, to provide funding for land protection, conservation research, habitat management, and or conservation planning to benefit the Eastern Box Turtle. The Permit Holder has chosen to fulfill this obligation by providing restricted funding to the Eastern Box Turtle Mitigation Bank operated by The Nature Conservancy (TNC) (pursuant to the Off-site Mitigation Memorandum of Agreement between the Division and TNC, dated July 16, 2008 and amended October 29, 2009), or to another party designated in



	<p>writing by the Division. Therefore, <b>prior to the start of Work</b> the Permit Holder shall (a) deliver \$77,961.00 to the Eastern Box Turtle Mitigation Bank; and (b) send a letter to the Division confirming the date funds were delivered and written confirmation of receipt of funds from TNC. Said funds shall be restricted and used exclusively to provide Net Benefit mitigation for the Eastern Box Turtle in Massachusetts.</p>
17.	<p><b>Construct and Maintain Wildlife Crossings:</b> In order to provide a Net Benefit to the conservation of the State-listed species impacted by this Project, the Permit Holder has proposed, by way of the Permit Application, to install wildlife crossing and signs as shown on the Project Plans (Attachment 2). Said wildlife crossings are designed specifically to enable safe passage of State-listed turtles, as further detailed in the Crossing Plan (Attachment 3). Unless otherwise approved in writing by the Division, wildlife crossing and signs shall be installed <b>concurrent with the Work associated with that segment of the Project</b>. Upon completing installation of wildlife crossing and signs, the Permit Holder shall provide written certification to the Division that said structures and signs were installed in accordance with the plans referenced herein.</p> <p>For as long as the Permit Holder maintains active rail service associated with the Project, said structures shall be inspected annually by a qualified, Division-approved wildlife biologist between April 1 and April 30 of each year to ensure that they are maintained in good condition. The wildlife biologist shall work with the Permit Holder to ensure that any necessary cleaning of and repairs to the crossing structures are made by April 30 of each year, unless otherwise approved by the Division. The long-term inspection and maintenance of crossing structures and signs, as detailed in the Crossing Plan (Attachment 3), shall be incorporated into all relevant operations and maintenance plans associated with the Project.</p>
18.	<p><b>Construction Period Protection Plans:</b> In order to protect State-listed species during construction, the Permit Holder shall implement the Construction Period Protection Plans provided in Attachment 4. Protection Plans related to State-listed plants shall be implemented by a qualified botanist approved in writing by the Division. Protection Plans related to State-listed turtles shall be implemented by a qualified wildlife biologist approved in writing by the Division; the wildlife biologist must be in possession of a valid Scientific Collection Permit and must have extensive field experience with the Eastern Box Turtle and Wood Turtle. The Division-approved botanist and wildlife biologist shall have the authority to halt construction as necessary until all protective measures have been implemented in accordance with, or corrected in order to remain in compliance with, the Protection Plans (Attachment 4). If changes to the Protection Plans are proposed, revised Protection Plans must be submitted to the Division for review and written approval prior to implementation of said changes.</p>
19.	<p><b>Construction Staff Education:</b> All construction, landscaping, and other sub-contractors associated with the Project shall be informed in writing of the likely presence of State-listed species on the Property and what measures should be implemented to minimize direct harm to State-listed species. Further, no wildlife shall be removed from the Property without approval of a qualified wildlife biologist or the Division except as necessary to receive veterinary treatment in the case of harm during construction.</p>
20.	<p><b>Additional Protective Measures:</b> <b>Prior to the start of Work</b>, or as otherwise approved by the Division, the limits of Work within Priority Habitat, as shown on the Project Plans (Attachment 2), shall be clearly delineated in the field (e.g., snow fencing, colored flagging, erosion controls, or similar). A qualified, Division-approved environmental monitor shall regularly inspect the Work area during construction and ensure that all construction activities are confined to the approved limits of Work.</p> <p>A qualified, Division-approved environmental monitor shall be responsible for verifying locations and installation of appropriate erosion and sedimentation control measures. The monitor shall regularly inspect erosion and sedimentation control measures during construction and facilitate immediate repair</p>

	or replacement as necessary. Additionally, all exposed areas shall be adequately stabilized and protected from erosion at the close of each work day. The monitor shall have the authority to halt construction if failure of erosion and sedimentation control measures appears imminent. After construction is complete and all areas of temporary disturbance are sufficiently stabilized, all erosion and sedimentation controls (as well as symbolic flagging referenced above) shall be removed from the Project site and properly disposed of.
21.	<p><b>Future Vegetation Management:</b> All future, ongoing vegetation management associated with the Project shall be done in accordance with a Vegetation Management Plan to be prepared by the Permit Holder. Unless otherwise approved in writing by the Division, the Permit Holder shall ensure that the Vegetation Management Plan associated with the Project (as well as any associated Yearly Operating Plans) incorporates the following:</p> <ul style="list-style-type: none"> <li>a. In order to ensure long-term protection of State-listed species, mechanized vegetation maintenance (e.g., mowing) within Priority Habitat (according to the <i>Massachusetts Natural Heritage Atlas</i>) shall occur between November 1 and March 31 of each year.</li> <li>b. In order to ensure long-term protection of State-listed plants, and for as long as the Permit Holder maintains active rail service associated with the Project, the Permit Holder shall monitor and control invasive plant species in the vicinity of Thatcher's Pond (Lakeville/Taunton municipal boundary) pursuant to the Invasive Species Management and Control Plan (Attachment 5). Said Plan shall be implemented by a qualified botanist approved in writing by the Division. If changes to said Plan are proposed, a revised Plan must be submitted to the Division for review and written approval prior to implementation of said changes.</li> </ul>
22.	<p><b>Annual Reporting and Adaptive Management:</b> By December 31<sup>st</sup> of each year during and after construction, the Permit Holder shall prepare and deliver a monitoring report to the Division. Said report shall: (a) summarize all Work or maintenance that occurred during the associated calendar year; (b) detail compliance with Special Conditions #17, 18, 19, 20 and 21, as appropriate; and (c) detail any recommended modifications of protective measures required by way of Special Conditions #17, 18, 19, 20 and 21 to enhance protection of State-listed species and their habitats. The Permit Holder shall work with the Division to adaptively refine protective measures for State-listed species required by way of Special Conditions #17, 18, 19, 20 and 21, and shall take all reasonable measures necessary to implement any modifications approved in writing by the Division.</p>
23.	<p><b>Restoration of Temporarily Disturbed Areas:</b> Unless otherwise approved in writing by the Division, all areas of temporary alteration (including wetland establishment areas) shall be restored using seed and/or plantings listed as native to Bristol or Plymouth County, Massachusetts, as provided in <i>The Vascular Plants of Massachusetts: A County Checklist, First Revision</i> (Dow Cullina, Connolly, Sorrie &amp; Somers, 2011).</p>
24.	<p><b>Reporting Rare Species Observations:</b> The Division shall be notified, in the form of an NHESP Rare Animal or Plant Observation Form, within ten (10) days of the observation of any State-listed species within or outside the limits of Work. Preferably notification will be through the Division's data submittal tool, the Vernal Pool &amp; Rare Species (VPRS) Information System. VPRS and our paper observations forms can be found at: <a href="http://www.mass.gov/dfw/nhesp/vprs">http://www.mass.gov/dfw/nhesp/vprs</a>.</p>
25.	<p><b>Notice of Appeal Rights:</b> This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.23. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03.</p>

	<p>Any notice of claim for an adjudicatory hearing shall be made in writing and be accompanied by a filing fee in the amount of \$500.00. The notice of claim shall be sent to the Division by certified mail, hand delivered or postmarked within twenty-one (21) days of the date of the Division's Determination to:</p> <p style="text-align: center;">Director Division of Fisheries and Wildlife Field Headquarters One Rabbit Hill Road Westborough, MA 01581</p> <p>Any notice of claim for an adjudicatory hearing shall include the following information:</p> <ol style="list-style-type: none"><li>1. The file number for the project;</li><li>2. The complete name, address and telephone number of the person filing the request, and the name, address and telephone number of any authorized representative;</li><li>3. The specific facts that demonstrate that a party filing a notice of claim satisfies the requirements of an "aggrieved person," including but not limited to (a) how they have a definite interest in the matters in contention within the scope of interests or area of concern of M.G.L. c. 131A or the regulations at 321 CMR 10.00 and (b) have suffered an actual injury which is special and different from that of the public and which has resulted from violation of a duty owed to them by the Division;</li><li>4. A clear statement that an adjudicatory hearing is being requested;</li><li>5. A clear and concise statement of facts which are grounds for the proceeding, the specific objections to the actions of the Division and the basis for those objections; and the relief sought through the adjudicatory hearing; and a statement that a copy of the request has been sent by certified mail or hand delivered to the applicant and the record owner, if different from the applicant.</li></ol>
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Mark S Tisa, Acting Director  
Massachusetts Division of Fisheries & Wildlife

On this 21<sup>st</sup> day of June, 2018, before me, the undersigned notary public, personally appeared Mark S Tisa, Acting Director, proved to me through satisfactory evidence of identification, which was personal knowledge, to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.



Emily Melissa Holt, Notary Public  
My Commission expires: July 12, 2024

**Conservation Permit 018-324.DFW**

**Issued this 21<sup>st</sup> day of June, 2018**

**Work must be completed by: June 21 2023**



**ACKNOWLEDGEMENT AND ACCEPTANCE OF ALL TERMS OF THIS  
CONSERVATION PERMIT**

The undersigned below agrees that commencement of any work authorized by and described in this Conservation and Management Permit constitutes acknowledgement and acceptance of all terms of this Permit.

Signatory 1 Organization

COMMONWEALTH OF MASSACHUSETTS

On this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, the undersigned notary public, personally appeared \_\_\_\_\_, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and who swore or affirmed to me that the contents of the document are truthful and accurate to the best of his/her knowledge and belief.

Notary Public  
\_\_\_\_\_

SEAL

My commission expires: \_\_\_\_\_

## **Distribution List**

Holly Palmgren, MBTA  
Kimberly Dobosz, MBTA  
Lars Carlson, VHB, Inc.  
Elizabeth Grob, VHB, Inc.  
Lealdon Langley & Mike Stroman, MassDEP  
Chris Ross, MassDEP Southeast Regional Office  
Middleborough Conservation Commission  
Raynham Conservation Commission  
Taunton Conservation Commission  
Berkley Conservation Commission  
Lakeville Conservation Commission  
Freetown Conservation Commission  
New Bedford Conservation Commission  
Jason Zimmer, DFW Southeast Wildlife District Office  
Purvi Patel, MA Environmental Policy Act Office

## **Attachment 1**

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MESA Determination Letter (dated March 22, 2018; issued by the Division)



MASSWILDLIFE

## DIVISION OF FISHERIES & WILDLIFE

1 Rabbit Hill Road, Westborough, MA 01581  
p: (508) 389-6300 | f: (508) 389-7890  
**MASS.GOV/MASSWILDLIFE**

Jack Buckley, *Director*

March 22, 2018

Jean Fox  
MA Department of Transportation  
10 Park Plaza  
Boston, MA 02116

RE:      Applicant:                      MA Department of Transportation  
         Project Location:               Middleborough Secondary, Fall River Secondary and New Bedford  
                                                   Main Line (Berkley, Fall River, Freetown, Lakeville, New Bedford,  
                                                   Raynham, Taunton)  
         Project Description:               South Coast Rail Project, Phase 1  
         **NHESP File No.:**                   **98-3735**

Dear Applicant:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the "Division") received the MESA Project Review Checklist, plans (dated November 13, 2017) 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 Project, as proposed, includes the phased construction of the South Coast Rail Project. Phase 1 will provide interim commuter rail service from Middleborough to Fall River and New Bedford along the Middleborough Secondary, Fall River Secondary and New Bedford Main Line. More specifically, Phase 1A (State-of-Good-Repair) includes replacement and rehabilitation of failing culverts and bridges along each rail line, whereas Phase 1B includes improvement of track infrastructure, a new station in East Taunton, and a new/relocated/reconstructed station in Middleborough. Phase 2, which is not being proposed at this time, would eventually provide service from Boston to Taunton via the Stoughton Electric Alternative.

Portions of Phase 1 are mapped as *Priority Habitat* for the state-listed species shown below, according to the *Massachusetts Natural Heritage Atlas* (14<sup>th</sup> Edition). These species and their habitats are protected pursuant to the MESA). Fact Sheets for these species can be found on our website, [www.mass.gov/nhesp](http://www.mass.gov/nhesp).

Scientific Name	Common Name	Taxonomic Group	State Status
<i>Ambystoma opacum</i>	Marbled Salamander	Amphibian	Threatened
<i>Enallagma recurvatum</i>	Pine Barrens Bluet	Damselfly	Threatened
<i>Lithophane viridipallens</i>	Pale Green Pinion Moth	Moth	Special Concern

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Scientific Name	Common Name	Taxonomic Group	State Status
<i>Papaipema sulphurata</i>	Water-willow Borer Moth	Moth	Threatened
<i>Eleocharis tricostata</i>	Three-angled Spike-sedge	Plant	Endangered
<i>Panicum rigidulum ssp. pubescens</i>	Long-leaved Panic-grass	Plant	Threatened
<i>Sabatia kennedyana</i>	Plymouth Gentian	Plant	Special Concern
<i>Scirpus longii</i>	Long's Bulrush	Plant	Threatened
<i>Glyptemys insculpta</i>	Wood Turtle	Reptile	Special Concern
<i>Terrapene carolina</i>	Eastern Box Turtle	Reptile	Special Concern

**Phase 1A: State-of-Good-Repair**

Based on the information provided and the information contained in our database, the Division has determined that this portion of the 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 conditions must be met:

1. **Turtle Protection Plan:** Prior to the start of work within *Priority Habitats 599* (Berkley) and *715* (Raynham and Taunton), the Applicant shall submit a Turtle Protection Plan to the Division for review and written approval. Said plan shall detail procedures for protecting state-listed turtles during replacement or repair of culverts and bridges, and be prepared and implemented by a qualified biologist pre-approved by the Division. Please note that any searches for state-listed turtles associated with said Turtle Protection Plan must occur during the turtle active season (April 15 – October 15) unless otherwise approved by the Division.
2. **Compliance Report:** Within thirty (30) days of the completion of work, a qualified, Division-approved biologist shall submit written confirmation to the Division that: (a) the Division-approved Turtle Protection Plan was implemented during construction as written; and (b) no work or disturbance occurred outside the limits of work shown on the project plans. Said report shall include representative photos demonstrating compliance with the conditions herein.

Provided the above-noted conditions are fully implemented and there are no changes to the project plans, this project will not result in a Take of state-listed species.

**Phase 1B: Infrastructure Improvement**

- A. *Long-leaved Panic-grass, Long's Bulrush, Pine Barrens Bluet, Pale Green Pinion Moth, Water-willow Borer Moth and Marbled Salamander*

Based on the information provided and the information contained in our database, the Division has determined that this portion of the Project, as currently proposed, **will not result in a prohibited Take** of these state-listed species (321 CMR 10.18(2)(a)).

- B. *Wood Turtle, Three-angled Spike Sedge and Plymouth Gentian*

Based on the information provided and the information contained in our database, the Division has determined that this portion of the Project, as currently proposed, **must be conditioned** in order to avoid a prohibited Take of the Wood Turtle, Three-angled Spike Sedge and Plymouth Gentian (321 CMR 10.18(2)(a)). To avoid a prohibited Take of these state-listed species, the following conditions must be met:

1. Turtle Protection Plan: Prior to the start of work within *Priority Habitat 599* (Berkley), the Applicant shall submit a Turtle Protection Plan(s) to the Division for review and written approval. Said plan shall detail procedures for protecting state-listed turtles during and after construction, and be prepared and implemented as approved by a qualified biologist pre-approved by the Division. Please note that any searches for state-listed turtles associated with said Turtle Protection Plan must occur during the turtle active season (April 15 – October 15) unless otherwise approved by the Division.
2. Plant Protection Plan: Prior to the start of work within *Priority Habitat 628* (Taunton), the Applicant shall submit a Plant Protection Plan(s) to the Division for review and written approval. Said plan shall detail procedures for protecting state-listed plants associated with Thatcher Pond during and after construction, and be prepared and implemented as approved by a qualified botanist pre-approved by the Division.
3. Restoration of Temporarily Disturbed Areas: Unless otherwise pre-approved in writing by the Division, all areas of temporary alteration shall be restored using seed and/or plantings listed as native to Bristol or Plymouth County, Massachusetts (as appropriate), as provided in *The Vascular Plants of Massachusetts: A County Checklist, First Revision* (Dow Cullina, Connolly, Sorrie & Somers, 2011).
4. Compliance Report: Within thirty (30) days of the completion of work, a qualified, Division-approved biologist shall submit written confirmation to the Division that: (a) the Division-approved protection plans referenced above were implemented during construction as written; and (b) no work or disturbance occurred outside the limits of work shown on the project plans. Said report shall include representative photos demonstrating compliance with the conditions herein.

Provided the above-noted conditions are fully implemented and there are no changes to the project plans, this project will not result in a Take of state-listed species.

C. *Eastern Box Turtle*

Based on the information provided and the information contained in our database, the Division has determined that this portion of the Project, as proposed, **will result in a Take (321 CMR 10.18 (2)(b)) of the Eastern Box Turtle** due to the permanent loss of suitable habitat and interference with the feeding, breeding, nesting and migratory activities of this species.

Projects resulting in a Take of state-listed species may only be permitted if the project and proposed mitigation meet the standards for issuance of a Conservation and Management Permit (CMP; 321 CMR 10.23). In order for a project to qualify for a CMP, the applicant must demonstrate that the project has avoided, minimized and mitigated impacts to state-listed species consistent with the following performance standards: (a) adequately assess alternatives to both temporary and permanent impacts to the state-listed species, (b) demonstrate that an insignificant portion of the local population will be impacted, and (c) develop and agree to carry out a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.

**Phase 2: Stoughton Electric Alternative**

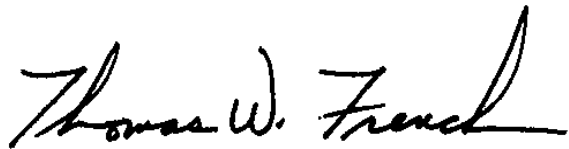
The Division has been involved in ongoing consultations with the Applicant and their representatives to evaluate and address potential impacts to state-listed species and their habitats associated with Phase 2 of

the Project. Phase 2, as currently proposed, still requires review through a formal filing with the Division for compliance with the MESA. Preliminarily, and based on a review of the materials submitted to the Division and ongoing consultations with the Applicant to date, the Division anticipates that Phase 2 will likely result in a Take of state-listed species. Projects resulting in a Take of state-listed species may only be permitted if a project and proposed mitigation meet the standards for issuance of a CMP.

This Determination is a final decision of the Division of Fisheries and Wildlife pursuant to 321 CMR 10.18. Any person aggrieved by this decision shall have the right to an adjudicatory hearing at the Division pursuant to M.G.L. c. 30A, s.11 in accordance with the procedures for informal hearings set forth in 801 CMR 1.02 and 1.03. Any notice of claim for an adjudicatory hearing shall be made in writing, accompanied by a filing fee in the amount of \$500.00 and the information specified in 321 CMR 10.25 (3). The notice of claim shall be sent to the Division's Director, Jack Buckley, by certified mail, hand delivered or postmarked within twenty-one (21) days of the date of the Division's Determination.

We note that all work is subject to the anti-segmentation provisions (321 CMR 10.16) of the MESA. **Please note that no soil or vegetation disturbance, work, clearing, grading or other activities associated with Phase 1B of the Project shall be conducted anywhere within the mapped Priority Habitat of Eastern Box Turtle until the MESA permitting process is complete.** Please note that this determination addresses only the matter of state-listed species and their habitats. If you have any questions regarding this letter, please contact Jesse Leddick, Chief of Regulatory Review, at [jesse.leddick@state.ma.us](mailto:jesse.leddick@state.ma.us) or (508) 389-6386.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Thomas W. French, Ph.D.  
Assistant Director

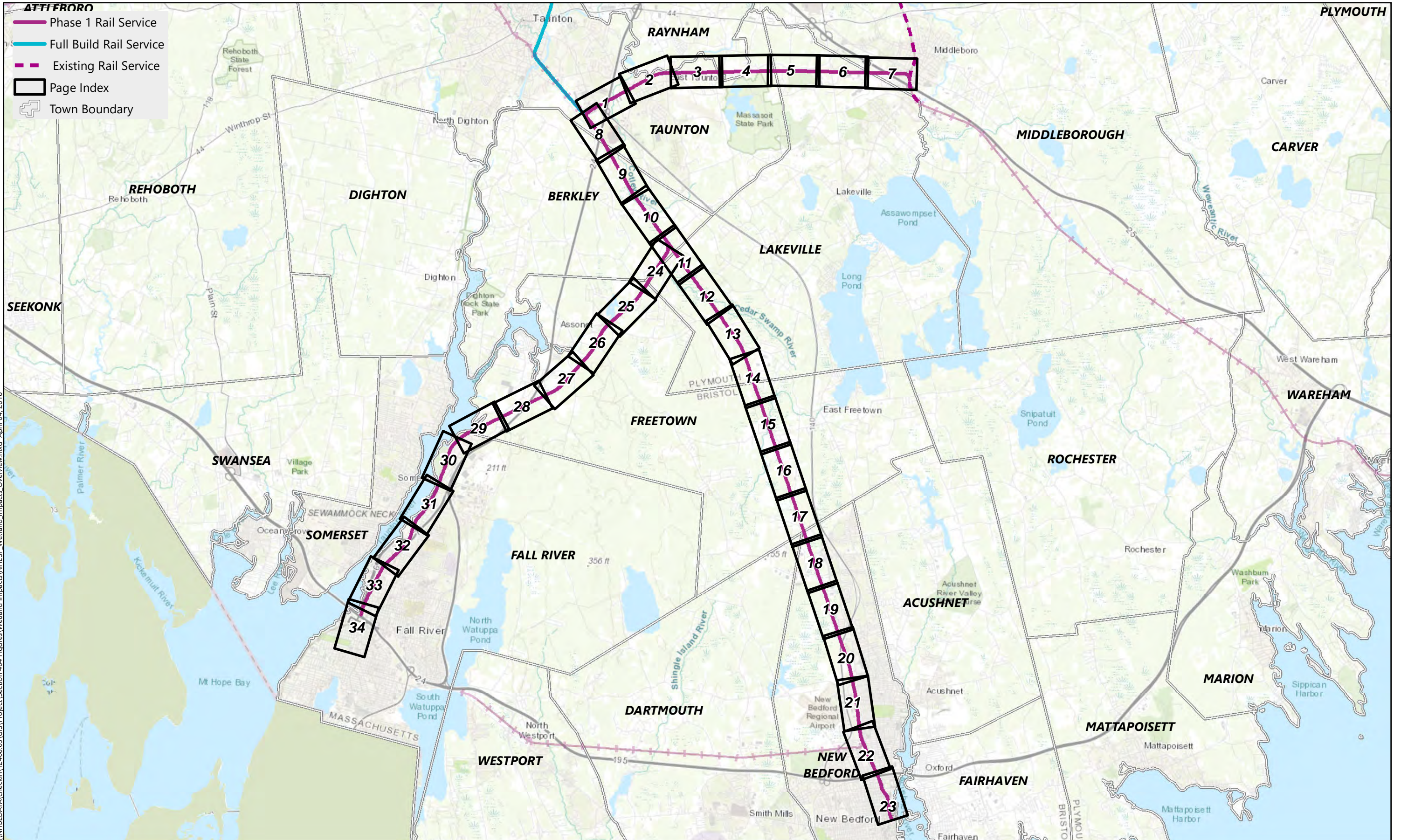
Cc: Holly Palmgren, MBTA  
Kimberly Dobosz, MBTA  
Lisa Standley, VHB, Inc.  
Lars Carlson, VHB, Inc.  
Elizabeth Grob, VHB, Inc.  
Nancy Putnam & Nat Tipton, DCR  
Lealdon Langley, Mike Stroman & Chris Ross, MassDEP Southeast Regional Office

## **Attachment 2**

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Aerial Maps (thirty-five [35] sheets; April 9, 2016; prepared by VHB, Inc.; the “Project Plans”)



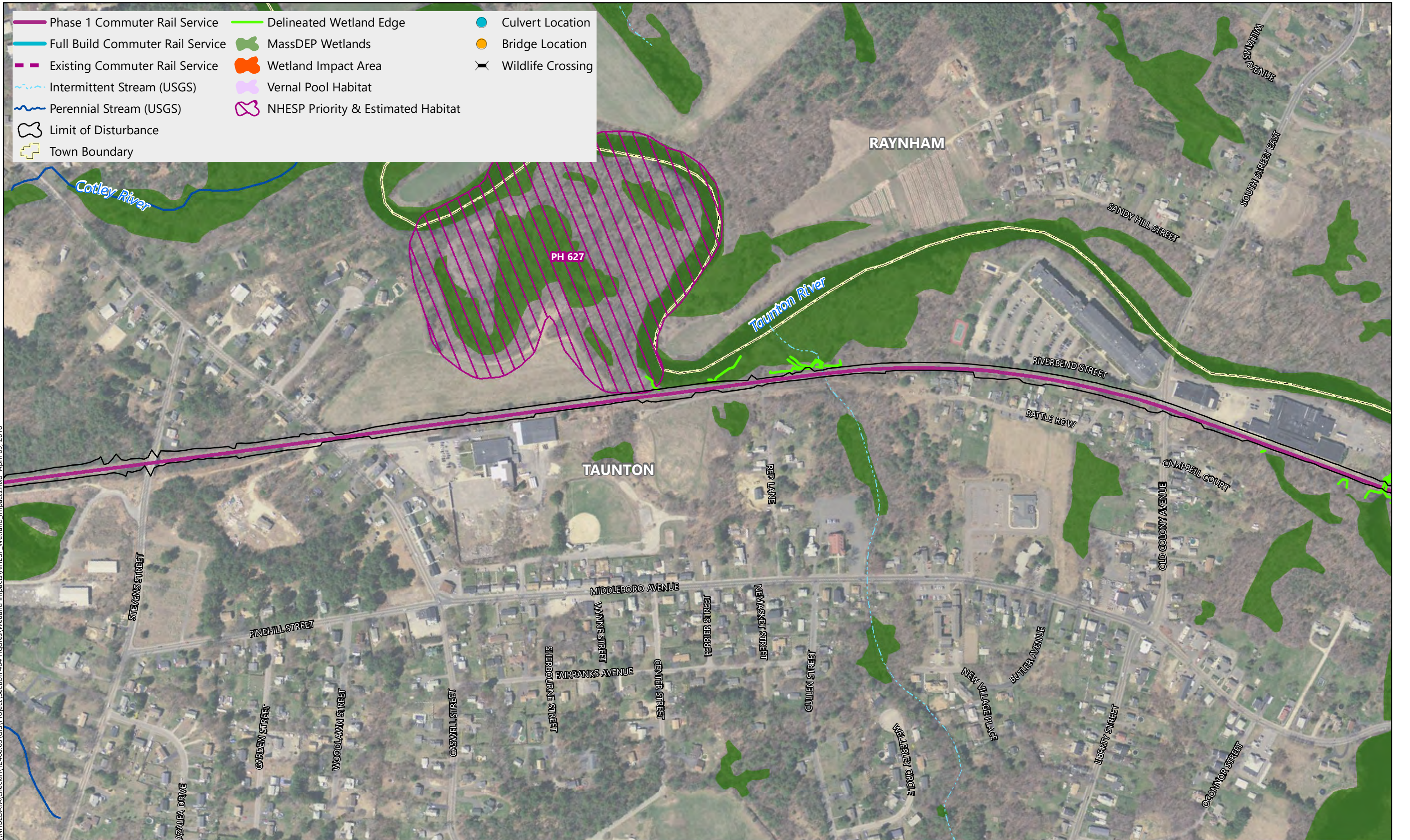


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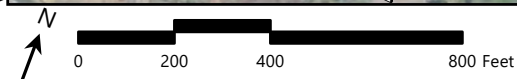








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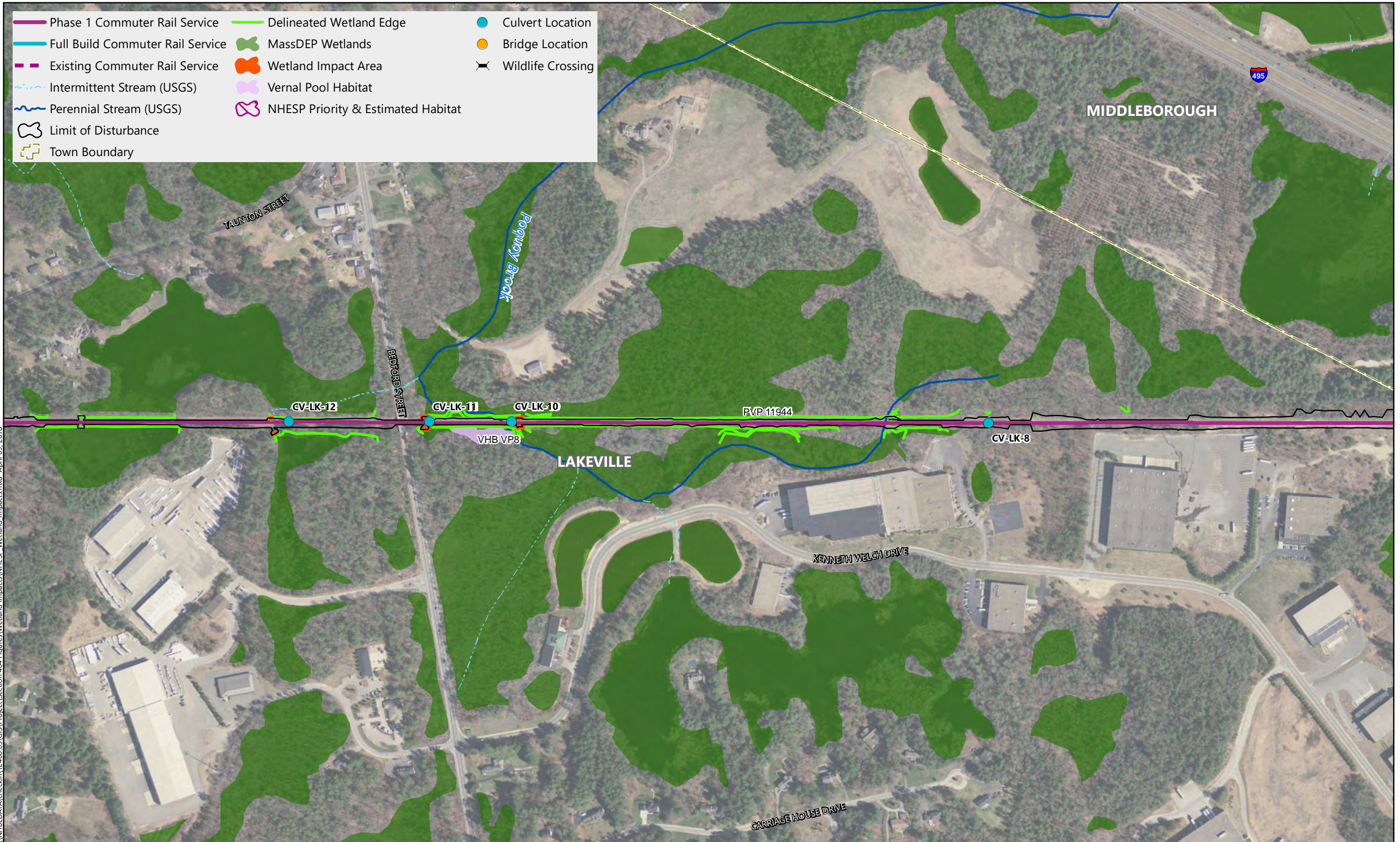


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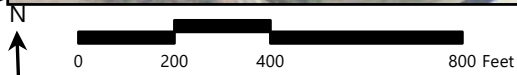


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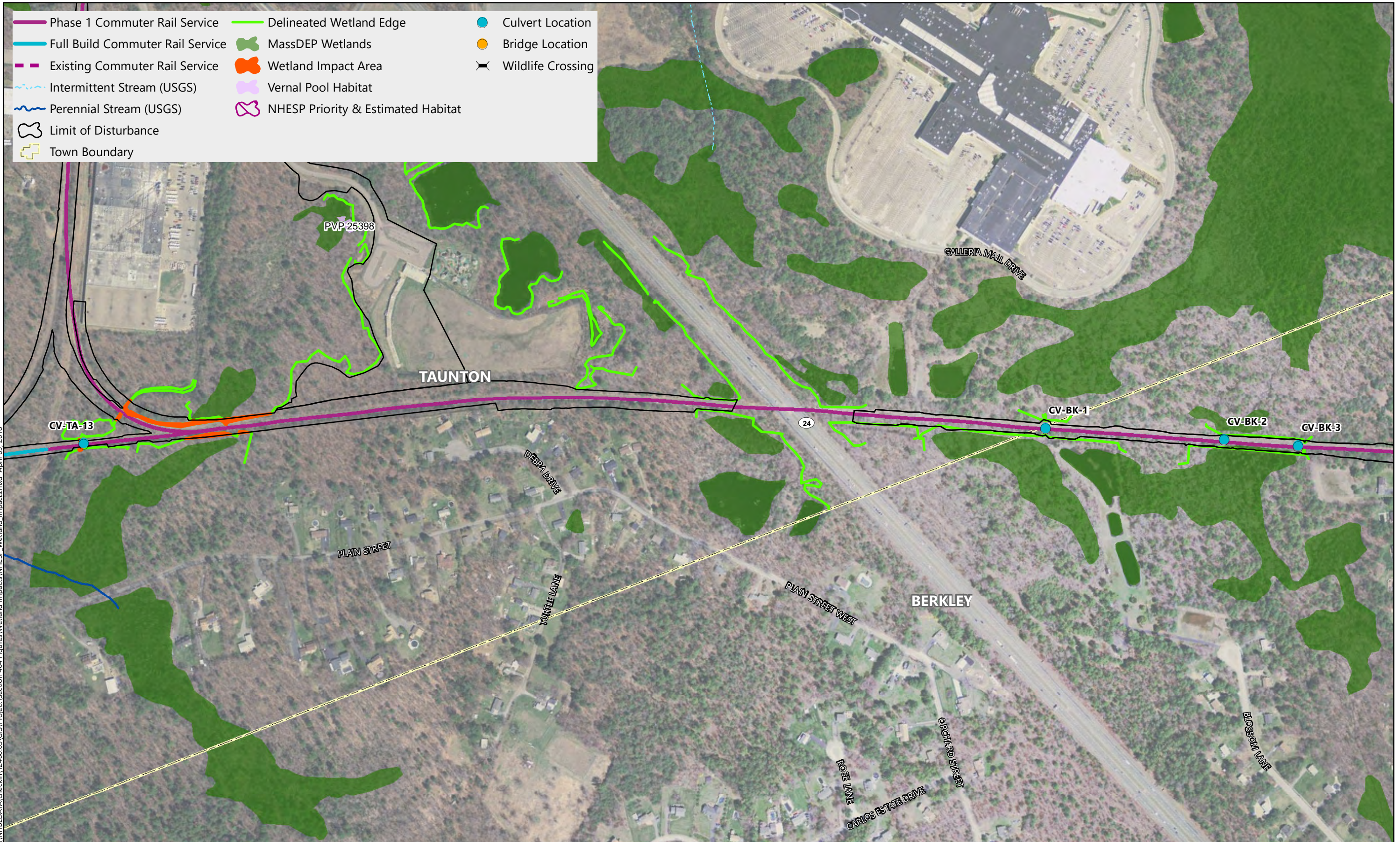




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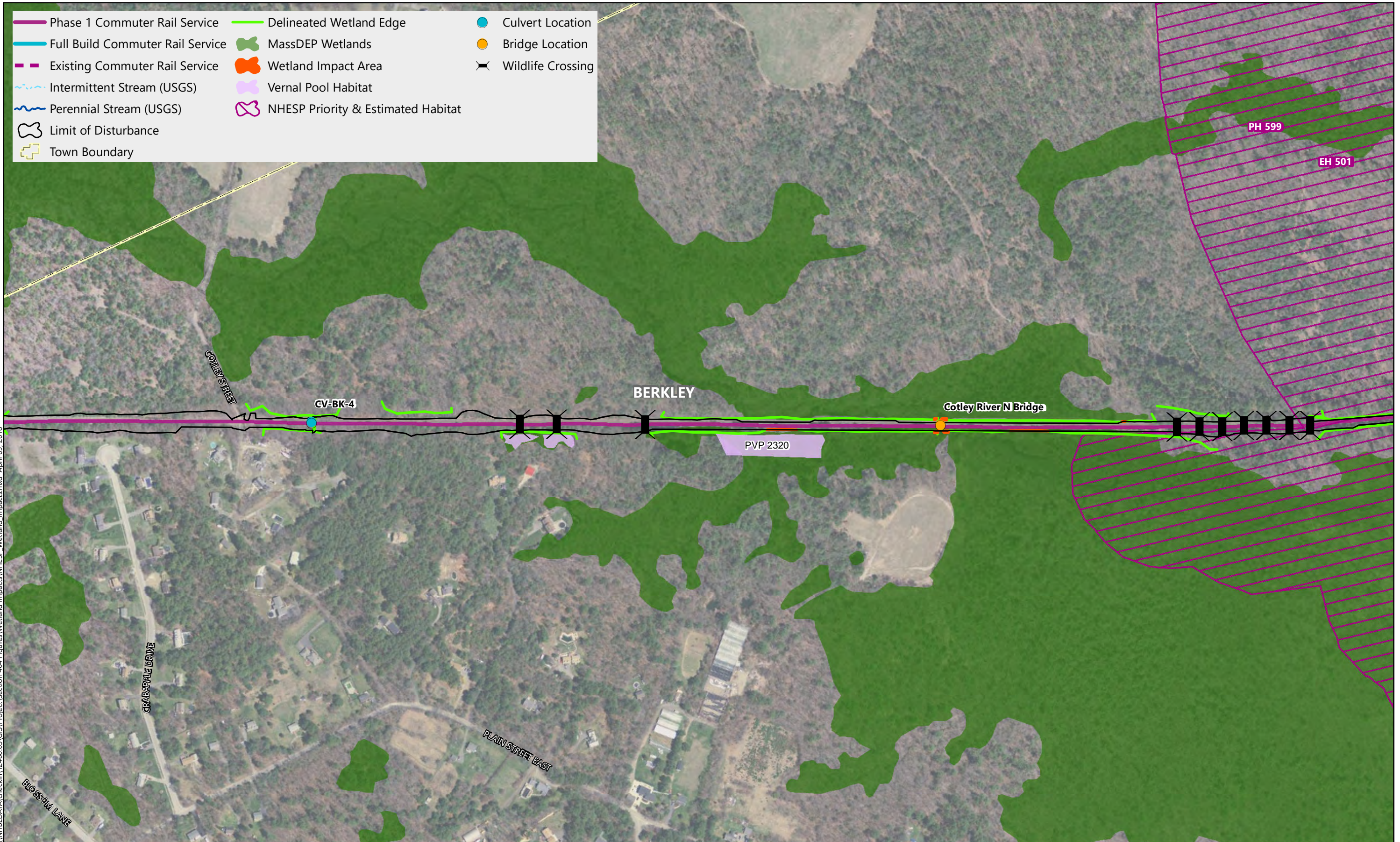






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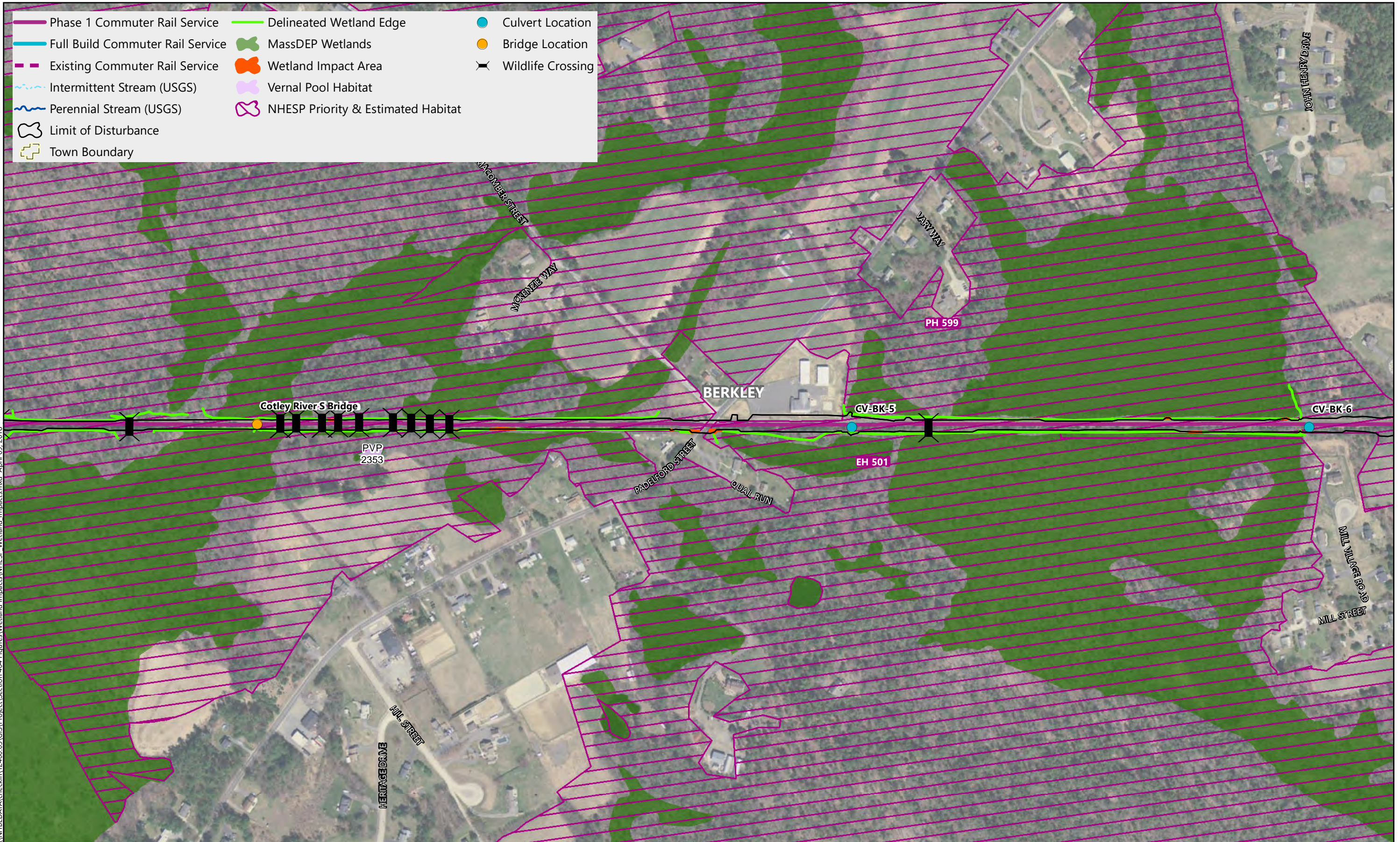




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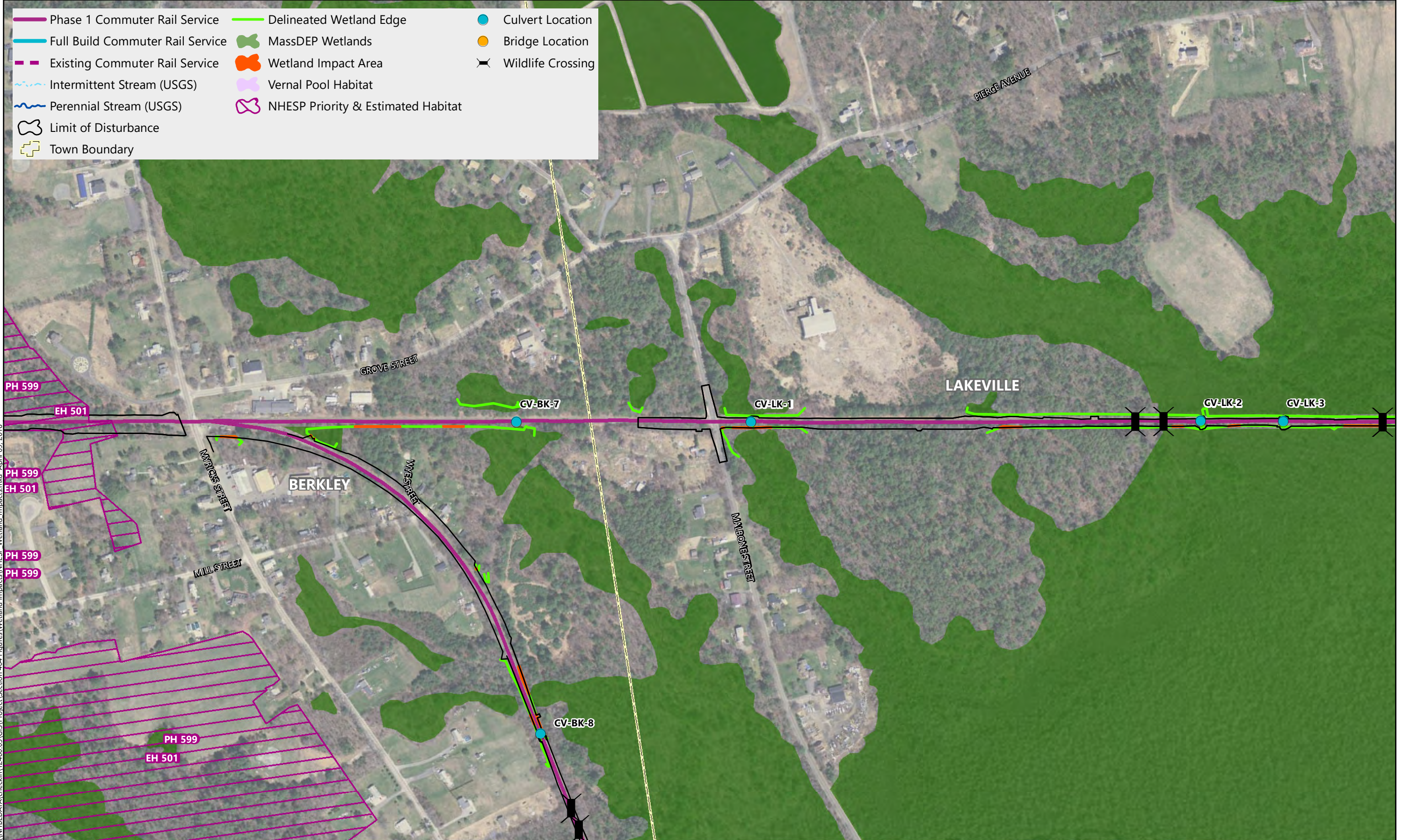






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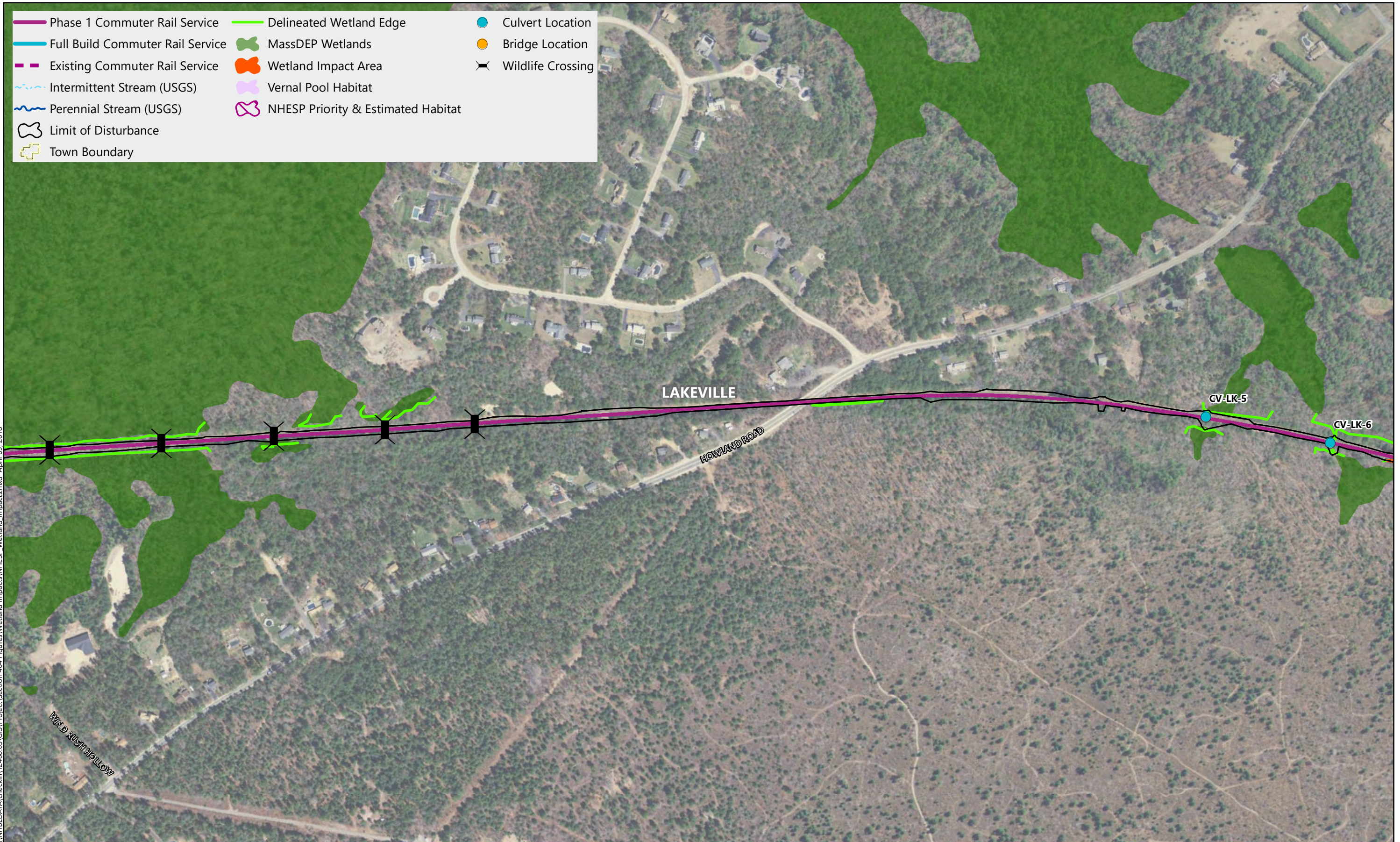




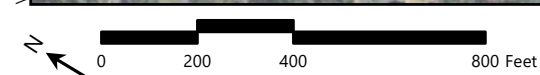
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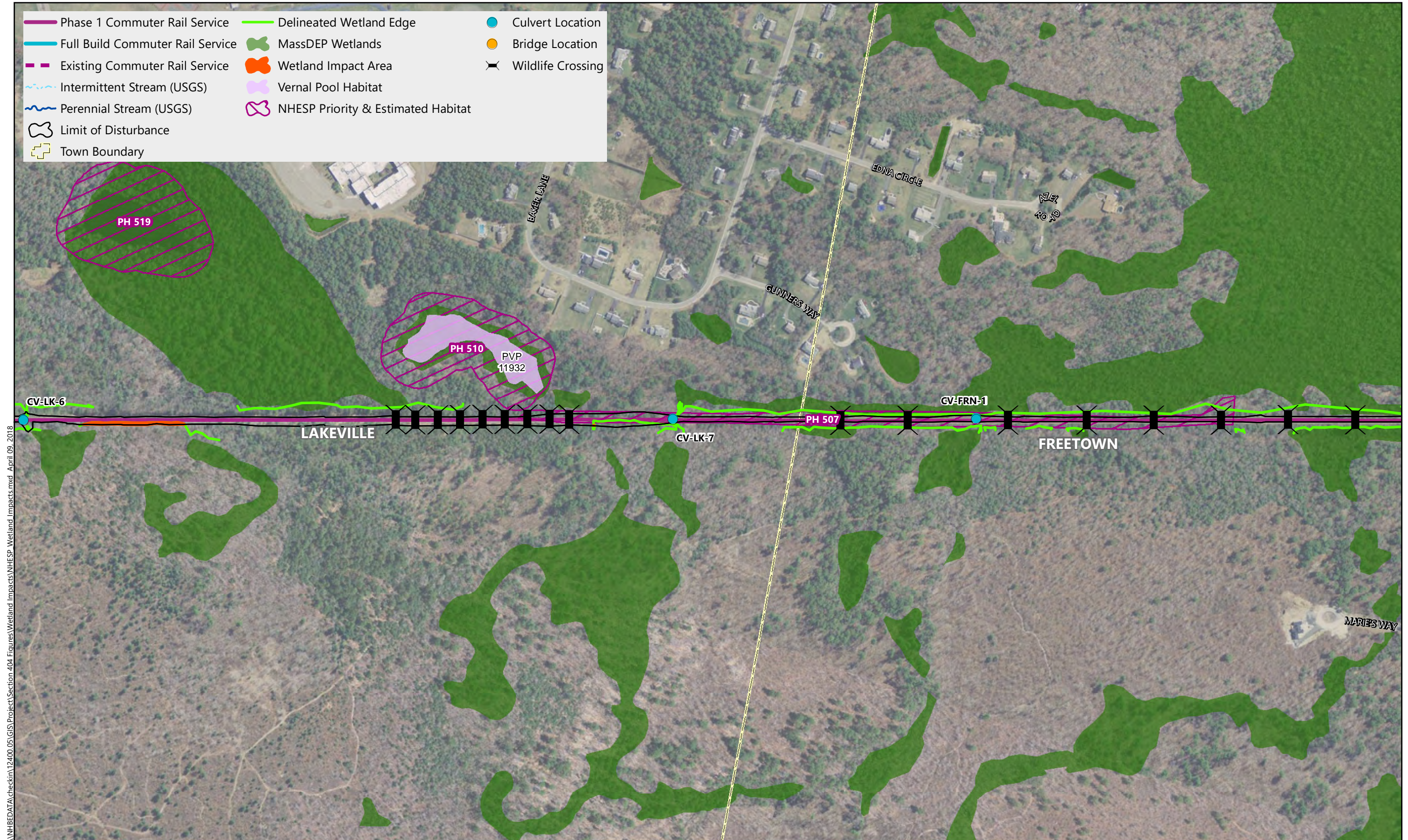




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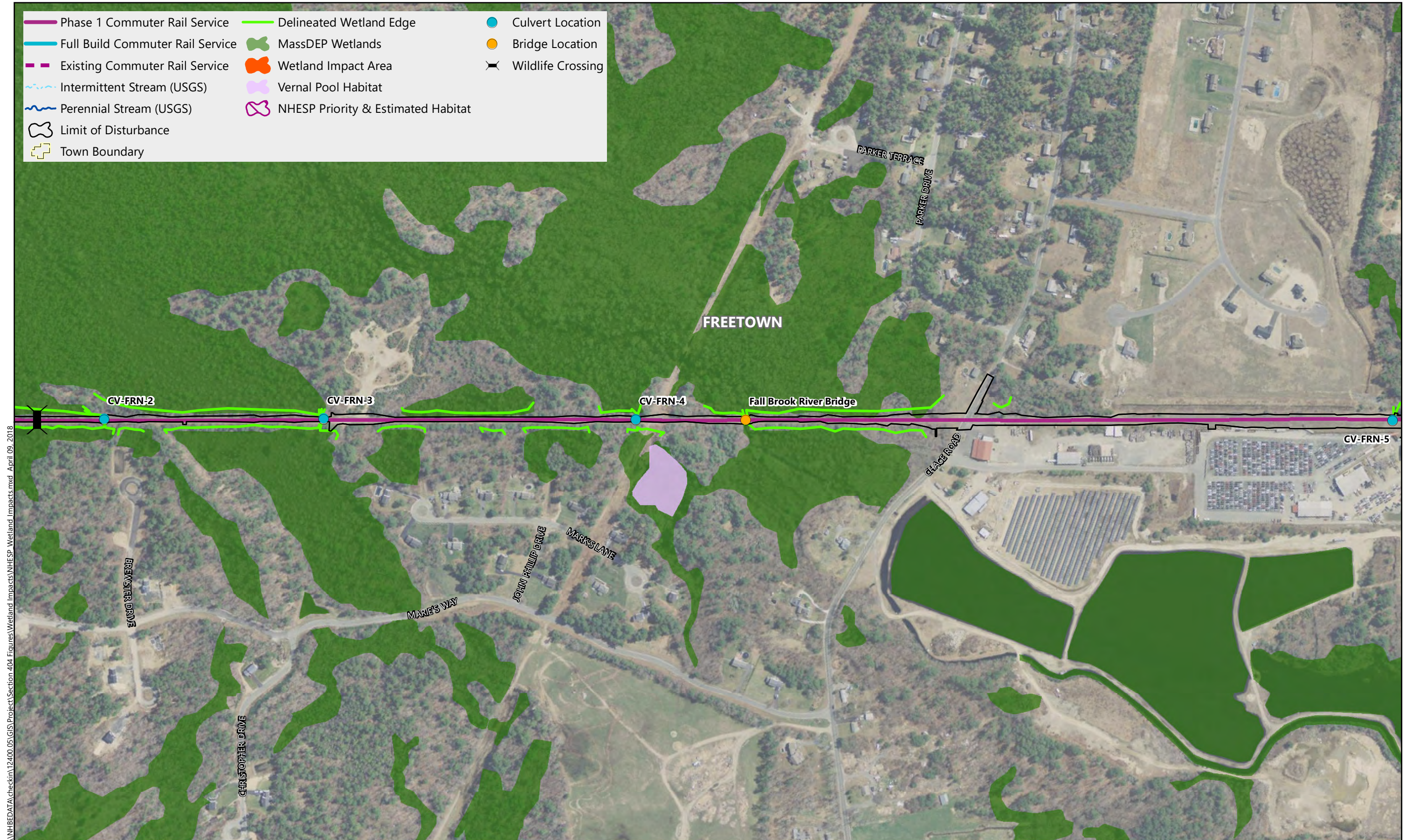






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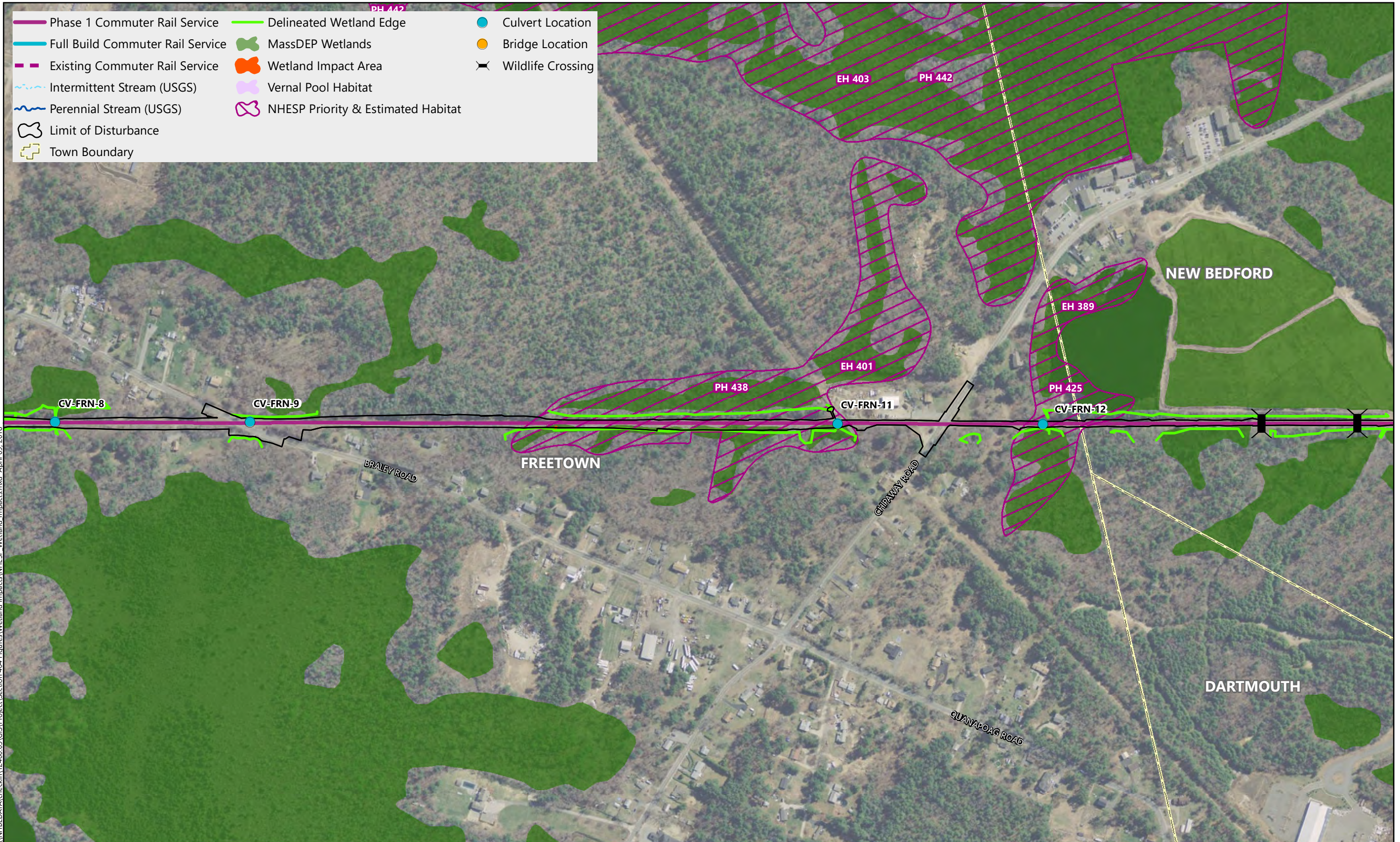






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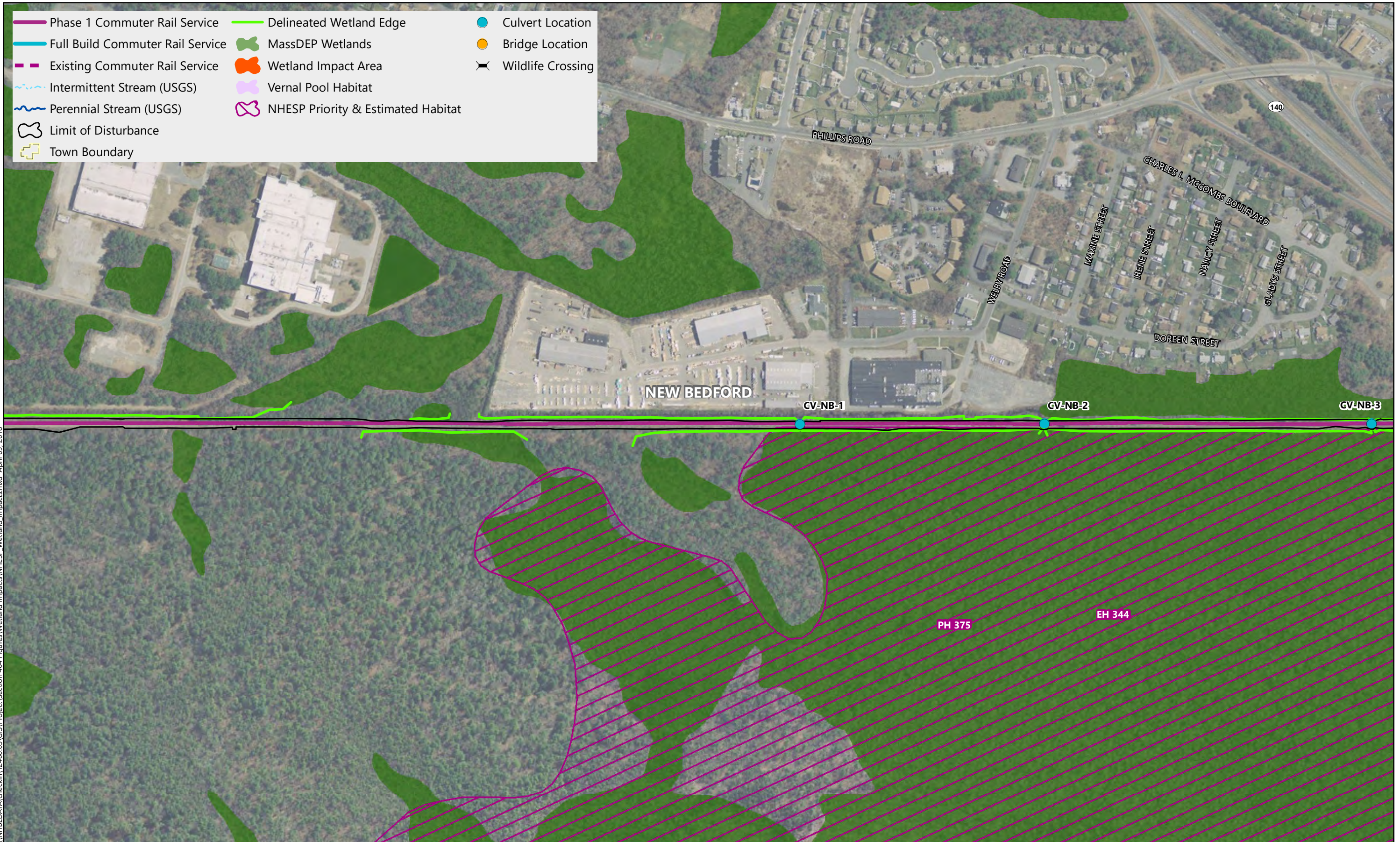




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| Full Build Commuter Rail Service | MassDEP Wetlands                   | Bridge Location   |
| Existing Commuter Rail Service   | Wetland Impact Area                | Wildlife Crossing |
| Intermittent Stream (USGS)       | Vernal Pool Habitat                |                   |
| Perennial Stream (USGS)          | NHESP Priority & Estimated Habitat |                   |
| Limit of Disturbance             |                                    |                   |
| Town Boundary                    |                                    |                   |



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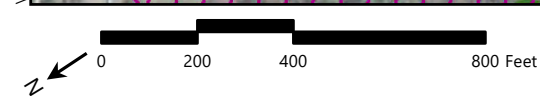




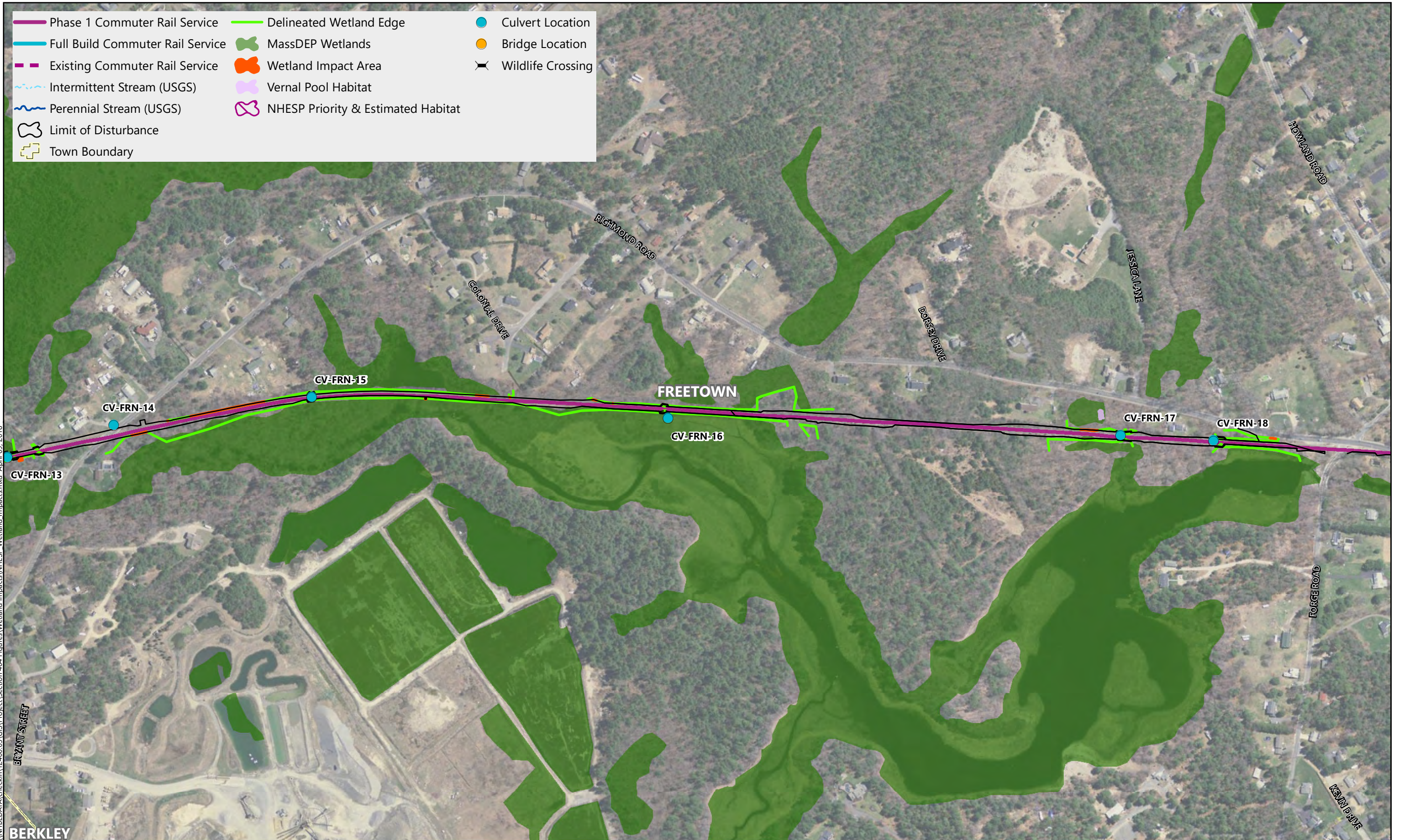




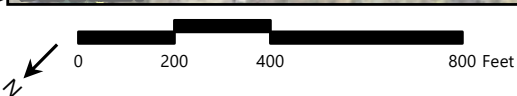
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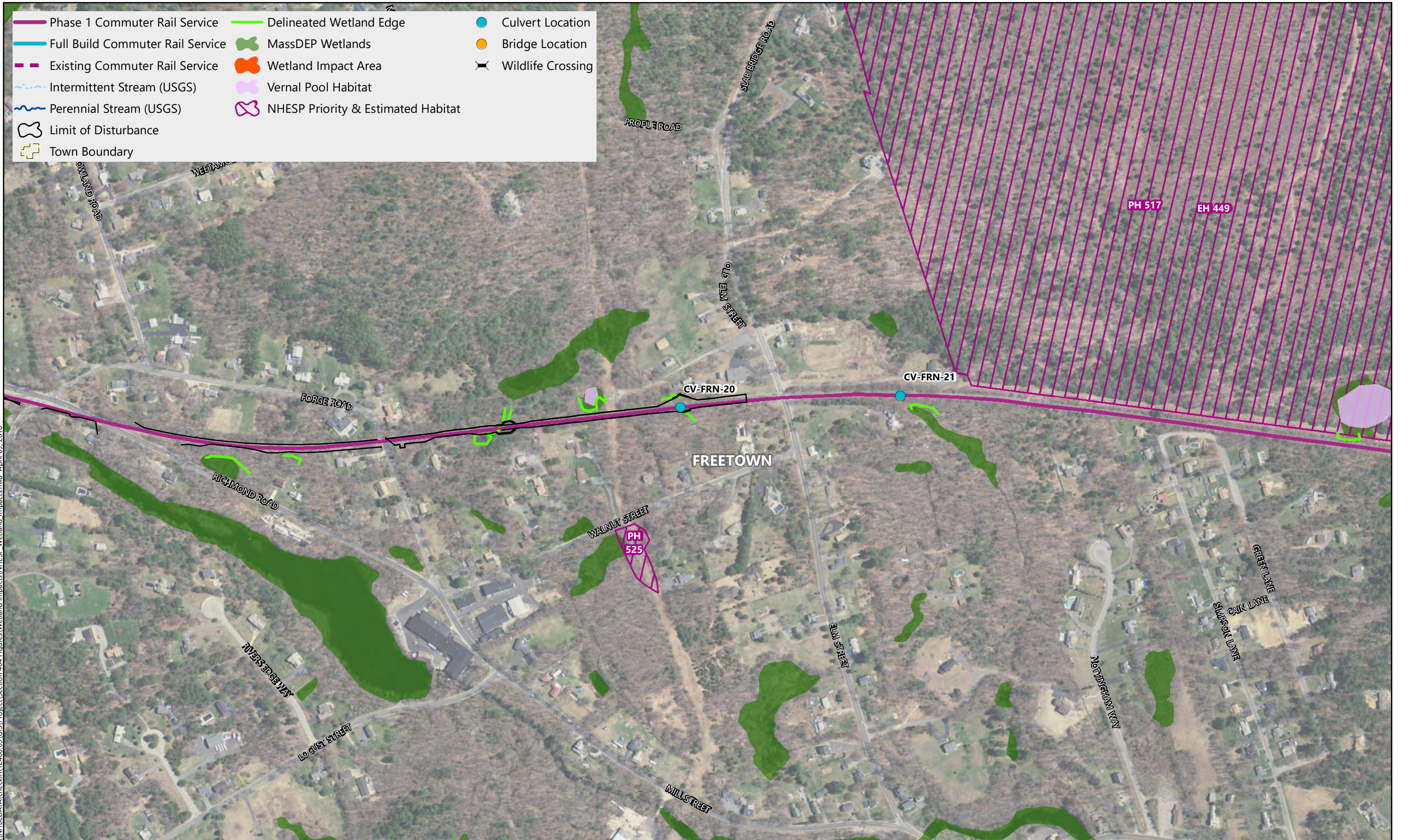




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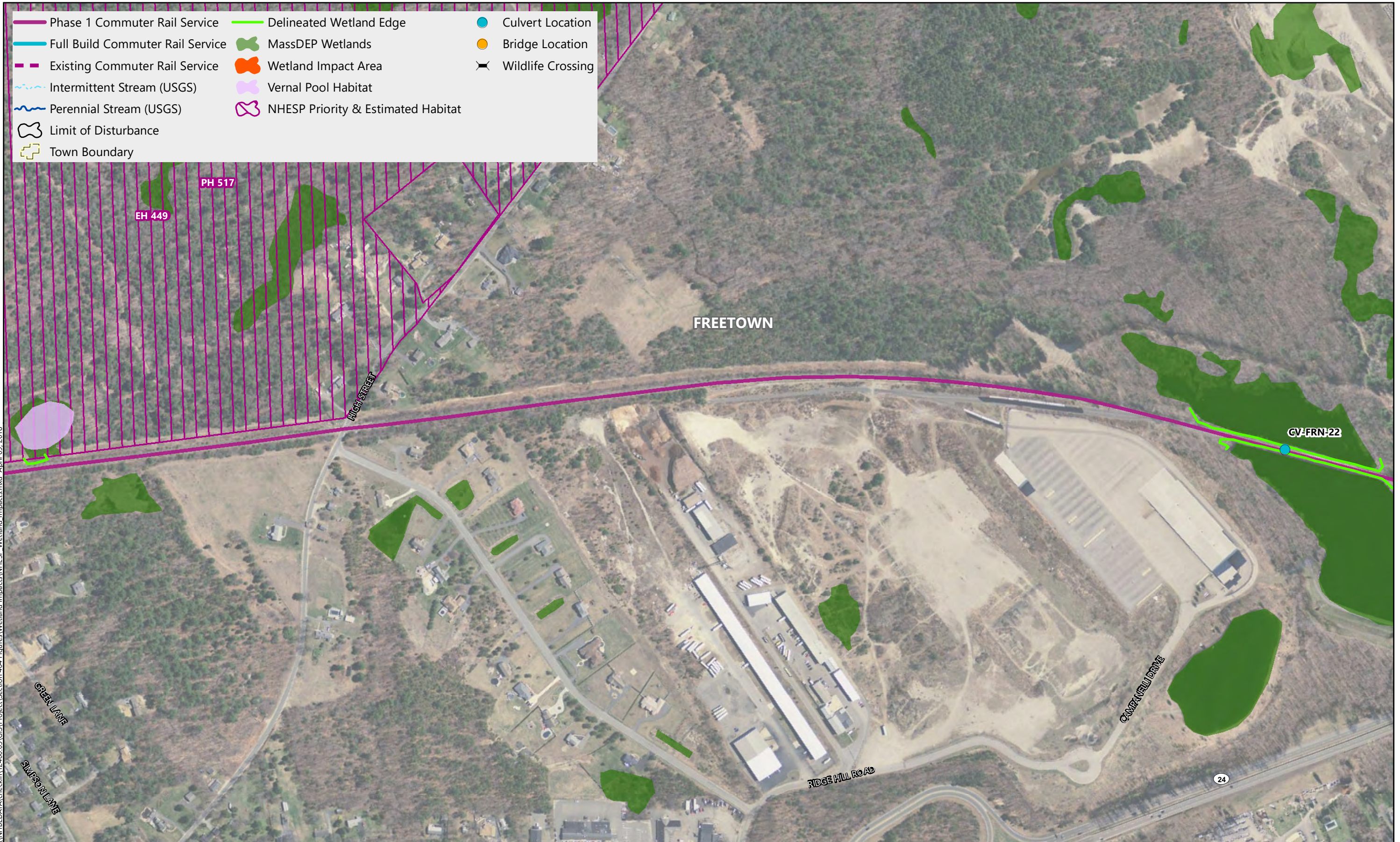




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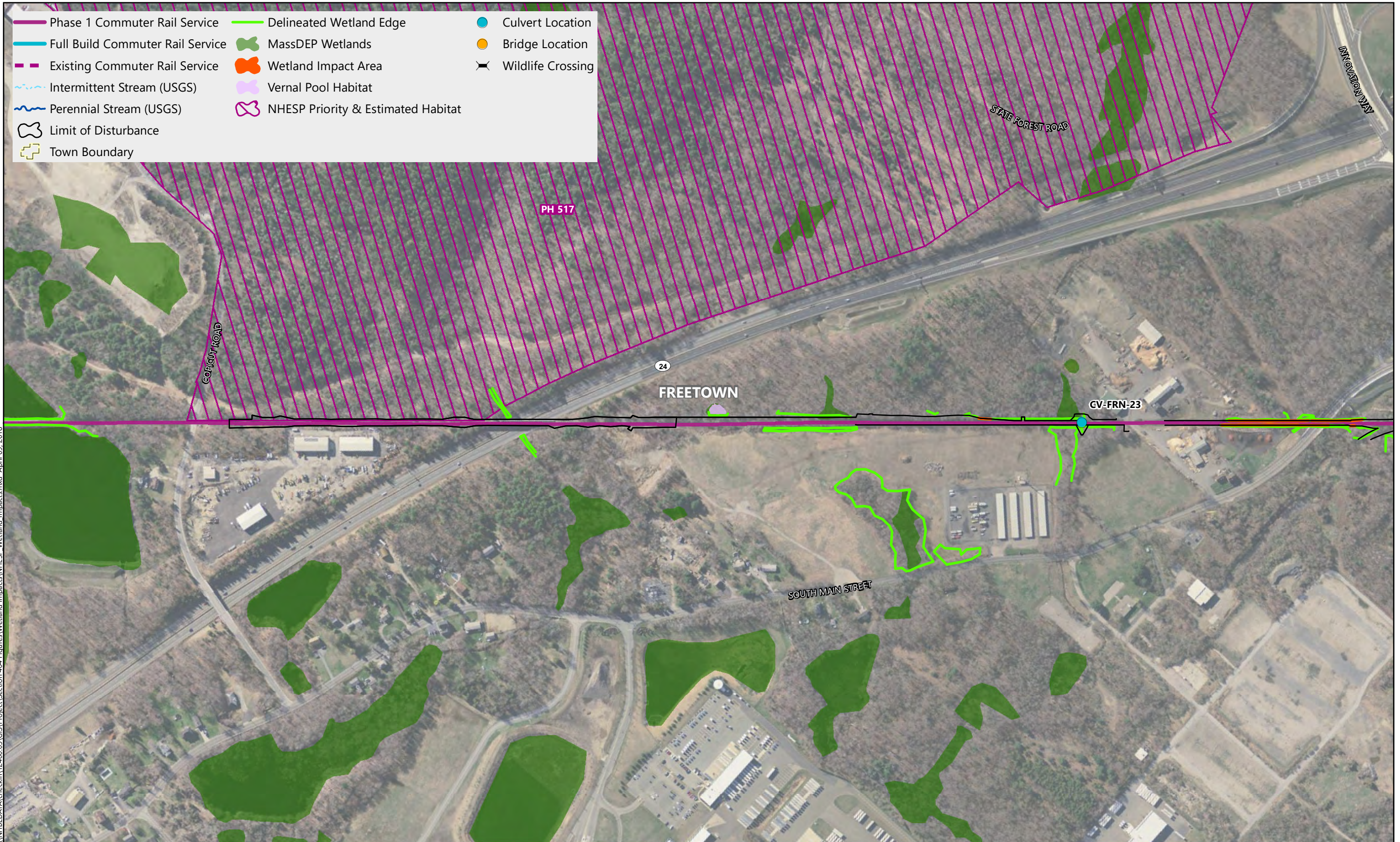




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| Limit of Disturbance             |                                    |                   |
| Town Boundary                    |                                    |                   |



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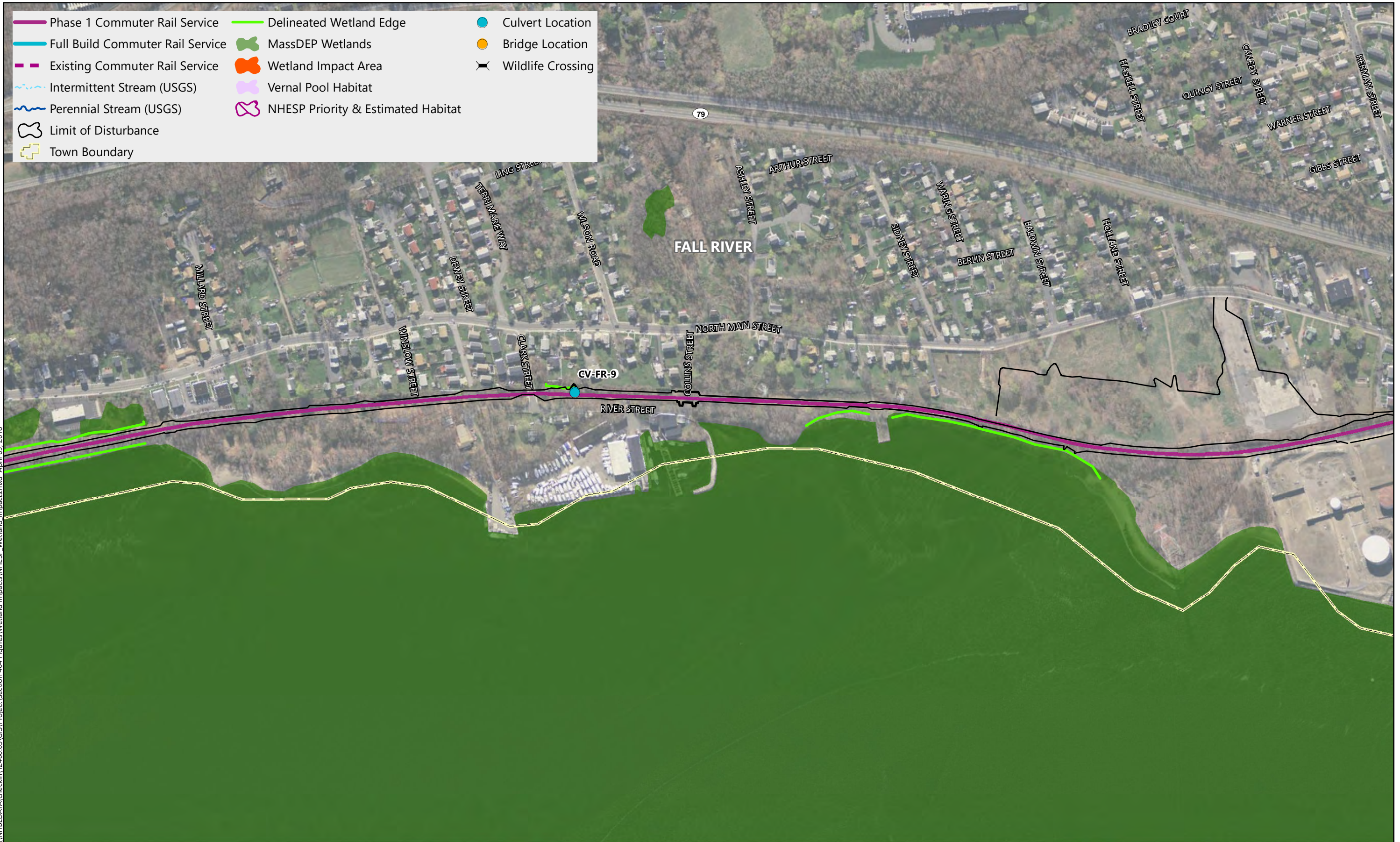




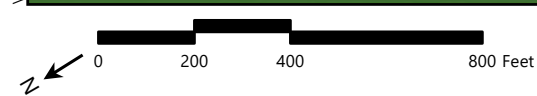
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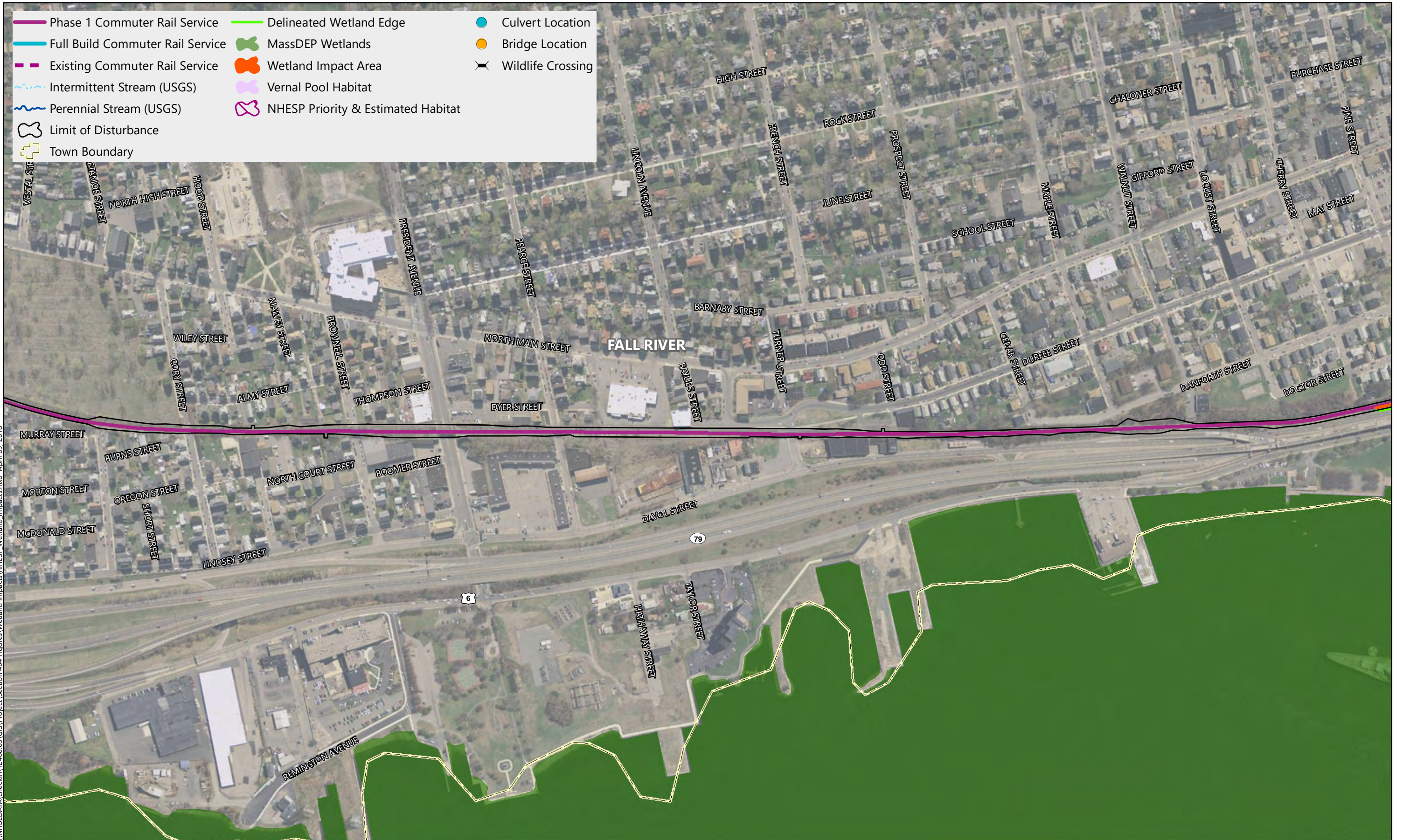






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| Limit of Disturbance             |                                    |                   |
| Town Boundary                    |                                    |                   |



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## **Attachment 3**

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Wildlife Crossings (prepared by VHB, Inc.; the “Crossing Plan”)



## Attachment 4 – Wildlife Crossings

MassDOT has committed to installing wildlife crossings within the Priority Habitat areas of state-listed eastern box turtle and wood turtle to improve habitat connectivity. The existing freight rail tracks cannot be crossed by turtles and are a barrier to turtle movement.

### Design

Eastern box turtles reach a length of 5 to 7 inches, and a height of up to 7 inches when walking. Wood turtles are longer (5 to 9 inches) but with a lower carapace, and are approximately 4 to 6 inches tall when walking (based on measurement of photographs). Wildlife crossings have been designed to accommodate these heights and allow turtles to walk under the rails. NHESP has expressed a concern that wildlife crossings should be wide enough to allow a turtle to right itself if a turtle was walking along the ties and fell into the trough. To address this concern, the proposed width of troughs is larger than the length or width of a turtle, and should therefore allow a turtle to right itself.

Wildlife crossings will be between-the-ties under-rail troughs. This type of crossing structure has been previously reviewed and approved by regulatory agencies as a successful wildlife crossing structure and has been demonstrated to work well for spotted turtles. As shown on the attached Detail Sheet, the between-the-tracks crossings create a 9-inch height gap underneath the rails, that is 10.5 inches wide. The two ties on either side of the trough will be extended ties (11.5 feet long) rather than the normal 8.5-foot standard timber ties, and will be deeper (7 inches wide by 9 inches high). These extended ties are needed to support the tracks, and will also assist turtles to enter the passage. The substrate within the crossing will be railroad ballast. To mark these locations for construction and maintenance, metal signs will be attached to the ties stating "No Ballast Between Ties" (see attached Detail Sheet).

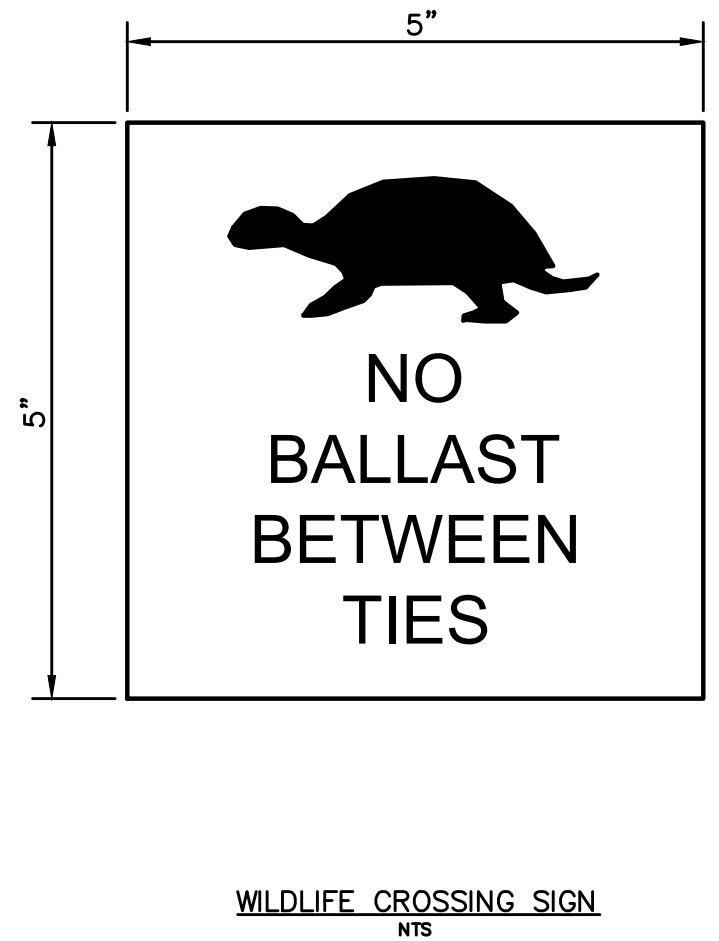
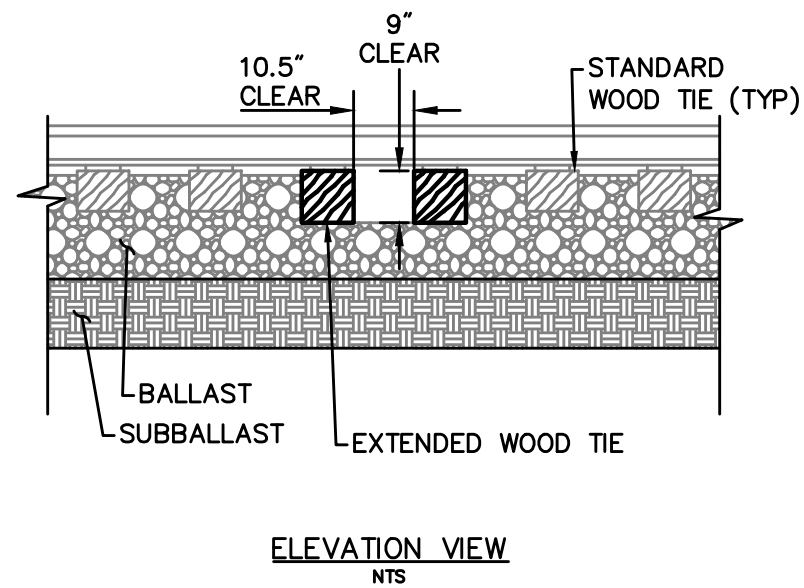
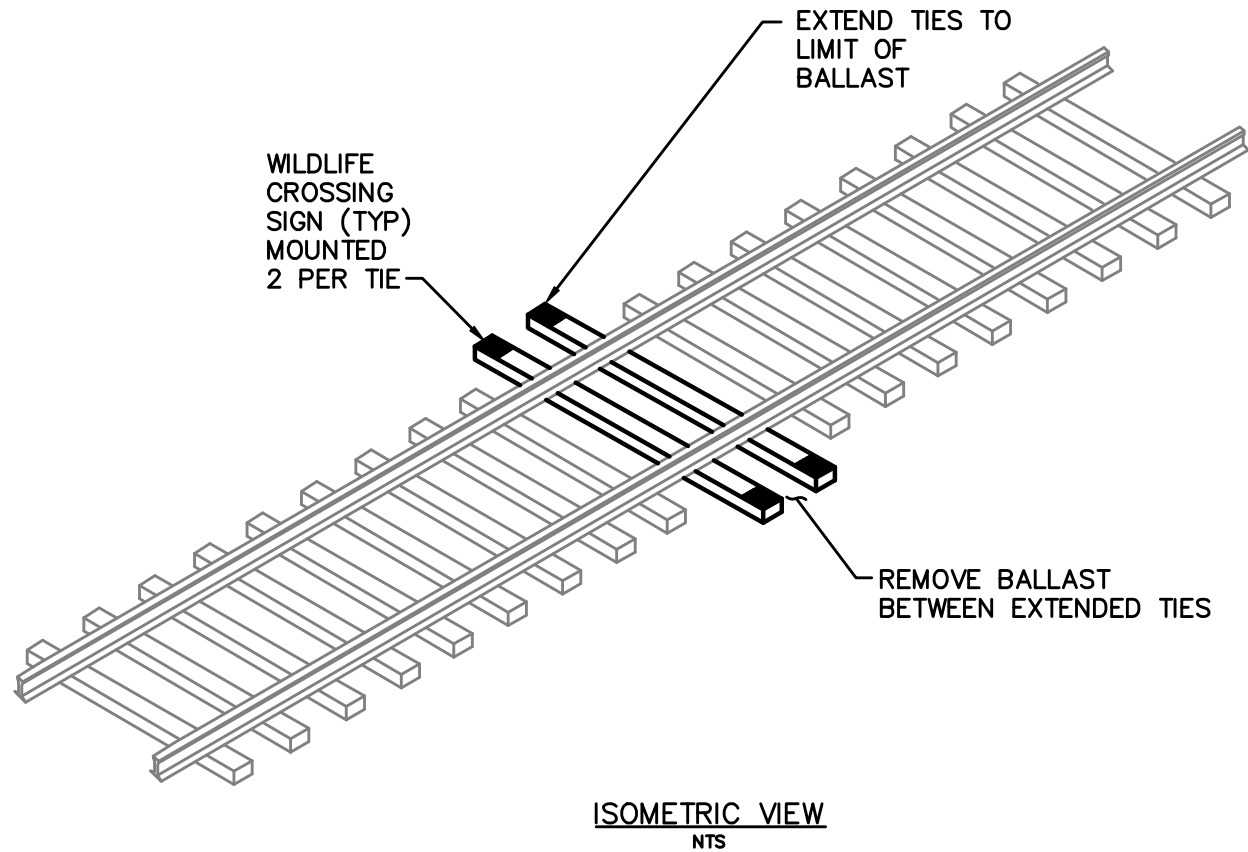
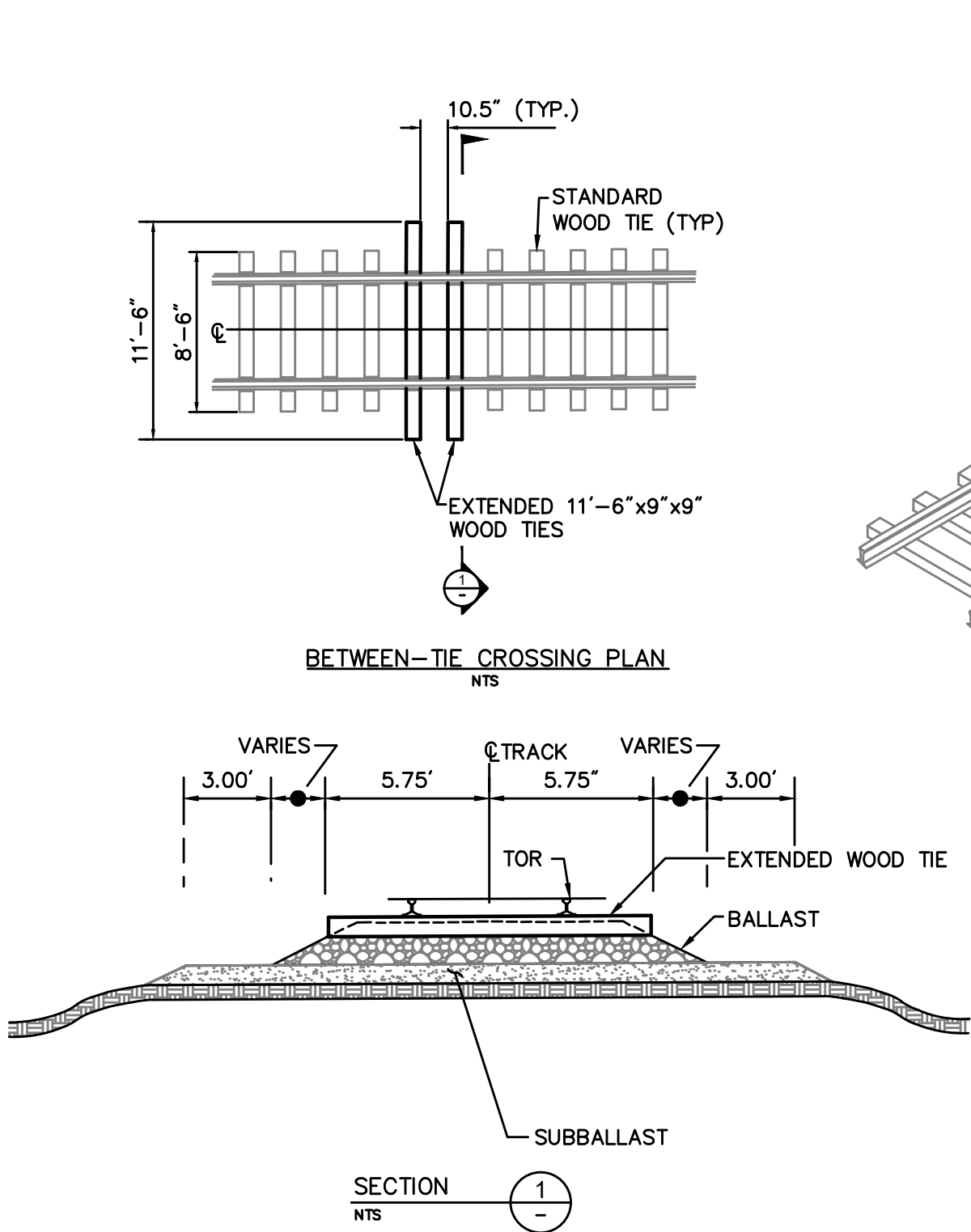
The approximate locations of wildlife crossings are shown on the project 30% design plans and have been reviewed with NHESP. Attachment 1-D, Track Plans, shows the locations of all proposed wildlife crossings.

### Inspection and Maintenance

MassDOT, or the railroad operator with responsibility for right-of-way maintenance, will inspect the wildlife crossings annually between April 1 and April 30 to ensure that the crossings are maintained in a functional condition. Corrective actions at each inspection include:

- Removing any sticks or branches that obstruct the passageway.
- Measuring the below-track clearance to ensure that there is a 9-inch high passageway.
- If the passageway is less than 9 inches, remove ballast or other material to restore clearance.





## Wildlife Track Crossing

SCALE: N.T.S.



## **Attachment 4**

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Construction Period Protection Plans (prepared by VHB, Inc.; the “Protection Plans”)



## Attachment 3 – Construction Period Protection Plans

### Plymouth Gentian and Three-angled Spike-rush

MassDOT will require the Contractor to implement protective measures to ensure that construction personnel and equipment do not enter the Thatcher's Pond wetland. These measures include:

- Prior to construction, the limit of work line will be marked with straw wattles and orange plastic construction fencing for an approximately 460-foot distance along the ROW (starting approximately 900 feet east of North Precinct Street and extending east).
- Signage will be placed along the construction fence at 50-foot intervals stating that the area is habitat for protected species and that no personnel are allowed beyond the fence.
- Construction supervisors in this area will be briefed on the importance of protecting rare species and the requirements of the Conservation and Management Permit
- MassDOT's Environmental Monitor will inspect the area immediately following installation of the construction fence and weekly during active construction and confirm that protective measures are in place and that the CMP requirements are being observed.

### Eastern Box Turtle and Wood Turtle

The following measures would be undertaken during construction in designated Priority Habitat for eastern box turtles and wood turtles. These measures include exclusion barriers, contractor education, inspections and reporting.

#### Qualified Turtle Ecologist

MassDOT will employ a qualified turtle ecologist through the duration of construction in designated areas. MassDOT will submit the name and qualifications of the turtle ecologist to NHESP for approval.

#### Turtle Exclusion Barriers

Staked straw bales will be installed at the limits of work to provide an exclusion barrier for eastern box turtles and wood turtles. Exclusion barriers will be installed at the locations listed in the following table.



### Turtle Exclusion Barrier Locations

Priority Habitat	Location
PH 715	Middleborough Secondary, Taunton, from Church Street 3,800 feet east
PH 715	Middleborough Secondary, Taunton, between Church Street and Middleborough Avenue
PH 628	Middleborough Secondary, Taunton, from Middleborough Avenue to the Lakeville Town Line (950 feet east of North Precinct Street)
PH 599	New Bedford Main Line, Berkley from Padelford Street 5,200 feet north
PH 599	New Bedford Main Line, Berkley from Padelford Street 700 feet south
PH 438	New Bedford Main Line, Freetown, from power line north of Chipaway Road north 2,100 feet
PH 425	New Bedford Main Line, Freetown/New Bedford, from Chipaway Road 900 feet south
PH 375	New Bedford Main Line, New Bedford, from Route 140 5,200 feet north
PH 517	Fall River Secondary, Freetown, between Copicut Road and Route 24

One-way turtle gates will be installed on the construction side of the barriers in locations determined by the turtle ecologist. These will consist of a sloped plane constructed using clean fill, with plywood wing-walls.

Following installation, the turtle ecologist will inspect the exclusion barriers to ensure that there are no gaps or potential locations of turtle access to the work zone. During this initial inspection, the turtle ecologist will visually survey the work areas for turtles and will remove any turtle found within the work zone in accordance with the protocols defined in the *Inspections and Monitoring* section below. The turtle ecologist will notify NHESP when the exclusion barriers are in place.

The Contractor is responsible for maintaining and repairing the exclusion barrier as directed by the turtle ecologist. Barriers must be removed at the completion of construction.

### Inspections and Monitoring

The turtle ecologist will monitor the work areas daily during active construction, between April 1 and October 31. At each inspection, the ecologist will check the exclusion barrier and identify any needed repairs or maintenance. The ecologist will report any problems immediately to the contractor and MassDOT.

The turtle ecologist will visually inspect the work area for turtles on each inspection. If a turtle is found within the work area, the turtle ecologist will record the location using GPS, record the gender and dimensions of the turtle, and place the turtle outside of the exclusion barrier. Within ten days, the turtle ecologist will submit an observation report to NHESP using the on-line VPRS system.



Any mortality observed by the turtle ecologist, contractor or other on-site personnel shall be reported to NHESP by the turtle ecologist within 24 hours. The turtle ecologist will file a report with NHESP that identifies the cause of mortality (if possible), and will work with the Contractor and NHESP to develop additional protective measures if warranted.

### Contractor Training

The turtle ecologist will be responsible for educating on-site personnel, including the Contractor's site supervisor, key construction personnel, and project engineers, to recognize the eastern box turtle and wood turtle and to take appropriate steps to protect these species. Identification cards will be prepared and distributed to site personnel (see attached example).

Any turtles found by the Contractor will be placed in a 20-gallon tub (or equivalent) and the turtle ecologist will be notified. The turtle ecologist will be responsible for collecting data, releasing the turtle outside of the exclusion barriers, and submitting an observation report. The Contractor will place any dead turtles found within the construction area in a plastic tray or bucket and notify the turtle ecologist immediately.

### Reporting

The turtle ecologist will prepare an inspection log following each daily inspection. The ecologist will prepare a weekly inspection report and submit this report to MassDOT. By December 31 of each construction year, MassDOT will submit an annual inspection report to NHESP.

As described above, the turtle ecologist is responsible for:

- Notifying NHESP when the exclusion barriers have been installed in each location;
- Submitting observation reports to NHESP within 10 days of a turtle encounter, and
- Notifying NHESP within 24 hours of any occurrence of turtle mortality within the construction area.



## **Attachment 5**

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Invasive Species Management and Control Plan (prepared by VHB, Inc.)



## Attachment 6 – Invasive Species Management and Control Plan

MassDOT has developed this Invasive Species Management and Control Plan to provide long-term protection to the populations of the state-listed plant species (*Sabatia kennedyana*, Plymouth gentian, and *Eleocharis tricostata*, three-angled spike-rush) found in Thatcher's Pond (Priority Habitat 628) in Taunton, MA. As there are no permanent impacts, there are no requirements for measures to provide a long-term net benefit to these species.

Right-of-way maintenance is critical to the protection of the tracks and ties and to maintaining railroad safety. Right-of-way maintenance can only be done in accordance with an approved Vegetated Management Plan (VMP) and Yearly Operating Plan (YOP) that have been reviewed by the Massachusetts Department of Food and Agriculture (DFA) and made available for public comment. These management plans are developed in accordance with the DFA's regulations, which prohibit or restrict the application of herbicide in sensitive areas such as close proximity to wetlands and public or private drinking water supplies.

MassDOT has agreed to restrict the use of herbicides within the ROW adjacent to Thatcher's Pond (an area approximately 460 feet long, starting approximately 900 feet east of North Precinct Street). This area will be marked "No Herbicide Application" using standard metal markers affixed to the ties. This specific location would be identified and shown on detailed project plans during the subsequent final design and permitting phase of the Project, when a VMP is developed.

This designation and signage will prohibit the railroad operator from spraying herbicide from rail-mounted vehicles. Herbicide application by hand (using backpack sprayers) would be used as needed to remove vegetation and control invasive species.

MassDOT or the railroad operator with responsibility for right-of-way maintenance will inspect this area annually for the presence of invasive species within the railroad ballasted area. Invasive species include:

- *Phragmites australis*, common reed
- *Rhamnus frangula*, glossy buckthorn
- *Phalaris arundinacea*, reed canary grass
- *Fallopia japonica*, Japanese knotweed
- *Elaeagnus umbellata*, Autumn olive
- *Celastrus orbiculatus*, oriental bittersweet
- *Rosa multiflora*, multiflora rose





Invasive species will be controlled manually by pulling (autumn olive, oriental bittersweet, multiflora rose, glossy buckthorn) or herbicide application (common reed, reed canary grass, Japanese knotweed). Herbicide (glyphosate) will be applied manually using a backpack sprayer. The herbicide will be colored with a dye so that the applicator can ensure that only the invasive target plants are sprayed. No herbicide will be used outside of the ballast.