Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

August 2026

PREPARED FOR

New England Power Company
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Waltham, MA 02451

PREPARED BY

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AUGUST 31, 2026

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attn: MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114
RE: Central to Western Massachusetts Energy Improvement Project – Final Environmental Impact Report, EEA #16913

Dear Secretary Tepper,

On behalf of The New England Power Company ("NEP"), BSC Group, Inc. ("BSC") is pleased to submit this Final Environmental Impact Report ("FEIR") for asset maintenance and system improvements along the E5/F6 Electric Transmission Lines ("E5/F6 Lines"). Proposed work includes refurbishment and system improvements from Deerfield #4 Substation in Shelburne to the Millbury #305 Substation in Millbury. The E5/F6 Lines span approximately 67 miles through the municipalities of Millbury, Auburn, Leicester, Spencer, East Brookfield, North Brookfield, West Brookfield, Ware, Belchertown, Pelham, Shutesbury, Leverett, Sunderland, Deerfield, Conway, Shelburne, and Buckland in Massachusetts. NEP has designated the Project as the Central to Western Massachusetts Energy Improvement Project (the "Project"). NEP is committed to completing the Project to improve asset condition, mitigate failure risks, and to enhance long-term reliability.

This FEIR responds to the January 16, 2026 Secretary's Certificate (the "Certificate") issued by the Executive Office of Energy and Environmental Affairs ("EEA") on the Draft Environmental Impact Report ("DEIR") for the Central to Western Massachusetts Energy Improvement Project (EEA #16913). This FEIR addresses the Scope outlined in the Certificate, and responds to comments received, as required per the Massachusetts Environmental Policy Act ("MEPA") General Laws of Massachusetts ("M.G.L.") c. 30 §§ 61-62I) and MEPA regulations (301 CMR 11.00). The FEIR was prepared in accordance with the general guidelines found in Section 11.07 of the Massachusetts Environmental Protection Agency ("MEPA") regulations.

Please publish the Notice of Availability for this FEIR in the September 9, 2026 Environmental Monitor to initiate the 37-day review period. In accordance with the Certificate and 301 CMR 11.16 of the MEPA regulations, the FEIR has been circulated to those who commented on the DEIR, permitting agencies, the MEPA Distribution List, and the Environmental Justice ("EJ") Reference List (see **Appendix B** for the FEIR Distribution List).

Please do not hesitate to contact me at (617) 896-4346 or jgoldberg@bscgroup.com, or Mike Tyrrell with NEP at (603) 801-4140 or michael.tyrrell@nationalgrid.com with any questions or comments.

Sincerely,
BSC Group, Inc.

Julie Goldberg, EIT, ENV SP
Permitting Specialist and Civil Designer
cc: Mike Tyrrell, NEP and the FEIR Circulation List

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Acronyms	
ACHP	Advisory Council on Historic Preservation
ACR	Asset Condition Refurbishment
ACSS	Aluminum-Conductor Steel-Supported Conductor
AMC	Appalachian Mountain Club
APE	Area of Potential Effect
APR	Agricultural Preservation Restriction
BFE	Base Flood Elevation
BLSF	Bordering Land Subject to Flooding
BMP	Best Management Practice
BSC	Build Support Connect Group, Inc.
BVW	Bordering Vegetated Wetland
CAP	Construction Access Permit
CCAA	Candidate Conservation Agreement with Assurances
cfs	Cubic Feet per second
CFR	Coldwater Fisheries Resource
CGP	Construction General Permit
CMP	Conservation & Management Permit
CMR	Code of Massachusetts Regulations
CR	Conservation Restriction
CWA	Clean Water Act
DCR	Massachusetts Department of Conservation and Recreation
DCR-DWSP	Protection
DER	Distributed Energy Resources
DEIR	Draft Environmental Impact Report
DFG	Massachusetts Department of Fish and Game
DFW	Massachusetts Division of Fisheries and Wildlife
DGA	Designated Geographic Area
DPU	Massachusetts Department of Public Utilities
EEA	Massachusetts Executive Office of Energy and Environmental Affairs
EFSB	Energy Facility Siting Board
EIR	Environmental Impact Report
EJ	Environmental Justice
ENF	Environmental Notification Form
eNOI	Electronic Notice of Intent
EO	Executive Order

Acronyms	
FEIR	Final Environmental Impact Report
FEMA	Federal Emergency Management Act
FRCOG	Franklin Regional Council of Government
ft	Feet/Foot
GHG	Greenhouse Gas
GIS	Geographic Information System
IVW	Isolated Vegetated Wetland
kV	Kilovolts
LiDAR	Light Detection and Ranging
lf	Linear Feet/Foot
LST	Land Surface Temperature
LUWW	Land Under Water Bodies and Waterways
MassDEP	Massachusetts Department of Environmental Protection
MassDOT	Massachusetts Department of Transportation
MassGIS	Massachusetts Geographic Information Systems
MEPA	Massachusetts Environmental Protection Act
MESA	Massachusetts Endangered Species Act
M.G.L	Massachusetts General Laws
MHC	Massachusetts Historical Commission
MUTCD	Manual on Uniform Traffic Control Devices
MWRA	Massachusetts Water Resources Authority
NEP	New England Power Company
NERC	North American Electric Reliability Commission
NESC	National Electric Safety Code
NHESP	Natural Heritage and Endangered Species Program
NHPA	National Historic Preservation Act
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OGMA	Old-Growth Management Areas
OHWM	Ordinary High-Water Mark
OMP	Operation and Maintenance Plan
OOC	Order of Conditions
OPGW	Optical Primary Ground Wires
ORW	Outstanding Resource Water
PAL	Public Archaeology Laboratory, Inc.

Acronyms	
PEM	Palustrine Emergent Wetlands
PFO	Palustrine Forested Wetlands
PLPA	Public Lands Preservation Act
PSS	Palustrine Scrub Shrub Wetlands
PVPs	Potential Vernal Pools
RA	Riverfront Area
RDG	Regenerative Design Group
RMAT	Resilient Mass Action Team
ROW	Right-of-Way
Sf	Square Feet
SHPO	State Historic Preservation Officer
SWPPP	Stormwater Pollution Prevention Plan
TBD	To be determined
THPO	Tribal Historic Preservation Officer
TMP	Traffic Management Plan
TOY	Time-of-year
ULSD	Ultra-low Sulfur Diesel
UMass	University of Massachusetts
USACE	United States Army Corps of Engineers
VMP	Vegetation Management Plan
VP	Vernal Pool
WMA	Wildlife Management Area
WOTUS	Waters of the United States
WPA	Wetlands Protection Act
WQC	Water Quality Certification
WsPA	Watershed Protection Act

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1 Project Overview

1.1 Introduction

On January 15, 2025, New England Power Company ("NEP" or the "Proponent") submitted an Environmental Notification Form ("ENF") to the Massachusetts Environmental Policy Act ("MEPA") Office for the Central to Western Massachusetts Energy Improvement Project (the "Project"), which includes the refurbishment and upgrade of existing electrical transmission infrastructure within an existing utility corridor. On March 10, 2025, the Secretary of the Executive Office of Energy and Environmental Affairs ("EEA") issued a Certificate on the ENF (EEA #16913), determining the Project required the preparation of a Draft Environmental Impact Report ("DEIR"). NEP prepared and submitted a DEIR on October 22, 2025. This Final Environmental Impact Report ("FEIR") responds to the Certificate issued on the DEIR by the EEA Secretary (the "Certificate") on January 16, 2026.

The content of this FEIR follows the guidelines of Section 11.07 of the MEPA regulations and addresses comments from the Certificate within the narrative of this FEIR and in **Section 10**, *Response to Comments*. A delineated version of the Certificate and Comment Letters can be found in **Appendix C.** A glossary of acronyms and technical terms is located at the beginning of this document. **Appendix A** through **Appendix H** include relevant supplemental information (e.g., figures and plans, the FEIR Distribution List, and technical memoranda).

NEP is proposing a refurbishment[1] of the E5 and F6 69 kilovolt ("kV") double circuit overhead electrical utility lines ("E5/F6 Lines" or the "Lines") and seven interconnecting 69 kV Tap Lines (the "Tap Lines"). The E5/F6 Lines and the Tap Lines are located within an existing Right-of-Way ("the "Project ROW") throughout Massachusetts, more particularly described as follows. The corridor[2] containing the E5/F6 Lines traverses approximately 67.7 miles, connecting the Deerfield #4 Substation in Shelburne to the Millbury #305 Substation in Millbury, and runs through (from east to west) the Towns of Millbury, Auburn, Leicester, Spencer, East Brookfield, North Brookfield, West Brookfield, Ware, Belchertown, Pelham, Shutesbury, Leverett, Sunderland, Deerfield, Conway, Shelburne, and Buckland in Massachusetts (refer to **Figure 1-1**). The seven interconnecting Tap Lines include:

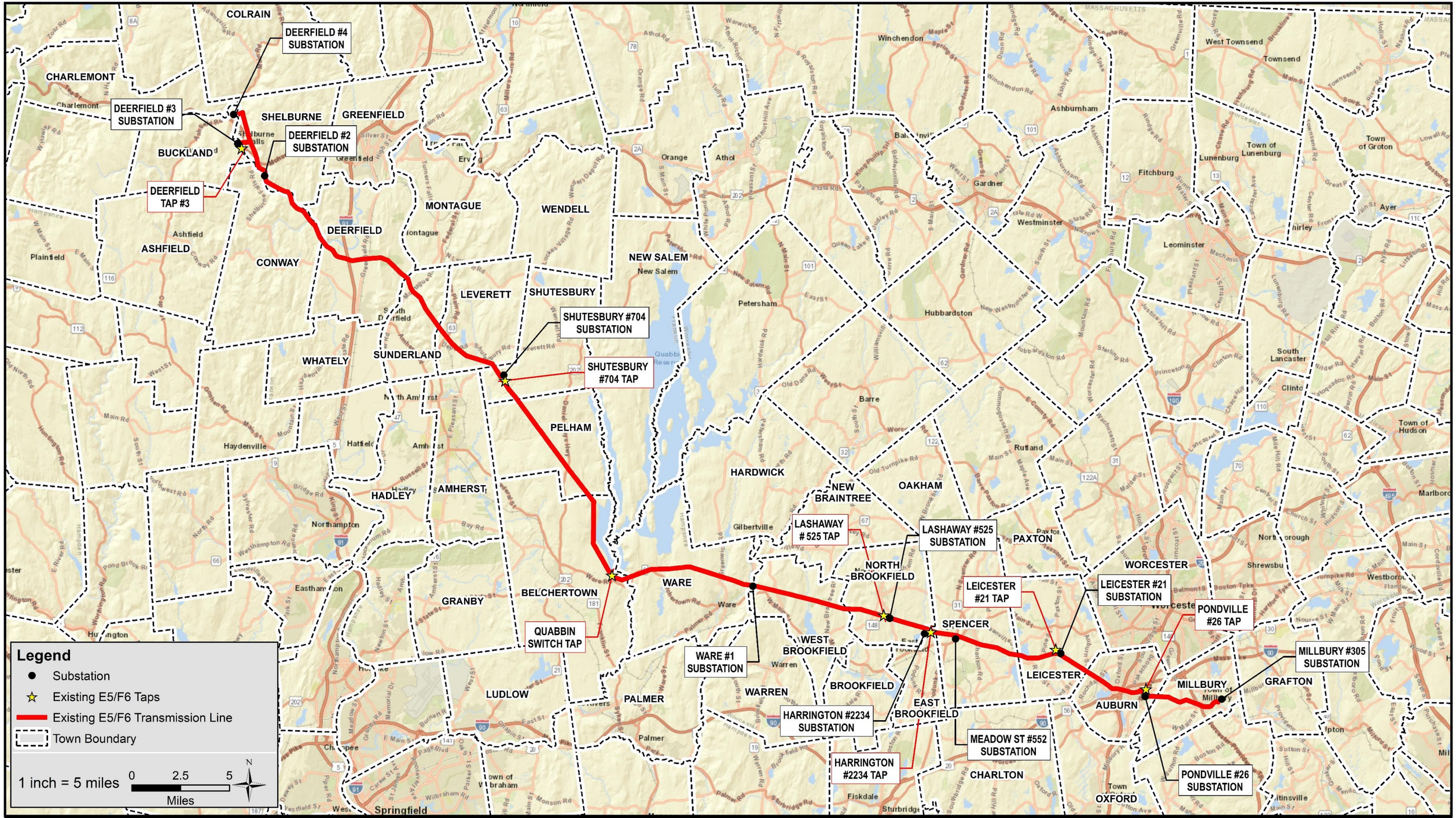
- Pondville #26 Tap in Auburn
- Leicester #21 Tap in Leicester
- Harrington #2234 Tap in East Brookfield
- Lashaway #525 Tap in North Brookfield
- Quabbin Switch Tap in Belchertown
- Shutesbury #704 Tap in Shutesbury
- Deerfield #3 Tap in Shelburne

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1 Refurbishment is the process to address deficient structures, as determined by inspections, performance, and life expectancy. Through this process, NEP identifies structures in need of replacement within the existing ROW, while minimizing costs, environmental impact, and service disruption.

2 "ROW" and "corridor" are both used to identify land currently owned/operated and managed by NEP and other utilities for transmission and sub-transmission assets. These terms will be used interchangeably throughout this section.

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DEERFIELD #4 SUBSTATION
DEERFIELD #3 SUBSTATION
DEERFIELD #2 SUBSTATION
DEERFIELD TAP #3
SHUTESBURY #704 SUBSTATION
SHUTESBURY #704 TAP
LASHAWAY # 525 TAP
LASHAWAY #525 SUBSTATION
QUABBIN SWITCH TAP
WARE #1 SUBSTATION
HARRINGTON #2234 SUBSTATION
HARRINGTON #2234 TAP
MEADOW ST #552 SUBSTATION
LEICESTER #21 TAP
LEICESTER #21 SUBSTATION
PONDVILLE #26 TAP
PONDVILLE #26 SUBSTATION
MILLBURY #305 SUBSTATION
COLRAIN
CHARLEMONT
SHELBURNE
GREENFIELD
BUCKLAND
MONTAGUE
WENDELL
DEERFIELD
ASHFIELD
CONWAY
LEVERETT
SHUTESBURY
NEW SALEM
WHATELY
SUNDERLAND
PELHAM
HADLEY
AMHERST
HARDWICK
NEW BRAINTREE
OAKHAM
PAXTON
WORCESTER
NORTH BROOKFIELD
WARE
BELCHERTOWN
GRANBY
LUDLOW
PALMER
WEST BROOKFIELD
WARREN
BROOKFIELD
EAST BROOKFIELD
SPENCER
LEICESTER
AUBURN
MILLBURY
GRAFTON
CHARLTON
OXFORD
Winchendon
Ashburnham
Gardner
Westminster
Fitchburg
Lunenburg
Leominster
Hubbardston
Barre
Rutland
Petersham
Orange
Athol
West Townsend
Townsend
Ayer
Shirley
South Lancaster
Clinton
Springfield
Northampton
Amherst
Haydenville
Hatfield
Plainfield
Ashfield
Charlemont
Shelburne Falls
Greenfield
Montague
Gilbertville
Warren
Palmer
Fiskdale
Sturbridge
Auburn
Millbury
Grafton
Shrewsbury
Westborough
Northborough
Marlborough
Hudson
Maynard
Stow
Boxborough
Harvard
Littleton
Groton
Pepperell
Dunstable
Tyngsboro
Nashua
Lowell
Chelmsford
Westford
Acton
Concord
Carlisle
Bedford
Billerica
Tewksbury
Wilmington
Burlington
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Framingham
Natick
Wellesley
Needham
Dedham
Milton
Quincy
Braintree
Weymouth
Hingham
Cohasset
Scituate
Norwell
Hanover
Pembroke
Duxbury
Kingston
Plymouth
Carver
Plymouth
Wareham
Marion
Mattapoisett
Rochester
Fairhaven
New Bedford
Dartmouth
Westport
Fall River
Somerset
Swansea
Seekonk
Rehoboth
Attleboro
North Attleborough
Mansfield
Foxborough
Norfolk
Wrentham
Franklin
Bellingham
Medway
Millis
Holliston
Hopkinton
Ashland
Sherborn
Natick
Wellesley
Dover
Medfield
Walpole
Norwood
Canton
Stoughton
Randolph
Holbrook
Avon
Abington
Rockland
Hanover
Norwell
Hingham
Hull
Cohasset
Scituate
Marshfield

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1.2 Public Interest Served by the Project

The ENF and DEIR described the Project needs and benefits and established a framework for evaluating Project Alternatives. This section summarizes and expands on the Project needs and benefits content in the ENF and DEIR.

The Project is necessary to address the long-standing history of poor performance on the E5/F6 Lines, which provide the sole transmission source for approximately 24,000 customers in 12 municipalities, and deliver electricity to a total of 26 municipalities. The Lines, constructed in the early 1900s, are among the oldest transmission lines in New England and are supported by the original lattice structures. The Lines have been among the least reliable on the NEP transmission system, with 61 outages in the past 5 years, due in large part to the original structure design, which makes them susceptible to lightning, trees, and avian interaction. A review of operating history, design, and physical condition of the Lines demonstrates that they should be refurbished to ensure reliable service.

Poor reliability and performance are of specific importance because the Lines are the sole transmission source for 12 Massachusetts municipalities. NEP is committed to completing required system improvements to address the poor asset condition, mitigate potential risks of electrical failure, and to provide long-term reliable delivery of electrical service and maintenance of the Lines. NEP's goal is to meet the projected future demand on the transmission system resulting from the electrification of the energy system, essential to achieving the Commonwealth's decarbonization goals.

The Project also aligns with Massachusetts Governor Maura Healey's Executive Order ("EO") Number 654, To Secure Massachusetts' Energy Future by Establishing an Energy Supply Plan that Drives Affordability and Reliability, issued March 16, 2026. The EO Number 654 prioritizes promoting Statewide and community energy independence by supporting renewable energy and distributed energy resources ("DERs"). To achieve this, the EO identifies working with distribution utilities, like NEP, on necessary improvements to the electrical transmission infrastructure to support interconnections. The Project, with the ability to operate at 115 kV in the future (should circumstances warrant), would provide the additional transmission capacity and voltage support needed along the E5/F6 corridor for increased electricity usage and the interconnection of future DER. Even when operating at 69 kV, the Lines will provide increased capacity due to the proposed use of Aluminum Conductor Steel-Supported ("ACSS") conductor.

The Project also includes installation of two new optical ground wires ("OPGWs"), one for each line, which will provide improved fault protection and an upgraded communications path that will allow for high-speed communication between the remote ends of the Lines. The installation of OPGW will enhance public safety by improving response time during storm-related emergencies and outages.

1.3 Project Description

The Project description and scope of work is largely unchanged from the DEIR. NEP is committed to completing required system improvements to address the poor asset condition, mitigate potential risks of electrical failure, and to provide long-term reliable delivery of electrical service and maintenance of the Lines. NEP's goal is to meet the projected future demand on the transmission system resulting from the electrification of the energy system, essential to achieving the Commonwealth's decarbonization goals. Proposed activities include various general maintenance and system improvements for 711 existing structures, with 683 on the E5/F6 Lines and 28 structures on the Tap Lines across 17 municipalities. Refer to the FEIR Plans in **Appendix A**.

A breakdown of ROW lengths and widths is provided in **Table 1-1**. The Project involves the removal of the existing double circuit towers, conductors, shield wire and related transmission components and the rebuilding of the E5/F6 Lines. The Project also will replace all structures along the two Tap Lines noted below.

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Table 1-1: Project Route Components – Approximate Right-of-Way Configuration

Project Route Component	Existing ROW Width	Average Maintained ROW Width	Approximate Mileage (rounded to the nearest tenth)
Existing E5/F6 Line Right-of-Way ("ROW")	Varied width: 80 to 200 feet ("ft") Average Width: 125 ft	Maintained width: 80-170 ft Average Existing Maintained Width: 100 ft Proposed Maintained Width: 125 ft	67.0 miles
Existing Quabbin Switch Tap Lines ROW	80 to 200 ft[1]	Average Existing Maintained Width: 80 ft Proposed Maintained Width: 80 ft on ROW and 100 ft on fee-owned property	0.1 miles
Existing Deerfield Tap Lines ROW	125 ft	Maintained width: 80-125 ft Average Existing Maintained Width: 100 ft Proposed Maintained Width: 125 ft	0.6 miles
Total			**67.7 miles**

1 The Quabbin Switch Tap Lines ROW corridor contains the Quabbin Switch Tap Lines and the B69 Lines. Where they are collocated on ROW, the width is approximately 80 ft. However, the Quabbin Switch Tap Lines are also located on a fee-owned parcel with a width of approximately 200 ft.

Specifically, refurbishment activities will include:

- Performing vegetation management (mowing and vegetative cover type conversion) to provide access to the proposed structure locations, to facilitate safe vehicle and equipment passage, to provide safe work sites for personnel, and to meet the conductor clearance requirements.
- Performing access improvements, including grading and the addition of stone to existing access, as well as the construction of new access, where required.
- Replacing existing structures with steel monopole vertical deadend, steel monopole double circuit davit arm, and steel monopole single circuit davit arm structures. The replacement structures will provide improved reliability and climate resilience. Structures will either be supported by concrete caisson foundations (213 on the E5/F6 Lines, 14 on the Tap Lines), micropile foundations (302 on the E5/F6 Lines, four on the Tap Lines), or directly embedded into the ground (191 on the E5/F6 Lines). The directly embedded poles include 16 switch structures that will be installed at various locations throughout the ROW adjacent to proposed poles. The existing E5/F6 line has 683 existing structures and foundations on the main line and 28 tap structures and foundations, utilizing direct embed or concrete caisson foundations.
- Replacing the existing copper conductor with 795 kcmils Aluminum Conductor Steel Supported (ACSS) conductor which will improve system reliability and allow the lines to carry more current, if needed in the future.
- Replacing the existing shield wire with two OPGWs. These serve the dual function of providing shielding for the conductor, as well as allowing for high-speed communications between substations.
- Construction mats will be temporarily installed during construction in sensitive areas, removed following completion of construction, and the area restored to re-establish pre-existing topography and hydrology, as necessary.

1.4 Project Schedule

A summary of the major Project elements and their corresponding target milestone dates is provided in **Table 1-2**, and an updated status of regulatory requirements is provided in **Table 1-3**.

Table 1-2: Anticipated Project Schedule

Project Component	Estimated Start Date	Estimated End Date
Access Route Construction, Re-establishment, and Improvements	April 2028	April 2033
Rebuild of Existing Lines and Tap Lines	September 2029	December 2034
Removal of Existing Lines and Tap Lines	January 2030	April 2035
Right-of-Way ("ROW") Restoration	April 2028	April 2035

Table 1-3: Status of Regulatory Requirements

Agency	Permit/Review/Approval	Status
Federal		
United States Army Corps of Engineers ("USACE")	Section 404 Nationwide Permit Authorization via Pre-Construction Notification ("PCN") and associated consultations under Section 106 of National Historic Preservation Act ("NHPA") and Section 7 of the Endangered Species Act ("ESA")	Target filing for August 2026
United States Environmental Protection Agency ("EPA")	National Pollutant Discharge Elimination System ("NPDES") General Permit for Stormwater Discharges and Construction Dewatering Activities/Stormwater Pollution Prevention Plan ("SWPPP")	Target filing for the electronic Notice of Intent ("eNOI") at least 2 weeks prior to start of construction The SWPPP is being prepared in advance and will be filed in draft with the 401 Water Quality Certification ("WQC") application, with a target filing for August 2026
State		
Massachusetts Executive Office of Energy and Environmental Affairs ("EEA")	Massachusetts Environmental Policy Act ("MEPA") Review/Certificate of the Secretary (EEA #16913)	Filed the Environmental Notification Form ("ENF") January 15, 2025; received Certificate March 10 Filed the Draft Environmental Impact Report ("DEIR") October 22, 2026; received the Certificate January 20, 2026
Massachusetts Department of Environmental Protection ("MassDEP")	Section 401 Individual Water Quality Certification ("WQC") and Variance	Target filing for August 2026
Natural Heritage and Endangered Species Program ("NHESP")	Massachusetts Endangered Species Act ("MESA") – Determination of "Take" or "No Take;" anticipated Conservation & Management Permit ("CMP")	MESA checklist target filing for September 2026 CMP target filing for 2027 Consultation within NHESP is ongoing
Massachusetts Historical Commission ("MHC")	Consultation under M.G.L. c. 9 in accordance with 950 CMR 70-71	Consultation with MHC is ongoing
Energy Facility Siting Board ("EFSB")	M.G.L. c. 164, §69J Petition for Approval to Construct Transmission Lines	Filed EFSB March 2025
Massachusetts Department of Public Utilities ("DPU")	M.G.L. c. 164, §72 Petition for Determination of Public Necessity and Convenience	NEP filed motions with EFSB and the DPU requesting that the Section 72 Petition be referred to the EFSB and consolidated for hearing with the Section 69J Petition in March 2025

Agency	Permit/Review/Approval	Status
Massachusetts Department of Conservation and Recreation ("DCR")	Watershed Protection Act ("WsPA") Permit; Construction Access Permit ("CAP") for State Parks and Recreation; and the Quabbin/Ware River Vehicular Access/Short-term Access Permits	Target filing with DCR Division of Water Supply Protection, Office of Watershed Management ("DWSP"), August 2026 Target filing with DCR State Parks and Recreation August 2026 Consultation with DCR is ongoing
Massachusetts Department of Transportation ("MassDOT")	Permit to Access State Highway/Non-Municipal Utility Permits for crossing over state roads with utility lines.	Following consultation with MassDOT, permit submittals are not anticipated till October 2027
Local		
Conservation Commissions in the 17 municipalities	Order of Conditions ("OOC") per the Massachusetts Wetland Protection Act ("WPA")[1] and local bylaws.	Summer through Fall 2026

1 WPA Orders of Conditions are local permits, unless and until a superseding OOC is issued by MassDEP.

1.5 Coordination with Agencies Since Filing the DEIR

NEP is committed to working with municipal officials, local businesses, residents, communities along the Project ROW, and any interested stakeholders to maintain proactive and transparent communication throughout the life of the Project. NEP has also maintained the Project website (https://www.cmatowmaenergy.com/index.php) and email address (info@CMAtoWMAenergy.com), through which stakeholders may submit questions or comments. **Table 1-4** identifies meetings with regulatory agencies to date and provides a brief description of these meetings.

Table 1-4: Agency Outreach and Consultations Post-Draft Environmental Impact Report Filing

Agency	Date(s)	Notes
Department of Conservation and Recreation ("DCR") State Parks and Recreation Division	9/24/2025	Site visit of Conway State Forest (Conway) and Steam Mill Road (Deerfield) with DCR State Parks and Recreation Division.
DCR State Parks and Recreation Division	10/22/2025	Site visit of Spencer State Forest (Spencer) with DCR State Parks and Recreation Division. The Appalachian Mountain Club ("AMC") was also invited.
DCR Division of Water Supply Protection, Office of Watershed Management ("DWSP")	10/29/2025	Site visit of the access locations to the west of the Quabbin Reservoir.
DCR DWSP	12/2/2025	Virtual meeting to review access to the east of the Quabbin Reservoir.
Energy Facilities Siting Board ("EFSB")	1/13/2026 to 1/14/2026	Site visit and public hearings.
Amherst Department of Public Works ("DPW")	3/11/2026	Meeting to discuss the project and access.
DCR DWSP	6/1/2026	Virtual meeting to review access scope modifications.
UMass Amherst Department of Conservation	6/12/2026	Meeting to discuss the project and access.
Massachusetts Department of Environmental Protection ("MassDEP") Waterways Program	6/30/2026	Virtual meeting to review perennial stream crossings.

Agency	Date(s)	Notes
MassDEP 401 Program	7/21/2026	Prefile meeting with MassDEP Boston (lead reviewer),the Western Regional Office ("WERO") and Central Regional Office ("CERO"). Site visit scheduled to review mitigation areas on August 28, 2026; September 1, 2026; and September 3, 2026.
Massachusetts Department of Transportation ("MassDOT")	8/14/2026	Virtual meeting to discuss access and utility permits. MassDOT stated that permits may be staggered and may remain active for up to five years.
Amherst DPW	8/25/2026	Site visit to review off-ROW access.
Natural Heritage and Endangered Species Program ("NHESP")	Held monthly	Virtual meetings have been held on an approximate monthly basis since October 2024.

1.6 Project Changes Since the DEIR

Planning and design of a utility project is a dynamic process involving a balance of environmental, regulatory, and engineering considerations. The Project's design standard parameters are unchanged since the DEIR filing, but ongoing coordination with regulatory agencies and internal design review has resulted in refinements to the Project's design. These modifications and updates do not significantly alter the analyses and conclusions provided in the DEIR, but in general have resulted in an increase of temporary impacts, as described further in **Section 1.7**, mainly due to portions of originally proposed, permanent gravel work areas being replaced with temporary construction matting in sensitive resource areas (i.e., wetland resource areas and rare species habitat), and an increase in conservative boundaries for the work area limits of disturbance. These changes represent an overall decrease in permanent impacts, but an increase in temporary impacts. Additionally, changes to off-ROW access plans have occurred since the DEIR, resulting in a decrease of approximately 6.9 acres in off-ROW selective tree removal (refer to **Section 1.7.1** for additional information). NEP has also identified parcels that require additional private easement rights to meet design criteria since filing the DEIR; these additional easements do not involve parcels subject to Article 97. The DEIR stated that one new off-ROW access route in Deerfield and limited work areas in Millbury would require additional easement rights. After subsequent design changes and conversations with private landowners, there are 10 parcels on-ROW and three off-ROW access routes that require additional easement rights, as detailed in **Section 3.1.1**.

NEP has designed the Project to avoid environmental impacts to the maximum extent practicable and as the Project design has progressed, the extent of potential permanent impacts to resource areas has been generally reduced. Updated FEIR Plans are provided in **Appendix A.** Avoidance, minimization, and mitigation measures have been outlined in each section of the DEIR as well as summarized in **Section 8**, *Avoidance, Minimization, and Mitigation Measures* of this FEIR.

1.7 Summary of Overall Project Impacts

Since the DEIR, the Project has shifted impacts from permanent to temporary; in some areas, this results in a net increase of total temporary impacts in order to minimize permanent impacts. The updated values in **Table 1-5** reflect the conservative work area limits of disturbance for both temporary and permanent impacts, and are shown in the FEIR Plans in **Appendix A**. Temporarily impacted land will be consistent with regulatory agency requirements and/or restored to existing conditions.

Table 1-5: Summary of Project Impacts Associated with the Project Activities

Resource Area	Temporary Impacts	Permanent Impacts/Conversion
New Land Altered	Total – approximately 330.3 +/- acres[1] ▪ Temporary work envelopes, including construction mats, work pads, and pull pads ▪ Temporary access improvements ▪ Construction mats for access	Total – approximately 319.5 +/- acres ▪ Conversion of vegetative cover types (233.1 +/- acres)[2] ▪ Permanent work areas ▪ Permanent access improvements
Bordering Vegetated Wetland ("BVW")	Total – approximately 42.5 +/- acres ▪ Temporary work envelopes, including construction mats, work pads, and pull pads that overlap with BVW ▪ Construction mats for access where BVW crossings could not be avoided	Total – approximately 19.7 +/- acres ▪ Fill for replacement structure foundations in BVW (3,230 sf) ▪ Conversion of vegetative cover types[2]
Other Wetland Resource Areas		
Inland Bank ("Bank")	Total – approximately 7,094 linear ft ("lf") ▪ Temporary work envelopes, including construction mats for work pads ▪ Construction mats where access cross Bank[3]	Total – approximately 9,646 lf ▪ Conversion of vegetative cover types[2]
Riverfront Area ("RA")[4]	Total – approximately 39.4 +/- acres ▪ Temporary work envelopes, including construction mats for work pads and pull pads ▪ Temporary access modifications, which will be restored post-construction ▪ Construction mats for access	Total – approximately 28.2 +/- acres ▪ Conversion of vegetative cover types[2] ▪ Permanent work areas and structure replacements ▪ Permanent access improvements
Bordering Land Subject to Flooding ("BLSF")	Total – approximately 5.2 +/- acres ▪ Temporary work envelopes and pull pads, including construction mats for work pads and pull pads where BLSF overlaps with residential area	Total – approximately 3.6 +/- acres ▪ Conversion of vegetative cover types[2] ▪ Permanent work areas and structure replacements
Land Under Water Bodies and Waterways ("LUWW")	Total – approximately 0.3 +/- acre ▪ Temporary work envelopes, including construction mats for work pads where spanning open water is not feasible	N/A[5]

Resource Area	Temporary Impacts	Permanent Impacts/Conversion
Isolated Vegetated Wetland ("IVW")	Total – approximately 1.5 +/- acres ▪ Temporary work envelopes, including construction mats for access and work envelopes that overlap with Isolated Wetlands	Total – approximately 0.5 +/- acre ▪ Conversion of vegetative cover types[2] ▪ Permanent work areas and structure replacements

Resource Area	Impacts
Waterways	Waterways crossings do not involve structures within the waterways, only temporary access for construction. No adverse impacts are anticipated from waterways crossings.
Rare Species Impacts	Rare species may have potential impacts where construction related activities occur within designated habitat. There is the potential for a "Take" of species' habitats, which may require mitigation. Consultations with Natural Heritage and Endangered Species Program ("NHESP") are in progress to identify areas of concern, and to identify appropriate avoidance measures for implementation, as required.
Historical/Archaeological Impacts	Historical/Archaeological areas may have potential impacts where construction-related activities occur within areas of high archaeological sensitivity. Surveys, consultation, and coordination are ongoing to identify areas of concern, and to identify appropriate avoidance measures for implementation, as required.

Note: Temporary impacts have been conservatively estimated for the purposes of permitting processes (e.g., the temporary work and pull pads, where the majority of the work is anticipated to occur, account for 125.3 acres, while the conservative temporary work area limit of disturbance ["LOD"] accounts for 202.4 acres; the difference of 77.1 acres represents the conservative estimate for construction contractor flexibility).

1 The ENF portrayed the new land altered acreage as a combined value (which included the conversion of vegetative cover types, temporary construction matting, permanent and temporary work and pull pad areas, and new and improved access) to be consistent with the required "Summary of Project Size and Environmental Impacts" table in the ENF. The new land altered acreage has been updated and separated into temporary and permanent categories in this FEIR.

2 This value includes the conversion of vegetated types (e.g., trees) to other vegetated types (e.g., shrubs).

3 In most cases, construction mat crossing will span the banks of rivers and streams; however, the potential for impact has been accounted for in total lf.

4 Impacts located within the limits of RA overlap with impacts to BLSF, BVW, and the 100-foot Buffer Zone. Therefore, the total impacts are not equal to the sum of alterations.

5 The existing canopy cover to be removed as a result of the conversion of vegetative cover types within the ROW does not result in a direct impact to LUWW.

1.7.1 Vegetative Cover Type Conversion

In order to operate the Lines in accordance with the NERC document FAC-003-4 "Transmission Vegetation Management" with the conductors under "blowout" conditions (6 pounds per sf of wind on wire) approximately 181.2 acres of tree removal will occur along the forested edges of the Project ROW, of which 70.6 acres are within wetland resources (including BVW, Isolated Vegetated Wetland ("IVW"), BLSF, RA, and LUWW). Tree canopy was mapped via LiDAR along the forested edges of the Project ROW. As requested by the Certificate, of the 240.5 acres of mapped tree canopy within the ROW, 59.5 acres (25 percent) within the ROW were identified as not requiring removal, which accounts for 7,243 metric tons of carbon (refer to **Section 7.4** and **Appendix G** for the associated carbon analysis). Additionally, approximately 51.9 acres of off-ROW vegetative cover type conversion will be required to accommodate new, improved, or re-established access ways, of which approximately 4.9 acres are in wetlands. In Project planning, NEP sited and designed off-ROW access to avoid some areas where on-ROW access would result in greater wetland and traffic impacts (refer to FEIR Plans in **Appendix A**). Further, NEP estimates that 25 percent of areas conservatively listed for "tree removal" on ROW will, in practice, only require pruning.

Since the DEIR, NEP revised off-ROW access plans, which decreased approximately 6.9 acres of off-ROW selective tree removal. Updated vegetative cover type conversion values are provided in **Table 3-3**.

Table 1-6: Vegetative Cover Type Conversion Impacts

Category	On ROW (acres)	Off-ROW (acres)	Project-wide (acres)
Tree Removal	135.9	11.4	147.3
Selective Removal	0	25.1	25.1
Pruning	45.3[1]	15.4	60.7[1]
Total	**181.2**	**51.9**	**233.1**

Note: Acreage reflects conservative values for permitting processes and may be refined further based on site conditions closer to and during construction.
1 This value includes the estimate that 25 percent of areas conservatively listed for tree removal will be pruned in practice.

1.8 Summary of Mitigation Measures

NEP's mitigation measures fall into three primary categories: avoidance and minimization measures implemented in Project planning and design, construction-phase Best Management Practices ("BMPs") to be implemented in the field to minimize impacts, and compensatory mitigation where impacts are unavoidable. Efforts to avoid impacts have been a major design consideration for NEP, as noted throughout this FEIR. Where avoidance will not be practicable, appropriate construction BMPs to minimize impacts and/or compensatory mitigation will be implemented. Avoidance and minimization are discussed by resource area in each section of this FEIR, and mitigation measures proposed for the Project are then presented comprehensively in **Section 8**, *Avoidance, Minimization, and Mitigation Measures*.

To provide mitigation for tree removals per the Secretary's Certificate on the ENF and DEIR, NEP is committed to implementing a mitigation package that addresses the unavoidable loss of trees. NEP plans to prioritize preservation of an equivalent acreage of forested open space, which is expected to address mitigation for both rare species habitat and carbon impacts. To the extent that preservation does not provide acreage equivalent to the acres of tree removal, NEP will work with DCR, MassAudubon, and/or local land trusts to fund projects that offset losses in carbon sequestration. Furthermore, NEP will continue to work with landowners, its contractors, local organizations, and the State to identify opportunities for beneficial reuse of felled wood, including through wood banks and long-lived wood products, where feasible. Refer to **Section 8.2.7** for additional information regarding proposed mitigation for tree removals.

MEPA requires state agencies to make findings on environmental damage and mitigation measures before issuing a state permit for a Project requiring an Environmental Impact Report ("EIR") (301 CMR 11.07). Section 61 Findings have been provided in **Section 9**, *Section 61 Findings*. Mitigation measures are summarized in **Table 1-6**, below and detailed in **Section 8**.

Table 1-7: Summary of Project Impacts and Proposed Mitigation

Resource Area	Impact Type	Impact Area	Potential Mitigation
Bordering Vegetated Wetlands ("BVW") & Land Under Water Bodies and Waterways ("LUWW")	Secondary Impacts (conversion of vegetative cover types)	20.9 acres	In-Lieu Fee administered by the MA Department of Fish and Game (DFG) (per the United States Army Corps of Engineers ["USACE"]) and potential land preservation.
	Permanent Discharge of Fill Material / Loss of Resource Areas (Structure Foundations)	3,230 square feet ("sf")	Compensatory Mitigation as determined in state and local permitting, including wetland replication proposed within each municipality. Final replication locations and ratios to be determined during permitting.
	Temporary Discharge of Fill Material / Temporal Loss (Construction Matting)	42.8 acres	Potential post-construction In-Lieu Fee administered by the MA DFG (per the United States Army Corps of Engineers ["USACE"]) and 1:1 in-situ restoration. See also Avoidance & Minimization sections for details on the use of construction matting.

Resource Area	Impact Type	Impact Area	Potential Mitigation
Riverfront Area ("RA")	Secondary Impacts (conversion of vegetative cover types)	21.2 acres	*In-situ* restoration, including loam and seed as applicable. The habitat will remain vegetated and continue to function as wildlife habitat.
	Temporary Fill (Construction Matting, Gravel Work Areas and Access to be Removed Post-Construction)	39.4 acres	*In-situ* restoration.
Inland Bank ("Bank")	Secondary Impacts (conversion of vegetative cover types)	9,645 linear feet ("lf")	N/A - Vegetation alteration will be minimal, and understory will remain in place and/or quickly re-establish.
	Permanent Fill (Structure Foundations, and Gravel Work Areas and Access)	0 lf	N/A - No permanent impact to bank
	Temporary Fill (Construction Matting)	7,094 lf	*In-situ* restoration.
Floodplain / Bordering Land Subject to Flooding ("BLSF")	Secondary Impacts (conversion of vegetative cover types)	2.3 acres	N/A - No flood storage lost.
	Permanent Fill (Structure Foundations, and Gravel Work Areas and Access)	Structures: 1,040 sf Gravel work areas and access: 1.3 acres	N/A - The flood storage loss is *de minimis* within each BLSF where structures are replaced, and the foundations will not impact flood storage capacity.
	Temporary Fill (Construction Matting)	3.9 acres	*In-situ* restoration.
Natural Heritage Endangered Species Program ("NHESP") Priority and Estimated Habitat	Secondary Impacts (conversion of vegetative cover types)	43.7 acres	As required by Natural Heritage and Endangered Species Program ("NHESP"). Consultation is ongoing, and mitigation will be determined during Massachusetts Endangered Species Act ("MESA") permitting. NEP anticipates a Construction Management Plan ("CMP") and/or Species Protection Plan will be prepared for the Project.
	Permanent Fill (Structure Foundations, and Gravel Work Areas & Access)	Structures: 9,653 sf Gravel work areas and access: 15.3 acres	
	Temporary Fill (Construction Matting)	30.4 acres	

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2 Environmental Justice and Public Involvement

This section provides an expanded EJ impact analysis per the Certificate (**Section 2.1**); a summary of EJ-related minimization and mitigation measures (**Section 2.2**); and a description of previous, ongoing, and planned public involvement activities (**Section 2.3**).

2.1 Expanded Impact Analysis

In accordance with the Environmental Justice Policy of the Executive Office of Energy and Environmental Affairs, MEPA Interim Protocol for Analysis of Project Impacts on Environmental Justice Populations, and MEPA Public Involvement Protocol for Environmental Justice Populations ("MEPA EJ Policy and Protocols"), the ENF detailed the 19 EJ block groups located within the Designated Geographic Area ("DGA"), spanning the municipalities of Amherst, Auburn, Buckland, Charlemont, Hardwick, Leicester, Millbury, North Brookfield, Shelburne, Spencer, Sunderland, Ware, and West Brookfield. Of these 19 EJ block groups, three meet the Minority EJ criterion, three meet the Minority and Income EJ criterion, and 13 meet the Income EJ criterion.[1] Refer to **Appendix A** for a map of the EJ populations within the Project's DGA.

The DEIR expanded upon the impacts and detailed those EJ Communities with Vulnerable Health criterion within 1-mile of the DGA. Additionally, the DEIR provided potential sources of pollution within 1 mile of the project's DGA. There are no census tracts with languages spoken by 5 percent or more of the population who also identify as not speaking English "very well" within the 1-mile DGA of the Project ROW.

As generally explained in the ENF and DEIR, respectively, and as specifically detailed in the subsection below, the Project minimizes impacts on all populations, both EJ and non-EJ, by refurbishing Lines within the existing transmission line corridor. Temporary and permanent impacts from pre- and post-construction will be mitigated through BMPs; therefore, construction period activities will not result in substantial environmental or public health impacts to any population. This FEIR reaffirms that the short-term environmental impacts of the Project, as identified in their respective sections and summarized in this section, will be mitigated. Following the implementation of avoidance, minimization, and mitigation measures, no disproportionate adverse effects to EJ populations are anticipated. **Section 2.1.1** provides additional information requested in the Certificate pertaining to tree removal impacts on EJ populations.

2.1.1 Tree Removal Activities

BSC Group, Inc. ("BSC") analyzed where the ROW experiences hot spots, which are areas that register the 5 percent highest Land Surface Temperature ("LST") index within their respective Regional Planning Authority regions according to EEA statewide data. There is a very small area of land, 40 sf, located within the Project ROW in Millbury that has planned tree removal and is within both an EJ population and a hot spot, as depicted in Appendix G of the DEIR. The area of trees to be removed is considered *de minimis* (40 sf of the 181.2 acres of on-ROW vegetative cover type conversion) and the Project will not exacerbate the existing hot spot conditions. Comparatively, an area of 27,006 sf, or approximately 0.6 acres, of planned tree removal is within a non-EJ population and a hot spot. Further, the land will remain vegetated and therefore will not have the surface temperature increase that pavement or buildings would.

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1 NEP referenced the EEA's EJ Maps Viewer for detailed the EJ characteristics within the Project's DGA. The EJ Maps Viewer uses the Massachusetts 2020 EJ Block Groups (November 2022) Massachusetts Geographic Information System ("MassGIS") data layer, and can be access online at: https://mass-eoeea.maps.arcgis.com/apps/MapSeries/index.html?appid=535e4419dc0545be980545a0eeaf9b53

Of the 233.1 acres of total vegetative cover type conversion impacts for the Project, 23.7 acres are within EJ block groups (10.2 percent).

Overall, vegetative cover type conversion primarily occurs within non-EJ block groups (209.3 acres or 89.8 percent of the total 233.1 acres); As shown in **Table 2-1** below, NEP identified the EJ populations adjacent to tree removal activities. There are 5 EJ block groups that intersect planned tree removal area, compared to 30 non-EJ block groups. Due to the greater burden of tree removal on non-EJ block groups, no disproportionate adverse effects on EJ populations would occur from exacerbation of hot spot conditions nor overall vegetative cover type conversion. Therefore, no EJ-specific mitigation is necessary.

Regardless, NEP is committed to minimization and mitigation measures, as summarized in **Section 2.2** and expanded upon in **Section 8**. As part of the comprehensive mitigation package, NEP will work with NHESP, DCR, MassAudubon, and/or Land Trust Organizations to prioritize preserving forested open space to address both rare species and carbon impacts; NEP will consider proximity to EJ block groups as an evaluation criterion, pending land availability.

Further, the Project is not anticipated to have a significant impact to hydrology along the ROW, and by controlling run-on to and runoff from the access improvements using stormwater BMPs such as swales, check dams, and plunge pools to promote recharge within the vegetated Project ROW, the activities proposed by the Project do not pose significant impact on flooding under future climate conditions, including to adjacent EJ populations. Refer to **Section 7.3** and **Appendix F** for additional discussion on stormwater implications.

Table 2-1: Environmental Justice Block Groups Adjacent to Tree Removal Activities

Block Group	Census Tract	Municipality	Environmental Justice Criteria
4	408	Sunderland	Minority and income
4	415.02	Shelburne	Income
3	7262	Spencer	Income
3	7352	Leicester	Minority
2	7372	Millbury	Income

2.2 Summary of Minimization and Mitigation Measures

The Project design and impacts remain largely unchanged since the filing of the DEIR. The FEIR reaffirms that no significant disproportionate adverse effects with respect to environmental burden and/or public health to EJ populations will result from the Project. Mitigation measures will be taken to address any short-term impacts that result from the necessary activities to further the Project and its benefits. Mitigation measures including BMPs are further addressed in **Section 8** of the FEIR.

The Project generally minimizes impacts on all populations by refurbishing an existing transmission line within an existing transmission line corridor. Because of this, the Project does not result in any significant long-term environmental or public health impacts for any populations, including EJ populations. Temporary and permanent impacts from pre- and post-construction will be minimized and mitigated through BMPs. Following minimization and mitigation measures, construction period activities will not result in any adverse environmental or public health impacts to any population. The Project will provide residents with numerous benefits, including more reliable and safe electricity transmission.

Reliability benefits of the Project will be fairly shared by all residents served by NEP, including both EJ and non-EJ populations. The Project will improve storm resilience by reducing outage risk by trees or limbs that may fall during flooding, heavy snow and ice, and strong wind events, as well as improving access to structures during outages, thereby reducing storm restoration response times. More resilient infrastructure will be better suited to withstand and be restored from storm events, which will better serve both EJ and non-EJ populations during these events.

The voltage upgrade to 115 kV also supports the Commonwealth's climate goals, as stated in the Massachusetts 2050 Decarbonization Roadmap, and will accommodate future renewable energy systems and general electrification toward the goal of addressing and minimizing impacts of climate change. These system improvements and larger statewide electrification efforts benefit all populations by promoting public health with regard to future reduction of

air, water, and soil pollution.[2]

2.3 Public Involvement

Public involvement is an essential part of the MEPA review process. NEP has demonstrated compliance with the MEPA Public Involvement Protocol for EJ populations ("Public Involvement Protocol") throughout the MEPA process, documenting public involvement measures in the ENF, DEIR, and now in the FEIR.

Table 2-2: Public Involvement Activities During the MEPA Review Process

Date	Activities	Type/Location
September 17, 2024	Millbury, Auburn, and Leicester Open House	In-person – Millbury
July 17, 2024	West Brookfield, East Brookfield, North Brookfield, and Spencer Open House	In person – West Brookfield
June 26, 2024	Belchertown, Shutesbury, Pelham, and Ware Open House	In-person – Belchertown
June 11, 2024	Shelburne and Conway Open House	In-person – Shelburne
June 5, 2024	Sunderland, Leverett, and Deerfield Open House	In-person – Sunderland
April 1, 2024	Leicester Select Board Presentation	In-person - Leicester
March 26, 2024	Millbury Select Board Presentation	Virtual
March 25, 2024	Auburn Select Board Presentation	In Person - Auburn
March 19, 2024	Ware Select Board Presentation	Virtual
March 4, 2024	West Brookfield Select Board Presentation	In-Person – West Brookfield
March 3, 2024	Belchertown Select Board Presentation	Virtual
February 26, 2024	Spencer Select Board Presentation	In-Person - Spencer
February 13, 2024	Shutesbury Select Board Presentation	Virtual
December 18, 2023	Conway and Pelham Select Board Presentation	Virtual
December 11, 2023	Sunderland Select Board	Virtual
December 5, 2023	Leverett Select Board Presentation	In-person - Leverett
December 4, 2023	Shelburne Select Board Presentation	Virtual
November 26, 2024	MEPA Advance Notification (the EJ Screening Form) of the Project	Electronic Mail
December 19, 2024	MEPA Community Meeting	Virtual
February 11, 2025	MEPA Consultation Session	Virtual
November 20, 2025	MEPA Site Visit	In-person – Shutesbury and Spencer
December 10, 2025	Meeting for the Towns of Shutesbury, Pelham, Belchertown, and Amherst	In-person – Pelham

2.3.1 Public Involvement Prior to the FEIR

As the Public Involvement Protocol requires NEP to maintain the same level of meaningful outreach and community engagement throughout the process, summary of the public involvement activities maintained since the submission of the DEIR is detailed below.

NEP has undertaken additional public involvement measures during the MEPA process. These strategies were

2 Buonocore, J. J., Luckow, P., Norris, G., Spengler, J. D., Biewald, B., Fisher, J., & Levy, J. I. (2016). *Health and climate benefits of different energy-efficiency and renewable energy choices*. Nature Climate Change, 6(1), 100-105; Air pollution and your health. https://www.niehs.nih.gov/health/topics/agents/air-pollution/index.cfm.

determined based upon existing NEP stakeholder outreach methods and engagement strategies identified in the *MEPA Public Involvement Protocol for Environmental Justice Populations*. These methods and strategies were discussed and supported by the MEPA Office during a joint MEPA-EJ Pre-Filing Consultation on December 12, 2024.

NEP continued public involvement strategies from the ENF and expanded upon those strategies prior to filing the DEIR. A summary of the public involvement activities conducted prior to filing this FEIR are as follows:

- Advance Notification of the Project was sent via electronic mail on November 26, 2024, to the contacts on the EJ Reference List (provided by the MEPA Office on January 15, 2025).
- The EJ Screening Form contained information on how to request a meeting or additional Project materials.
- NEP hosted a virtual Community Meeting on December 19, 2024. Information pertaining to the meeting was advertised in the Worcester Telegram and Gazette, Greenfield Recorder, and The Republican and was also provided to the EJ Reference List via electronic mail.
- MEPA hosted a Consultation Session and virtual site visit on February 11, 2025 where NEP presented on the Project and addressed questions from attendees. The MEPA Analyst provided notification to the ENF Distribution List.
- A MEPA Site Visit was conducted on November 20, 2025 in coordination with MEPA during the review period of the DEIR. An invitation to attend the Site Visit was sent to MEPA and the DEIR Distribution List (refer to Appendix B of the DEIR), which includes the EJ Reference List.
- An updated EJ Reference List was requested on October 2, 2025.
- A targeted notice of the DEIR filing was sent to the Distribution List, which includes the EJ Reference List (refer to Appendix B), including mention of where the DEIR can be reviewed as an online PDF or how to request a hard copy.
- In response to the Secretary's Certificate, NEP contacted each municipality's public library and asked if they are interested in a physical copy, electronic copy, or no copy of the DEIR. Libraries responded with their preference, often dependent on physical space. Responses from the libraries are denoted in Appendix B of the DEIR.
- A virtual meeting was requested by and held with state and local legislators to review the Project on February 24, 2025.
- An in-person meeting was held at the Pelham Public Library on December 10, 2025, to engage the Towns of Shutesbury, Pelham, Belchertown, and Amherst, at the request of the Town of Shutesbury. Members of the public and Town representatives attended.
- Updated PowerPoint presentation slide decks were sent to various members of each municipality, including Town Administration, the Police Department, the Fire Department, the Department of Public Works/Highway Department, and the Selectboard, where emails were readily available. Some communities did not receive the updated slide deck due to contact information being unavailable on municipal websites; however, messages were submitted through online portals with information regarding the purpose of the effort.
- NEP continued to coordinate with the Kestrel Land Trust, including the site visit conducted on October 15, 2025.
- NEP continued to engage and meet with landowners.
- The website address (https://cmatowmaenergy.com/) was updated and will be maintained throughout the MEPA review process.
- A PDF of the DEIR was uploaded to the Project website.
- The Project email address (info@cmatowmaenergy.com) and Project hotline (888-431-3536) were maintained and monitored.
- The DEIR Distribution List was actively maintained for continued engagement (refer to Appendix B of the DEIR).
- Outreach to the public continued to be communicated in clear, understandable language and in a user-friendly format.
- To maximize reach and create alignment with local information sharing processes, NEP requested that municipality administrators share the Project website and any meeting notices through their own websites and media channels.

2.3.2 Public Involvement for the FEIR

NEP continued public involvement strategies from the DEIR and expanded upon those strategies prior to filing the FEIR. A summary of the public involvement activities conducted prior to filing the FEIR are as follows:

- A Project mailer was distributed in April 2026.
- A targeted bat monitoring mailer was distributed in June 2026.
- Coordination with the University of Massachusetts ("UMass") Department of Conservation is ongoing, including a meeting on June 12, 2026. A site visit will be scheduled in the future.
- Coordination with the Town of Amherst Department of Public Works is ongoing, including a meeting on March 11, 2026 and a site visit on August 25, 2026.
- Notification and engagement of landowners is ongoing and available upon request.
- Public Comment Hearings were held in January 2026 for the EFSB process, which discussed MEPA topics.
- The FEIR Distribution List was actively maintained for continued engagement. The EJ Reference List was updated on August 5, 2026, which is included in **Appendix B**.
- NEP contacted each municipality's public library that requested an electronic or physical copy of the DEIR filing to ask if they are interested in a physical copy, electronic copy, or no copy of the FEIR. All libraries responded with their preference, except for the Tilton Library in Deerfield; since this library requested a copy of the DEIR, a physical copy of the FEIR will be sent. Updated responses from the libraries are denoted in **Appendix B**.
- Outreach to the public continues to be communicated in clear, understandable language and in a user-friendly format.
- The website address (https://cmatowmaenergy.com/) was updated and will be maintained throughout the MEPA review process.
- A PDF of the FEIR was uploaded to the Project website.
- The Project email address (info@cmatowmaenergy.com) and Project hotline (888-431-3536) have been maintained and monitored throughout the MEPA review process.

2.3.3 Planned Public Involvement After MEPA Review

NEP plans to maintain the same level of meaningful outreach and community engagement after the MEPA review process. A summary of these continued public involvement strategies include:

- Should there be any request for additional meetings, NEP will accommodate and conduct additional meetings.
- NEP will evaluate and implement the best communication practices to inform the public about any additional meetings.
- Should individuals request interpretation services in advance of future meeting dates, NEP will make best efforts to translate the documents provided to EJ populations and provide any requested interpretation.
- As part of the permitting process, NEP will be filing a 401 application which will be noticed in the environmental monitor and will have a public comment period.
- As part of the local review process, NEP will file a Notice of Intent ("NOI") within each municipality for review under the Wetlands Protection Act ("WPA") and local wetland protection bylaws.
- As part of the NOI process, abutters of the Project shall be notified prior to the public hearing and will be provided with contact information on who to submit questions to as well as how to attend/participate in the public hearing.
- Abutters and members of the public will be able to participate in those local hearings.
- NEP shall publish a legal notice in the newspaper of local circulation prior to the public hearing, and the Conservation Commission shall post the agenda of the meetings in advance.

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3 Article 97 and Open Space

This section responds to the Certificate by providing an overview of: NEP access rights (**Section 3.1**); existing and proposed conditions for open space and Article 97 lands (**Section 3.2**), coordination with DCR and other Article 97 landowners (**Section 3.3**); an updated impact analysis related to land use and open space (**Section 3.4**); and a summary of proposed avoidance, minimization, and mitigation measures (**Section 3.5**). The FEIR Plans in **Appendix A** depict areas of proposed impact (e.g., structure installations, access improvement, work envelopes, tree removals, etc.) associated with the Project.

3.1 Access Rights

The existing rights of NEP to access the Project ROW pre-date Article 97. Planned activities, including access improvements which are required to access the ROW, do not constitute a change in use nor land disposition that would trigger Article 97, nor the associated Public Lands Preservation Act ("PLPA"). No new permanent access routes are proposed outside of the existing ROW on Article 97 Lands.

Parts of the NEP ROW are landlocked due to terrain, waterways, no-access highways and/or environmentally sensitive areas. NEP's easements include the right to access over the granting owner's land to get to the NEP ROW. NEP has planned to use existing, historically used access routes to minimize impacts to the environment and the landowner. NEP is committed to minimizing the scope of off-ROW alterations and will coordinate with the applicable landowners, land managers, and permitting agencies regarding restoration of off-ROW disturbance on publicly owned lands, consistent with applicable permits, landowner requirements, and the intended post-construction use of the property. Further, NEP is not performing any work on any parcel identified as Article 97 land without existing, formally recorded easements; as such, no new formally recorded easements on Article 97 land will need to be acquired.

The Project design reflects NEP's significant efforts first to avoid and then to minimize adverse impacts to the land surrounding the Project ROW within Article 97 Lands to the extent practicable. All proposed work is authorized under NEP's existing easements and no new easements within Article 97 Lands are proposed or required for the Project.

3.1.1 New Easement Access

NEP has undergone extensive analysis of the viable access alignments and routes required to support the Project. NEP has identified parcels that require additional easement rights to meet design criteria since filing the DEIR. The DEIR stated that one new off-ROW access route in Deerfield and limited work area in Millbury would require additional easement rights. After subsequent design changes and conversations with landowners, there are 10 parcels on-ROW and three off-ROW access routes that require additional easement rights. Otherwise, the Project is located entirely within existing ROW corridors held in fee or easement by NEP. A table of these parcels and off-ROW access routes is provided in **Table 3-1** below. None of these parcels or off-ROW access routes involve parcels identified as Article 97 land.

Table 3-1: Updated List of New Easement Rights

Municipality	Current Land Use	Area (square feet [sf])
Millbury, MA*	Residential	31,470 sf
	Residential	3,369 sf
	Residential	19,755 sf
	Residential	1,732 sf
	Vacant	32,545 sf
Auburn, MA	Industrial	~80,000 sf
	Industrial	~40,000 sf
East Brookfield, MA	Industrial	~10,000 sf
Ware, MA	Exempt	~2,000 sf
Deerfield, MA	Transportation	~2,000 sf
North Brookfield, MA	Mixed Use	~2,500 sf
Pelham, MA	Residential	~43,560 sf
Deerfield, MA*	Vacant	~60,000 sf

* Parcels and off-Right-of-Way ("ROW") access routes referenced in the Draft Environmental Impact Report ("DEIR") as requiring additional easement rights.

3.2 Existing and Proposed Conditions

The existing land use and open space conditions along the Project ROW were characterized in detail in Section 4.1 of the DEIR. This section summarizes those existing conditions and describes the proposed conditions for the public open space and land protected under Article 97 transected by the Project. A quantified analysis of Project impacts is provided in **Section 3.3**.

3.2.1 Existing Conditions and Land Use

The Project ROW has been actively used and maintained as a transmission line corridor since the early 1900s, and the E5/F6 Lines and Tap Lines remain in active utility use (refer to Section 4.1.1 of the DEIR). As summarized in Section 4.1.2 and Table 4-2 of the DEIR, 54 federal, state, municipal/local, private, non-profit owned open space and recreation lands intersect the Project ROW, comprising approximately 237 acres of open space in the ROW. These resources are depicted in the FEIR Plans in **Appendix A**, and the 35 properties that are protected by Article 97 are listed in **Table 3-2**.

The primary uses of these protected lands include recreation, conservation, water supply protection, agriculture, public access, and timber management. Recreational uses include parks and trails; conservation uses include protected open space, wildlife habitat, and working forests; water supply protection includes the Quabbin Reservoir Watershed and municipal water supply lands; agricultural uses include lands under Agricultural Preservation Restrictions ("APRs"); public access is provided through DCR parks, forests, and trail networks; and timber management includes forested land which may overlap areas identified as open space. **Section 3.3.2** and **Table 3-2** describe open space properties identified as Article 97 open spaces.

DCR-managed lands along the Project corridor fall into two distinct management categories: lands managed by the DCR Division of Water Supply Protection, Office of Watershed Management ("DWSP") for protection of the Commonwealth's public drinking water supply within the Quabbin Reservoir watershed, and lands managed by the DCR State Parks and Recreation Division, including state parks, state forests, and other recreational properties. Although both are owned or managed by DCR, these lands are administered under different management objectives, operations, and access requirements. Accordingly, restoration and long-term

management commitments are described separately where applicable.

DCR owns or manages approximately 167 acres within the Project ROW. The DCR State Parks and Recreation lands consist of four state parks and state forests, including the Connecticut River Greenway State Park, South River State Forest, Spencer State Forest, and West Brookfield State Forest. The DWSP lands consist of the Quabbin Reservoir watershed and the Ware watershed (refer to **Section 4.1.3** and **Section 4.1.4**, including **Table 4-3** and **Table 4-4**, of the DEIR). No Project activities will occur within the Ware watershed.

3.2.2 Proposed Conditions

The Project will not change the existing use of the ROW or of the surrounding open space lands. The ROW will continue to function as an actively maintained transmission corridor, and the intersecting open space lands will continue to serve their existing recreation, conservation, water supply protection, agricultural, public access, and timber management functions following construction.

Proposed activities within Article 97 and open space lands consist of structure maintenance and replacement, access improvements, work area grading, vegetative cover type conversion (tree removal, off-ROW selective tree removal, and pruning), and the placement of temporary construction matting. These activities are authorized under NEP's existing easements, which predate the establishment of the applicable Article 97 protections; no new easements or other permanent grant of rights are required. A quantified breakdown of these impacts by land cover type, land use type, and Article 97 landowner classification is provided in **Section 3.4** (**Table 3-3**, **Table 3-4**, and **Table 3-5**).

Temporary disruption to public trails and recreational access during construction will be managed in coordination with applicable public and private land managers to maintain public safety and to minimize disruption to trail use; affected trail segments will be returned to their existing use following construction. Proposed avoidance, minimization, and mitigation measures, including measures applicable to trails, are described in **Section 3.5.1**.

Permanent impacts proposed within open space areas are the conversion of vegetative cover along the forested edges of the ROW, which will be maintained as low-growing herbaceous or scrub/shrub communities consistent with the long-standing, ongoing vegetation maintenance of the corridor. This maintained condition is consistent with the historical use of the ROW and does not alter the underlying use or ownership of the affected open space. Temporary impacts proposed within open space areas include the use of construction matting, and off-ROW access noted as "temporary" will be restored to existing conditions in coordination with landowners, and off-ROW areas serving recreational or public access functions will be restored consistent with their intended use following construction.

For work on land managed by DCR Division of State Parks and Recreation, NEP will obtain a Construction and Access Permit ("CAP") for temporary off-ROW access improvements, which will include conditions for construction access activities occurring within three of the four DCR State Parks intersected by the Project ROW: Connecticut River Greenway State Park, South River State Forest, and Spencer State Forest. NEP will also obtain the Quabbin/Ware River Vehicular Access/Short-term Access Permit from the DCR DWSP to facilitate access through DCR watershed gates. Access through these gates are required for Project activities, including structure replacement activities. Consultation with DCR across these jurisdictions is ongoing; additional details on correspondence during the MEPA review process is provided in **Section 3.3**. No new permanent access routes are proposed outside of the existing ROW within DCR-managed land; unless requested by DCR and noted accordingly, all off-ROW access routes within DCR-managed land will be restored to existing conditions following construction.

3.3 Coordination Since the DEIR

This section provides an update of DCR coordination since the DEIR, and landowner engagement for parcels identified as land protected under Article 97, as requested in the Certificate.

3.3.1 DCR Coordination

NEP has continued its consultation with DCR State Parks and Recreation and the DCR DWSP. During and following the DEIR review period, both DCR State Parks and Recreation and DCR DWSP reviewed the easement documents provided by NEP.

NEP has engaged in ongoing coordination with both DCR State Parks and Recreation and DCR DWSP through a series of site visits and meetings. NEP met with DCR State Parks and Recreation Division on September 24, 2025 for a site visit of the South River State Forest (Conway) and Connecticut River Greenway State Park (Deerfield) to review access; on October 22, 2025 for a site visit of Spencer State Forest (Spencer); and will continue to coordinate on access scope modifications. The Appalachian Mountain Club was also invited to the October 22, 2025 site visit. NEP met with DWSP on August 18, 2025, to review the access proposal; on October 29, 2025, for a site visit review of access locations to the west of the Quabbin Reservoir; on December 2, 2025 for a virtual meeting to review access locations to the east of the Quabbin Reservoir; and on June 1, 2026 to review access scope modifications. NEP intends to submit a request for a CAP for lands managed by DCR State Parks and Recreation in August 2026. The timeline and process for the submittal of the Quabbin/Ware River Vehicular Access/Short-term Access Permit is part of the continued coordination NEP and DCR DWSP will be undertaking leading up to construction start. Since these permits are issued to specific vehicles, it is not expected these will be obtained until closer to the start of construction. It is anticipated the CAP will include conditions that off-ROW impacts within lands managed by DCR State Parks and Recreation will be restored to existing conditions to the extent practicable, consistent with the current recreational use of the affected areas. Restoration of off-ROW impacts on DWSP Quabbin Reservoir watershed lands will be developed in coordination with DWSP to protect water quality and watershed resources.

3.3.2 Article 97 Landowner Coordination

Protected open space and recreation land uses were identified using MassGIS data and are depicted in the FEIR Plans in **Appendix A**. The summary of open space and recreation resources identified for the Project in the DEIR remains accurate. No open space or recreation resources are located within the Project ROW nor off-ROW access routes in the Towns of East Brookfield and Buckland. There are 54 federal, state, private, municipal/local, and non-profit-owned open space lands that intersect the Project ROW, consisting of approximately 237 acres of open space within the Project ROW. The primary purposes of these protected lands include recreation, conservation, water supply protection, and cultural/historical preservation.

Table 3-2 below highlights the 35 properties identified as Article 97 land and coordination that has occurred with each respective landowner. As previously stated, Article 97 protection was applied to these properties after both ROW and off-ROW access rights for utility use were established, and there is no change in use nor other land disposition proposed that would require Article 97 compliance.

Table 3-2: Article 97 Properties within the Project ROW

Municipality	Site Name[1]	Owner	Consultation Status
Auburn	Auburn Recreation Complex	Town of Auburn	Open House held on September 17, 2024 and Select Board Presentation held on March 25, 2024.
	Water Tank	Town of Auburn Water District	Open House held on September 17, 2024 and Select Board Presentation held on March 25, 2024.
Belchertown	Quabbin Reservoir Watershed	Massachusetts Department of Conservation and Recreation (“DCR”) - Division of Water Supply Protection	Part of ongoing DCR Division of Water Supply Protection, Office of Watershed Management (“DWSP”) coordination.

Municipality	Site Name[1]	Owner	Consultation Status
Conway	Deerfield River (USGen New England) - Great River Hydro Conservation Restriction ("CR")	Great River Hydro ("GRH")	Special outreach to GRH concerning engineering and design (Structure #610) at 3186 Shelburne Falls Road.
	South River State Forest	DCR - Division of State Parks and Recreation	Part of ongoing DCR State Parks and Recreation coordination.
	Totman Farm Agriculture Preservation Restriction ("APR")	L&B Totman Farm IRR RE Trust (now Gary Totman, TTEE)	Notice for use of the farm road for access to the power lines.
Deerfield	Bridges DLT APR	Dayle Annette Best and Gary Best (Richard Bridges is now deceased)	Notice for use of the farm roads for access to the power lines.
	Connecticut River Greenway State Park	DCR - Division of State Parks and Recreation	Part of ongoing DCR State Parks and Recreation coordination.
	Deerfield River (USGen New England) - Great River Hydro CR	GRH	No specific coordination for the portion of this property in Deerfield has occurred; however, NEP has been in coordination with GRH for work in Conway.
	Mill Village	Mill Village Inc and Walter Melnik	Open House held on June 5, 2024.
	New England Forestry Foundation - Tabak Forest CR	New England Forestry Foundation	Open House held on June 5, 2024.
Leverett	Adams Family Conservation Area	Town of Leverett	Open House held on June 5, 2024 and Select Board Presentation held on December 5, 2023.
	Heronemus Forest	Kestrel Land Trust	Meeting held on October 15, 2025. Coordination will continue ahead of construction to develop a trail restoration plan.
	Teawaddle Hill Farm CR	Teewaddle Trust	Open House held on June 5, 2024 and Select Board Presentation held on December 5, 2023.
	Williams Family Conservation Area	Town of Leverett	Open House held on June 5, 2024 and Select Board Presentation held on December 5, 2023.

Municipality	Site Name[1]	Owner	Consultation Status
North Brookfield	Donovan Road Conservation Area	Town of North Brookfield	Open House held on July 17, 2024.
	Edwards George L APR	Edwards, George L and Hanna S	Open House held on July 17, 2024.
	Fullam Hill Road Conservation Area	Town of North Brookfield	Open House held on July 17, 2024.
	North Brookfield Town Forest	Town of North Brookfield	Open House held on July 17, 2024.
Pelham	Amherst Water Supply Land	Town of Amherst	Meeting with Town of Amherst's Department of Public Works on March 11, 2026.
	Amherst Watershed	Town of Amherst	Meeting with Town of Amherst's Department of Public Works on March 11, 2026.
	Buffam Brook Community Forest	Kestrel Land Trust	Site visit conducted with Kestrel Land Trust on October 15, 2025.
	Buffam Brook Road Conservation Area	Town of Pelham	Open House held on June 26, 2024, Select Board Presentation held on December 18, 2023, and municipal meeting held on December 10, 2025.
	Cadwell Memorial Forest	Commonwealth of Massachusetts *Managed by University of Massachusetts ("UMass")*	Meeting held on June 12, 2026 and discussed construction timeline and use of access routes. A follow-up meeting with NEP's Forestry team and UMass Forestry employee was requested by UMass.
	Quabbin Reservoir Watershed	DCR - Division of Water Supply Protection	Part of ongoing DCR DWSP coordination
	Deerfield River (USGen New England) - Great River Hydro CR	GRH	No specific coordination for the portion of this property in Deerfield has occurred; however, NEP has been in coordination with GRH for work in Conway.
Shutesbury	Amherst Watershed	Town of Amherst	Meeting with Town of Amherst's Department of Public Works on March 11, 2026.
	Conservation Area	Town of Amherst	Meeting with Town of Amherst's Department of Public Works on March 11, 2026.
	Walter Cowls Jones Working Forest WCE	W. D. Cowls Inc.	Standard project outreach for notice of activities. The access license is in NStar ROW.

Municipality	Site Name[1]	Owner	Consultation Status
Spencer	Bixby Road CR	South Middlesex Non-Profit Housing Corporation	Open House held on July 17, 2024.
	O'Gara Park	Town of Spencer	Open House held on July 17, 2024, Select Board Presentation held on February 26, 2024.
	Spencer State Forest	DCR - Division of State Parks and Recreation	Part of ongoing DCR State Parks and Recreation coordination
Sunderland	Mt. Toby Wildlife Management Area ("WMA")	Massachusetts Department of Fish and Game (DFG)	DFG has been engaged through the MassWildlife's Natural Heritage & Endangered Species Program ("NHESP") permitting process.
	Patterson Donald F Jr APR	Patterson, Donald F Jr and Susan T	Open House held on June 5, 2024.
Ware	Quabbin Reservoir Watershed	DCR - Division of Water Supply Protection	Part of ongoing DCR DWSP coordination.
	Ware Water Supply Land	Town of Ware	Open House held on June 26, 2024, Select Board Presentation held on March 19, 2024.
West Brookfield	Kibbe Corydon W APR	Kibbe, Corydon W and Nancy N	Open House held on July 17, 2024.
	West Brookfield State Forest	DCR - Division of State Parks and Recreation	Part of ongoing DCR State Parks and Recreation coordination.

Source: MassGIS, Protected and Recreational Open Space. August 2026.

1 All Site Names appear consistent with how they appear on the MassGIS Protected and Recreational Open Space data layer. Parcels with similar names were left separate to remain consistent with the publicly available data. Some parcels are located in more than one municipality and are listed multiple times; however, they are only counted as one property in the count of 35 properties.

3.4 Summary of Updated Project Impacts

The following sections provide an updated open space impact analysis for both on and off-ROW since the DEIR.

3.4.1 Updated Land Use and Open Space Impacts

Throughout the design process, NEP has undergone extensive analysis of the viable access alignments and routes required to support the Project. Where possible, access and new disturbances have been contained to the existing, maintained ROW. As discussed previously, in some cases, steep and rocky terrain, waterbodies, and other site-specific constraints make on-ROW access impossible, infeasible, or unsafe (refer to the FEIR Plans in **Appendix A**). In such cases, access outside of the existing ROW is necessary. When access has been sited outside of the ROW, existing roads, historically developed routes, and trails will be utilized. NEP determined that the development of temporary improvements to existing, historical access routes off-ROW is necessary to safely facilitate equipment access.

Access development for off-ROW access is comprised of two elements:

- Temporary improvements to existing, discernable historical access routes
- Placement of temporary construction matting to access areas within or near wetland resource areas

Activities proposed within Article 97 lands (refer to Table 3-2) include structure maintenance and replacements, access improvements, work area grading, tree removals, and the use of temporary construction matting. NEP's easements provide all legal rights necessary to perform these activities. No additional easements or other permanent grant of rights are necessary to perform the activities.

The following tables provide updated impact calculations in a consistent format to the tables provided in Section 4 of the DEIR. Table 3-3 summarizes Project impacts by land cover type; Table 3-4 summarizes anticipated impacts by land use type, including all DCR properties; and Table 3-5 provides temporary impacts and permanent alterations within the following DCR properties: South River State Forest, Connecticut River Greenway, West Brookfield State Forest, Spencer State Forest, and the Quabbin Reservoir Watershed.

Table 3-3: Summary of Project Impacts by Land Cover Type

Cover Type	Temporary Impacts			Permanent Impacts		
	Matting (acres)	Work Areas[1] (acres)	Access (acres)	Work Areas[1] (acres)	Access (acres)	Vegetative Cover Type Conversion (acres)
Bare Land	0.1	2.5	<0.1	0.1	<0.1	0.1
Cultivated	2.3	0.4	<0.1	<0.1	0.2	0.5
Deciduous Forest	17.1	42.5	0.4	9.3	5.5	95.8
Developed Open Space	11.6	3.3	<0.1	4.9	0.8	2.9
Evergreen Forest	6.8	26.9	0.2	3.7	4.0	62.3
Grassland	16.1	97.8	0.2	23.9	12.7	26.4
Impervious	1.2	0.7	<0.1	2.7	0.5	4.1
Pasture/Hay	12.8	0.9	0	1.0	0.4	1.0
Scrub/Shrub	10.6	26.2	0.1	10.2	5.0	16.6
Palustrine Aquatic Bed	<0.1	0	0	<0.1	0	0
Palustrine Emergent Wetland	1.6	0.7	0	<0.1	0.1	0.4
Palustrine Scrub/Shrub Wetland	1.6	0.4	<0.1	0.4	<0.1	0.8
Palustrine Forested Wetland	0.4	0.1	<0.1	0.2	<0.1	1.2
Wetland (Delineated and MassDEP)	44.0	<0.1	0	<0.1	0	20.2
Water (Delineated and MassDEP)	0.9	<0.1	0	<0.1	0	1.4

Source: MassGIS, Land Use/Land Cover. May 2019. Augmented with field delineated wetland and water resource areas.
Note: Data were generated using publicly available GIS data (MassGIS 2016 Land Cover/Land Use), and existing land cover types were not ground-truthed as part of this analysis. The analysis is for informational purposes only to address the Certificate.
Off-ROW impacts to public recreational trails will be temporary and restoration measures will occur in coordination with landowners or land managers.

1 Work areas includes structures, work pads, pull pads, and the conservative limit of disturbance around the pads.

Table 3-4: Summary of Impacts by Land Use Type

Open Space	Construction Matting (acres)		Work Areas[1] (acres)		Access (acres)		Vegetative Cover Type Conversion (acres)	
	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW
	Massachusetts Department of Conservation and Recreation ("DCR")							
Temporary	18.5	1.8	39.4	0.4	<0.1	0.4	N/A	N/A
Permanent	N/A	N/A	9.0	0.1	3.3	0.9	29.2	10.3
	Municipal Land							
Temporary	4.3	0	11.5	0.2	<0.1	0	N/A	N/A
Permanent	N/A	N/A	4.1	0.1	0.7	0.2	10.6	1.0
	Non-Profit Land							
Temporary	<0.1	0	0	0	0	0	N/A	N/A
Permanent	N/A	N/A	0.2	0	<0.1	0	0.4	0
	Land Trust Land							
Temporary	2.2	<0.1	12.0	0.3	0	0	N/A	N/A
Permanent	N/A	N/A	2.1	<0.1	0.9	0.5	6.6	2.7
	Department of Fish and Game ("DFG")							
Temporary	1.7	<0.1	3.5	0.2	0	0	N/A	N/A
Permanent	N/A	N/A	0	0	0	0.4	1.8	2.4
	Town of Amherst[2]							
Temporary	2.4	<0.1	5.1	0.2	0	0	N/A	N/A
Permanent	N/A	N/A	1.9	<0.1	0.4	0.1	6.1	0.7
	University of Massachusetts ("UMass")							
Temporary	1.9	0.3	2.0	<0.1	0	0	N/A	N/A
Permanent	N/A	N/A	0.3	<0.1	0.3	0.4	0.7	3.3
	Private Land							
Temporary	11.8	1.0	1.2	0.0	<0.1	<0.1	N/A	N/A
Permanent	N/A	N/A	7.8	0.1	2.6	0.9	20.0	7.2

Source: MassGIS, Protected and Recreational Open Space. August 2026.
Note: The access category includes the Limit of Disturbance for access, which provides a conservative estimate which extends past the anticipated width of access routes.
Off-ROW impacts to public recreational trails will be temporary and restoration measures will occur in coordination with DCR.

1 Work areas include structures, work pads, pull pads, and the conservative limit of disturbance around the pads.

2 The Town of Amherst is included as a landowner in this table instead of in the Municipality Tables in **Appendix C** because while they are not officially a Town within the Project ROW, the Town does own land in other municipalities within the Project ROW.

Table 3-5: Summary of Off-ROW Impacts in DCR State Parks and Quabbin Reservoir Watershed

Off-ROW Impacts	Connecticut River Greenway State Park	South River State Forest	Spencer State Forest	West Brookfield State Forest	Quabbin Reservoir Watershed
Temporary Impacts					
Construction Matting (acres)	0.3	0.1	0.1	0	1.3
Temporary Access (acres)	<0.1	0.3	0.1	0	0
Temporary Work Areas (acres)	<0.1	<0.1	<0.1	0	0.4
Permanent Alteration					
Access (acres)	0	0	0	0	0
Vegetative Cover Type Conversion					
Tree Removal (acres)	<0.1	0	0	0	1.6
Selective Tree Removal (acres)	0.4	1.2	0.4	0	2.6
Pruning (acres)	0	0	0	0	4.0

Source: MassGIS, Protected and Recreational Open Space. August 2026.

3.5 Summary of Minimization and Mitigation Measures

NEP prioritizes avoiding and then minimizing adverse impacts to the land surrounding the Project boundaries to the extent practicable. The Project is located entirely within an existing transmission ROW, substantially reducing the need for new land disturbance and minimizing changes to existing land uses during construction and operation. Where feasible, new foundations have been sited to avoid adverse impacts, proposed structures have been located in proximity to existing structures, transmission spans have been designed to avoid or minimize crossings of resource areas, incompatible vegetation will be removed only where necessary for safe operation, and existing upland roadways will be used for construction access.

Access construction and improvements will be carried out in compliance with applicable federal, state, and local permits and approvals. Project-specific mitigation measures include implementation of long-term vegetation management, restoration and revegetation of disturbed areas following construction, coordination with applicable landowners and land managers regarding trail access and restoration where applicable, and erosion, sediment, and stormwater controls to protect adjacent resources and water quality. Dust suppression measures, including water trucks, will be used as needed to minimize fugitive dust from construction vehicle travel along the ROW, while crushed stone aprons/tracking pads will be installed at access points to public roadways, as appropriate, to minimize off-site soil tracking. Stormwater best management practices (“BMPs”) will be implemented during construction, and NEP will prepare and implement a Stormwater Pollution Prevention Plan (“SWPPP”) in accordance with the EPA's National Pollutant Discharge Elimination System (“NPDES”) Construction General Permit (“CGP”). Additional information on vegetation management, restoration, stormwater protection, and other mitigation measures is provided in **Section 8** (including **Table 8-1**) and the applicable resource-specific sections of this FEIR.

3.5.1 Hiking Trails

NEP recognizes the importance of maintaining safe public access to recreational trail networks within and adjacent to the Project ROW during construction. In response to the Certificate, NEP will continue to coordinate with DCR, Kestrel Land Trust, Appalachian Mountain Club (“AMC”), and other affected landowners and land managers to design and implement trail restoration and trail safety and closure plans. Site-specific measures will be developed in coordination with the applicable landowner or land manager, taking into consideration public safety, existing site conditions, intended recreational use, operational requirements, and the reasonableness and practicality of proposed measures. Public trails will be restored in coordination with applicable landowners.

NEP will coordinate with local authorities for work on local streets and trails. At locations where construction equipment must be staged in a public way, the contractors will follow a pre-approved work zone traffic control plan. Measures implemented during construction may include temporary trail detours or bypasses, signage and public notification, temporary trail closures where necessary to maintain public safety, coordination of construction timing to minimize disruption to trail use, stabilization of disturbed trail surfaces, and restoration of affected trail segments, as appropriate. Trail and project information, including by-passes and closures, will be made available to DCR and other applicable organizations at least 30 days in advance of the initiation of any project activity so it can be posted in additional locations and online, and/or other accessible formats and platforms.

Additionally, erosion and sediment control BMPs will be implemented during the construction of the Project. Erosion and sediment control BMPs will function to mitigate construction-related soil erosion and sedimentation and will also serve as a physical boundary to delineate resource areas and to contain construction activities within approved areas. NEP contractors, supervisors, and environmental monitors will regularly monitor installed controls. NEP remains committed to continued coordination with DCR and other recreational land managers throughout the Project permitting and construction process.

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4 Wetlands, Waterways, and Public Drinking Water Supply

This section responds to Certificate comments regarding the Watershed Protection Act ("WsPA") (**Section 4.1**), Coldwater Fisheries (**Section 4.2**), and Chapter 91 (**Section 4.3**); provides an updated impact analysis since the DEIR (**Section 4.4**); and summarizes minimization and mitigation measures (**Section 4.5**).

4.1 Watershed Protection Act

The WsPA regulates land use and activities within designated critical areas of the Quabbin Reservoir, Ware River, and Wachusett Reservoir watersheds to protect the source of drinking water supplied by the Massachusetts Water Resources Authority (MWRA). The Project ROW transects primary and/or secondary WsPA Zones associated with the Quabbin Reservoir and associated tributaries, including Cadwell Creek (near Packardville Road in Belchertown), two unnamed perennial tributaries (near Old Enfield Road and Earley Street, Belchertown), and the Quabbin Reservoir itself (near Blue Meadow Road in Belchertown). The Project ROW is outside of the Ware River and Wachusett Reservoir watersheds; thus, no impacts will occur.

Following a DCR-DWSP site visit and coordination with DCR-DWSP's Regional Planner, DCR-DWSP concurred that Project activities are consistent with the maintenance, repair, and replacement exemption for existing public utility facilities under 313 CMR 11.05(11) and, where work occurs in Bordering Vegetated Wetlands, 313 CMR 11.05(12). NEP's transmission easements and the E5/F6 Lines predate July 1, 1992, establishing the "lawfully located" predicate for the public utility exemption under 313 CMR 11.05. Accordingly, NEP will submit a WsPA Determination application documenting the Project's consistency with the applicable maintenance exemption. Off-ROW access was reviewed during the site visit and subsequent coordination; DCR-DWSP requested the opportunity to identify specific improved access routes to remain following construction for their own maintenance and use. These access routes were preliminarily identified, but will be solidified through the Quabbin/Ware River Vehicular Access/Short-term Access Permit process. NEP also revised the design of one Type S access route as part of this coordination with DCR-DWSP, which was previously located in proximity to a tributary flowing directly into the Quabbin Reservoir. This access route will now be matted rather than constructed as a Type S access route.

Throughout construction, NEP will make every effort to conform with the General Rules and Regulations (313 CMR 11.09), will implement BMPs, a SWPPP, erosion and sedimentation controls, construction matting, and dewatering and spill-response protocols to protect the waters of the watershed from erosion, sedimentation, and other pollution.

4.2 Coldwater Fisheries

There are 25 streams within the Project area that have been designated by the Massachusetts Division of Fisheries and Wildlife ("DFW") as significant Coldwater Fisheries Resources ("CFRs"). Project activities proposed include vegetation management and tree removal in proximity to stream banks, and the installation of temporary construction matting to span watercourses. The Project does not propose permanent stream crossings or permanent in-channel fill. Impacts to CFRs will be avoided and minimized through the use of BMPs applicable to the protection of all waterways and wetlands. These include:

- Sediment and erosion controls will be used during construction to prevent run-off and sediment entering wetlands and streams. Controls will be inspected and maintained regularly, and sediment build-up will be removed. Runoff from the concrete caissons and surrounding access is also generally buffered by shrubby and forested vegetation where recharge will occur naturally. Additionally, NEP has evaluated the stormwater implications of proposed tree removals and conversion to lower scrub-shrub vegetation, which will be allowed to regrow. The change in peak discharge rates, specifically associated with tree removal, are negligible.

- Where tree removals or tree trimming are required within proximity to streams (including CFRs), removals will be performed in a manner that retains as much understory vegetation as possible. This will help to minimize loss of overhanging vegetation, and reduce potential temperature impacts on watercourses. NEP has made efforts to minimize vegetation removal along Bank habitat (including Banks of CFRs). Where vegetation removal is required, this will be limited to the edge of the existing open portion of the ROW and off-ROW access routes.
- Where tree removals are performed within proximity to wetlands and streams, root balls will be left in place to maintain soil and bank stability until understory vegetation can reestablish.
- Where matting is used to span streams (including CFRs), shading and thermal impacts will be minimal – matting will be limited to a stream span width of 16-ft and will be removed once construction is complete.

4.3 Chapter 91

NEP met with MassDEP Waterways on June 30, 2026 to review the 22 perennial non-tidal river and streams proposed to be crossed using temporary timber mats during construction. The consultation and subsequent correspondence concluded that none of the perennial streams, for which temporary construction-phase crossings are proposed, are navigable as defined by the Massachusetts Waterways Regulations at 310 CMR 9.04, nor are the 22 non-tidal river or stream crossings proposed within any geographic area subject to Chapter 91 jurisdiction. MassDEP Waterways determined that no further review or approval of the proposed work is required under G.L. c.91 or the Waterways Regulations.

The memorandum summarizing the MassDEP Waterways meeting and MassDEP Waterway's written concurrence are provided in **Appendix D**. No new licensing will be required for the Project and all of the jurisdictional overhead line crossings can be addressed through applicable exemptions in 310 CMR 9.05. The FEIR Plans in **Appendix A** display the location of stream crossings.

4.4 Summary of Updated Impacts

The following sections provide updated impact analysis based on the content and tabular format in the DEIR.

4.4.1 Wetlands

As noted in the DEIR, NEP has made considerable efforts to avoid, minimize, and, where impacts are unavoidable, mitigate impacts to wetland resource areas. Wetland impacts from the Project remain largely unchanged since submission of the DEIR, but in response to comments received, NEP has provided a more comprehensive break-down of wetland impacts by municipality in **Appendix E**, and measures taken during Project design to avoid and minimize impacts.

Overall, temporary impacts to wetland resource areas are anticipated to be moderate during construction and insignificant over the long-term. Temporary impacts to wetland resource areas from the Project will result from the placement of construction mats for access and work pads, which will be removed post-construction. As well as being restored and re-vegetated, gravel access and work pads within BLSF will be over-excavated to avoid any loss of flood storage capacity. No gravel will be placed within BVW; construction matting will be used exclusively for access and work pads where they overlap wetlands.

Permanent impacts to BVW will result from the replacement of 53 structure foundations. The locations and details of the structure replacements associated with permanent fill were provided in Table 5-3 of the DEIR. Mitigation is proposed for permanent fill within wetlands as described in **Section 8**. The Project will result in a permanent conversion of the vegetative cover type within resource areas associated with tree removal. Vegetative cover type conversion does not result in the loss of wetlands, but may change the species composition, plant density, and community structure along wetlands currently located at the edge of the cleared portion of the existing ROW. Where trees will be removed from the edges of the corridor, they will become more consistent with the remainder of the maintained ROW, which is composed of scrub-shrub and “transitional meadow” habitat.

The Project anticipates impacts to wetlands (including BVW, IVW, LUWW, BLSF, and RA) associated with temporary construction matting to be approximately 70.6 acres (30.8 percent of the total wetland area along the Project Area) and permanent impacts associated with fill for structure foundations to be 9,527 sf (0.1 percent of total wetland area), on-ROW vegetative cover type conversion to be 67.7 acres (40.5 percent of total on-ROW wetland area), off-ROW vegetative cover type conversion to be approximately 2.9 acres (1.1 percent of total off-ROW wetland area). **Table 4-1** provides a summary of Project impacts to wetlands. **Appendix E** provides wetland impacts by municipality.

Table 4-1: Summary of Project Impacts within Wetland Resource Areas

Impact Type	Activity	Resource Areas															
		Bordering Vegetated Wetland ("BVW")		Isolated Vegetated Wetland ("IVW")		Vernal Pool ("VP")		Land Under Water Bodies and Waterways ("LUWW")		Bordering Land Subject to Flooding ("BLSF")		100-foot Buffer Zone (BZ)		Riverfront Area ("RA")[3,4]		Inland Bank ("Bank") [linear feet {"lf"}]	
		On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW	On-ROW	Off-ROW
Temporary Impact	Matting (acres)	41.6	0.9	1.4	0.1	<0.1	0	0.3	<0.1	3.5	0.4	41.4	5.6	20.9	1.5	6,336 lf	685 lf
	Work Areas (acres)	0	0	<0.1	0	0	0	0	0	1.3	<0.1	36.2	1.0	16.1	0.8	73 lf	0 lf
	Access Improvement (acres)	0	0	0	0	0	0	0	0	0	0	0.1	0.2	<0.1	0	0 lf	0 lf
Permanent Impact	Work Areas (acres) [structures square feet {"sf"}][1]	<0.1 [3,230 sf]	0	<0.1 [129 sf]	0	0	0	0	0	1.2 [1,040 sf]	0	12.6 [13,525 sf]	0.3	6.2 [5,128 sf]	<0.1	0 lf	0 lf
	Access Improvement (acres)	0	0	0	0	0	0	0	0	<0.1	0.1	4.8	2.3	0.6	0.2	0 lf	0 lf
Permanent Alteration	Vegetative Cover Type Conversion (acres)	18.5	1.1	0.4	0.1	0.1	<0.1	N/A	N/A	1.9	0.4	51.9	18.2	18.1	3.1	8,723 lf	922 lf

Note: These impacts are not additive within each column. Impact types vary by ROW and overlap in areas of the Project. Additionally, wetland resource types overlap in many locations and aggregate tallies are not feasible.

1 Structure impacts overlap with work areas, and thus are depicted in square feet within [brackets] as a subsect of the Permanent Work Areas column.

2 The existing canopy cover to be removed as a result of trees being removed from within the ROW does not result in a direct impact to the LUWW.

3 Tree removal approximations determined by Geographic Information Systems ("GIS") analysis of Light Detection and Ranging ("LiDAR") imagery, ROW Survey and RA Polygons. These impact assessments are based on conservative estimates and consider overlapping canopy cover both on and off ROW of the RA parcel.

4 Note that impacts located within the limits of RA overlap with impacts to BLSF, BVW, and the 100-foot Buffer Zone. Therefore, the total impact of the Project is not equal to the sum of alterations.

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4.4.2 Vernal Pools

After the completion of the Vernal Pool ("VP") habitat studies, constructability field reviews and engineering evaluations were conducted to assess the locations of the VPs in relation to the Lines. Based on the results, new structures, access, and work pads were adjusted to avoid or minimize direct adverse effects to VPs to the extent practicable, taking into consideration engineering design requirements for the new transmission lines and the need to maintain safe working conditions during construction. Every effort has been made to comply with 314 CMR 9.06(4).

Table 5-4 in the DEIR provided the location details for each VP within the vicinity of the Project. The expected temporary alteration from the placement of construction mats in BVW associated with Potential Vernal Pools ("PVPs") is approximately 1,590 sf.

4.4.3 Public Drinking Water Supply Areas

While the Project ROW traverses various public water supply resources, potential impacts are anticipated to be negligible and associated with construction only. Table 5-5 in the DEIR provided a summary of construction activities proposed in each location. Since the DEIR, the construction approach has been refined to further protect water supply resources, including a reduction in gravel work pads, with temporary construction matting in the areas closest to the Quabbin Reservoir to minimize surface disturbance nearest the drinking water source. Long-term, the Project does not include any activity or facility that will generate pollutants or contaminants that might affect the surface water supply.

Potential impacts to surface water supplies could occur only as a result of unanticipated failure of sedimentation and erosion controls during construction. Therefore, impacts to public water supply sources are not anticipated; if an impact were to occur as a result of construction activity, it would be negligible. Potential impacts to groundwater supplies could occur from spills of fuel or hydraulic oil related to construction equipment. Equipment used for the construction of the Lines will be properly maintained and operated to reduce the chances of spill occurrences of petroleum products. Refueling equipment will be required to carry spill containment and prevention devices (i.e., drip pans, absorbent pads, etc.) and fueling of equipment will only occur in upland areas, unless equipment cannot be moved. No blasting will occur within Zone II Wellhead Protection Areas along the Project ROW.

Proposed structures and work areas for the Project have been sited to avoid permanent impacts to Outstanding Resource Waters ("ORWs") to the extent practicable. In locations where ORWs cannot be avoided, sediment and erosion controls will be implemented to minimize sediment migration outside the limits of disturbance. Any temporary construction matting will be removed immediately after the construction activities are complete. Any required restoration or stabilization, after the mat removal, will be completed as the equipment and vehicles de-mobilize from the ROW. Additionally, NEP will work closely with DCR for work within the Quabbin Reservoir.

Following construction, the normal operation and maintenance of the transmission line facilities will have no impact on public water supply resources. Vegetation management within sensitive areas, including public water supply areas, will follow the same procedures as are currently used on the ROW.

Impacts within Public Water Supply Watersheds and ORWs are associated with Project activities including the use of temporary construction matting, access and work pad improvements, tree removals and tree trimming, and the installation of replacement structures. Structure locations were described in Table 5-5 of the DEIR. NEP is committed to protecting these important water supply areas and resources, and will coordinate with applicable regulatory agencies and landowners (including DCR) to ensure that no impacts to water quality occur.

4.5 Summary of Minimization and Mitigation Measures

Throughout the planning and preliminary design process, NEP has incorporated measures to avoid and minimize potential wetland impacts from construction of the Project to the greatest extent possible. Whenever feasible, NEP sited proposed structures in proximity to the existing structures being removed or has relocated structures from wetlands into upland areas. NEP will use existing ROW access wherever possible and is proposing upgrades in wetland resource areas only where required to meet the requirements of construction vehicles and equipment. Using delineation and survey data, NEP designed access and work areas to avoid the most sensitive wetland resource areas throughout the ROW wherever possible. Specifically, NEP has planned several one-way or "dead-end" access ways to be able to access the structures and work back out along the same matted access, to avoid impacting additional wetland areas by continuing through with one long access route. Trees and vegetation will only be removed

or mowed where necessary for safe operation. As the Project design evolved, the engineering team coordinated with environmental and construction team members to refine construction techniques to further reduce impacts. Avoidance and mitigation measures associated with Project work in wetland and waterway resources are detailed below.

4.5.1 Summary of Wetland Mitigation

Section 5 of the DEIR detailed BMPs for avoidance, minimization, and mitigation measures extensively. The following sections summarize these measures which are expanded upon in **Section 8** of this FEIR.

4.5.1.1 In-situ Restoration of Temporary Wetland Impacts

NEP will provide mitigation for temporary wetland impacts via *in-situ* restoration. Restoration measures will include post-mat-removal inspections; restoration of the wetland soil surface (addressing any compaction which has occurred due to mat placement); seeding and mulching of any bare ground; removal of erosion controls (once site stabilization has been achieved), and invasive species control throughout the monitoring period. Details of these restoration measures are provided below.

Construction Mat Removal

Once construction mats are removed, environmental monitors will inspect wetlands for buildup of sand or other materials that may have fallen through the construction mats access/work area. Environmental monitors will inspect wetland crossings carefully as mat removal is occurring to ensure any materials on top of the mats are properly removed and disposed of outside of wetland resource areas or off-site.

Restoration of Soil Surface

Although construction mats are an approved BMP for protecting wetland soils and vegetation by distributing the weight of construction equipment, depressional grooves or furrows resulting from construction mats (i.e., mat impressions, or mat-induced grooves or furrows), can still occur in some instances. If the depressions are greater than approximately 6 inches deep, NEP will carefully re-grade or back-blade these areas to reestablish pre-existing topography and maintain existing wetland hydrology.

Seeding and Mulching

Where disturbance results in the exposure of bare ground, and root and seed stock are absent, NEP will promptly stabilize these areas by seeding and mulching. An appropriate, native, wetland or upland seed mix will be applied (depending on the resource area), and the area will be mulched with straw to stabilize soils and reduce erosion. Seeding and mulching will be performed as soon as possible following the completion of the work. Seed mixes will meet NEP specifications for wetland seed mixes, which will be approved by an NEP Environmental Scientist prior to construction per EG303NE (see **Appendix H**).

Removal of Erosion Controls

Following restoration and stabilization of soil surfaces, NEP will remove erosion control barriers. NEP will remove and dispose of non-biodegradable materials such as strings and stakes from straw wattles/bales. Crews will break up and lightly scatter straw wattles/bales as mulch. Siltation fencing, strings, and stakes will be removed and disposed of as ordinary waste. Wattles will be cut open, the mesh removed, and the wattle material spread as a soil stabilization measure. Where required based on grades and soil disturbance, NEP will leave erosion controls in place until suitable vegetation is established to prevent erosion into downgradient resource areas.

Post-Restoration Inspections

NEPs environmental monitors will inspect restored areas following restoration to ensure no noticeable adverse effects to the plant community, soil characteristics, and micro-topography. Should the environmental monitors observe adverse effects, NEP will perform additional corrective actions, such as hand grading, seeding, or mulching. NEP will work with each community's Conservation Commission or authorized representative (i.e., Agent), as well as MassDEP and USACE to ensure observed restoration complies with all performance standards in applicable wetlands regulations, permits, as well as each municipal OOC.

4.5.1.2 Compensatory Mitigation for Permanent Wetland Loss

Wherever possible, NEP has attempted to avoid or minimize wetland impacts. Measures included minimizing the size of work areas within wetlands, relocating work areas and access roads wherever possible, and relocating replacement structures outside of wetlands where feasible. Despite these efforts, and due to the location of existing infrastructure, wetland impacts are unavoidable.

To mitigate unavoidable loss of wetlands associated with structure installation in BVWs, NEP is proposing to provide on-site wetland replication. NEP has prepared draft wetland replication plans for each location. These draft plans will be reviewed and approved by MassDEP through the 401 WQC permitting process and subsequently filed with each respective Conservation Commission for issuance of an Order of Conditions per the WPA. Preparation of the wetland replication area(s) will meet the general performance standards outlined in the *Massachusetts Inland Wetland Replication Guidelines* (dated September 2022), and will include appropriate replication of the soil, hydrologic function, and vegetative community.

Wetland replications areas have been proposed based on their proximity to impact areas, and potential to enhance the functions and values of existing wetland systems. Wetland replication will be provided at a minimum of 1:1 ratio of wetland replication to wetland loss and 2:1 ratio within ORW wetlands.

Wetland replication areas will offset impacts related to structure installations. Replication areas will be monitored as required in local, state, and federal permits. Prospective mitigation areas have yet to be finalized, but where possible they will be located in areas hydrologically connected to the impacted wetland). NEP will work with MassDEP and the local Conservation Commissions to finalize the mitigation plans for the permanent loss of BVW associated with structure installations. Refer to **Section 8.2.3.1** for more details.

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5 Rare Species

This section provides an updated impact analysis related to Project activities within rare species habitats (**Section 5.1**); details about ongoing consultations with MassWildlife's NHESP, which will guide mitigation measures (**Section 5.2**); and potential measures to avoid, minimize, and mitigate impacts to rare species habitat (**Section 5.3**).

5.1 Summary of Updated Project Impacts

The Project ROW contains Priority and Estimated Habitat for 28 state-listed species tracked by NHESP, consisting of three birds, three reptiles, one amphibian, five invertebrates, one fish, and 15 plant species. These areas are within ROW that is maintained per NEP's Vegetation Management Plan ("VMP") and the Operation and Maintenance Plan ("OMP"), as approved annually by NHESP. To assess the potential for state or federally listed, endangered, threatened, and special concern plant and animal species and their habitats to be present along the Project ROW, NEP reviewed MassGIS Priority and Estimated Habitat data layers, solicited database information from NHESP, and followed the USFWS Endangered Species Consultation Procedure available on its website. Specific species are not identified herein at NHESP's request.

Since the submittal of the DEIR, NEP has reduced impacts associated with gravel access, grading (cut/fill), and gravel work pads. NEP anticipates impacts to habitat will occur within 19 mapped Priority Habitats, associated with the grading and stoning of permanent work areas and access, conversion of vegetative cover type, installation of new structures, and the temporary use of construction matting within wetlands and other select sensitive areas. There is the potential for a "Take" of rare species' habitats which may require mitigation.

The total area of Priority Habitat that intersects the Project Area (including both on and off-ROW) is approximately 242.5 acres, of which approximately 30.4 acres will be temporarily altered due to the placement of construction matting, 43.7 acres will be permanently altered due to vegetative cover type conversion, and 15.3 acres will be permanently impacted due to the construction and improvement of access and work areas, including approximately 0.2 acres of structure replacement.

5.2 NHESP Coordination

Consultation with NHESP is ongoing, and will continue throughout construction. NEP initiated pre-consultation discussions with NHESP for the Project on November 18, 2024, which was prior to filing the DEIR. NEP has maintained discussions with NHESP regarding the type and extent of impacts that will occur in mapped Priority Habitats, and the potential amount and type of "Takes." Discussion with NHESP is ongoing regarding the preferred mitigation in the event a "Take" cannot be avoided, which is described further in **Section 5.3**.

Per these discussions, submission of the Checklist to address Massachusetts Endangered Species Act ("MESA") compliance was shifted from a Fall 2025 to Fall 2026. Proposed BMPs discussed in **Section 5.3** have been approved by NHESP for prior, similar projects, and NEP anticipates that these BMPs will contribute to the Project's avoidance and minimization measures. NEP will continue to work closely with NHESP throughout the MESA review process, including ongoing coordination and preparation of a Conservation Management Plan ("CMP") in the event a "Take" cannot be avoided (refer to **Appendix H** for NEP's BMPs).

5.3 Summary of Minimization and Mitigation Measures

Section 5.5 of the DEIR comprehensively describes measures NEP plans to implement to avoid and minimize impacts to state-listed species, subject to further consultations with NHESP. These measures include:

- No permanent stone for work pads or access will be placed in rare plant habitats. Instead of permanent stone for these areas, NEP will use construction matting or temporary stone that will be removed once construction is complete to create safe, level work surfaces.
- Use of off-ROW access to avoid impacts.
- Conducting contractor awareness and training prior to construction.
- On-site monitoring by qualified wildlife monitors throughout the active season of listed species, in accordance with NEP's standard BMPs for work within these species' habitats.
- Construction timing and restrictions will be implemented, consistent with the OMP and VMP.
- Implementation of wildlife protection plans to be developed in consultation with NHESP

NEP is evaluating opportunities for land preservation in consultation with NHESP regarding mitigation for the potential "Take" of rare species and/or their habitats.

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6 Historical and Archaeological Resources

This section details the existing historic and archaeological resources located within the Project Area (**Section 6.1**). It outlines past and ongoing survey efforts, ongoing consultations, and the Project's compliance with state and federal regulations (**Section 6.2**). This section also describes the measures taken to avoid, minimize, or mitigate potential impacts on these resources (**Section 6.3**).

6.1 Historical and Archaeological Surveys

As stated in the ENF and DEIR, the Public Archaeology Laboratory ("PAL") conducted a cultural resource due diligence review in June 2022. PAL submitted a State Archaeologist's Permit application to the Massachusetts Historical Commission ("MHC") for the E5/F6 Lines on August 1, 2022. The MHC issued Permit #4206 to PAL on August 8, 2022, to conduct the survey.

The analysis included a review of MHC site files for archaeological sites and above-ground resources. For the initial archaeological and cultural resource due diligence, the study area was established at 1 kilometer ("km") from the centerline of the E5/F6 Lines, and 1 km from the centerline of the Tap Lines, both within Massachusetts. The Area of Potential Effect ("APE") for above-ground historic resources includes areas adjacent to the ROW where visual impacts might occur. The APE for archaeological resources is defined as any area of ground disturbance that may result from implementing the Project.

To date, a total of 22 above-ground resources have been inventoried within or overlapping the Project APE, consisting of 19 districts and three individual resources. Of the 19 districts, four are listed on the National Register of Historic Places ("NRHP"). None of the individual resources have been evaluated for NRHP listing. Additionally, four post-contact archaeological sites and 12 pre-contact archaeological sites have been inventoried within or overlapping the Project ROW. Except for one site in Deerfield that was determined to be ineligible for listing, none of the pre-contact sites within the Project ROW have been evaluated for NRHP eligibility.

Additional fieldwork to identify historic architectural properties was conducted in the fourth quarter of 2024 and is ongoing. PAL also began an archaeological survey of the Project APE in October 2022, which is ongoing. PAL submitted the intensive archaeological survey and architectural reports to the MHC, four federally recognized Tribes: the Wampanoag Tribe of Gay Head (Aquinnah), the Mashpee Wampanoag Tribe, the Stockbridge-Munsee Tribe, and the Narragansett Indian Tribe, and one state-recognized Tribe: the Hassanamisco Nipmuc Band, on July 24, 2026.

NEP will continue to consult with the MHC, the USACE, the federally recognized Tribes and the Hassanamisco Nipmuc Band, and other relevant stakeholders to avoid, minimize, and mitigate any Project effects on historic properties. This includes developing any necessary archaeological site avoidance and protection plans and associated treatment measures through the Section 106 consultation process.

6.2 Coordination

The following section summarizes and expands upon the coordination with MHC, the USACE, federally and state-recognized Tribes, and other stakeholders since the DEIR.

6.2.1 Tribal Coordination

Section 106 of the National Historic Preservation Act ("NHPA") of 1966 requires federal agencies responsible for authorizing undertakings to consult with interested parties potentially affected by the Project. The lead federal agency is obligated to identify and engage with consulting parties, including the MHC, the State Historic Preservation Officer

("SHPO"), federally recognized Native American Tribes, local governments, and other interested individuals and organizations.

PAL provided Project information to Tribal Historic Preservation Officer ("THPO") staff associated with the four federally recognized Tribes and one state-recognized Tribe. PAL contacted these Tribes via email on the following dates to provide a fieldwork schedule and solicit information that could inform any archaeological resources identified by PAL during the survey work: September 22, 2022; April 5, 2023; April 24, 2024; and April 28, 2025.

The Stockbridge-Munsee THPO responded on January 13, 2025 and April 29, 2025, requesting to be kept informed of the Project's progress. The Hassanamisco Nipmuc Band THPO acknowledged the Project notification on June 2, 2025.

PAL and NEP coordinated and consulted with the DCR Staff Archaeologist on December 11, 2024; January 31, 2025; and June 2, 2025. DCR staff acknowledged receipt of the Project notification and requested that PAL continue to inform DCR about any cultural resources identified on DCR property. NEP and PAL will continue to coordinate with the DCR Staff Archaeologist throughout future permitting and site visits. NEP will submit a CAP application to DCR before Project construction. PAL plans to share the results of the archaeological survey with municipal historical commissions of all 17 towns corresponding to the Project ROW. The NEP stakeholder engagement team also made significant additional efforts to coordinate with each municipality's agencies, commissions, personnel, and individual landowners.

6.2.2 Agency Coordination

NEP will continue to coordinate with PAL, in consultation with MHC and the USACE, to identify historic, archaeological, or cultural resources before construction and to avoid, minimize, and mitigate impacts where necessary.

6.3 Summary of Minimization and Mitigation Measures

NEP is committed to protecting cultural and archaeological resources within its ROWs. Any protection or avoidance measures required will be outlined in an Avoidance and Protection Plan. Procedures for handling unanticipated discoveries during construction will be specified in a Post-Review Discoveries Plan.

Details on NEP's cultural avoidance and protection measures are included in EG-303NE in **Appendix H**. Measures employed within historically/archaeologically sensitive areas may include:

- Using construction fencing to demarcate sensitive areas for crews to avoid.
- Demarcating sensitive areas on site maps and plans, with accompanying on-site training for crews working near these areas.
- Restricting site grading within/adjacent to sensitive areas.
- Cataloging and reporting any unexpected archaeological finds to MHC and/or Tribes. In such an event, construction work within the sensitive area would cease until further advice has been provided by MHC and/or the Tribes.
- Establishing detailed procedures to be followed in the event of discovering human remains or burial sites.

During Project design, NEP carefully considered the location of sensitive resource areas. Avoidance, minimization, and mitigation measures for stone walls are described below, in order of priority:

- **Identification and Flagging**: Stone walls within Project work areas will be identified on mapping (provided to crews/contractors) and flagged/demarcated in the field.
- **Access Configuration**: Wherever possible, access will be configured to avoid stone walls. Work areas will be sized and oriented to avoid walls as far as practicable.
- **Bridging**: Where a stone wall must be crossed for access and/or work areas, NEP's first choice will be to bridge the stone wall using construction mats. Mats will be stacked on either side of the wall, allowing equipment to pass over the wall without disturbing the stones.

- **Dismantling and Reconstruction**: Should bridging not be possible, NEP may need to temporarily dismantle the stone wall. If this is necessary, NEP will flag the stone wall in the field and notify the Project team that a site visit is required to review the wall. During this review, NEP will assess feasibility and any further permitting or permissions required. The wall will be fully documented prior to dismantling it. In the process of dismantling, care shall be taken to temporarily relocate stones away from any sensitive environmental or cultural resource areas. Once construction and access in the area have been completed, the wall shall be rebuilt to its pre-existing conditions or better.

By employing the above measures, NEP will substantially avoid, minimize, and mitigate impacts to stone walls. Refer to EG-303NE in **Appendix H** for further details of stone wall protection and avoidance.

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7 Climate Change Adaptation and Resiliency

This section describes the steps NEP has taken to promote climate change adaptation and resiliency in the Project's design (**Section 7.1**); responds to the Certificate's request for additional information on stormwater implications (**Section 7.2**); describes the resiliency of Project infrastructure located within mapped floodplains, including elevation relative to Base Flood Elevations (**Section 7.3**); summarizes the Project's carbon impact analysis (**Section 7.4**); and provides an update on planned avoidance, minimization, and mitigation measures (**Section 7.5**).

7.1 Climate Resilience

NEP has taken steps to promote climate change adaptation and resiliency throughout the design of the Project and continues to consider climate change and long-term infrastructure resiliency as an important goal in its long-term infrastructure planning.

The Project is designed to improve the long-term reliability and climate resilience of the region's transmission system, replacing aging infrastructure with more robust structures and foundations better able to withstand extreme weather, flooding, and changing climate conditions. In addition, the Project is within an existing ROW, thereby minimizing alteration of new land resources to construct the Project. The purpose of the Project is to address existing asset conditions along the E5/F6 Lines that pose a threat to electrical reliability.

7.2 Stormwater Implications

Consistent with the design guidance from the ResilientMass Action Team ("RMAT") Climate Resilience Design Standards Tool ("RMAT Tool") Output Report ("Output Report"), the Project will improve resilience to riverine flooding from a 2070 50-year (2 percent) storm event through design and material selection of foundations and structures that can withstand the effects of flooding along the entire ROW, including in areas highly exposed to riverine flooding such as the portions in proximity to the Deerfield River, Connecticut River, the Sevenmile River, and Branch River.

The following resiliency measures related to stormwater were included in the DEIR and are summarized below:

- The replacement of wooden and steel structures with engineered steel structures will harden the infrastructure, making it more resilient to water damage and decay.
- The installation of structures reinforced with caisson foundations, which are designed for wet environments, will also increase infrastructure resiliency, particularly in wetland resource areas increasingly susceptible to inundation.
- The Project proposes installation of new conductors that are designed to withstand corrosion.
- Proposed conversion of vegetative cover type will remove certain trees presently at risk to the Lines due to age and decay.
- Proposed improvements to access and work pads will create a safer, more reliable network of travel surfaces that can better withstand flooding and associated erosion.
- Stormwater management features (e.g., stone check dams, water bars, and other similar measures) will be installed as necessary.
- Civil engineering evaluation and design of the access has occurred specifically to evaluate drainage patterns following construction of the proposed gravel access in order to reduce potential for erosion and washouts during storm events.

In response to comments on the DEIR, NEP further evaluated stormwater management implications of the land alteration associated with the Project, specifically, conversion of forested land along the edges of the ROW to

managed vegetation and construction of new access. NEP evaluated the stormwater implications of proposed tree removals and conversion to lower scrub-shrub vegetation. The change in peak discharge rates, specifically associated with tree removal, is negligible, generally only hundredths of a cubic foot per second ("cfs"). Given the *de minimis* change, no specific measures to mitigate peak runoff are necessary or proposed.

In most cases, the potential for impacts from stormwater along the ROW will be associated with the potential for erosion and/or washout of the gravel access during and following construction. NEP will employ construction-phase BMPs for stormwater management including sediment and erosion controls. Please also refer to **Appendix H** for a description of NEP's construction-phase BMPs.

As described in the Stormwater Analysis in response to Comment C-46 (**Appendix F**), no new stormwater management systems requiring long-term operation and maintenance are proposed for the Project (Standard 9). Rather, post-construction stormwater management consists of passive erosion-control and stabilization features installed on a case-by-case basis as warranted, including drainage swales, plunge pools, splash pads, vegetated filter strips, and stone filters, together with stabilization and revegetation of disturbed areas. The condition of these features will be maintained and monitored over the life of the Project. During construction, erosion-control features will be installed, inspected, and maintained in accordance with the Construction Period Pollution Prevention Plan and the Stormwater Pollution Prevention Plan ("SWPPP") prepared under the NPDES Construction General Permit, until final stabilization is achieved. Following construction, long-term access that remains will be stabilized as constructed and allowed to revegetate, reducing the potential for stormwater-related impact over time. Over the life of the Project, the Project ROW and access network will continue to be inspected and maintained under NEP's existing transmission-line operation and maintenance practices. Through this combination of design, construction-phase controls, and long-term inspection and maintenance, NEP will ensure that the Project's stormwater management measures continue to perform as intended under both current and projected future conditions.

7.3 Floodplain Resiliency and Base Flood Elevation

Portions of the Project are within 100 ft of a waterbody and intersect with mapped Federal Emergency Management Agency ("FEMA") floodplains in multiple locations. For these areas, the Project's approach prioritizes the resilience and durability of infrastructure and the avoidance of impacts to flood storage capacity, consistent with the design guidance from the RMAT Climate Resilience Design Standards Tool Output Report for the 2070 50-year (2 percent annual chance) storm event.

Each replacement caisson foundation has a permanent footprint of approximately 79 square feet, representing a localized point encroachment within BLSF. The foundations replace existing transmission structures in substantially the same locations and do not create a continuous fill area or otherwise impede flood conveyance. Given the limited footprint of each foundation and the minimal reduction in flood storage capacity, the Project is not anticipated to adversely affect the flood storage or flood control functions of BLSF. Accordingly, compensatory flood storage is not anticipated to be required. While some permanent fill is proposed within areas categorized as BLSF, no significant loss of flood storage capacity will occur in these locations. Twelve structure replacements are located within BLSF, requiring the installation of 15 foundations resulting in a total of 1,040 square feet of fill within BLSF. Of the 15 installed structure foundations, 10 will be concrete caisson foundations and five will be direct embed foundations. The new concrete caisson foundations within BLSF will protrude approximately 1 ft above ground level / normal high-water elevation, which is similar to the existing structure foundations installed in these locations. Because this impact is distributed across the entire 67.7 miles of ROW, the overall amount of fill is *de minimis*.

The Project improves the resilience of infrastructure located within floodplains through foundation type and material selection. The materials and construction methods used for both direct-embed and caisson foundations are highly durable and offer a high degree of resilience to water-level fluctuations, extreme temperatures, and increased storm frequency and severity. Caisson foundations, in particular, are designed for wet environments and increase infrastructure resiliency in areas increasingly susceptible to inundation. This foundation type, coupled with engineered structures, eliminates the need to elevate foundations above any particular Base Flood Elevation, as the foundations and structures can withstand inundation. Replacement structure foundations will be of a similar size to the existing foundations, will occupy a relatively small volume of potential flood storage, and will not significantly worsen flood conditions compared to the existing structures. With respect to work areas, those located within sensitive wetland resource areas use construction matting that is removed upon completion, while work areas outside sensitive resource areas are stabilized and allowed to revegetate, limiting permanent alteration within flood-prone areas. Additionally, to prevent further fill within floodplain, access routes in those areas may be over-excavated.

7.4 Carbon Impact Analysis

This Project is part of NEP's efforts to ensure the long-term reliability of the region's electrical infrastructure in the face of growing demand for electricity and the changing climate. The Project will result in a more climate-ready and resilient transmission system that can withstand more extreme weather events; address existing system capacity shortages and increased demand; and support future interconnections from renewable energy projects that will offset some of the carbon sequestration losses associated with vegetative cover type conversion.

NEP is committed to improving the resiliency of its transmission line system to the impacts of climate change. The Project is aligned with priorities in the 2008 *Global Warming Solutions Act*, as amended in 2021 by *An Act Creating A Next Generation Roadmap for Massachusetts Climate Policy* ("Roadmap"), the *2023 Massachusetts State Hazard Mitigation and Climate Adaptation Plan* ("ResilientMass Plan") and the Massachusetts Climate Change Assessment ("MCCA") to ensure that NEP continues to provide safe and reliable electricity to its customers. Additionally, the Project is in alignment with The Executive Order to Secure Massachusetts' Energy Future ("EO Number 654").

NEP conducted an analysis of the Project's potential for Greenhouse Gas ("GHG") emissions as part of the MEPA *GHG Emissions Policy and Protocol* for the DEIR filing. The Project does not have any emissions sources that require analysis under the *GHG Emission Quantification Protocol*; however, the EEA Secretary may use discretion to require GHG analysis of certain types of other project impacts, including projects that will result in alteration of land greater than 50 acres.

NEP engaged the services of Regenerative Design Group ("RDG") to update the GHG emissions associated with proposed Project activities (e.g. tree removal) as part of the FEIR filing, to incorporate design updates and vegetation-management information developed since the DEIR filing. The updated analysis retains the general carbon-accounting methodology used for the DEIR, while incorporating more recent LiDAR data and refined mapping of areas where trees will be removed, selectively removed, pruned, or retained. It also evaluates existing carbon stocks across the Project area and separately identifies tree canopy within the ROW that will remain unaffected. These refinements reduce the area modeled as full tree removal and provide a more representative estimate of the Project's anticipated effects on existing carbon stocks and future sequestration potential.

The analysis found that the Project would result in a one-time release of carbon from tree removal and the ongoing loss of carbon sequestration over a 30- to 40-year period. Per the quantitative carbon analysis conducted by RDG, the Project would result in a one-time loss of 12,548 metric tons of carbon (compared to 14,539 metric tons of carbon reported in the DEIR) from the removal of trees and the short-term effects of that removal on soil and forest floor carbon. Over the next 30 years, the area is expected to recover 2,260 metric tons of carbon through sequestration (compared to 2,474 metric tons of carbon reported in the DEIR), resulting in an estimated net loss of 10,288 metric tons of carbon (compared to 12,165 metric tons of carbon reported in the DEIR). Post removal of the trees from the edges of the ROW, the area will be maintained as shrubland. Therefore, following vegetative conversion to shrubland, this will result in a 30-year loss in sequestration potential 5,368 metric tons of carbon (compared to 6,917 metric tons of carbon reported in the DEIR) (see **Section 7.4.1** for more details). Within the combined 217.7-acre footprint where tree removals are proposed (i.e., this acreage does not include off-ROW pruning estimates), it is estimated that up to 15,656 metric tons of carbon would be released or not sequestered over the next 30 years (compared to 19,082 metric tons of carbon reported in the DEIR). Refer to **Section 7.4.1** and **Section 7.4.2** for additional details of the non-soil and soil carbon analyses, respectively. The updated full analysis, including background and methodology, is included in **Appendix G** and updated results are presented in **Table 7-1**.

One metric ton of carbon is equivalent to about 3.7 metric tons of carbon dioxide equivalent (MTCO2e) emissions. The average home in Massachusetts based on the most recent full inventory of the state's GHG emissions, in 2022, emits approximately 7.45 MT CO2e per year. The estimated release, or non-sequestering, over the next 30 years, of up to 15,656 metric tons of carbon due to project activities can be represented as approximately 57,405 MT CO2e. This averages to approximately 1,914 MT CO2e per year over the 30 year planning horizon, which is the equivalent of approximately 257 homes worth of energy use in 1 year. The overall GHG emissions in the 2022 inventory were 68.8 million MT CO2e, putting the annual project emissions at approximately 0.00003 percent of annual state emissions.

7.4.1 Non-Soil Carbon

At the time of vegetative cover conversion, the impact on non-soil carbon stocks includes removal of above ground live and dead trees on 181.2 acres along the right of way, as well as 36.5 acres off the right of way. This results in the removal of 9,568 metric tons of carbon. Over the next 30 years, as the converted area transitions to and is

maintained as a shrub dominated landscape, this will result in the sequestration of 2,269 metric tons of carbon. If the area along the ROW were to remain as trees, an additional 4,557 metric tons of carbon would be sequestered.

7.4.2 Soil Carbon

The change from forested to shrubland land cover in the 181.2 acres to be removed along the right of way, as well as the 36.5 acres off the right of way, will result in a reduction of 3,001 metric tons of soil carbon. This change will also result in a loss of the soil carbon sequestration potential over a 30-year period of 814 metric tons of carbon.

Table 7-1: Proposed Land Conversion and Associated Carbon Flux

	On ROW	Off-ROW	Total
Area of Impact (acres)	181.2 acres	36.5 acres[1]	217.7 acres[1]
Non-Soil Carbon One -Time Loss (metric tons of carbon ["mt"])	8,288 mt	1,280 mt	9,568 mt
Non-Soil Carbon Sequestration 30 Year Loss (mt)	4,075 mt	482 mt	4,557 mt
Non-Soil Carbon 30 Year Recovery (mt)[1]	*1,313 mt*	*955 mt*	*2,269 mt*
Non-Soil Carbon Total 30 Year Loss (mt)	11,050 mt	807 mt	11,857 mt
Soil Carbon One -Time Loss (mt)	3,001 mt	0 mt	3,001 mt
Soil Carbon Sequestration 30 Year Loss (mt)	814 mt	0 mt	814 mt
Soil Carbon Total 30 Year Loss (mt)	3,815 mt	0 mt	3,815 mt
Total Carbon 30 Year Loss (mt)	14,865 mt	807 mt	15,672 mt

1 These values do not include off-ROW pruning, which is why the value differs from the 233.1 acre value referenced for total vegetative cover type conversion.

2 The italicized values represent gains rather than losses.

7.5 Summary of Avoidance and Minimization Measures

The purpose of the proposed Project is to address the asset condition of the Lines which are no longer fit-for-purpose, mitigate potential risks of electrical failure, and to provide long-term reliable delivery of electrical service and maintenance of the Lines. NEP's goal is to meet the projected future demand on the transmission system resulting from the electrification of the energy system, essential to achieving the Commonwealth's decarbonization goals.

To provide mitigation for tree removals per the Secretary's Certificate on the ENF and DEIR, NEP is committed to implementing a mitigation package that addresses the unavoidable loss of trees. NEP plans to prioritize preservation of an equivalent acreage of forested open space, which is expected to address mitigation for both rare species habitat and carbon impacts. To the extent that preservation does not provide acreage equivalent to the acres of tree removal, NEP will work with DCR, MassAudubon, and/or local land trusts to fund projects that offset losses in carbon sequestration. Furthermore, NEP will continue to work with landowners, its contractors, local organizations, and the State to identify opportunities for beneficial reuse of felled wood, including through wood banks and long-lived wood products, where feasible. Refer to **Section 8.2.7** for additional information regarding proposed mitigation for tree removals.

8 Avoidance, Minimization, and Mitigation Measures

This section provides a summary of the proposed avoidance and minimization measures (**Section 8.1**) detailed throughout this DEIR; compensatory mitigation review (**Section 8.2**); proposed mitigation for wetland impacts, NHESP Rare Species Habitat, tree removals, and EJ Populations (**Section 8.3**); and mitigation costs and responsible parties (**Section 8.4**).

8.1 Summary of Proposed Avoidance and Minimization Measures

NEP has incorporated an approach to the siting, design, and construction means and methods that avoids and minimizes impacts wherever practicable. These measures include:

- Limiting work to the existing utility ROW and associated access routes to minimize new land alteration;
- Prioritizing access routes and work pad locations which avoid resource areas (or where unavoidable, cross resource areas at their narrowest point);
- Limiting the extent of grading and addition of stone to the minimum area necessary to provide safe access and work areas (thus minimizing alteration of site topography, hydrology, and substrate);
- Limiting conversion of vegetative cover types to those necessary for safe line clearances and access to the ROW, while retaining shrub and understory vegetation wherever possible;
- Locating replacement structures as close to existing structures as possible (minimizing new areas of disturbance); and
- Locating replacement structures as far from the edge of resource areas as possible (while maintaining safe line spans and avoiding “sag” in the lines).

NEP has also evaluated alternative construction methodologies designed to reduce impacts to environmentally sensitive areas. Specifically, NEP and their consultant team assessed the constructability of the Project to identify ways to minimize impacts from installation of access and construction work areas. Access and construction work areas have been designed such that permanent changes in substrate and grade are limited to only where required for safety.

Avoidance and minimization measures proposed for construction include appropriate BMPs such as erosion control barriers, use of construction mats, minimizing areas of disturbance, and restoration when necessary. NEP has established BMPs that will be followed by NEP employees and contractors for accessing sites and performing construction activities on transmission line ROWs. These procedures, outlined in Section 8 of the DEIR and **Appendix H**, strive to ensure that the Project will be completed in accordance with applicable environmental laws and regulations as well as with NEP policies and compliance objectives. Impact avoidance and minimization measures that NEP will implement throughout construction are summarized in **Table 8-1**, below.

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Table 8-1: Avoidance and Minimization Measures, BMPs and Schedule Matrix

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
General	An Environmental Field Issue ("EFI") document will be developed for the Project and used for training contractors and environmental monitors. The EFI is a comprehensive document that outlines permit conditions, includes New England Power Company ("NEP") Best Management Practices ("BMPs") and specifies the expectations and requirements that NEP will hold construction personnel responsible for compliance with. A copy of the EFI is kept on file at the NEP office, at the site trailer and/or site supervisor's vehicle. Contractor training will be an ongoing process, as needed, when new personnel arrive on site.	X	X	X	X	X	X	X
Land Disturbance and Stormwater	Erosion and sediment controls will be installed and maintained. The Stormwater Pollution Prevention Plan ("SWPPP") will be implemented to ensure that BMPs are utilized during construction to address potential impacts from erosion and stormwater runoff. Stormwater management and pollution prevention will be accomplished through stabilization and structural control BMPs, as well as good housekeeping practices. A component of the SWPPP will include requirements for spill control, clean up and reporting.	X	X	X	X	X	X	X
	Disturbed areas on the site will be stabilized using standard BMPs, which can include seeding and mulching, hydroseeding, water bars, slope breakers, amongst others, to be presented in the EFI document.	X	X	X	X	X	X	X
	Conversion of vegetative cover types will be conducted using methods and equipment which minimize ground disturbance, such as feller bunchers or other tree handling equipment where possible. To the extent feasible, NEP forestry crews will preserve understory scrub-shrub and herbaceous vegetation to avoid creating areas of bare soil surfaces.	X						
	Where conversion of vegetative cover types and/or improved access is proposed in areas of steep slopes or high erosive potential, additional precautions will be taken to ensure soil stability is maintained. These may include installation of water bars, plunge pools, diversion channels, and/or check dams, as appropriate to site specific conditions.	X	X	X				X
	Dust controls will be implemented as needed throughout the duration of the Project, on disturbed soils that are subject to surface dust movement and dust blowing.	X	X	X	X	X	X	X
Conversion of vegetative cover types	Where conversion of vegetative cover types is proposed within the ROW (i.e., in areas which will be permanently maintained as low growing, herbaceous or scrub-shrub communities), appropriate conservation seed mixes will be applied in areas of bare soil surfaces, to promote biodiversity, pollinator habitat, and replace lost forest habitats with alternative ecologically valuable community types. Where conversion of vegetative cover types occurs within NHESP habitat areas, guidelines from NHESP will be followed. NEP is a member of the Monarch Candidate Conservation Agreement with Assurances ("CCAA") and is currently undergoing a bio-audit to benchmark the habitat and ecosystem quality of the ROW. Further details of the on-going bio-audit are available here: https://bioaudit.acrt.com/national-grid/.	X						X
	Where conditions are suitable, a portion of the wood generated during conversion of vegetative cover type activities will remain on-site as standing snags, brush piles, log piles, and decaying large woody debris. Optimal locations for these habitat features will be determined in coordination with NHESP (in the case of rare species habitat), and by professional ecologists and wildlife biologists (BSC Group), for areas outside of designated rare species habitat.	X						X
	Within NEP fee-owned parcels, wood generated from vegetation removal associated with the conversion of vegetative cover types will be reused in long-lived wood products where feasible or donated to wood banks in Massachusetts. Because tree removal will occur over multiple years, opportunities for wood reuse and donation will be evaluated during construction planning for each phase, when contractors have been retained and the availability, capacity, and logistical feasibility of nearby wood banks can be assessed. Outside of NEP fee-owned parcels, trees within the ROW are owned by the respective private landowners. Accordingly, NEP cannot control or accurately account for how wood from these properties will ultimately be used, retained, or disposed of. As a result, it is not possible to provide a detailed accounting of wood distribution or end use for material originating from privately owned lands.	X						

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
Wetlands and Waterways	Install, inspect, and maintain temporary erosion and sediment controls, and other applicable construction BMPs, around work sites in or near wetlands. These will minimize the potential for erosion and sedimentation, mark the limits of wetlands, and restrict crew access, as appropriate.		X	X	X	X	X	X
	Within jurisdictional resource areas, limit grading for access and work areas to the extent necessary to provide a safe workspace.			X		X		X
	Avoid or minimize access through wetlands to the extent practicable. Where access must be improved or developed outside of vegetated wetlands, the access would be designed (where practical), so as not to interfere with surface water flow or the functions of the wetland.	X	X	X	X	X	X	X
	Once construction is complete, restore wetlands to pre-construction configurations and contours, to the extent practicable. For work areas improved within Riverfront area (“RA”), post construction these areas will be loamed and seeded to re-establish vegetative cover.							X
	Comply with the conditions of local, state, and federal permit conditions related to wetlands.	X	X	X	X	X	X	X
	Store petroleum products more than 100 feet (“ft”) from a wetland.	X	X	X	X	X	X	X
	Proposed stream crossings with be temporary in nature and will be bridged using construction mats laid to not impact the hydrology or the bed of the stream.	X	X	X	X	X	X	X
	Limit disturbance for structure foundations in wetlands to the amount necessary to perform the installations.					X		
	Do not pile cut woody wetland vegetation to block surface water flows or otherwise to adversely affect the integrity of the wetland.	X						
	Schedule activities located near waterways during low-flow periods to the extent practicable. Some crossings may need to be installed outside of typical low-flow periods where necessary to maintain the Project construction schedule, including required transmission line outage windows that cannot be modified without affecting transmission system reliability.	X		X				
	Overhead crossings designed to avoid conflicts.					X	X	
Vernal Pool	Except in areas where access is required, existing scrub-shrub vegetation within 25 ft of vernal pools (“VPs”) will be maintained, consistent with ROW vegetation management requirements.	X						X
	If low-growth (scrub-shrub) vegetation must be cut adjacent to VPs, the cut vegetation (“slash”) will be left in place to serve as recruitment for leaf litter and coarse woody debris.	X						X
	Soil erosion and sediment control BMPs will be installed and maintained along access within (or in close proximity to) VPs. Sediment built up behind these BMPs will periodically be removed and placed in upland areas, in a manner that will preclude the potential for subsequent deposition into the pools.		X	X	X	X	X	X
	To the extent that circuit outage and other construction timing constraints allow, NEP will schedule work within the vicinity of VP habitats so as not to interfere with amphibian breeding and migration seasons.	X	X	X	X	X	X	X
	Construction activities that must occur in or near VPs will conform to the measures described in Section 5.2.2 to avoid or minimize the potential for the spread of invasive species to VP habitat.	X	X	X	X	X	X	X
	For Project activities that must occur adjacent to VPs during amphibian migration periods, measures will be implemented on a site-specific basis as necessary to facilitate unencumbered amphibian access to and from VPs, e.g., placing wood chip ramps at intervals along sediment control fencing, leaving gaps in or staggering the installation of soil erosion and sediment controls, and aligning soil erosion and sediment controls to avoid bifurcating VP habitat.	X	X	X	X	X	X	X
	Where existing on-ROW access adjacent to VP must be improved, construction mats will be used if practicable; otherwise, clean materials will be used (e.g., clean riprap, gravel, stone, or equivalent and rock fords).			X	X	X	X	X

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
Water Supply Protection	Where dewatering is necessary during excavations for structures within or adjacent to Surface Water Supply Protection Zones, water will be pumped into appropriate dewatering basins.					X		
	Where drilling is necessary for the installation of caisson foundations, mud boxes or similar containment BMPs used to contain the drilling mud and excess soil will be removed regularly from the work site.					X		
	Post-construction restoration and stabilization will be implemented.							X
	Design changes have been incorporated to minimize impacts within rare species habitat, particularly in terms of access and work area sizes and locations, and the use of temporary construction matting to protect particularly sensitive upland areas.	X		X				
Rare Species Contractor Education and Awareness	Contractors working in state-listed species habitats will be trained in species identification and general life history/behavioral notes. If a state-listed species is encountered, contractors will be instructed to notify NEP and the approved wildlife monitor. Additionally, contractors will be required to practice good housekeeping and securely dispose of food wrappers and waste to discourage any increase in the predator population.	X	X	X	X	X	X	X
Construction Timing and Restrictions for Rare Species	Activities resulting in an open excavation during the active reptile season must be completed or filled in by the end of workday. Alternatively, exclusion fencing will be installed in state-listed reptile habitat when excavation cannot be completed in one day during the active season. Dewatering discharge will be directed to a straw bale or silt fence basin in a preferably vegetated upland area. Unattended foundation excavations will be covered. Additionally, silt fence placed in state-listed reptile habitat will be removed immediately following site stabilization to prevent barriers to movement.					X		
	If permanent access upgrades are unavoidable within protected reptile habitat areas during the active season, full-time monitoring will be provided by an approved wildlife biologist. If activities occur during the reptile active season, visual inspections must be performed by trained personnel (see below).			X				
	Important habitat areas for the protected species will be delineated/identified on the Project construction plans provided with the EFI. These features will also be flagged or demarcated in the field.	X	X	X	X	X	X	X
	If a state-listed species is encountered, the monitor will: Record observations on NHESP Rare Animal Observation Form; Photo-document the species; If outside of nesting season, move reptiles in the direction they are traveling (not across paved access); or if during nesting season, not disturb the nest site and identify nest location with flagging.	X	X	X	X	X	X	X
Monitoring for Rare Species	Weather forecasts will also be monitored carefully during the inactive season, as instances of unseasonably warm weather can trigger early activity. NEP will assume and prepare for the potential of protected reptiles entering work areas during certain weather conditions. Monitors will be available to sweep during sunny days, warmer than 50 degrees Fahrenheit (“°F”), when snow cover is absent.	X	X	X	X	X	X	X
	NHESP will provide specific management requirements where cutting is required for maintenance activities in wetland resources areas located within mapped state-listed species habitat.	X	X	X	X	X	X	X
	Areas dominated by low-growing shrub species (lowbush blueberry, huckleberry, sheep laurel, New Jersey tea, sweet fern and scrub oak) should be encouraged and restored if disturbance is necessary for maintenance-related activities.							X
	Materials will not be stockpiled in Certified Vernal Pools (“CVPs”) or wetland resource areas.	X	X	X	X	X	X	X
	Parking of contractor vehicles will be limited or avoided, when practicable, in specified areas within the ROW.	X	X	X	X	X	X	X
	Equipment will be monitored regularly for leaks and secondary containment will be used under equipment that will be parked in habitat areas during construction. Refueling will not occur within 100 ft of wetlands or waterways.	X	X	X	X	X	X	X

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
Vegetation Management for Rare Species	NHESP-mapped habitats within the ROW are subject to the special conditions established in NEP's Vegetation Management Plan ("VMP").	X						
	Mechanical clearing/mowing related to permanent access upgrades will be avoided during sensitive breeding/dispersal period(s) in state-listed amphibian habitat. When vegetative management is unavoidable during the active season, blades should be set no lower than 7 inches off the ground (preferably 12 inches). Mowing will occur in low gear or at slow speeds to allow individuals time to react. Visual sweeps will occur as described in the monitoring subsection.	X		X				
	As practicable, a minimum 25-ft-wide vegetated buffer strip (of ROW-compatible species), will be left undisturbed around the edge of vernal pools in mapped habitat for state-listed amphibians. This will provide habitat for protected amphibian species and further reduce the risk of surface run-off into sensitive VP habitats.	X						
	Construction mats will be used for wetland access. This practice retains root systems and seed stock and facilitates revegetation post-construction.	X	X	X	X	X	X	X
	Where conversion of vegetative cover types is proposed within NHESP habitat, NEP will coordinate with NHESP to provide a comprehensive mitigation plan for activities associated with it. This may include species-specific habitat enhancement and creation measures, both on and off-ROW.	X						X
	Erosion and sediment controls will be installed and maintained to protect water quality in wetlands, vernal pools, and other waterbodies. During breeding and active seasons, barriers in state-listed species habitat will be checked daily for trapped amphibians and reptiles, which will be relocated by an approved wildlife monitor to the nearest undisturbed area. Monofilament-encased barriers will not be used in state-listed amphibian habitat. Refer to NEP EG-303 (details AA-22, AA-24, and AA-25) for guidance on wood chip ramps and overlapping controls to prevent complete barriers to and from breeding pools.	X	X	X	X	X	X	X
	Access improvements within protected amphibian and/or reptile habitat areas will include appropriate contouring and reduced "curb/shoulder" slopes, to facilitate migration across access routes.			X				
	Upon completion of the Project activities, work areas for maintenance activities will be restored to existing condition. These areas will be allowed to progressively vegetate with typical regular management.							X
Specialized Construction and Restoration Measures for Rare Species	Native vegetation should be preserved in and adjacent to wetlands whenever practicable. Use of construction mats allows for the preservation of root stock by tamping down existing vegetation. Construction matting within wetlands in Priority and Estimated Habitat (for either protected invertebrate species), will be removed immediately after completion of work, to reduce impacts to emergent vegetation and facilitate revegetation.	X	X	X	X	X	X	X
	Vegetation and maintenance activities will continue to be managed regularly in NHESP habitat using restrictions and measures that avoid adverse impacts to protected species.	X	X	X	X	X	X	X
Invasive Species	Identification of the wetlands containing invasive species will be shown on Project plans provided to contractors.	X	X	X	X	X	X	X
	Environmental training of workers so that BMPs are implemented consistently.	X	X	X	X	X	X	X
	Requiring contractors check that construction equipment, vehicles, and materials (e.g., equipment mats) be clean and free of excess soil, debris, and vegetation before being mobilized to the Project Right-of-Way ("ROWs").	X	X	X	X	X	X	X
	Cleaning any equipment working in or traversing a wetland containing invasive plant species prior to relocating to another work site. Cleaning of vehicles and other equipment (including the tracks and tires) will involve removal of visible dirt, debris and vegetation using brooms, shovels, and, if needed, compressed air.	X		X	X	X	X	X
	Use of construction mats at wetland crossings so construction vehicles that frequently travel along on-ROW access routes, such as pickups carrying personnel or material delivery trucks, can avoid direct wetland interaction.	X	X	X	X	X	X	X
	Use of straw, or alternative BMP erosion and sedimentation controls will be used in and near wetlands.		X	X		X		X

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
Invasive Species (cont.)	Mats used in wetlands containing invasive species will be cleaned prior relocation to other work areas or wetlands. Cleaning of matting will involve dropping mats one on top of another to loosen any sediment and debris. The matting will then be swept to remove loose soil and any plant material.	X	X	X	X	X	X	X
	Construction equipment and excavated soil material will be contained within the approved limits of work areas within the ROW; these limits of work will be defined on Project plans.	X	X	X	X	X	X	X
	Soils excavated from wetlands or riparian areas containing a predominance of invasive plants will be stockpiled separately (to the extent that there is sufficient workspace) and contained within staked bales, silt fence or other approved erosion and sedimentation control BMPs to minimize the potential of spreading these soils elsewhere onto the ROW.					X		
	Final restoration of the ROW will be performed in accordance with NEP's Environmental Guidance Document EG-303.							X
	NEP field monitors will perform site inspections and oversee the contractors' compliance with applicable federal, state, and local permit conditions, Project plans (e.g., SWPPP), and NEP policies.	X	X	X	X	X	X	X
	Soil and vegetation disturbance will be minimized to the extent practicable.	X	X	X	X	X	X	X
	Erosion and sedimentation controls will be installed and maintained, per the SWPPP.		X	X	X	X	X	X
	Prior to moving to other work areas, remove plant matter, soil, or other deleterious material from equipment and construction matting when working at the sites containing invasive species.	X		X	X	X	X	X
Historic Resources	Mitigation will be determined in consultation with Massachusetts Historical Commission ("MHC"), Tribal Historic Preservation Officer ("THPOs"), Department of Conservation and Recreation ("DCR"), any other consulting parties and Advisory Council on Historic Preservation ("ACHP"), as appropriate. If determined to be necessary, data collection activities will occur prior to any construction activities. If the site is to be protected in place, appropriate protective measures will be taken when earth-disturbing construction activities occur in the vicinity.	X	X	X	X	X	X	X
Hazardous Waste	Work will be completed in accordance with EG-303, EG-501, EG-502, and EG-1707 which describe NEP's procedures for managing hazardous waste and contaminated soils, and NEP's spill response and reporting procedures.	X	X	X	X	X	X	X
	If oil and/or hazardous material are identified during the implementation of this Project, notification will be made to Massachusetts Department of Environmental Protection ("MassDEP"), per reporting requirements, and the necessary precautions outlined in NEPs BMPs and relevant permits will be followed.	X	X	X	X	X	X	X
	Develop a spill prevention and response plan with procedures to be used during construction to minimize the potential for a fuel spill and, if a spill occurs, to control and minimize potential effects.	X	X	X	X	X	X	X
	If refueling and maintenance in the field are necessary, vehicles and equipment will be brought to an area greater than 100 ft away from sensitive environmental features, and reasonable environmental precautions will be taken.	X	X	X	X	X	X	X
General Decarbonization Benefits	Improved transmission system infrastructure will provide improved electric transmission reliability, increased line capacity, and more opportunities for the interconnection of renewable energy generating facilities. Additionally, since the Project supports the transition to utilizing renewable energy resources, the Project promotes public health with regard to future reduction of air pollution, as well as water and soil contamination. Generating energy from renewable sources reduces the amount of energy generated from fossil fuels, the latter of which is associated with harmful gases that contribute to respiratory diseases such as emphysema and asthma.					X	X	

Parameter	Avoidance and Minimization Measures and BMPs	Construction Activity						
		Vegetation Removal & Mowing	Erosion & Sediment Controls	Access Improvement	Structure Removal / Disposal	Structure Installation	Wire Replacement	ROW Restoration
Climate Change Adaptation & Resiliency	Precipitation Resiliency: Replacement steel structures and caisson foundations are more resilient to weather extremes than the existing structures. A review of the recent operating history, design, and physical condition of the Lines demonstrates that they should be rebuilt to ensure reliable service. In light of these concerns, the Lines will be designed with additional capacity to meet known and anticipated future requirements. Access improvements will better withstand flood conditions and will reduce the potential for erosion impacts during future maintenance. Improved line clearances (conversion of vegetative cover types) will reduce the risk of outages due to trees falling on the lines, which is likely to become more frequent with climate change (due to both temperature stress and increased precipitation destabilizing upland trees). Mitigation measures for work within Bordering Land Subject to Flooding ("BLSF") and wetlands (described below) also facilitate precipitation resiliency.			X		X	X	
	Temperature Resiliency: Upgrades to infrastructure, e.g., insulators and conductors, will allow the system to handle greater electrical loads during heat waves.					X	X	
	Inland Flooding Resiliency: Replacement steel structures and caisson foundations are more resilient to inundation. Structures within the floodplain are not expected to restrict flows or cause an increase in flood stage or velocity. Impacts to peak runoff rates (from conversion of vegetative cover types and increases in impervious surface area), will be mitigated through a combination of hard and soft engineering techniques.					X		X
Traffic	Develop and implement a Transportation Management Plan (TMP) to minimize traffic impacts and maintain a safe work zone and safe passage for the traveling public. Coordinate with MassDOT to obtain approval for overhead transmission line crossings of state highways (including the use of guard structures) and access to the NEP ROW from state highways, and coordinate with municipalities regarding traffic management needs on locally owned roads.			X			X	
Emissions	Diesel-powered non-road construction equipment with engine horsepower ratings of 50 and above to be used for 30 or more days over the course of Project construction will have United States Environmental Protection Agency ("EPA")-verified (or equivalent) emission control BMPs, such as oxidation catalysts or other comparable technologies (to the extent that they are commercially available) installed on the exhaust system side of the diesel combustion engine. Vehicle idling will be minimized in accordance with Massachusetts' Anti-idling law, M.G.L. c. 90, § 16A, c. 111, §§ 142A – 142M, and 310 CMR 7.11. NEP requires the use of ultra-low sulfur diesel ("ULSD") fuel in its diesel-powered construction equipment and limits idling time to five minutes except when engine power is necessary for the delivery of materials or to operate accessories to the vehicle such as power lifts.	X	X	X	X	X	X	X
	Dust controls will be evaluated and implemented as needed throughout the duration of the Project on disturbed soils that are subject to surface dust movement and dust blowing.	X	X	X	X	X	X	X

8.2 Compensatory Mitigation

After feasible and practicable available measures to avoid or minimize Project impacts have been implemented (as described in the "Avoidance, Minimization, and Mitigation" sections of each preceding section and summarized in Table 8-1), NEP will provide appropriate compensatory mitigation for Project impacts, in line with the requirements of the various regulatory programs under which the Project is being permitted. NEP will incorporate elements of both in–situ restoration and off-site compensatory mitigation approaches into its mitigation packages.

NEP will work with the appropriate regulatory agencies during permitting to finalize mitigation proposals as required by federal, state, and local regulations. Under most regulatory programs, NEP proposes *in-situ* restoration as the primary means of providing 1:1 restoration of impacts associated with construction matting and work areas involving soil disturbance, such as around the base of structure installation/removal sites. Wetland replication will be provided under the 401 provisions. Where required by statute and in areas of permanent impact, such as where structures will be installed in resource areas, NEP will provide compensatory mitigation. As approved in consultation with regulatory agencies, compensatory mitigation may include off-site preservation of forested land or wetlands, and culvert and stream enhancements, or other replication, restoration, or preservation packages.

8.2.1 Compensatory Mitigation Requirements

The Project is subject to a variety of environmental permits and authorizations that may require compensatory mitigation for impacts to jurisdictional/regulated areas that cannot be avoided or minimized. In consultation with regulatory agencies, NEP will provide compensatory mitigation for unavoidable impacts in order to comply with the various permit programs that have jurisdiction over work planned as part of the Project. NEP is working with federal, state, and local agencies to determine appropriate approaches to compensatory mitigation required by these permit programs. Compensatory mitigation standards and requirements fall under several jurisdictional programs such as the federal, state and local wetland regulations, including:

- Clean Water Act ("CWA") Section 401 Water Quality Certification (MassDEP)
- WPA (MassDEP and Local Conservation Commissions)
- CWA Section 404 (USACE)[1]
- Massachusetts Endangered Species Act (MESA) (NHESP)
- State Historic Preservation Act / NHPA Section 106 (MHC) [1]
- Local Wetland Regulations

At this stage of Project permitting, exact details of the anticipated mitigation packages have not been finalized. NEP is in consultation with regulatory agencies to ensure that the construction methods and anticipated mitigation measures will meet applicable mitigation criteria. Given the overlap in jurisdiction over resource areas in many locations (for example, wetlands within NHESP habitat or DCR land), NEP anticipates that some mitigation packages will be able to address multiple Project impact types within the same comprehensive package. In other cases, mitigation may be more tailored to specific concerns or specific jurisdictions

8.2.2 Conversion of Vegetative Cover Types Compensatory Mitigation Requirements

Within wetlands, conversion of vegetative cover types, while defined as an "alteration" or a "secondary impact" under state and federal regulation, does not constitute a loss of BVW or a discharge of fill material into Waters of the United States ("WOTUS"). There is no requirement in the WPA or the 401 Water Quality Certification ("WQC") regulations to compensate for conversion of wetlands from one vegetation cover type to another, as no BVW or WOTUS within the Commonwealth is "lost" following vegetation removal. The WPA regulations require NEP to mitigate the reduction or loss of the capacity of a wetland to provide for any of the Statutory Interests for specific regulated resource areas. As described in Section 5 of the DEIR, NEP has documented existing conditions within jurisdictional wetlands along the Project ROW and assessed potential construction impacts. Per this analysis, the Project will not impair the integrity of the wetland or ability of the wetland to provide for the statutory interests as provided in M.G.L. c. 131, §40.

1 While MEPA Review is primarily concerned with state regulatory requirements, some federal and/or local regulatory requirements overlap with those promulgated by the state. These are included in this table, for reference.

While conversion of vegetative cover types will not result in permanent loss of BVW, this activity is considered permanent wetland alteration and will result in a change in community type from Palustrine Forested Wetlands ("PFO") wetland to Palustrine Scrub Shrub Wetlands ("PSS") or Palustrine Emergent Wetlands ("PEM"). Conversion of vegetative cover types will be selective and will only remove tall-growing species which have the potential to interfere with the overhead transmission lines, or trees which are directly obstructing access to the ROW. Trees will be cut near the ground surface, and root balls left intact to maintain soil stability. Cut stumps will be treated with herbicide during the next routine maintenance cycle, reducing regrowth and the need for future tree cutting. Understory shrub and emergent wetland vegetation will be left intact and maintained under long term vegetation management cycles as PSS or transitional PFO/PSS systems. These transitional systems can be a beneficial natural resource as they provide wetland functional diversity in an otherwise forested area and provide valuable and important wildlife habitat as PSS/PEM wetland types. Accordingly, NEP does not anticipate providing compensatory BVW mitigation under the WPA or 401 WQC regulatory programs for conversion of vegetative cover types within wetlands along the existing ROW edge.

Some conversion of vegetative cover types will take place within RA. NEP recognizes that maintaining/re-establishing vegetation within the RA is critical to protecting water supplies, providing flood control, preventing pollution, and protecting wildlife and fisheries habitat. Therefore, NEP is proposing in-situ restoration of disturbed soil surface to promote soil stabilization and rapid revegetation. Additionally, NEP will loam and seed work areas with native grass and herbaceous species following construction to reestablish vegetative cover.

Additionally, pursuant to 310 CMR 10.60, proposed BMPs have been approved by NHESP for prior, similar projects, and NEP anticipates that these BMPs will contribute to the Project's avoidance and minimization measures. A MESA Project Checklist will be submitted for the Project, and impact avoidance, minimization and mitigation measures within rare species habitats (including those associated with conversion of vegetative cover types), will be designed in coordination with NHESP, and with the specific habitat requirements of known rare species in mind. NEP will continue to work closely with NHESP throughout the MESA review process, including continued coordination and preparation of a Conservation Management Plan.

Under federal Section 404 regulation, conversion of vegetative cover types, more specifically defined as a conversion of wetland vegetation cover type, is a "Secondary Impact." Secondary impacts are effects on wetlands that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material (40 CFR 230.11(h)). NEP will coordinate with the USACE to ensure all mitigation requirements are met.

8.2.3 Compensatory Mitigation for Permanent Discharge of Fill Material/Wetland Loss

To mitigate unavoidable permanent impacts associated with installation of new or replacement structures in wetlands, NEP will work with the USACE, the MassDEP, and local Conservation Commissions to develop compensatory mitigation plans. NEP currently anticipates utilizing the MA In-Lieu Fee program (ILFP)[2], administered by the MA Department of Fish and Game ("DFG") for compensatory mitigation under Section 404. The In-Lieu Fee program is additional mitigation measures required by state and local agencies will be determined during the consultation and permitting processes with these agencies.

8.2.3.1 Wetland Replication

Where permanent fill (and associated loss of wetlands) is proposed, NEP will provide compensatory wetland replication meeting the requirements of the 401 WQC and local bylaws where applicable. Preparation of the wetland replication areas will include excavation of upland soils and backfilling with hydric soil, application of a suitable wetland seed mix, herbaceous plugs, and shrub plantings, and appropriate monitoring to ensure that the replication site achieves at least 75 percent native vegetation cover within two growing seasons. The wetland replication areas will be excavated to meet the appropriate grades necessary for hydrologic connectivity to the adjacent wetland and filled with suitable hydric soil material (free from invasive species seeds or rootstock).

Following establishment of final grades that meet the grade of the adjacent existing wetland, the replication area will be planted with species that occur in the proposed impact area, which have high wildlife habitat value, and/or that

2 The ILFP affords Corps permittees the new option of paying an in-lieu fee to DFG's ILFP as mitigation for their project impacts to federally-regulated aquatic resources. DFG, in turn, will aggregate ILFP fees to implement larger-scale mitigation projects. ILFP mitigation projects will focus on permanently protecting aquatic resources and upland buffers and/or restoring impacted aquatic resources within four identified bio-regions covering the state (called "Service Areas"). More information can be found at https://www.mass.gov/info-details/learn-about-dfgs-in-lieu-fee-program.

are consistent with species in the adjacent existing wetland. Seed mix, herbaceous plugs, and shrub plantings will be completed immediately following soils work and grading. Wetland replication areas will be mulched and watered as necessary, and appropriate erosion and sediment controls will be installed prior to work and left in place until the wetland replication areas are fully stabilized. Replication areas will be monitored as required in local, state, and federal permits. NEP has prepared draft wetland replication plans for each location. Prospective mitigation areas will be located in areas hydrologically connected to the impacted wetland where feasible. Wetland replications areas have been proposed based on their proximity to impact areas, and potential to enhance the functions and values of existing wetland systems. Wetland replication will be provided at a minimum of 1:1 ratio of wetland replication to wetland loss and 2:1 ratio within ORW wetlands. Replication plans will be refined throughout the permitting process by MassDEP through the 401 WQC process and by Conservation Commissions through NOIs for each municipality in which permanent impacts to BVW are proposed.

By replicating wetland hydrology, soils, and vegetation of the impact area, conditions will be established that will allow the replication of wetland functions and values, and thus will protect the interests of the Commonwealth's Water Quality Standards, 401 WQC provisions, and the WPA. Interests of the WPA that are associated with hydrologic functioning (public and private water supply, ground water supply, flood control, storm damage prevention, prevention of pollution, land containing shellfish, fisheries), will be protected because the wetland replication areas will provide, at a minimum, an equivalent area for groundwater and surface water storage, filtration, and wetland vegetation. Wetland wildlife habitat functions/interests will likewise be replicated, with plant species chosen to replicate the species that were impacted, or because they offer high wildlife habitat value.

8.2.4 Compensatory Flood Storage

The majority of Project impacts within BLSF are associated with 2.3 acres of vegetative cover type conversion, use of 3.9 acres of temporary construction matting, and with 1.2 acres of gravel access and work pad improvements. Conversion of vegetative cover type activities will be performed in a manner so as to minimize the potential for runoff and impacts to flood storage capacity and infiltration of stormwater by retaining as much understory vegetation as possible. Where temporary construction matting is required within BLSF, matting will be appropriately anchored to ensure that there is no risk of it becoming dislodged or causing an obstruction in the event of flooding. Once construction is complete, matting will be removed from BLSF. Where stone access or work pad improvements are required within BLSF, these areas will be over-excavated to ensure that there is no net loss in flood storage capacity. Once construction is complete, these areas will be allowed to naturally revegetate, minimizing impacts to infiltration rates or overland flows.

The Project will result in de minimis impacts within Bordering Land Subject to Flooding (BLSF) associated with the installation of 15 structure foundations (10 concrete caissons and five direct embed) to replace the 12 existing structure foundations, totaling approximately 1,040 square feet of permanent fill. These impacts are limited in the context of a project that extends approximately 67.7 miles, encompasses approximately 1,165 acres of existing transmission right-of-way, and includes the replacement of nearly 700 transmission structures. The caisson foundations will be installed above the Base Flood Elevation ("BFE") and, because of their limited footprint, will not result in a measurable loss of flood storage capacity or adversely affect flood conveyance functions.

Accordingly, compensatory flood storage is not proposed. Consistent with existing conditions, the new caisson foundations will extend approximately one foot above the surrounding ground surface or normal high-water elevation, replacing existing structure foundations in substantially the same locations. During construction, sediment and erosion controls will be installed around the work areas, and all temporarily disturbed areas will be restored and stabilized through seeding and/or mulching following completion of construction Mitigation Measures

Impacts to the environment, including land, stormwater, wetlands, rare species, and historic and archeological resources, are discussed in detail in Section 2 through Section 7. Table 8-2 presents a summary of anticipated Project impacts, and the proposed mitigation, where required.

Table 8-2: Summary of Project Impacts and Proposed Mitigation

Resource Area	Impact Type	Impact Area	Potential Mitigation
Bordering Vegetated Wetlands ("BVW") & Land Under Water Bodies and Waterways ("LUWW")	Secondary Impacts (conversion of vegetative cover types)	19.6 acres	In-Lieu Fee administered by the MA Department of Fish and Game (per the United States Army Corps of Engineers ["USACE"]) and potential land preservation.
	Permanent Discharge of Fill Material / Loss of Resource Areas (Structure Foundations)	3,230 square feet ("sf")	Compensatory Mitigation as determined in state and local permitting, including wetland replication proposed within each municipality. Final replication locations and ratios to be determined during permitting.
	Temporary Discharge of Fill Material / Temporal Loss (Construction Matting)	42.8 acres	In-Lieu Fee (USACE) and 1:1 in-situ restoration. See also Avoidance & Minimization sections for details on the use of construction matting.
Riverfront Area ("RA")	Secondary Impacts (conversion of vegetative cover types)	21.2 acres	In-situ restoration, including loam and seed as applicable. The habitat will remain vegetated and continue to function as wildlife habitat.
	Temporary Fill (Construction Matting, Gravel Work Areas and Access to be Removed Post Construction)	39.4 acres	In-situ restoration.
Inland Bank ("Bank")	Secondary Impacts (conversion of vegetative cover types)	9,645 linear feet ("lf")	N/A - Vegetation alteration will be minimal, and understory will remain in place and/or quickly re-establish.
	Permanent Fill (Structure Foundations, and Gravel Work Areas and Access)	0 lf	N/A – no permanent impact to bank
	Temporary Fill (Construction Matting and Gravel Work Areas)	7,094 lf	*In-situ* restoration.
Floodplain / Bordering Land Subject to Flooding ("BLSF")	Secondary Impacts (conversion of vegetative cover types)	2.3 acres	N/A – No flood storage lost.
	Permanent Fill (Structure Foundations, and Gravel Work Areas & Access)	Structures: 1,040 sf Gravel work areas and access: 1.3 acres	N/A – the flood storage loss is *de minimis* within each BLSF where structures are replaced, and the foundations will not impact flood storage capacity.
	Temporary Fill (Construction Matting)	3.9 acres	*In-situ* restoration.

8.2.5 Wetland Restoration for Temporary Impacts

NEP anticipates *in-situ* restoration will be the primary means of mitigation for temporary (or "temporal") impacts associated with construction matting within wetlands under both Section 404 and the WPA. A detailed description of NEP's standard procedure is presented in **Section 4** and summarized below.

As construction mats are removed, wetlands will be inspected for sediment deposited from work and access areas. If rutting or soil compaction is observed following construction mat removal, the area shall be returned to pre-existing conditions consistent with the surrounding area, by light hand raking or by back-blading with machinery. Deep depressions (greater than 12 inches) shall be graded using available, loose soil from the work area. Depending on vegetation conditions, disturbed wetland areas will either be allowed to revegetate naturally or will be seeded with an appropriate wetland conservation seed mix.

Restored areas will be monitored until at least 75 percent revegetation cover of native species is achieved. Where appropriate, native species plantings, and creation of woody debris and log piles, will be implemented. Any additional site-specific mitigation will be determined during future permitting, in coordination with the local Conservation Commissions, and if applicable, NHESP.

Construction debris will be removed from the Project Area and disposed of in accordance with applicable laws and regulations. Siltation fencing, strings and stakes shall be removed and disposed of as ordinary waste.

8.2.6 Proposed Mitigation in NHESP Priority and Estimated Habitat

Project impacts and associated avoidance and minimization measures within NHESP Rare Species Habitats are discussed in **Section 5**. NEP is in the process of consulting with the NHESP regarding Project impacts to rare wildlife and plants, and the anticipated amount and type of "Takes." NEP will coordinate with NHESP to implement a CMP in the event of a "Take" to identify forested open space parcels with contiguous rare species habitat for preservation as part of NEP's mitigation package. During construction, avoidance and minimization measures will include the use of appropriate BMPs; adherence to construction timing and restrictions, consistent with the OMP and VMP for rare species; protection and avoidance of rare species habitat areas; and measures to avoid direct harm to rare species through contractor awareness and training prior to construction.

Specific measures will be designed in coordination with NHESP and tailored to the species of concern within each relevant NHESP habitat area. Post-construction, NEP may implement mitigation measures designed to provide a long-term net benefit to rare species, if deemed necessary by NHESP during review of the Project.

Additionally, pursuant to 310 CMR 10.60, proposed BMPs discussed in **Section 5.3** have been approved by NHESP for prior, similar projects, and NEP anticipates that these BMPs will contribute to the Project's avoidance and minimization measures. A MESA Project Checklist will be submitted for the Project, and impact avoidance, minimization and mitigation measures within rare species habitats, including those associated with conversion of vegetative cover types, will be designed in coordination with NHESP, and with the specific habitat requirements of known rare species in mind. NEP will continue to work closely with NHESP throughout the MESA review process and preparation of a CMP.

8.2.7 Proposed Mitigation for Tree Removals

Consistent with the Certificate, NEP is committed to prioritizing mitigation opportunities that will also address the overall carbon footprint of the Project. NEP plans to prioritize preserving an equivalent acreage of forested open space identified in coordination with NHESP for rare species habitat mitigation, which is expected to address both rare species and carbon impacts. NEP is consulting with NHESP, DCR, MassAudubon, and local land trusts to identify land that provides a contiguous connection to existing forested open space, with existing rare species habitat as a criterion.

To the extent that preservation does not provide acreage equivalent to the acres of tree removal, NEP will work with DCR, MassAudubon, and/or local land trusts to fund projects that will offset losses in carbon sequestration. NEP will coordinate with these entities on the specific details and mechanisms for successful implementation of the mitigation package as the Project progresses through design and permitting.

NEP also reaffirms its plans to donate approximately 1.7 percent of trees felled to the DCR Community Wood Bank. Donations will come from felled trees that are not retained by landowners. At this time, NEP is engaged in preliminary coordination with DCR's Bureau of Forestry Community Wood Bank Program. While discussions with firewood donation centers are ongoing, the amount of wood donated will depend on the capacity of these organizations to accept donations. Within NEP fee-owned parcels, wood collected during tree removal will be donated for reuse in long-lived wood products, to affordable housing projects, or to wood banks in Massachusetts where feasible. Outside of NEP fee-owned parcels, the trees within the ROW belong to the respective private landowners. As such, it is not possible to provide a detailed breakdown of how all wood is distributed or disposed of by parties other than NEP at this stage of the process.

8.2.8 Proposed Mitigation in EJ Communities

Refer to **Section 2** of this DEIR for analysis of EJ populations and potential impacts along the Project route. Overall, Project impacts to EJ populations will be *de minimis*. Impacts will be distributed across EJ and non-EJ communities and will not disproportionately affect EJ populations.

Mitigation for Project impacts, including impacts within EJ communities/populations, are described throughout this FEIR. No mitigation measures specific to EJ populations are required or proposed, as no disproportionate Project impacts to EJ populations will occur. However, NEP will work with NHESP, DCR, and local Land trusts to prioritize protecting forested open space as part of the comprehensive carbon mitigation plan within or adjacent to EJ populations, to the extent it is practicable.

8.3 Mitigation Costs and Responsible Parties

At this early stage in Project permitting, NEP has not yet developed comprehensive compensatory mitigation proposals. Some generalized costs and responsible parties for broad-scale Project mitigation are listed below. These are pre-construction estimates based on available information and experience with other recent projects.

Avoidance and Minimization Measures:

- Construction mats for access and work areas within sensitive resource areas (including wetlands, select areas of rare species Priority Habitat, and archaeologically sensitive sites): ~**$50/lf**. NEP is responsible for the cost, and NEP Contractor(s) are responsible for installation and implementation.

Wetland Mitigation Measures:

- Wetland protection and in-situ restoration, including sediment and erosion controls, mitigation for wetlands, waterbodies, VPs, invasive species controls, and ROW restoration (upland and wetland) **approximately $200,000/mile**. NEP is responsible for the cost, and NEP Contractor(s) are responsible for installation and implementation.
- Wetland Replication: **approximately $10/sf**. NEP is responsible for the cost, and NEP Contractor(s) are responsible for installation and implementation.

In-Lieu Fee Mitigation and Land acquisition:

- USACE In-Lieu fee mitigation (for impacts to wetlands/WOTUS) will be provided at the appropriate percentage of the standard ratio dependent upon the impact category.
- Land acquisition at the cost per proposed parcel (if applicable/required by permitting authority).

Detailed mitigation packages will be developed in coordination with federal, state, and local permitting authorities, and will be designed to satisfy applicable permitting requirements.

NEP will be responsible for funding and land acquisition (if required), and NEP and their contractor will be mutually responsible for overseeing the implementation of all required mitigation measures. As applicable, wetlands replication and enhancement area plantings would occur according to schedule determined during permitting.

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9 Section 61 Findings

MEPA requires state agencies to make findings on environmental damage and mitigation measures before issuing a state permit for a Project requiring an EIR (301 CMR 11.07 - so-called Section 61 Findings). The MEPA regulations at 301 CMR 11.07(6)(k) require that the FEIR contain the proposed Section 61 Findings. In accordance with this requirement, NEP's proposed Section 61 Findings for the Project are presented in the following section.

These proposed findings incorporate consultations with various state agencies. While NEP will continue to consult with certain agencies concerning mitigation, this FEIR contains the most up-to-date information on the Project's mitigation measures, including those to which NEP has committed and those under discussions with agencies.

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9.1 Proposed Section 61 Findings for Massachusetts Department of Environmental Protection

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs ("EEA") Number: 16913

Agency Actions: Massachusetts Department of Environmental Protection ("MassDEP") Section 401 Water Quality Certification ("WQC")

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations *301 CMR 11.12(5)* stipulate that in "accordance with *M. G.L. c. 30, §61*, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that all practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent (NEP) and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with *M.G.L. c. 30, §61*. These Findings are limited to the subject matter jurisdiction of the Section 401 Water Quality Certification ("WQC") sought from the Massachusetts Department of Environmental Protection ("MassDEP").

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[1].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

This Project requires an Individual Section 401 Water Quality Certification ("WQC"), primarily due to the discharge of fill material in Waters of the United States ("WOTUS") within the Commonwealth which require a permit from the

1 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

United States Army Corps of Engineers ("USACE"). NEP seeks a Variance for the discharge of fill within 400 ft of the Ordinary High-Water Mark ("OHWM") of a Class A surface water, the Quabbin Reservoir, for Structures 321 through 324. NEP will file a WQC application with MassDEP for review under *314 CMR 9.00*. MassDEP evaluation criteria for applications are the incorporation of appropriate and practicable measures for avoiding and minimizing impacts to wetland resource areas. NEP additionally will apply for a Variance under *314 CMR 9.08.* The Project's design avoids, minimizes, and mitigates adverse impacts, as described below.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of the Massachusetts Environmental Policy Act ("MEPA") and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Draft Environmental Impact Report ("FEIR") to the MEPA Office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ Population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of 0.5 or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ("NHESP") ongoing.)

Project Impacts: Impacts relative to the Section 401 WQC include the permanent fill of approximately 3,230 sf associated with structure foundations, and approximately 42.8 acres of temporary alteration by construction mats in the WOTUS.

Project Mitigation: Mitigation was considered as a matter of course during the planning and design process as an overall approach to avoiding impacts whenever possible. In terms of mitigation during construction, NEP has established best management practices ("BMPs") that are to be followed by NEP employees and its contractors for accessing sites and performing construction activities on transmission ROWs. These BMPs ensure that this Project will be completed in accordance with applicable environmental laws and regulations, as well as with NEP policies and compliance objectives. NEP completed field investigations and a constructability review along the Project route to determine access routes and construction techniques to be implemented during construction of the Project to provide an accurate impact assessment and to design work to avoid and minimize impacts within wetlands and other sensitive resources (e.g., cultural resources) to the greatest extent practicable. Accordingly, commitments listed in **Table 9-1** below are to be carried out by NEP, to ensure that proposed wetlands and waterways mitigation strategies will be implemented as the Project proceeds.

Table 9-1: Mitigation Strategies for Impact to Waters of the United States ("WOTUS")

Wetland Resource Area	Impact	Mitigation Measures1	Responsible Party / Implementation
WOTUS within the Commonwealth – Wetlands	Temporary alterations during construction; Permanent fill for structure foundations	▪ Use construction mats to minimize compression of soils, rutting, and disturbance of vegetation ▪ In-situ restoration for construction matting. ▪ Restoration of impacted wetlands through seeding and plantings, as necessary. ▪ Compensatory mitigation for wetlands permanently impacted by fill. ▪ Implementation of Stormwater Pollution Prevention Plan ("SWPPP").	Contractor / Construction / NEP Post-construction monitoring of wetland restorations and replications will be provided.
WOTUS within the Commonwealth – Other	Permanent impacts from concrete caissons	1:1 ratio of replacement-to-loss for normal wetlands, and a 2:1 ratio of replacement-to-loss for Outstanding Resource Waters ("ORWs").	Contractor / Construction NEP / Planning

1 Final Plans to be determined ("TBD") with state and local regulatory agencies

Findings: After the draft findings herein have been reviewed by MassDEP and revised by the Proponent, as appropriate, MassDEP will make a finding that the foregoing information adequately describes the environmental impacts associated with the Project, and that with the implementation of the mitigation measures described above, practicable means will have been taken to avoid or minimize adverse environmental impacts subject to MassDEP authority. Implementation of avoidance, minimization, and mitigation measures will occur in accordance with the terms and conditions set forth in the 401 WQC.

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION

WATER QUALITY CERTIFICATION

BY_____ DATE_____

9.2 Proposed Section 61 Findings for Massachusetts Department of Conservation and Recreation – Division of Water Supply Protection

DRAFT FINDINGS PURSUANT TO 313 CMR 11.00 – Watershed Protection

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs ("EEA") Number: 16913

Agency Actions: Massachusetts Department of Conservation and Recreation ("DCR") Division of Water Supply Protection - Watershed Protection Act ("WsPA") Advisory Ruling / Determination of Applicability

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations *301 CMR 11.12(5)* stipulate that in "accordance with *M. G.L. c. 30, §61*, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that all practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent (NEP) and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with *M.G.L. c. 30, §61*. These Findings are limited to the subject matter jurisdiction of the WsPA Advisory Ruling / Determination of Applicability sought from DCR.

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[2].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

This Project qualifies for exemption from the provisions of 313 CMR 11.04 under category (1) Uses, Structures or facilities lawfully in existence or for which all applicable municipal, state and federal permits and approvals, other

2 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

than building permits and permits for septic systems, were obtained prior to July 1, 1992) and 12 (Maintenance of Public Utilities - Wetlands. The maintenance, repair or replacement, but not the substantial changing or enlargement of, an existing and lawfully located Structure or facility used in the service of the public and used to provide electric, gas, water, sewer, telephone, telegraph and other telecommunication services in Bordering Vegetated Wetlands; provided, however, that such maintenance and repair activities do not materially impair the quality of water in the Watersheds).

The Project's design avoids, minimizes, and mitigates adverse impacts, as described in **Section 8** of this Final Environmental Impact Report ("FEIR"), and summarized at the end of each Section 61 Draft Findings.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this FEIR to the MEPA Office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ Population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of 0.5 or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ("NHESP") ongoing.)

Project Impacts: Impacts relative to the WsPA include the permanent fill of approximately 1,016 sf of wetlands within DCR water supply protection area due to structure foundations, approximately 29.3 acres of vegetation conversion due to tree removals (on and off-ROW), and approximately 18.3 acres of temporarily disturbance from construction mats, within the Primary and Secondary Protection Zones.

Project Mitigation: Mitigation was considered as a matter of course during the planning and design process as an overall approach to avoiding impacts whenever possible. In terms of mitigation during construction, NEP has established best management practices ("BMPs") that are to be followed by NEP employees and its contractors for accessing sites and performing construction activities on transmission ROWs. These BMPs ensure that this Project will be completed in accordance with applicable environmental laws and regulations, as well as with NEP policies and compliance objectives. NEP completed field investigations and a constructability review along the Project route to determine access routes and construction techniques to be implemented during construction of the Project to provide an accurate impact assessment and to design work to avoid and minimize impacts within wetlands and other sensitive resources (e.g., cultural resources) to the greatest extent practicable. Mitigation measures including the use of sediment and erosion controls, temporary construction matting within wetlands, and implementation of a Stormwater Pollution Prevention Plan ("SWPPP"), will all ensure the protection of the Quabbin Reservoir and its associated tributaries, including groundwater and surface water resources.

At this time, proposed mitigation may include, but is not limited to, the following:

- Work will be performed in accordance with applicable statutes, regulations, codes, or standards.
- NEP will coordinate with the DCR Staff Archaeologist and Ecologist prior to the commencement of work.

Findings: After the draft findings herein have been reviewed by DCR and revised by the Proponent, as appropriate, DCR will make a finding that the foregoing information adequately describes the environmental impacts associated

with the Project, and that with the implementation of the mitigation measures described above, practicable means will have been taken to avoid or minimize adverse environmental impacts subject to DCR/WsPA authority. Implementation of avoidance, minimization, and mitigation measures shall occur in accordance with the terms and conditions set forth in the applicable DCR permits, and pursuant to continued consultation and coordination with DCR.

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

DIVISION OF WATER SUPPLY PROTECTION - WATERSHED PROTECTION ACT

BY_____ DATE_____

9.3 Proposed Section 61 Findings for Massachusetts Department of Conservation and Recreation

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs EEA Number: 16913

Agency Action: Massachusetts Department of Conservation and Recreation ("DCR") Construction Access Permit ("CAP")

Intent of These Section 61 Findings: Massachusetts Environmental Policy Act ("MEPA") regulations *301 CMR 11.12(5)* stipulate that in "accordance with *M.G.L. c. 30, §61*, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with *M.G.L. c. 30, §61*. These Findings are limited to the subject matter jurisdiction of the CAP sought from DCR.

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements or re-establishment and construction of new access, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[3].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of the MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Final Environmental Impact Report ("FEIR") to the MEPA office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following

3 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

thresholds requiring the filing of an:

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of one half or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ["NHESP"] ongoing.)

Project Impacts: Impacts relevant to the DCR Construction Access Permits include approximately 2.1 acres of off-ROW vegetation conversion from one cover type to another. Off-ROW access improvements will be restored in coordination with DCR as part of the CAP process.

Project Mitigation: Mitigation was considered as a matter of course during the planning and design process as an overall approach to avoiding impacts whenever possible. In terms of mitigation during construction, NEP has established procedures that are to be followed by NEP employees and its contractors for accessing sites and performing construction activities on NEP transmission ROWs. These procedures ensure that this Project will be completed in accordance with applicable environmental laws and regulations as well as with NEP policies and compliance objectives. NEP completed field investigations and conducted a constructability review along the Project route to determine access routes, clearing techniques, and construction techniques to be implemented during construction of the Project to provide an accurate impact assessment and to design work to avoid and minimize impacts. Coordination with DCR is ongoing.

At this time, proposed mitigation may include, but is not limited to, the following:

- Any and work will be conducted according to the CAP terms and conditions.
- Work will be performed in accordance with applicable statutes, regulations, codes, or standards.
- NEP will coordinate with the DCR Staff Archaeologist and Ecologist prior to the commencement of work.
- Appropriate mitigation will be provided for activities resulting in disruption to DCR properties.

Findings: After the draft findings herein have been reviewed by DCR, and revised by the Proponent, as appropriate, DCR will make a finding that the foregoing information adequately describes the environmental impacts associated with the Project, and that with the implementation of the mitigation measures described above, practicable means will have been taken to avoid or minimize adverse environmental impacts subject to DCR authority.

DEPARTMENT OF CONSERVATION AND RECREATION

BY_____ DATE_____

9.4 Proposed Section 61 Findings for Natural Heritage and Endangered Species

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs ("EEA") Number: 16913

Agency Actions: Conservation and Management Permit from Natural Heritage and Endangered Species ("NHESP") of the Massachusetts Division of Fisheries and Wildlife ("MassWildlife") under 321 CMR 10.23.

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations 301 CMR 11.12(5) stipulate that in "accordance with M.G.L. c. 30, §61, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent (NEP) and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with M.G.L. c. 30, §61. These Findings are limited to the subject matter jurisdiction of the Conservation & Management Permit ("CMP") sought from the NHESP of the Massachusetts Division of Fisheries and Wildlife ("MassWildlife") under 321 CMR 10.23. This assessment will be further discussed in the Final Environmental Impact Report ("FEIR").

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[4].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

4 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

The Project includes installation of structures and conversion of vegetative cover type for access, and the use of temporary construction matting within wetlands, within NHESP Priority/Estimated Habitats for 28 rare species. These include three birds, three reptiles, one amphibian, five invertebrates, one fish, and 15 plant species

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of the MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Final Environmental Impact Report ("FEIR") to the MEPA office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

- Environmental Impact Report ("EIR"): Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of 10 or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ Population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of one half or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ongoing.)

Project Impacts: Specifically, Project activities within NHESP Priority and Estimated Habitats will result in approximately 43.7 acres of permanent conversion of vegetation from one cover type to another, approximately 15.3 acres of permanent alteration due to graded stone access and work areas, and approximately 30.4 acres of temporary alteration associated with construction matting.

Project Mitigation: Mitigation was considered as a matter of course during the planning and design process as an overall approach to avoiding impacts whenever possible. In terms of mitigation during construction, NEP has established procedures that are to be followed by all NEP employees and its contractors for accessing sites and performing construction activities on transmission ROWs. These procedures ensure that this Project will be completed in accordance with applicable environmental laws and regulations as well as with NEP policies and compliance objectives. NEP completed field investigations and a constructability review along the Project route to determine access routes, clearing techniques, and construction techniques to be implemented during construction of the Project to provide an accurate impact assessment and to design work to avoid and minimize impacts within sensitive resources to the greatest extent practicable.

NEP is working closely with NHESP to develop mitigation measures for each species, and consultation is ongoing. The Project will implement the necessary actions to avoid, minimize, and mitigate Project-related impacts to comply with the Massachusetts Endangered Species Act ("MESA") permit issued for the Project.

At this time, proposed mitigation includes, but is not limited to, the following:

- If after consulting, the Project will result in a "take," a Conservation & Management Permit ("CMP") will be prepared in compliance with the MESA.
- Specialized construction measures and commitments will be implemented to avoid impacts in sensitive areas. These measures will include specific design modifications to reduce work pad size where practicable, using construction matting or temporary stone in rare plant habitats, and adhering to timing restrictions and monitoring protocols; contractors working in Priority Habitat areas will receive training to ensure awareness of rare species protections; vegetation management will follow the requirements outlined in the Vegetation Management Plan ("VMP") and Operation and Maintenance Plan ("OMP").
- In-situ habitat restoration of temporarily disturbed areas.

- Extensive “sweeps” and monitoring during construction (where applicable).
- Training on species biology, identification, and mitigation requirements for construction personnel working within rare species habitat areas.

A detailed mitigation plan will be prepared in conjunction with NHESP during the MESA Review, which is currently (as of October 15, 2025) in progress. Initial consultation with NHESP began in November 2024, prior to the filing of the ENF in January, 2025. NEP has maintained on-going discussions with NHESP regarding the type and extent of impacts that will occur in mapped Priority Habitats. NEP will submit a Checklist in September 2026.

Findings: After the draft findings herein have been reviewed by NHESP, and revised by the Proponent, as appropriate, the NHESP will make a finding that the foregoing information adequately describes the environmental impacts associated with the Project, and that with the implementation of the mitigation measures described above, practicable means will have been taken to avoid or minimize adverse environmental impacts subject to NHESP authority.

NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM

MASSACHUSETTS DIVISION OF FISHERIES AND WILDLIFE

BY_____ DATE_____

9.5 Proposed Section 61 Findings for Massachusetts Department of Transportation

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs EEA Number: 16913

Agency Action: Massachusetts Department of Transportation ("MassDOT") Permit to Access State Highway

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations *301 CMR 11.12(5)* stipulate that in "accordance with *M.G.L. c. 30, §61*, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with *M.G.L. c. 30, §61*. These Findings are limited to the subject matter jurisdiction of State Highway Access Permits sought from MassDOT.

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[5].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Final Environmental Impact Report ("FEIR") to the MEPA office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

5 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ Population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of one half or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ("NHESP") ongoing.)

Project Impacts: Project impacts relevant to MassDOT are associated with the replacement of overhead wires across state highways by a non-municipal utility. In addition, an access route is proposed from the highway to the ROW, as well as the installation of several structures within the highway layout. Guard structures will be used to ensure the safe removal and replacement of the overhead wires. Guard structures will be situated within the NEP ROW at state roadway crossings (specific locations currently under review). Activities at state roadway crossings could temporarily affect traffic flow, but no permanent physical modifications to the roadway are proposed. Access to the NEP ROW from state highways will occur via existing approved access points.

Project Mitigation: Mitigation was considered as a matter of course during the planning and design process as an overall approach to avoiding impacts whenever possible. In terms of mitigation during construction, NEP has established procedures that are to be followed by NEP employees and its contractors for accessing sites and performing construction activities on NEP transmission ROWs. These procedures ensure that this Project will be completed in accordance with applicable environmental laws and regulations as well as with NEP policies and compliance objectives. NEP completed field investigations and conducted a constructability review along the Project route to determine access routes, clearing techniques, and construction techniques to be implemented during construction of the Project to provide an accurate impact assessment and to design work to avoid and minimize impacts.

MassDOT Districts 1, 2 and 3 will be contacted to discuss specific design information and anticipated Project activities within highway jurisdiction. With MassDOT input, a Traffic Management Plan ("TMP") will be developed and submitted for review and approval prior to the start of construction. Enforceable commitments in the TMP will be carried out by NEP to ensure that proposed traffic mitigation strategies will be implemented as the Project proceeds. Such strategies may include, as appropriate, traffic management procedures; construction time restrictions; signage; installation of track pads to minimize soil in roadways; and/or restoration of vegetation along soft shoulders after construction. Work will occur in accordance with NEP Policy for ROW Access, Maintenance and Construction Best Management Practices ("BMPs").

Findings: After the draft findings herein have been reviewed by MassDOT, and revised by the Proponent (NEP), as appropriate, the MassDOT will make a finding that the foregoing information adequately describes the traffic impacts associated with the Project, and that with the implementation of the mitigation measures described above, practicable means will have been taken to avoid or minimize adverse environmental impacts subject to MassDOT's authority. Appropriate conditions consistent with this Section 61 Finding are included in the State Permit to Access State Highway issued by MassDOT to describe more fully and ensure implementation of said measures.

DEPARTMENT OF TRANSPORTATION

BY_____ DATE_____

9.6 Proposed Section 61 Findings for the Energy Facilities Siting Board

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs ("EEA") Number: 16913

Agency Action: Massachusetts Energy Facilities Siting Board ("EFSB")

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations 301 CMR 11.12(5) stipulate that in "accordance with M.G.L. c. 30, §61, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with M.G.L. c. 30, §61. These Findings are limited to the subject matter jurisdiction of the EFSB.

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements or re-establishment and construction of new access, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[6].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of the MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Final Environmental Impact Report ("FEIR") to the MEPA office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved

6 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))

- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of one half or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ["NHESP"] ongoing.)

Project Impacts: The EFSB evaluated the Project to determine public necessity and environmental impacts. Project impacts relevant to EFSB include natural resources impacts such as permanent and temporary impact associated with structure replacements, access improvements and construction matting, and social impacts such as EJ considerations, traffic impacts, and historic or archaeological impact. A full description of Project impact analysis was provided in the EFSB filing to the Massachusetts EFSB (Docket No. EFSB 25-01).

Project Mitigation: NEP considered avoidance and minimization as a matter of course during the planning and design process, with an overall approach of avoiding impacts whenever possible. Avoidance, minimization and mitigation was provided in the EFSB filing to the Massachusetts EFSB (Docket No. EFSB 25-01).

Findings: Providing significant consideration to the unique scope of the Project and the significant length, cost, and reliability concerns, NEP conducted a route analysis in the EFSB filing. Route evaluation relied heavily on NEP's responsibility to ensure that no clearly superior route was overlooked. As a result of the in-depth screening process, no candidate routes were found to meet the route evaluation criteria and/or provide benefits comparable to rebuilding the E5/F6 Lines and Tap Lines within their existing Right-of-Way (ROWs), the Project Route. NEP concluded that, consistent with the EFSB's statutory mandate, the construction of the Project along the Project route properly minimizes environmental impacts and achieves an appropriate balance among conflicting environmental concerns, as well as among environmental impacts, cost, and reliability.

ENERGY FACILITIES SITING BOARD

BY_____ DATE_____

9.7 Proposed Section 61 Findings for the Department of Public Utilities

DRAFT FINDINGS PURSUANT TO G.L. CHAPTER 30, SECTION 61

Project Name: Central to Western Massachusetts Energy Improvement Project

Project Location: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Project Proponent: New England Power Company ("NEP")

Massachusetts Executive Office of Energy and Environmental Affairs ("EEA") Number: 16913

Agency Action: Massachusetts Department of Public Utilities ("DPU")

Intent of These Section 61 Findings: Massachusetts Environmental Protection Act ("MEPA") regulations 301 CMR 11.12(5) stipulate that in "accordance with M.G.L. c. 30, §61, any Agency that takes Agency Action on a Project for which the Secretary required an Environmental Impact Report ("EIR") shall determine whether the Project is likely, directly or indirectly, to cause any damage to the environment and make a finding describing the damage to the environment and confirming that practicable measures have been taken to avoid or minimize the damage to the environment." The Section 61 Findings are incorporated into the conditions or restrictions to the relevant permit or authorization. The following proposed Section 61 Findings have been prepared by the Project Proponent and are intended to assist the state permit-issuing agency in fulfilling its obligations in accordance with M.G.L. c. 30, §61. These Findings are limited to the subject matter jurisdiction of the DPU.

Project Description: The Project includes complete refurbishment of 67.7 miles of 69 kilovolt ("kV") Transmission Line assets, including structure replacements and installations, access improvements or re-establishment and construction of new access, and vegetation management. New construction is proposed for this Project.

Comprehensive inspections have identified structures and wires in need of replacement due to asset condition and aging infrastructure, and lack of safe access for maintenance and emergency needs. From a safety and reliability perspective, and in order to extend asset life, the following activities are proposed:

- Right-of-Way ("ROW") vegetative cover type conversion: approximately 181.2 acres of within-ROW tree removals are required to obtain the optimal cleared ROW widths of 125 feet ("ft") in the E5/F6 ROW, 80 ft in Quabbin Switch Taps, and 125 ft in Deerfield Taps. These clearance widths are necessary to meet the North American Electric Reliability Commission ("NERC") safety standards for a 115 kV Transmission Line[7].
- Tree removals to accommodate construction access: approximately 51.9 acres of off-ROW vegetative cover type conversion are required for access.
- Improvement/re-establishment of approximately 30.1 acres of access routes (22.2 acres within-ROW, and 7.9 acres off-ROW).
- Replacement/installation of 191 direct embed structures, 306 micropile foundations and 227 concrete caisson supported structures.
- Reconductoring of both the E5 and F6 circuits with 795 kcmils Aluminum-conductor steel-supported conductor ("ACSS"), and installation of two optical ground wires ("OPGW"). The new ACSS will be capable of being operated at 115 kV capacity, compared to the existing 69 kV capacity lines.

MEPA History: Pursuant to *M.G.L. c. 30 §61- §62A-I*, of MEPA and its implementing regulations at *301 CMR 11.00*, the Proponent (NEP) has prepared and submitted this Final Environmental Impact Report ("FEIR") to the MEPA office. The Project is subject to MEPA review as it requires one or more state permits and exceeds the following thresholds requiring the filing of an:

- EIR: Land: Direct alteration of 50 or more acres of land, unless the Project is consistent with an approved

7 Upgrading the E5/F6 Line to 115 kV is required to improve system capacity, and future-proof the system for anticipated increases in demand and new renewable energy interconnections.

conservation farm plan or forest cutting plan or other similar generally accepted agricultural or forestry practices. (301 CMR 11.03(1)(a))

- EIR: Wetlands, Waterways and Tidelands: Alteration of one or more acres of Bordering Vegetated Wetlands ("BVW"). (301 CMR 11.03(3)(a)(1)(a))
- EIR: Wetlands, Waterways and Tidelands: Alteration of ten or more acres of any other wetlands. (301 CMR 11.03(3)(a)(1)(b))
- EIR: Environmental Justice ("EJ"): The Secretary shall require an EIR for any Project that is located within a Designated Geographic Area ("DGA") around an EJ population. (301 CMR 11.06(7)(b))
- Environmental Notification Form ("ENF"): Wetlands, Waterways and Tidelands: Alteration of 500 or more linear feet ("lf") of bank along a fish run or Inland Bank ("Bank"). (301 CMR 11.03(3)(b)(1)(b))
- ENF: Wetlands, Waterways and Tidelands: Alteration of one half or more acres of any other wetlands. (301 CMR 11.03(3)(b)(1)(f))
- ENF: Rare Species: "Taking" of an endangered or threatened species or species of special concern, provided that the Project site is two or more acres and includes an area mapped as a Priority Site of Rare Species Habitats and Exemplary Natural Communities. (301 CMR 11.03(2)(b)(2)). (Potential: consultation with Natural Heritage and Endangered Species Program ["NHESP"] ongoing.)

Project Impacts: The Energy Facility Siting Board ("EFSB") evaluated the Project to determine public necessity and environmental impacts. Project impacts relevant to EFSB include natural resources impacts such as permanent and temporary impact associated with structure replacements, access improvements, and construction matting, and social impacts such as Environmental Justice ("EJ") considerations, traffic impacts, and historic or archaeological impact. A full description of Project impact analysis was provided in the EFSB filing to the Massachusetts EFSB (Docket No. D.P.U. 25-16).

Project Mitigation: NEP considered avoidance and minimization as a matter of course during the planning and design process, with an overall approach of avoiding impacts whenever possible. Avoidance, minimization and mitigation was provided in the EFSB filing to the Massachusetts EFSB (Docket No. D.P.U. 25-16).

Findings: Providing significant consideration to the unique scope of the Project and the significant length, cost, and reliability concerns, NEP conducted a route analysis in the EFSB filing. Route evaluation relied heavily on NEP's responsibility to ensure that no clearly superior route was overlooked. As a result of the in-depth screening process, no candidate routes were found to meet the route evaluation criteria and/or provide benefits comparable to rebuilding the E5/F6 Lines and Tap Lines within their existing ROWs, the Project route. NEP concluded that, consistent with the EFSB's statutory mandate, the construction of the Project along the Project route properly minimizes environmental impacts and achieves an appropriate balance among conflicting environmental concerns, as well as among environmental impacts, cost, and reliability. NEP filed a petition with the DPU requesting a determination that the Project is necessary and will serve the public convenience and be consistent with the public interest in accordance with G.L. c. 164, § 72 ("Section 72 Petition").

DEPARTMENT OF PUBLIC UTILITIES

BY_____ DATE_____

10 Response to Comments

Secretary's Certificate on the DEIR, EEA #16913, January 16, 2026			
Ref. #	**Comment**	**Relevant Page #**	**Response**
General			
C-1	The FEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope.	1-1	The FEIR followed Section 11.07 of the MEPA regulations for outline and content, as modified by the Scope of the Certificate for the FEIR.
C-2	The FEIR should identify measures the Proponent will include to further reduce the impacts of the project since the filing of the DEIR, or, if certain measures are infeasible, the FEIR should discuss why these measures will not be adopted.	1-9:1-12	The Project's design standard parameters are unchanged since the DEIR filing, but ongoing coordination with regulatory agencies and internal design review has resulted in refinements to the Project's design. These modifications and updates do not significantly alter the analyses and conclusions provided in the DEIR, but in general have resulted in an increase of temporary impacts, as described further in **Section 1.6** and **Section 1.7**, mainly due to portions of originally proposed, permanent gravel work areas being replaced with temporary construction matting in sensitive resource areas, and an increase in conservative boundaries for the work area limits of disturbance. These changes represent an overall decrease in permanent impacts, but an increase in temporary impacts. Additionally, changes to off-ROW access plans have occurred since the DEIR, resulting in a decrease of approximately 6.9 acres in off-ROW selective tree removal. NEP will continue to coordinate with federal, state, and local agencies to provide measures to facilitate the Project moving forward while providing options to reduce impacts and concerns in specific locations.
Project Description and Permitting			
C-3	The FEIR should include updated FEIR Plans for existing and post-development conditions. Conceptual plans should be legible and provided at a reasonable scale. Plans should clearly identify all major project components (structures, transmission lines, access roads, etc.); public areas; wetland resource areas; impervious areas; ownership of parcels including easements; stormwater and utility infrastructure; and the additional information described below.	N/A	The revised FEIR Plans are included in **Appendix A** and illustrate both existing and proposed conditions.
C-4	The FEIR should clarify the number of both structures and foundations under existing and proposed conditions.	1-5:1-6	The existing E5/F6 line has 683 existing structures and foundations on the main line and 28 tap structures and foundations, utilizing grillages, direct embed, or concrete caisson foundations. The proposed E5/F6 rebuild includes concrete caisson foundations (213 on the E5/F6 Lines, 14 on the Tap Lines), micropile foundations (302 on the E5/F6 Lines, four on the Tap Lines), and the remaining directly embedded into the ground (175 on the E5/F6 Lines and 16 switch structures).
C-5	The FEIR should identify areas where blasting may be used.	N/A	No blasting is proposed.
C-6	The FEIR should provide, in tabular format, an updated description of the project's temporary and permanent impacts to environmental resources; to the extent that the quantified impacts to any of these resources have changed from those identified in the ENF or DEIR, the FEIR should identify the reason for the change. Project impacts should be provided for each municipality.	1-9:1-12	Updated tabular summaries of the Project's temporary and permanent impacts to environmental resources are provided in **Table 1-5**. **Section 1.6** describes the type of and reason for changes since the DEIR. Municipality-specific wetland resource area impact summaries are provided in **Appendix E**.
C-7	As detailed above, additional information is needed regarding the extent of work needed on existing trails and paths that will be improved to provide off-ROW access, and the long-term use of off-ROW access roads, and to evaluate the impacts of the project on Article 97-protected land.	3-8:3-11	The FEIR includes additional information regarding the extent of work required on existing trails and paths used for off-ROW access, as well as the anticipated long-term use of off-ROW access roads. This information is provided in **Section 3** and summarized in **Table 3-3**, **Table 3-4**, and **Table 3-5**. The Project will not change the existing use of the ROW or of the surrounding open space lands. The ROW will continue to function as an actively maintained transmission corridor, and the intersecting open space lands will continue to serve their existing recreation, conservation, water supply protection, agricultural, public access, and timber management functions following construction. Proposed activities within Article 97 and open space lands consist of structure maintenance and replacement, access improvements, work area grading, vegetative cover type conversion (tree removal, off-ROW selective tree removal, and pruning), and the placement of temporary construction matting. These activities are authorized under NEP's existing easements, which predate the establishment of the applicable Article 97 protections; no new easements or other permanent grant of rights are required.

Secretary's Certificate on the DEIR, EEA #16913, January 16, 2026			
Ref. #	**Comment**	**Relevant Page #**	**Response**
C-8	As further described, additional details should be provided regarding impacts to public open space on land owned by DCR, other state and local agencies, and private entities including DFG and University of Massachusetts.	3-4:3-10	**Table 3-2** provides a list of open space properties by owner, including DFG and UMass, and includes status of coordination. **Table 3-4** provides impacts for public open space per MassGIS boundaries and ownership designations, and **Table 3-5** provides impacts for the DCR state parks and forests that intersect the Project ROW. See response to **Comment C-7** for additional information regarding the Project's activities within and continued use of Article 97 and other open space lands.
C-9	Commenters raised concerns regarding the project's impacts, including tree clearing, habitat alteration, wetlands impacts, use of open space and trails, and changes in hydrological patterns, and noted that the impacts of this project are in addition to those of similar transmission ROW projects recently proposed in western Massachusetts. The FEIR should provide the additional analysis of the project's impacts and proposed mitigation measures detailed below.	1-11:1-12 3-7:3-10 4-2:4-5 7-1:7-2 8-1:8-14	Analysis of Project impacts related to vegetative cover type conversion, open space and trails, wetland resource areas, rare species habitat, and hydrology are provided in **Section 1.7.1**, **Section 3.4**, **Section 4.4**, **Section 5.1**, and **Section 7.2**. respectively. Refer to **Section 8** for proposed mitigation measures by resource area.
C-10	In addition, the FEIR should provide direct responses to comments received on the DEIR.	10-1: 10-34	**Section 10** provides a "Responses to Comments," which captures comments and provides responses to the delineated Secretary's Certificate and comment letters for the DEIR, as shown in **Appendix C**.
Environmental Justice / Public Health			
C-11	The Proponent should continue to take steps, including undertaking additional measures, to meaningfully engage EJ populations in decision-making for the project. The FEIR should report on the results of such engagement efforts, including outreach to ROW property owners within EJ populations.	2-3:2-5	NEP has continued to update the EJ reference list, maintain and update the Project website (https://cmatowmaenergy.com/) which is publicly available in English and Spanish), and maintain and monitor the Project email address (info@cmatowmaenergy.com) and Project hotline (888-431-3536) throughout the MEPA process. A target notice will also be sent out to the abutters in the EJ Block Group, as well as the abutters and distribution list (translation for the document will also be offered, as requested). The FEIR will be posted on the Project website, and community stakeholders are encouraged to request additional public meetings if desired and will be provided with instructions for how to request them. Please refer to **Section 2.3** for more details.
C-12	The DEIR asserts that the project will have no significant impacts to EJ populations. The FEIR should support this assertion by quantifying impacts, including tree removal, noise, air emissions, dust, vibrations, potential truck routes, and activities in staging areas, within each EJ population where project activities are proposed, and assessing these impacts in light of the baseline health conditions in each EJ population summarized above.	2-1:2-2	Refer to **Table 2-1** in **Section 2**. The Project minimizes and mitigates impacts on all populations, both EJ and non-EJ, by refurbishing Lines within the existing transmission line corridor to provide improved conditions and by implementing construction BMPs. The Project does not result in any substantial environmental or public health impacts for any population, including EJ populations.
C-13	The FEIR should identify all EJ populations adjacent to tree removal activities, even if not within a mapped hot spot.	2-1:2-2	Refer to **Section 2.1.1** and **Table 2-1** for a list of EJ block groups within or adjacent to tree removal and selective tree removal activities. The FEIR reaffirms the analysis demonstrates that tree removal activities that will occur near EJ populations will be proportionate to those occurring along the entire ROW and adjacent to non-EJ populations. Of the 233.1 acres of total vegetative cover type conversion impacts for the Project, 23.7 acres are within EJ block groups (10.2 percent). Overall, vegetative cover type conversion primarily occurs within non-EJ block groups (210.0 acres or 90.0 percent of the total 233.1 acres)
C-14	The FEIR should specifically assess whether riverine or stormwater flooding risks may be exacerbated for nearby EJ populations due to tree removal, including under future climate conditions.	2-2 7-1:7-2	The FEIR reaffirms the analysis demonstrates that tree removal activities that will occur near EJ populations will be as minimal as those occurring along the entire ROW. The removal of trees in the Project ROW is not expected to have any significant impact on flooding risks under future climate conditions within EJ communities or other residential communities. Refer to **Section 2.2** for description of storm resiliency related to EJ communities and **Section 7.2** for further discussion on the implications of tree removal in the overall peak flow rate.
C-15	The FEIR should identify specific mitigation measures that will be implemented in EJ populations along the ROW, including opportunities for tree planting.	2-1:2-5 8-14	As described in **Section 2** and **Section 8.2.8**, no disproportionate adverse effects on EJ populations are anticipated, as any impacts following avoidance and minimization measures will be shared by both EJ and non-EJ populations, and will be mitigated to the extents feasible. While no EJ-specific mitigation is proposed, NEP, in coordination with NHESP, DCR, and local Land Trusts, will evaluate proximity to EJ populations as a criterion when selecting forested open space for preservation as part of the comprehensive mitigation package.
Article 97 and Open Space			
C-16	The FEIR should include a separate chapter that clearly identifies and describes the condition and use of public open space and Article 97-protected lands in the project ROW and off-ROW areas under existing and proposed conditions.	3-1:3-11	A separate chapter is provided in **Section 3** that describes public open space and Article 97-protected lands located within the Project ROW and off-ROW areas. **Section 3** expands on existing conditions of Section 4 of the DEIR.

Secretary's Certificate on the DEIR, EEA #16913, January 16, 2026			
Ref. #	**Comment**	**Relevant Page #**	**Response**
C-17	It should clarify whether any off-ROW access on DCR property or Article 97-protected land will be used on an ongoing basis for maintenance, and, if so, whether the Proponent will pursue Article 97 legislation to acquire formal recorded easements.	3-1, 3-10	Given NEP's existing easement rights to access and maintain the E5/F6 Line ROW, including the off-ROW access routes, which predate the Article 97 designation, the Project does not constitute a change in use or other disposition that would trigger Article 97, the EEA Article 97 Policy, or the PLPA. NEP's rights to use the existing access routes to reach its ROW are contained within its deeded easements, as are any associated access improvements (e.g., stoning of access routes and tree trimming along off-ROW routes) necessary to maintain and operate the ROW. These existing easement rights allow NEP to use the off-ROW access routes for ongoing maintenance, if and when required, and NEP will continue to use them post-construction pursuant to these rights. See **Section 3** for details of proposed restoration measures within DCR-owned and non-DCR-owned Article 97 land. Accordingly, NEP intends to obtain the necessary construction and access permits from DCR, which does not implicate Article 97, and continues to coordinate with DCR regarding permitting requirements.
C-18	If all off-ROW access is intended for temporary construction access only, the FEIR should confirm this and detail proposed restoration measures for both DCR and non-DCR Article 97 land.	3-3 8-1:8-14	Not all off-ROW access required for construction of the Project is for temporary construction access only; a majority of improved off-ROW access will remain for maintenance and emergency access. However, no new permanent access routes are proposed outside the existing ROW within DCR-managed property; access will be restored following construction within DCR land unless otherwise requested by DCR. NEP has completed an extensive evaluation of feasible access alignments and routes necessary to support the Project within DCR properties and has minimized the extent of off-ROW alterations to the maximum extent practicable. Restoration measures for temporary off-ROW disturbance areas will be implemented in coordination with DCR and will be tailored to the existing land use, operational function, and public accessibility of the affected areas, for both DCR and non-DCR Article 97 land. Areas serving recreational or public access functions will be restored consistent with their intended use following construction. See **Section 8** for further detail on proposed restoration measures.
C-19	The FEIR should consult with DCR to review easement documents provided during the DEIR review period to confirm agreement that no Article 97 compliance is needed for the project.	3-4	NEP has ongoing consultation with DCR regarding easement rights. See **Section 3.3.1** for details of DCR coordination.
C-20	The FEIR should clearly identify the open space lands where project activities are proposed and indicate which portions are protected under Article 97 and which are not.	3-2 3-4:3-7	Refer to **Section 3** for details of open space land transected by the Project Area, and activities/impacts proposed within these areas. Refer to **Table 3-1** for a list of the 35 properties protected under Article 97.
C-21	The FEIR should describe and quantify impacts on individual Article 97 parcels, including DCR parks; DCR watershed; land where DCR holds a CR; DFG-owned land (Mt. Toby Wildlife Management Area ["WMA"]); the Cadwell Memorial Forest managed by the University of Massachusetts; municipally-owned land subject to Article 97; and privately-owned land subject to Article 97.	3-9	Refer to **Section 3** and **Table 3-4** for a break-down of Project impacts on individual Article 97 Lands, including: DCR parks; DCR watershed; land where DCR holds a CR; DFG-owned land (Mt. Toby WMA) the Cadwell Memorial Forest managed by the University of Massachusetts; municipally-owned land subject to Article 97; and privately-owned land subject to Article 97.
C-22	Prior to filing the FEIR, the Proponent should consult with DFG and the University of Massachusetts regarding the work proposed on land owned by those agencies and any activities or changes in use that may require Article 97 legislation.	3-1	As discussed previously, and in **Section 3**, NEP's existing rights to access the E5/F6 Lines pre-date Article 97, and project activities would not constitute a change in use nor land disposition that would require Article 97 compliance. Coordination is ongoing with both UMass and DFG, and other affected landowners regarding project access, temporary work areas, restoration measures, and other project-specific requirements, and will continue through final design, permitting, and construction.
C-23	For each type of parcel subject to Article 97 protection, the FEIR should describe the Proponent's easement rights and include an analysis of whether proposed activities on each parcel constitute a change of use that requires Article 97 legislation, and whether future access may require land dispositions for additional easements.	3-2	See response to **Comment C-17.** All proposed work is authorized under NEP's existing easements and no new easements within Article 97 Lands are proposed or required for the Project.
C-24	The FEIR should include the easement information provided to DCR during the DEIR review period.	3-2	NEP's easement rights on DCR land were provided to DCR during the DEIR review period. Please refer to **Section 3.2.1** for additional information.
C-25	The FEIR should report on any consultation with property owners of Article 97 land that have been conducted by the Proponent.	3-3:3-7	To date, NEP has initiated coordination with Article 97 landowners including DCR, DFG, the University of Massachusetts ("UMass"), the Town of Amherst, and Kestrel Land Trust. Coordination with these parties is ongoing, and each will be informed prior to the start of construction when access/work is required within their land. All landowners with parcels involved in construction activities will be notified prior to the start of work, and the FEIR will be posted on the Project website. Community stakeholders will be encouraged to request additional public meetings (if desired) and will be provided with instructions for how to request them, in compliance with the distribution requirements of 301 CMR 11.06. Refer to **Table 3-2** in **Section 3.**
C-26	The draft Section 61 Findings to be included in the FEIR should include commitments to restore off-ROW open space that will not be permanently accessed by the Proponent.	9-9	NEP acknowledges this comment. Commitments regarding the restoration of off-ROW open space areas have been incorporated into the draft Section 61 Findings in **Section 9.3**.

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C-27	As requested by DCR, the FEIR should outline a trail safety and closure plan for all trails affected during construction. It should identify safe by-pass routes or, if by-pass routes are unavailable, trail closures; describe procedures for providing the public with up-to-date information about trail by-passes and closures and construction activities; and describe any barriers that will be used at work zones. As recommended by DCR, trails should be posted with project information at least 30 days in advance of the initiation of any project activity and made available to DCR and other organizations so that the information can be posted in other locations and online.	3-10:3-11	NEP recognizes the importance of maintaining safe public access to recreational trail networks within and adjacent to the Project ROW during construction and refers DCR to **Section 3.5.1**. NEP will continue to coordinate with DCR, AMC, and other affected landowners and land managers to design and implement a trail safety and closure plan. Measures implemented during construction may include temporary trail detours or bypasses, signage and public notification, temporary trail closures where necessary to maintain public safety, coordination of construction timing to minimize disruption to trail use, stabilization of disturbed trail surfaces, and restoration of affected trail segments, as appropriate. Site-specific measures will be developed in coordination with the applicable landowner or land manager, taking into consideration public safety, existing site conditions, intended recreational use, operational requirements, and the reasonableness and practicality of proposed measures. Trail and project information, including by-passes and closures, will be made available to DCR and other applicable organizations at least 30 days in advance of the initiation of any project activity so it can be posted in additional locations and online.
C-28	The FEIR should report on any coordination with DCR since the filing of the DEIR regarding implementation of strategies to deter unauthorized motorized trail use, such as installation of gates or boulders at strategic locations identified by DCR.	N/A	NEP acknowledges this comment. NEP will coordinate with DCR to design appropriate measures to minimize unauthorized motorized trail use.
Water Supply			
C-29	The FEIR should include a review of the WsPA regulations and describe how the project meets the exemptions described above or can be permitted if it is not eligible for exemptions. The Proponent should consult with DCR prior to completing this analysis.	4-1	Refer to **Section 4.1** for a review of the WsPA regulations applicable to the Project. NEP confirms that coordination is ongoing with DCR regarding work within the Quabbin Reservoir Watershed.
Wetlands and Stormwater			
C-30	The FEIR should include an analysis in support of the Proponent's assertion that impacts associated with tree clearing in BVW does not require mitigation; the Proponent should consult with MassDEP prior to completing this analysis.	8-9:8-10	Refer to **Section 8.2.2** for details on mitigation for vegetative cover types. Within wetlands, conversion of vegetative cover types, while defined as an "alteration" or a "secondary impact" under state and federal regulation, does not constitute a loss of BVW or a discharge of fill material into Waters of the United States ("WOTUS"). There is no requirement in the WPA or the 401 Water Quality Certification ("WQC") regulations to compensate for conversion of wetlands from one vegetation cover type to another, as no BVW or WOTUS within the Commonwealth is "lost" following vegetation removal.
C-31	The FEIR should identify any mitigation that will be provided for tree clearing in BVW, including the tree clearing mitigation proposed to offset the project's impact on forests and carbon sequestration that may also serve as wetlands mitigation.	8-13	To provide mitigation for tree removals per the Secretary's Certificate on the ENF and DEIR, NEP is committed to developing a mitigation package addressing the unavoidable loss of trees. Such a package may contain a combination of measures, including purchasing a preservation parcel (which could provide multiple benefits from carbon sequestration to rare species habitat mitigation), replanting trees, or funding other actions through DCR and/or MassAudubon that would offset the loss of carbon sequestration. Furthermore, NEP will continue to work with landowners, its contractors, local organizations, and the State to ensure that marketable timber and biomass suitable for use as firewood is utilized. These actions reduce the level of GHG emissions that will actually occur when the forest is disturbed. Refer to **Section 8.2.7** for a discussion of NEP's mitigation plan at the time of filing the DEIR.
C-32	As requested by MassDEP, the FEIR should provide a justification for the Proponent's assertion that compensatory flood mitigation is not required, or describe how compensatory flood storage will be provided.	7-2	While some permanent fill is proposed within areas categorized as BLSF, no significant loss of flood storage capacity will occur in these locations. Fifteen structure installations are located within BLSF resulting in a total of 1,040 square feet of fill within BLSF. The new concrete caisson foundations within BLSF will protrude approximately 1-ft above ground level / normal high-water elevation, which is similar to the existing structure foundations installed in these locations; as such, NEP does not anticipate that compensatory flood storage will be required.
C-33	The FEIR should confirm that project activities, other than the new floodplain fill associated with proposed structures in the floodplain already quantified in the DEIR, will not result in changes to preconstruction grades.	8-1	Refer to **Section 8**. Access and construction work areas have been designed such that permanent changes in substrate and grade are limited to only where required for safety.
C-34	The FEIR should identify project activities that will impact coldwater fisheries and describe specific mitigation measures.	4-1:4-2	Refer to **Section 4.2**. Impacts to CFRs will be avoided and minimized through the use of BMPs applicable to the protection of all waterways and wetlands.
C-35	As noted above, the DEIR included a review of the project's eligibility for a WQC Variance, but did not discuss the overriding public interest to be provided by the project; this should be included in the FEIR.	1-4 8-9:8-10	See **Section 1.2** for a description of the overriding public interest to be provided by the Project and **Section 8.2.2** for details of the Project's eligibility for a WQC Variance. Overall, the Project will serve the public interest by addressing the long-standing history of poor performance on the E5/F6 Lines, which are nearing the end of their useful life, and are in need of significant improvement work to ensure the delivery of reliable electric supply to the ~24,000 customers across 12 municipalities, for which the E5/F6 Lines are the sole transmission source.
C-36	The FEIR should provide additional details about the capacity of the proposed stormwater management system to handle flows under future storm events, and should review any additional measures that may be required to meet local stormwater regulations.	7-1	See **Section 7** for details of proposed stormwater management for the Project, including design criteria and storm event thresholds, and details of how the proposed stormwater management measures will confirm with applicable local bylaws and regulations.

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Waterways			
C-37	As requested by MassDEP, the FEIR should provide a detailed description of all proposed activities within streams that are subject to c. 91 jurisdiction. Information previously requested by MassDEP that should be provided in the FEIR includes: a list of all waterway crossings; documentation to support a determination as to whether each waterway is jurisdictional pursuant to Chapter 91 (e.g., photos, bathymetric data, bankfull width, topography, etc.); detailed information on the specific work proposed in, over, under, or within each waterway, including the height above the High Water Mark of all transmission line crossings; and anticipated timing and details for all activities that are proposed to occur within each waterway, such as deployment of construction matting.	4-2	Refer to **Section 4.3**. NEP met with MassDEP Waterways on June 30, 2026 to review the 22 perennial non-tidal river and streams proposed to be crossed using temporary timber mats during construction. The consultation and subsequent correspondence concluded that none of the perennial streams, for which temporary construction-phase crossings are proposed, are navigable as defined by the Massachusetts Waterways Regulations at 310 CMR 9.04, nor are the 22 non-tidal river or stream crossings proposed within any geographic area subject to Chapter 91 jurisdiction. MassDEP Waterways determined that no further review or approval of the proposed work is required under G.L. c.91 or the Waterways Regulations. No new licensing will be required for the Project, and all of the jurisdictional crossings can be addressed through applicable exemptions in 310 CMR 9.05 The FEIR Plans in Appendix A display flagged crossings and matting, if it is used at that crossing.
Rare Species and Biodiversity			
C-38	The FEIR should provide an update on potential impacts to state-listed rare species habitat associated with the project and proposed measures to avoid, minimize and mitigate those impacts.	5-1:5-2 8-3:8-8	See **Section 5** for an update on potential impacts to state-listed rare species habitat associated with the Project, and proposed measures to avoid, minimize and mitigate those impacts. Mitigation measures for work within NHESP Rare Species Habitat are also provided in **Table 8-1**.
C-39	The FEIR should clarify whether a Take of species will occur, and if so, how the project will meet the performance standards for a CMP. It should report on the Proponent's consultation with NHESP since the DEIR was filed.	5-1 8-13	Since the submittal of the ENF, NEP has reduced impacts associated with gravel access, grading (cut/fill), and gravel work pads. NEP anticipates impacts to habitat will occur within 19 mapped Priority Habitats, associated with the grading and stoning of permanent work areas and access, conversion of vegetative cover type, installation of new structures, and the temporary use of construction matting within wetlands and other select sensitive areas. In the event of a “Take” of species’ habitats, NEP will coordinate with NHESP to implement a Conservation & Management Permit (”CMP”) and to identify forested open space parcels with contiguous rare species habitat for preservation as part of NEP’s mitigation package. Refer to **Section 5** for updates on consultation with NHESP since the filing of the DEIR. See **Section 8.2.6** for mitigation measures.
C-40	It should describe how the project will mitigate impacts on rare species habitat and biodiversity, including any benefits associated with the support for DCR programs and land preservation proposed to mitigate the project's impacts associated with tree clearing.	5-2	See **Section 5** for details of Project avoidance, minimization, and mitigation measures within rare species habitat. Proposed measures include comprehensive species surveys, avoidance of sensitive habitats, and time of year restrictions. Consultation with NHESP regarding land preservation is ongoing.
Traffic and Transportation			
C-41	The FEIR should review the Proponent's anticipated coordination with municipalities during the construction period.	N/A	NEP will coordinate with the municipalities along the Project route during the construction period. For municipality-owned roadways, NEP and its contractors will coordinate directly with each municipality, often including local government and public safety officials, to develop construction work zones, practices, and procedures, which may be based on MassDOT and Manual on Uniform Traffic Control Devices ("MUTCD") design standards. NEP and its contractors will discuss traffic coordination plans with the municipalities at least three to four months prior to the start of construction. During construction, NEP will implement BMPs (such as vehicle tracking pads at site entrances, and regular road sweeping at the end of each work day), to ensure that sediment is not tracked onto roadways.
C-42	It should describe mitigation measures that will be implemented to maintain safe pedestrian, bicycle and vehicular traffic on these roads, and restore them to preconstruction conditions.	3-10:3-11	To maintain safe pedestrian, bicycle, and vehicular traffic, NEP will coordinate with MassDOT and local traffic authorities to implement appropriate traffic control measures, signage, and safety barriers during construction. All public and private roadways will be restored to pre-construction conditions once work is complete.
C-43	The FEIR should report on any consultation with MassDOT conducted since the filing of the DEIR.	1-8:1-9	NEP had a virtual meeting on August 14, 2026 with Districts 1, 2 and 3. Refer to **Table 1-4** in **Section 1.**
Historical and Archaeological Resources			
C-44	The FEIR should review findings of additional archaeological surveys conducted since the filing of the DEIR and describe any changes to the project design necessary to avoid or minimize impacts.	6-1	Refer to **Section 6.1** for details of additional archaeological surveys conducted since the filing of the DEIR.
C-45	The FEIR should [report on] the Proponent's consultation with Tribes and agencies since the filing of the DEIR.	6-1:6-2	**Section 6.2.1** summarizes consultation and coordination conducted with Tribes and regulatory agencies since the filing of the DEIR.
Climate Change			

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C-46	The FEIR should provide calculations or other information in support of the assertion that the proposed stormwater management measures will mitigate the 2070 50-year storm event.	7-2	To assess stormwater implications from the Project, BSC Group performed hydrologic and hydraulic analyses for several watersheds along the ROW using HydroCAD Stormwater Modeling Software (version 10.20). The watersheds chosen as examples to analyze represent typical terrain along the ROW and include improvements along the ROW that are generally representative of the Project. The analyses demonstrate that there is not a significant change to hydrology based on the proposed changes. Detailed stormwater calculations, field testing, and design of stormwater infrastructure to comply with the Massachusetts Stormwater Standards included in 310 CMR 10.05(6)(k) and 314 CMR 9.06(6)(a) would be excessive and unnecessary for limited hydrological benefit to the watersheds. The construction of stormwater infrastructure would result in additional environmental impact (e.g., loss of valuable, vegetated habitat along the ROW) without providing meaningful benefits. The ROW access improvements proposed along the ROW are not open to public travel and are infrequently traveled following construction for routine maintenance, inspections, or emergency repairs. Therefore, pollutant loading, common for frequently traveled public roads and parking lots, would be very low along the ROW access routes. The access is also generally buffered by shrubby or forested areas which supports infiltration of the relatively low increase in runoff. In most cases, the potential impact from stormwater along the ROW is linked to erosion and the potential for washout of gravel access. The construction of appropriate BMPs along the access, including swales, check dams, water bars, and plunge pools, mitigate the potential for erosion and washouts. Refer to **Section 7.1** for details of proposed stormwater management for the Project, and **Appendix G** for the stormwater analysis.
C-47	It should describe how the condition of stormwater management structures will be maintained and monitored over the life of the project to ensure they will function as intended under future conditions.	N/A	Stormwater BMPs are designed to mitigate potential impacts to public roadways. Following the completion of the Project, swales and plunge pools will be maintained as needed.
C-48	For portions of the project within floodplain, the FEIR should report on the elevation of structures related to any established BFEs and indicate whether efforts were made to elevate infrastructure such as structure foundations and work pads. The FEIR should describe any specific measures taken to improve resiliency of infrastructure located in the floodplain.	7-2	Consistent with the design guidance from the RMAT Climate Resilience Design Standards Tool Output Report, the Project will improve resilience to riverine flooding from a 2070 50-year (2 percent) storm event through the design and material selection of structures and foundations capable of withstanding the effects of flooding. Refer to **Section 7.3** of this FEIR resiliency measures related to stormwater.
C-49	Impacts associated with tree removal will be mitigated by funding one or more of a suite of DCR programs that either directly enhance carbon storage, rates of sequestration, or support the resiliency of forest carbon storage, and by supporting the preservation of carbon-rich lands acquired through Mass Audubon's 30x30 Catalyst Fund. The Proponent should consult with the MEPA Office prior to finalizing these mitigation commitments, and describe the final mitigation package in the FEIR. It should describe any assistance that will be offered by the Proponent to private landowners to donate wood to wood banks or reuse it in long-lived wood projects.	7-3 8-3:8-8, 8-13	See **Section 8.2.7** for details of proposed mitigation. Please note that mitigation commitments will not be finalized until all applicable federal, state and local permitting has been completed. Until the Project (and associated mitigation measures) have been approved by the applicable agencies/commissions, mitigation is subject to change.
C-50	The FEIR should estimate the carbon sequestration benefits of the wood reuse mitigation program to be implemented by the Proponent and DCR.	8-3:8-8 8-13	See **Section 8**, **Table 8-1** for details on Project mitigation commitments for tree removal impacts, and **Section 7.4** for details of the estimated carbon/GHG impacts and mitigation analysis.
C-51	The FEIR should provide an estimate of the tree canopy within the ROW, and its carbon content, that will not be removed, and estimate the reduction in the DEIR's estimate of the project's carbon impacts associated with selective tree removal and pruning. To the extent feasible, the FEIR should provide an estimate of the GHG benefits of mitigation to demonstrate that impacts will be offset to the maximum extent practicable.	1-11	See **Section 1.7.1** for details on Project impacts from tree removals, including estimates of existing and proposed (retained) tree canopy cover, and any changes in the proposed extent of tree removals since the submission of the DEIR.
Mitigation and Draft Section 61 Findings			
C-52	The FEIR should include a separate chapter summarizing all proposed mitigation measures, including construction-period measures.	8-1:8-14	A separate chapter summarizing the Project's proposed mitigation measures, including construction-period avoidance, minimization, restoration, and mitigation commitments, is provided in **Section 8**.
C-53	This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations.	8-13	**Section 8** summarizes all proposed mitigation measures for the Project. No mitigation measures specific to EJ populations are proposed, as no disproportionate Project impacts to EJ populations will occur. However, NEP will work with NHESP, DCR, and local Land trusts to prioritize protecting forested open space as part of the comprehensive carbon mitigation plan within or adjacent to EJ populations, as feasible.
C-54	The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase.	8-1:8-14	See **Section 8**, which summarizes all proposed mitigation measures for the Project, and **Table 8-1** and **Table 8-2**, which list these mitigation measures, the estimated individual costs of each proposed measure, the parties responsible for implementation, and the schedule for implementation.

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Responses to Comments			
C-55	The FEIR should contain a copy of this Certificate and a copy of each comment letter received. The FEIR should contain a direct response to the scope items in this Certificate. To ensure that the issues raised by commenters are addressed, the FEIR should also include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope beyond what has been expressly identified in this certificate.	N/A	NEP acknowledges this comment, and has included in the FEIR this table of "Responses to Comments," a delineated copy of the Secretary's Certificate, and copies of all comment letters received in response to the DEIR.
Circulation			
C-56	The Proponent should circulate the FEIR to each Person or Agency who previously commented on the ENF, each Agency, including DFG and the University of Massachusetts, from which the Project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope.	N/A	NEP acknowledges this comment. As shown in the Distribution List provided in **Appendix B**, distribution has been made to agencies, organizations, and individuals identified in the Scope, including parties that previously commented on the ENF and agencies from which permits, approvals, land transfers, or financial assistance may be sought. NEP's distribution complies with the requirements of this comment and 301 CMR 11.06.
C-57	The Proponent may circulate copies to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the digital copy or identifying the web address of the online version indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments.	N/A	NEP acknowledges this comment.
C-58	The Proponent should contact public libraries in municipalities along the ROW and provide copies for public viewing.	N/A	NEP contacted each municipality's public library that requested an electronic or physical copy of the DEIR filing to ask if they are interested in a physical copy, electronic copy, or no copy. All libraries responded with their preference, except for the Tilton Library in Deerfield; since this library requested a copy of the DEIR, a physical copy will be sent. Updated responses from the libraries are denoted in **Appendix B**.
Kelly Kowal, November 10th, 2025			
1-1	The work envelope and pull pad noted on page 9 of the DEIR Appendix A Plans is entirely within the inner 100 feet of Riverfront Area to the Deerfield River. Therefore, it seems impossible that this project will have zero impacts to the RFA as noted on the provided impact table in Appendix C. We would like to see this potential discrepancy addressed, and will look forward to reviewing more detailed plans for the work proposed in Buckland when available.	N/A	Appendix C of the DEIR contained a rounding error for the Riverfront Area ("RA") and Buffer Zone ("BZ") impacts for the Town of Buckland, which overlap. The correct value of 0.4 acres has been included in the updated municipality impact tables in **Appendix E**.
Town of Belchertown, December 5th, 2025			
2-1	The Commission requires all applicants to submit an alternatives analysis, demonstrating need and justification for any work proposed within the 50' Buffer Zone. The Commission will require that a Notice of Intent be filed for any work (construction, removal of vegetation, grading, bank stabilization, etc.) that occurs within 100 feet of a Wetland Resource Area or within 200 feet of a Perennial Stream or River to confirm the wetland boundaries. A permit is required from the Conservation Commission for work in these regulated areas, under the MA Wetlands Protection Act and Regulations 310 CMR and the local Wetland Bylaw. While the replacement of existing structures is exempt, this does not include tree cutting or the enlargement of existing structures/conditions.	N/A	NEP acknowledges this comment and will be submitting a NOI to all Town Conservation Commissions along the Project route. The NOI will address all requirements of the WPA and any local wetland protection Bylaws/Ordinances/Regulations. The NOI will include an alternatives analysis, descriptions of all proposed activities and applicable restoration and mitigation measures proposed within each Town.
2-2	The Commission, as the Stormwater Authority, will require a Stormwater permit, as this project is not exempt from the local Stormwater Management Bylaw and Regulations. Mitigation in areas where soils are classified as having severe erosion potential shall include temporary and permanent stabilization methods. Best management practices shall be used. This project shall not increase stormwater runoff to any water body, roadway or neighboring property.	8-3	NEP acknowledges this comment and will be submitting a Stormwater Permit to Towns along the Project route with applicable stormwater bylaws. NEP has designed the Project to comply with the applicable Massachusetts Stormwater Standards to the extent practicable and will be subject to the standards and conditions of the NPDES CGP. Specific stormwater management practices, procedures, and BMPs are outlined in **Table 8-1**. Refer to **Appendix F** for a presentation of NEP's BMPs and **Appendix G** for the Stormwater Report.
2-3	This project is not exempt from a Natural Heritage determination and care should be given to not result in a "take" of any species.	5-1:5-2 8-13	Consultations with NHESP are ongoing; NEP will continue to coordinate with NHESP pursuant to MESA (M.G.L. c. 131A) and MA WPA (M.G.L. c. 131, § 40) to avoid and minimize impacts to listed species and their habitat, and to provide mitigation for any unavoidable impacts. Refer to **Section 5.3** and **Section 8.2.6** for additional details on mitigation proposed in NHESP Priority and Estimated Habitat.
2-4	This project crosses through Quabbin Reservoir Watershed, a Class A surface water, Outstanding Resource Water, and Public Water Supply. The applicant should work with the landowner, DCR to make sure to project does not impair the quality of the water.	N/A	NEP is coordinating with DCR Division of Water Supply Protection ("DCR-DWSP") to ensure all necessary permits are obtained, and to ensure that the Project does not impair water quality within the Quabbin and Ware watersheds.

2-5	The analysis should include a summary of the last twenty years of herbicide use for vegetation treatment and make projections for how herbicide use will increase as a result of this project.	N/A	No herbicide application is proposed as part of the Project. Following construction, vegetation within the ROW will continue to be managed in accordance with NEP's approved five-year Vegetation Management Plan (VMP) and applicable Yearly Operational Plans, consistent with NEP's existing vegetation management practices. The Project does not propose any changes to these approved practices or to the manner in which herbicides are used as part of NEP's routine ROW vegetation management program.
2-6	The project as proposed has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, this project should consider both surface and subsurface hydrology, wildlife habitat, fisheries habitat, and shading impacts. The project should highlight how any local cold-water fisheries will be affected, including thermal and sediment impacts.	7-1:7-2 4-1:4-2	See **Section 7** and **Appendix G** (Stormwater Report and Hydrological Analysis) for details of the hydrological and stormwater analysis performed for the Project. Potential impacts to wildlife and fisheries habitat, including coldwater fisheries, are described in **Section 4.2.** Sediment and erosion controls will be in place throughout construction, and will remain in place until final stabilization has been achieved. Impacts to stream shading will be minimized by limiting tree removals/trimming along banks, and retaining understory vegetation during vegetation management activities.
2-7	Work should be done carefully to prevent the transmission of invasive species to and from the project site. Because invasive species establish and thrive in disturbed areas, to the extent feasible, soil and vegetation disturbance should be minimized. All vehicles and equipment must be clean and free of excess soil, debris and vegetation before entering the work site.	N/A	All equipment and construction mats shall be certified as "clean" and free of soil, plant matter, and other deleterious materials prior to mobilization to the work site, in accordance with NEP guidance document EG-303NE. Any equipment or construction mats that are placed or used within areas containing invasive species shall be cleaned of all soil and plant material at that location before being relocated, in order to prevent the spread of invasive species between work areas. Where excavation of soils is required, soils shall be reused within the same work area to the extent feasible, and any soils containing invasive species seeds or plant material shall be removed for appropriate off-site disposal and shall not be transported to other areas within or beyond the right-of-way. Upon completion of construction, all disturbed soils shall be stabilized and, where appropriate, seeded with a native seed mix to promote the establishment of native vegetation. Refer to **Section 8** and **Appendix H** for detailed information on NEP's invasive species management procedures.
2-8	Vernal Pools are significant to the protection of wildlife habitat, particularly amphibian breeding habitat. The removing, dredging, or altering of a Vernal Pool or it's 100' buffer shall not be allowed.	N/A	NEP recognizes the importance of vernal pools as amphibian breeding habitat and has avoided permanent impacts to all 22 identified vernal pools. Project activities have been proposed to avoid or minimize effects to the extent practicable. No dredging or permanent filling is proposed. In the two locations where activities cannot be avoided due to the proximity of the vernal pool to existing structures, NEP will implement the vernal pool BMPs in **Section 8**, including minimizing pad footprints, maintaining scrub-shrub vegetation within 25 feet of the pool, observing seasonal windows for matting and tree removal, and installing erosion and sediment controls. Refer to **Appendix H** for BMP details.
2-9	The Conservation Commission, as the Stormwater Authority, is happy to see the acknowledgement that a SWPPP will be obtained and the State Stormwater Standards will be met, but all Stormwater discharges must be at least 25' from wetland resource areas.	N/A	NEP appreciates the Conservation Commission's support and confirms that a SWPPP will be prepared and the Massachusetts Stormwater Standards met to the maximum extent practicable. Consistent with Stormwater Standard, no new stormwater conveyances or outfalls are proposed, and no stormwater will be discharged directly into wetland resource areas. Stormwater will be managed by controlling run-on and runoff and allowing controlled recharge into the ROW. Erosion-control features such as plunge pools, check dams, and swales will be sited at least 25 feet from wetland resource areas to the extent practicable; where grade or site conditions require closer placement, they will be designed per the Stormwater Standards to prevent erosion or sedimentation of the resource area. Specific BMP locations will be confirmed in the NOI submissions. Refer to stormwater memo provided in **Appendix E** of the DEIR for further details.

Greta Marks-Strouble, December 10th, 2025			
3-1	I strongly oppose any plan that involves broad clear-cutting or expanded vegetation removal. This project corridor passes through forests containing wetlands, perennial streams, steep and erosion-prone terrain, and sensitive wildlife habitat. In addition, parts of the proposed work area lie adjacent to or near the Quabbin Reservoir Old-Growth Management Areas ("OGMAs") in Pelham and Belchertown, which are actively managed to develop old-growth characteristics. These are among the most ecologically valuable forest stands in the region, and their protection must be a priority.	N/A	See **Section 1** of the DEIR for details of tree removal and tree trimming methodology. NEP acknowledges the importance of maintaining intact forest habitat, particularly of old-growth forests, and has performed detailed analysis of tree removal needs for the Project. Tree removals will be limited to the area depicted on the FEIR Plans, along the existing cleared edge of ROW and associated off-ROW access routes. Please note that NEP is not proposing clear-cutting of trees in any part of this Project – the term "selective tree removal" versus "tree removal" refers to the method used to assess tree removal needs, and not to the physical method of tree removal. Along the existing ROW, in areas marked on the FEIR Plans for "tree removal" (pink crosshatching), NEP used LiDAR data to assess tree cover, and estimate tree removal needs. This contrasts with the narrow off-ROW access routes (where LiDAR data was unclear), where NEP forestry crews instead assessed tree removal needs from the ground, using the "selective tree removal" methodology (green crosshatching on the FEIR Plans). Within both the "selective tree removal" areas (assessed from the ground), and the "tree removal" areas (assessed by LiDAR), only trees which pose a threat to the lines, safety of construction crews, or which directly obstruct access, will be removed. Low growing species and understory cover will be retained wherever possible. Nothing will be cut indiscriminately. Within the on-ROW "tree removal" areas (based on LiDAR), NEP estimates about 25% will be pruned instead of removed. However, because conditions will change between the submission of this FEIR and the start of construction (~4-5 years hence in some locations), NEP has used a conservative estimate of the anticipated "tree removal" area, within which a combination of pruning and tree removals will be required.
3-2	MEPA should require National Grid to demonstrate why the following lower-impact options cannot be adopted: • Selective trimming rather than corridor-wide clearing • Narrower access lanes • Temporary construction mats instead of soil disturbance • Avoidance of OGMA-adjacent zones • Alternative routing in sensitive segments • Helicopter-assisted installation when feasible • Seasonal restrictions to avoid wet periods and slope vulnerability	1-11 4-5:4-7	See response to **Comment 3-1** for clarification of the terms "tree removal" versus "selective tree removal." NEP is not proposing corridor wide clearing as part of this Project, and will prioritize trimming over tree removals in all areas. See **Section 1.7.1** for details of tree removal and tree trimming needs for the Project. Access and work pad requirements were described in detail in **Section 8** (Construction) of the DEIR, including a discussion of measures taken to minimize impacts associated with access and work pads while meeting safety requirements for equipment access and operation. Section 5 of the DEIR (Wetlands) provided details of measures taken by NEP to minimize disturbance of wetland resource areas, which are further elaborated in **Section 4** of this FEIR. In general, tree trimming/removal needs, and access and work pad minimum sizes are determined by safety requirements. The suitability of construction matting versus permanent gravel for access and work pads is determined by site specific conditions, the presence of wetland resource areas (where construction matting is always used), and work requirements at each location (e.g. in locations where routine access is required for maintenance, a permanent gravel sub-base may be necessary, and may result in less environmental disturbance than the repeated installation and removal of mats).
3-3	Prohibit clear-cutting in all areas near the Quabbin Reservoir OGMAs in Pelham and Belchertown.	N/A	NEP is not performing clear-cutting activities and vegetation management (mowing and vegetative cover type conversion) is being conducted to the extents that NEP requires access to the proposed structure locations, safe vehicle and equipment passage, safe work sites for personnel, and to meet the conductor clearance requirements. NEP is closely coordinating with DCR-DWSP.
3-4	Conduct a complete alternatives analysis showing why low-impact methods cannot be used.	1-5	See Section 3 of the DEIR for a summary of the alternatives analysis performed for the Project, including the relative environmental impacts to land alteration, wetlands, potential vernal pools, rare species habitat, and archaeological resources, associated with each alternative. The ENF and DEIR described the Project needs and benefits and established a framework for evaluating Project Alternatives. Additional information is summarized in **Section 1.2**.
3-5	Require comprehensive wetlands delineation and watershed impact evaluation for all freshwater systems in the project footprint.	4-1:4-7	See **Section 4** for details of existing and proposed conditions, and proposed impacts, for wetlands and waterways along the Project route.
3-6	Require a robust erosion and sediment control plan for all steep-slope and headwater areas.	N/A	See **Appendix H** for NEP's erosion and sediment control BMPs, including measures applicable to work on steep slopes and in areas with increased erosion potential. Erosion and sediment controls will be selected and implemented based on site-specific conditions. Where warranted, permanent erosion and sediment control measures may include drainage swales, stone filters, plunge pools, and other measures designed to manage runoff and minimize erosion, including in steep-slope areas.
3-7	Require independent environmental monitoring throughout construction.	N/A	Environmental monitoring will be performed throughout Project construction and restoration, in accordance with applicable environmental permits, plans, and regulations.

3-8	Establish no-machinery buffer zones around all perennial streams feeding the Atkins Reservoir and Amherst Watershed.	8-1:8-13	Establishing no-machinery buffer zones around all perennial streams is not practicable because Project construction requires equipment access in the vicinity of, and in some locations across, perennial streams. NEP will implement BMPs to protect water quality and minimize disturbance associated with work near waterways, including installation and maintenance of erosion and sediment controls; limiting grading and disturbance to the minimum necessary for safe access and construction; use of temporary construction matting for stream crossings in a manner that avoids impacts to stream hydrology and the stream bed; spill prevention and response measures; and stabilization and restoration of disturbed areas following construction. Where dewatering or drilling is required within or adjacent to Surface Water Supply Protection Zones, appropriate dewatering and containment BMPs will also be implemented. These and other applicable avoidance and minimization measures and BMPs are described in **Section 8**.
Diane Jacoby, December 12th, 2025			
4-1	During this meeting, the folks from National Grid described replacing structures on the existing 69 kV line with new structures that will be roughly 5 feet from the existing line of structures. The scope of work described also included removing conductors and structures that would be made obsolete by the new work. I have observed new structures being installed considerably farther from the older structures than what was described on 12/10/25. In some areas the new structures and conductors are energized, the old structures have de-energized conductors hanging from them haphazardly and perhaps in contact with the ground. During my career, I observed two philosophies of construction: 1. replace / remove; and 2. replace / abandon in place. With these projects by both National Grid and Eversource, who is responsible for being sure that the obsolete is indeed being removed and responsibly disposed of?	N/A	The locations of all structure replacements are depicted on the FEIR Plans in **Appendix A**. For this Project, all old structures and equipment being replaced will be removed from the ROW, and either recycled or disposed of appropriately, in accordance with federal, state, and local regulations. Old structures within wetlands will be cut at base, and the underground portion of the structure will be left in place (to minimize soil disturbance). NEP notes that the locations of replacement structures (relative to existing structures) may vary between projects, and may be determined by factors including: line voltage, whether work is being performed on live lines or lines which have been de-energized, ground conditions in a particularly location, ROW width and vegetation height.
Michael DeChiara, December 21st, 2025			
5-1	In reviewing the DEIR I am very concerned about permanent impacts that the project could have on the environment and local infrastructure if plans are approved without MEPA requiring adequately protective measures in its approval. I think in all ways, the intention should be to follow the mitigation hierarchy – starting with avoidance of harm and only if these cannot be avoided should minimization be considered. Mitigation is the last, rather than a first step.	1-7:1-8 1-10:1-11	NEP acknowledges this comment, and has followed the mitigation hierarchy throughout Project design, aiming first to avoid, then minimize, and finally mitigate (where impacts are unavoidable). Refer to **Table 1-5** for details of Project impacts, **Table 1-3** for details of applicable regulatory standards which the Project is required to meet, and **Section 8** for proposed Minimization and Mitigation measures.
5-2	In the DEIR, coded as pink/purple cross hatching designates areas where there will be considerable clearcutting of trees. According to the DEIR, 468 linear feet of trees will be permanently removed. While National Grid representatives have stated that on-site crews would likely conduct selective cutting, as I stated at the Town's site visit, "what is in the plan is what is allowed". So if MEPA codifies extensive clearcutting in the DEIR, it gives National Grid the ability to do considerable tree removal and still comply with the DEIR. I strongly recommend that these clearcut areas be reviewed. There is no need for straight lines at the edges of the Right of Way, rather selective cutting should be limited to prevent impact on the infrastructure only. Damage caused for ease of construction will last years after the construction is completed, so must be avoided.	1-11	See response to **Comment 3-1** for clarification of the terms "tree removal" versus "selective tree removal." NEP is not proposing clearcutting as part of this Project, and will prioritize trimming over tree removals in all areas. See **Section 1.7.1** for details of the Project's tree removal requirements, including measures taken to minimize the extent of tree removals and prioritize tree trimming over tree removal. NEP has minimized the extent of tree removals to only that required to perform the Project, provide safe line clearances, and safely access the ROW. Refining tree removal requirements more precisely for the entire ROW (following the "selective tree removal methodology" used to assess off-ROW access roads) is not feasible, given the scale of the project and prohibitive time and costs involved. Instead, NEP have used LiDAR to estimate tree removal needs along the ROW based on canopy height. Note that while this approach suggests a wider area of trees which *may* require removal (based on canopy height), it does not mean that NEP will indiscriminately remove all trees within the indicated pink/purple cross hatched area. Tree pruning will still be prioritized over tree removal, and tree removals will be limited to only those required to perform the Project, provide safe line clearances, and safely access the ROW. Efforts will be made to retain low growing species and understory vegetation, particularly within wetlands and wetland buffer zones.
5-3	There are three specific reasons why I am concerned about extensive tree removal. First, this will create less stability in the soils, increasing the likelihood of erosion and sedimentation, which is especially problematic given the proximity to wetlands, streams and the Atkins Reservoir.	N/A	NEP recognizes the importance of maintaining intact forest habitat, particularly in relation to maintaining soil stability, wildlife habitat, and carbon storage. Tree removals will be limited to the area depicted on the FEIR Plans, along the existing cleared edge of ROW (and within NEPs easement), and along associated off-ROW access routes. NEP has minimized the extent of tree removals to only that required to perform the Project, provide safe line clearances, and safely access the ROW. Sediment and erosion controls will be in place throughout Project construction and restoration to protect wetlands and watercourses from sedimentation, as required under the WPA and local wetland bylaws/ordinances (where applicable).
5-4	Second, extensive cutting will unnecessarily reduce the carbon sequestration and storage capacity of the area, undermining the Commonwealth's goals of Forests as Climate Solutions initiative. If we are to increase electrification because of climate concerns, we should not simultaneously reducing our natural decarbonization functions.	7-3:7-4	See **Section 7** for an analysis of the Project's carbon impacts, and proposed mitigation for loss of carbon storage due to tree removals.
5-5	Third, this project will create increased opportunities for invasive species to populate the opened areas since cutting trees will change the local environment.	8-3:8-8	See response to **Comment 2-7**, **Section 8, Table 8-1**, and **Appendix H** for details of NEPs procedures for managing invasive species within their ROWs.

5-6	Require National Grid to reduce "placeholder" Clearcutting areas in the DEIR and replace with more protective, conservative estimates for Selective tree cutting that focus primarily on protection of transmission infrastructure, rather than the widening of open space within the ROW.	N/A	See response to **Comment 3-1** for clarification of the terms "tree removal" versus "selective tree removal." NEP is not proposing clearcutting as part of this Project, and will prioritize trimming over tree removals in all areas. See Section 1 of the DEIR for an analysis and justification of the Project's tree removal requirements. NEP has minimized the extent of tree removals to only that required to perform the Project, provide safe line clearances, and safely access the ROW. Widening of the open space within the ROW is necessary in some locations to meet line safety requirements for high-voltage transmission lines and is not being performed without careful consideration of Project needs and environmental impacts. Refining tree removal requirements more precisely for the entire ROW (following the "selective tree removal methodology" used to assess off-ROW access roads) is not feasible, given the scale of the project and prohibitive time and costs involved.
5-7	MEPA should require the marking of trees by National Grid for potential review by local Conservation Commissions or Town Tree Wardens prior to cutting/construction	N/A	NEP will coordinate with local Conservation Commissions along the entire Project ROW prior to the start of construction, and will be submitting a Notice of Intent ("NOI") to each Commission for work within jurisdictional wetland resource areas, including tree removals. Where Project tree removal involves public shade trees subject to M.G.L. c. 87 or applicable municipal requirements, NEP will coordinate with the appropriate municipal tree warden and obtain any required approvals.
5-8	The proposed construction is in close proximity to or directly crosses important and sensitive hydrologic features that impact Shutesbury and neighboring Amherst.	4-1:4-7	See **Section 4** and **Appendix H** for details of measures which will be in place to protect wetlands, waterways, and other hydrologic features during construction. Examples include the use of sediment and erosion controls to intercept potential stormwater run-off from work areas, the use of construction matting to protect wetland soils from compaction and disturbance, and the implementation of appropriate stabilization and restoration measures throughout the ROW.
5-9	MEPA must insist on avoidance of any disturbances. Not only is this protective but it will provide local Conservation Commission with a clear mandate for local conditions.	8-1:8-13	NEP acknowledges this comment and has incorporated measures to avoid and minimize disturbance to the extent practicable and to mitigate unavoidable impacts, as described throughout the FEIR and summarized in **Section 8**. Project activities will be conducted in accordance with applicable federal, state, and local regulatory requirements and permit conditions, including those established through the WPA and local Conservation Commission review.
5-10	According to the DEIR, there are two areas in the construction area that are designated as Priority and Estimated Habitats. These are north of Pratt Corner Road and west of the substation and along the transmission corridor south of Sand Hill Road. Protection of these habitat areas is important and construction should be required to minimize disturbances. MEPA should require further documentation regarding the potential environmental impact to these habitats areas, with specific methods that will be taken to avoid or minimize the negative impacts. This information should be provided to the Town of Shutesbury in advance of construction.	5-1:5-2	See **Section 5** for details regarding proposed impacts and avoidance, minimization, and mitigation measures for work within NHESP Priority and Estimated Habitats. NEP continues to coordinate with NHESP regarding Project activities within these areas, including the applicability of species-specific avoidance, minimization, and mitigation measures. The Project is undergoing review pursuant to MESA, and the Shutesbury Conservation Commission is expected to receive NHESP's determination on the Project Checklist and any associated Conservation and Management Plan (CMP), as applicable. Whether CMP requirements will apply to Project activities within Shutesbury remains subject to ongoing consultation with NHESP.
5-11	Pratt Corner Road and Sand Hill Road, both of which will provide access to the project site are unpaved rural roads. Both are on hills and in certain stretches of the roads are adjacent to steep slopes. Both roads are approximately 1.5 car widths, but even more narrow depending on the season when runoff and rutting reduce the width making two-way travel difficult. Pratt Corner Road is especially prone to ruts and erosion along the sides of the road which will likely be made worse by heavy machinery. In addition, these roads are primary access routes for residents in the surrounding area and for school buses for children attending the Shutesbury and Regional schools. Emergency vehicles also require access to these roads. … Since National Grid has confirmed that the project will require the use of heavy equipment, I would suggest that this equipment that is not easily deployed on these unpaved roads. Unless significant planning and care is taken, the machinery will damage the road surface, advance erosion, and likely require temporary closing during construction.	N/A	NEP acknowledges this comment, and recognizes the potential issues related to the use of unpaved rural road for site access. NEP will coordinate with local traffic authorities and Town agencies along the Project route to devise appropriate traffic control measures to be employed during construction. While no impacts to local roadways are anticipated to result from the small increase in heavy truck traffic volume, all public and private roadways will be restored to preconstruction conditions once work is complete. During construction, NEP will implement BMPs (such as vehicle tracking pads at site entrances, and regular road sweeping at the end of each work day), to ensure that sediment is not tracked onto roadways.
5-12	Finally, any permanent "improvements" that National Grid may make to the roads regarding to assist them with access to the transmission lines during construction or afterwards may also impact the fragile environment in terms of steep slopes, proximity to wetlands and streams, and on-going stormwater effects to the roadway. MEPA needs to ensure this does not occur with local and state-level consultation.	4-2:4-3	See **Section 4** for details of access improvement within proximity to wetlands and waterways, and **Appendix F** for an analysis of potential stormwater effects from the Project (including those due to access improvements). **Appendix H** provides further details on NEPs access improvement methods in relation to steep slopes. Access improvements will be subject to applicable federal, state, and local permitting requirements, and erosion and stormwater controls will be implemented in accordance with the Project SWPPP and applicable permit conditions.
5-13	National Grid must consult with the Shutesbury Highway Department in the planning stage and then during construction regarding ways to maintain and protect the road. This should definitely include consultation with the Select Board and Highway department regarding any possible road "improvements".	N/A	NEP will coordinate with all MassDOT and local traffic authorities, including the Shutesbury Highway Department, prior to the commencement of Project activities. Contractors will follow a pre-approved work zone traffic control plan.

5-14	As National Grid representatives agreed, a written transportation plan is essential given that the large equipment will block use of the road to school buses, emergency vehicles, commuters and residents for daily activities. This is a huge issue that must be addressed and planned for and MEPA must require the transportation plan in advance, developed in consultation with the Town.	N/A	See response to **Comment 5-12**. NEP will coordinate with all MassDOT and local traffic authorities, including the Shutesbury Highway Department, prior to the commencement of Project activities. Contractors will follow a pre-approved work zone traffic control plan.
5-15	MEPA must also prohibit construction activities during periods when the roads are muddy or the road surface is vulnerable to damage, making future passage difficult or impossible.	N/A	See response to **Comment 5-12**. NEP will coordinate with all MassDOT and local traffic authorities, including the Shutesbury Highway Department, prior to the commencement of Project activities. Contractors will follow a pre-approved work zone traffic control plan. NEP will be responsible for ensuring that Project activities (including access to the ROW by large equipment), do not result in damage to public or private roadways. If damage does occur as a result of Project related activities, NEP will be responsible for implementing an appropriate and timely response/repair strategy.
5-16	The proposed construction area is within the Walter Cowls Jones Conservation Area that has established and well-used recreational trails. This vibrant trail system should be protected both during construction and afterwards. Encroachment on and damage to existing trail networks should be avoided or minimized. In particular, select tree cutting should occur to maintain the integrity of the trails. If trails are temporarily closed due to construction, prior communication and coordination with the Town should occur and physical notices placed for hikers.	3-10:3-11	See **Section 3**, including **Section 3.5.1**, for information regarding management of recreational trails during Project construction. Where Project activities affect public recreational trails, NEP will coordinate with the applicable landowner or land manager regarding appropriate trail safety, access, and restoration measures. Depending on site-specific conditions and construction activities, measures may include temporary detours or bypasses, signage and public notification, temporary closures where necessary for public safety, and stabilization and restoration of affected trail segments following construction.
Massachusetts Department of Environmental Protection, December 30th, 2025			
6-1	The proponent has presented proposed Section 61 Findings in the DEIR for this project. MassDEP has reviewed these findings and finds them to be satisfactory. However, additional assessment and/or alternative mitigation measures may be necessitated based on the submittal of detailed information as part of the permitting process. MassDEP has the authority during permitting to ensure the project will avoid, minimize or mitigate adverse impacts to the environment.	N/A	NEP acknowledges this comment, and recognizes that additional and/or alternative mitigation measures may be necessitated based on future permitting.
Samuel Gladstone, January 2nd, 2026			
7-1	In Buffam Falls the transmission lines that cross the stream are high above the trees so no trees should be cut there as cutting trees there will destabilize the beautiful stream & trails & is totally unnecessary	1-11 4-5:4-7 8-1:8-3	Tree removal and trimming will be limited to the areas shown on the FEIR Plans in **Appendix A**. Only limited tree removal is proposed in the vicinity of the Buffam Brook crossing, and vegetation removal will be minimized to the extent practicable. See **Section 1.7.1** for additional information regarding the extent and basis for proposed tree removal and vegetation management, and **Section 4** and **Section 8** for applicable avoidance and minimization measures associated with work near wetlands and waterways
Kimberly H. Robinson, Pioneer Valley Planning Commission, January 5th, 2026			
8-1	Although the applicant identifies compliance with the Wetlands Protection Act and outlines a proposed suite of mitigation measures, additional documentation is requested in the Final Environmental Impact Report (FEIR) for the following areas: Quantification of Wetland Impacts: A table is included with square footage of temporary vs. permanent impacts, but there is insufficient narrative explaining the ecological significance of wetlands (e.g., habitat value, connectivity, hydrology).	4-1:4-7 8-1:8-3	See **Section 4** for additional information regarding wetland resources and the nature and extent of temporary and permanent wetland impacts associated with the Project, as well as measures incorporated into Project design to avoid and minimize impacts and to restore or mitigate unavoidable impacts. See also **Section 8** for a summary of applicable avoidance, minimization, and mitigation measures and BMPs.
8-2	Avoidance and Minimization Measures: While alternative alignments are mentioned, the DEIR does not adequately explain how wetland impacts were avoided or minimized during design phases.	4-2:4-7 8-1:8-13	As described in Section 5.3 of the DEIR, wetland avoidance and minimization were incorporated throughout Project planning and design and included consideration of replacement structure locations, work areas, and access routes. Proposed structures were generally sited in proximity to the existing structures being replaced and, where feasible, were relocated from wetlands to upland areas. Access and work areas were designed using wetland delineation and survey data to avoid sensitive wetland resources where practicable, including use of existing access routes and configuration of dead-end access routes where doing so avoided additional wetland crossings. Construction matting will be used where access and work areas cannot avoid wetlands to minimize disturbance to wetland soils and vegetation. See Section 5.3 of the DEIR for the detailed discussion of the Project's wetland avoidance and minimization measures. **Section 4.4**, **Section 4.5,** and **Section 8** provide updated wetland impact information and supplement the avoidance, minimization, restoration, and mitigation measures described in the DEIR.
8-3	Hydrology: The project as proposed has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, this project should consider both surface and subsurface hydrology, wildlife habitat, fisheries habitat, and shading impacts. The FEIR should highlight how any local cold-water fisheries will be affected, including thermal and sediment impacts.	4-1:4-7	See response to **Comment 2-6, Section 4,** and **Appendix F** for details of the hydrological and stormwater analysis performed for the Project. Potential impacts to wildlife and fisheries habitat, including coldwater fisheries**.** Sediment and erosion controls will be in place throughout construction, and will remain in place until final stabilization has been achieved. Impacts to stream shading will be minimized as far as possible by limiting tree removals/trimming along banks, and retaining understory vegetation during vegetation management activities.

8-4	Invasive Species: Work should be done carefully to prevent the transmission of invasive species to and from the project site. Because invasive species establish and thrive in disturbed areas, to the extent feasible, soil and vegetation disturbance should be minimized. All vehicles and equipment must be clean and free of excess soil, debris and vegetation before entering the work site.	N/A	See response to **Comment 2-7**, **Section 8**, and **Appendix H** for details of NEPs procedures for managing invasive species within their ROWs.
8-5	Vernal Pools: Vernal Pools are significant to the protection of wildlife habitat, particularly amphibian breeding habitat. The PVPC does not support options that include removing, dredging, or altering of a Vernal Pool or a 100' buffer.	N/A	See response to **Comment 2-8**
8-6	Outstanding Water Resources: This project crosses through Quabbin Reservoir Watershed, a Class A surface water, Outstanding Resource Water, and Public Water Supply. The applicant should work with the landowner, Department of Conservation and Recreation (DCR) to make sure the project does not impair the quality of the water.	N/A	See response to **Comment 2-4**.
8-7	Cumulative Impacts: There is no substantive discussion of cumulative wetland loss from this and other regional energy infrastructure projects. We request that the FEIR include a narrative assessment of functional wetland impacts (e.g., wildlife support, flood mitigation) and provide a clear matrix comparing alternatives with respect to total and functional wetland impact.	4-1:4-7	See **Section 4** for updated information regarding Project-related wetland impacts, including temporary and permanent impacts, avoidance and minimization measures, restoration, and mitigation. Permanent wetland loss associated with the Project is limited to fill associated with replacement structure foundations. Other wetland impacts include temporary construction matting and vegetation management within wetlands; these activities do not result in permanent wetland loss. Temporary construction matting will be removed following construction and affected wetland areas restored. Unavoidable permanent wetland impacts will be mitigated through wetland replacement designed to restore wetland functions and values, including hydrologic and wildlife habitat functions. See also Section 11 of the DEIR for the alternatives analysis and comparison of environmental impacts among the Project alternatives.
8-8	The DEIR includes estimated tree clearing for each segment, but the scope and impact of this vegetation removal is requested as part as follows: Extent of Clearing: In several segments, the extent of clearing is unclear, with additional areas required for access roads and work pads. While the total acreage of impact is stated, it's unclear how much is mature forest vs. shrubland or edge habitat. PVPC understands the difficulty of knowing the exact tree removal that will be necessary at this point of the project and appreciates that trees that only need to be pruned will be treated accordingly. We look forward to more details being supplied as part.	1-11:1-12	See **Section 1.7.1** and **Table 1-6** for updated information regarding the extent of tree removal, selective tree removal, and pruning associated with the Project. On-ROW tree removal is proposed along the forested edges of the existing, maintained transmission ROW; areas characterized as shrubland do not represent areas of proposed tree removal. In response to the Certificate, the FEIR further identifies portions of the existing tree canopy within the ROW that can remain because the vegetation does not conflict with required transmission-line clearances. See also the FEIR Plans in **Appendix A** for the locations of proposed vegetative cover type conversion.
8-9	Forest Fragmentation: There is no analysis of interior forest loss or fragmentation impacts, which are critical in areas of contiguous habitat.	N/A	As discussed in **Section 6 of the DEIR**, the Project is located within an existing, maintained transmission ROW and does not create a new linear corridor through contiguous forest. Proposed on-ROW tree removal will occur along the forested edges of the existing cleared ROW. The DEIR evaluated potential effects of vegetative cover type conversion on biodiversity and determined that the existing open, vegetated ROW does not represent a barrier to movement for New England forest-dependent species, which are able to cross and use ROW areas. Accordingly, the Project is not anticipated to result in significant additional forest fragmentation.
8-10	Climate and Carbon Sequestration: The DEIR does not provide a carbon accounting analysis of forest loss or propose offsets. This information is requested as part.	7-3:7-4	See **Section 7** for carbon accounting analysis for the Project.
8-11	Herbicide Use: The FEIR analysis should include a summary of the last twenty years of herbicide use for vegetation treatment and make projections for how herbicide use will increase as a result of this project.	N/A	See response to **Comment 2-5**.
8-12	We also recommend the FEIR include a GIS-based forest fragmentation analysis, along with mitigation strategies such as replanting, conservation easements, or carbon offsets to compensate for permanent canopy loss.	7-3:7-4	See response to **Comment 8-9**, addressing forest fragmentation, and **Section 7** for a summary of the Project's carbon analysis and carbon offsetting for permanent canopy loss. NEP does not anticipate that tree removals and trimming for the Project will significantly contribute to forest fragmentation, as activities are limited to edge habitat along the existing ROW and off-ROW access routes, and open areas will not be widened substantially compared to existing conditions.
8-13	Stormwater management is described in the DEIR in general terms, with references to MassDEP Stormwater Standards. Additional information is requested as part as follows: Site-Specific BMPs: There is insufficient detail about proposed stormwater Best Management Practices (BMPs) at individual access roads, laydown yards, and construction areas.	N/A	See **Section 8** for a description of the Project's stormwater management and erosion and sediment control measures, **Appendix F** for the Project's stormwater analysis, and **Appendix H** for NEP's BMPs and erosion and sediment control measures. BMPs will be selected and implemented based on site-specific conditions, including access configuration, topography, drainage patterns, soil conditions, and proximity to wetlands and waterways.
8-14	Erosion Control Plans: For sloped or erodible areas, it is unclear whether erosion controls will be adapted seasonally or based on field conditions.	8-1:8-13	See **Section 8** and **Appendix H** for the Project's erosion and sediment control measures and BMPs. Erosion and sediment controls will be selected, installed, maintained, and adjusted as appropriate based on site-specific and seasonal conditions, including changing field conditions during construction, and will be maintained until final stabilization is achieved.

8-15	Post-Construction Hydrology: There is limited discussion of how stormwater runoff patterns will change after permanent infrastructure is installed.	8-1:8-13	See **Section 8** for a summary of existing and proposed stormwater conditions, and **Appendix F** for the stormwater analysis performed for the Project. Stormwater runoff patterns are not anticipated to significantly change as a result of the Project. Conditions within the ROW will be substantially similar to existing, with minimal increase in the extent of impervious area (from replacement caisson foundations) and semi-pervious area (fresh stone access and work pads on existing compacted dirt/stone ground). Tree removals will be limited to edge habitats along the existing cleared edge of ROW and off-ROW access routes, with forest habitat bordering the ROW remaining largely intact and undisturbed. Understory and low-growing vegetation within the ROW will be retained wherever possible, helping to minimize stormwater impacts.
8-16	Belchertown Specific Requirements under their Stormwater Bylaw: It should be noted that the Belchertown Conservation Commission will require a Stormwater permit, as this project is not exempt from the local Stormwater Management Bylaw and Regulations. Project mitigation in areas where soils are classified as having severe erosion potential should include temporary and permanent stabilization methods using BMPs. It is requested that the FEIR include information on how this project does not increase stormwater runoff to any water body, roadway or neighboring property.	N/A	NEP acknowledges this comment, and confirms that it will be applying for a Stormwater Permit from the Belchertown Conservation Commission (and all other applicable bodies which regulate local stormwater bylaws/ordinances along the Project ROW). NEP will conform with the requirements of all applicable stormwater regulations.
8-17	We request that the FEIR include site-specific stormwater design plans for key impact areas and describe long-term inspection and maintenance responsibilities for all BMPs.	7-1:7-2 8-1:8-13	See response to **Comment 8-13.** See also **Section 7.2** and **Section 8** and **Appendix F** for additional information regarding stormwater management and erosion and sediment control measures. Stormwater and erosion-control features will be selected and installed based on site-specific conditions and drainage patterns. Construction-period controls and post-construction stabilization measures will be inspected and maintained until permanent stabilization is achieved in accordance with applicable permit requirements.
8-18	The DEIR mentions the use of several publicly owned parcels and conservation lands, including those subject to Article 97 protections. Additional information is requested as part as follows:	N/A	See responses to **Comment 8-19** through **Comment 8-21**.
8-19	Article 97 Review: Where access roads or utility corridors cross protected open space, the FEIR should identify parcels requiring Article 97 alienation and describe the legislative and mitigation process.	N/A	See response to **Comment C-17**.
8-20	Recreational Impacts: Temporary closure of public trails is mentioned, but the DEIR lacks a clear schedule of closures, detour plans, or notification protocols. Additional information is requested as part.	3-10:3-11	See response to **Comment C-27**, and **Section 3.5.1**.
8-21	Compensatory mitigation: There is no quantitative proposal for open space compensation, such as hand donation, trail enhancement, or conservation restrictions. The FEIR should include a parcel-level summary of open space impacts, and a formal compensatory open space mitigation plan is recommended to be included as part of the Section 61 Finding.	N/A	See **Section 3** and **Table 3-4** for a parcel-level summary of Project impacts to open space and Article 97-protected lands. As discussed in **Section 3**, the Project does not involve a change in use or disposition of Article 97-protected land that would trigger the replacement land requirements. Separately, as described in **Section 7** and **Section 8**, NEP is developing a mitigation package to address unavoidable Project impacts associated with tree removal and carbon sequestration. The mitigation package is anticipated to include land preservation, which would also provide open space and habitat conservation benefits.
8-22	The DEIR outlines required permits but does not fully demonstrate how overlapping federal, state, and local reviews will be coordinated: F1EPA/ FERC / Energy Facilities Siting Board Coordination: It is unclear how these processes will align to avoid duplication or regulatory gaps. Additional information is requested as part.	1-7:1-8	See **Section 1** and **Table 1-3** for an updated summary of federal, state, and local permits and approvals required for the Project, including the anticipated timing and sequencing of applicable regulatory reviews.
8-23	Wetlands and Water Quality Permits: The DEIR lists anticipated permits (e.g., Section 401, 404, Chapter 91) but does not provide a clear timeline or identify responsible parties. Additional information is requested as part.	1-7:1-8	See **Section 1** and **Table 1-3** for an updated permitting table identifying the federal, state, and local permits and approvals anticipated for the Project and their estimated timing. NEP is responsible for obtaining all applicable permits and approvals required for the Project prior to undertaking the activities subject to those authorizations.
8-24	Local Conservation Commission Review: PVPC encourages direct consultation with local Conservation Commissions in Belchertown, Pelham, and Ware to ensure that site- specific wetland and stormwater conditions are incorporated. The FEIR should provide a coordinated permitting timeline and matrix showing agency jurisdiction over each impact type.	1-7:1-8	NEP acknowledges this comment, and reiterates that Notice of Intent (NOIs) will be submitted to all Towns along the Project route (in accordance with the WPA and any applicable local wetlands bylaws/ordinances), with additional stormwater permits being submitted to those Towns with stormwater bylaws/ordinances. It is anticipated that NOIs for the Project will be submitted in the summer to fall of 2026. See **Section 1** and **Table 1-3** for an updated permitting table for the Project, outlining the estimated permitting timeline.
8-25	The DEIR identifies proximity to Environmental Justice populations but does not clearly outline meaningful engagement strategies or mitigation: EJ Mapping: EJ screening is performed using state thresholds; however, the document lacks maps showing project components in relation to specific EJ communities.	2-1:2-5	As shown in the Distribution List provided in **Appendix B**, NEP's distribution requirement complies with this comment and 301 CMR 11.06. NEP has continued to update the EJ reference list, maintain and update the Project website (https://cmatowmaenergy.com/ which is publicly available in English and Spanish), and maintain and monitor the Project email address: info@cmatowmaenergy.com and Project hotline (888-431-3536) throughout the MEPA process. A target notice will also be sent out to the abutters in the EJ Block Group. The FEIR will be posted on the Project website and community stakeholders will be encouraged to request additional public meetings if desired and will be provided with instructions for how to request them. See **Section 2** for more details on Project activities in relation to EJ populations, and **Appendix A** for EJ related mapping.

8-26	Disproportionate Impact Analysis: The FEIR should analyze whether construction impacts (noise, traffic, vegetation removal) disproportionately affect EJ neighborhoods. We recommend that the FEIR include a full demographic and health profile of nearby EJ communities and propose enhanced mitigation, such as additional vegetative buffers or community benefit agreements.	7-1:7-4 8-1:8-13	The FEIR reaffirms that the short-term environmental or public health impacts of the Project (including noise, traffic, and vegetation removal) will be mitigated using BMPs provided in **Section 8**, and that vegetation removal activities that will occur near EJ populations will be as minimal as those occurring along the entire ROW. See **Section 7** for further details of the impact analysis performed for the Project (using RMAT), and support for the Project's finding of no disproportionate impact on EJ populations.
8-27	Franklin Regional Council of Government (FRCOG) commented on the ENF related to historical, archaeological, and cultural resources…it is requested that status of these efforts be updated to the extent possible as part.	1-7:1-9	See **Section 1, Table 1-4** for updates on agency coordination and **Table 1-3** for updates to project permitting since submission of the DEIR. NEP will continue to coordinate with MHC and Tribes regarding historical, archaeological, and cultural resources.
Rachel Loeffler, January 6th, 2026			
9-1	1. Avoid significantly altering the porosity of soils below grade within the work area. Not all soils are the same structurally. a. Prior to construction and permitting, require thorough study of soils and underlying materials in both the areas of the towers and the areas of heavy construction: i. Heavy trucks, repeated vibration can cause silty and or clayey soil structure to collapse like a deck of cards. The impacts can be within that 1' to 12' below grade and can form below grade dams which intercept and redirect groundwater movement across the land. ii. Heavily compacted and/or collapsed soils can negatively impact existing drainage infrastructure below grade as well as the capacity of soils to move water below grade. iii. Due to the long, linear nature of access roads, these impacts and disruptions can be much greater than the footprint of construction, as they interface and impact the larger subsurface watershed. iv. NRCS surficial geology may may not be sufficient data to capture the characteristics of subsurface layers. Geotechnical borings and a resultant report should be prepared for each tower location and any adjacent area where the roads are being "repaired" or built. v. Wood matting may not be sufficient to prevent compaction, especially in areas of high groundwater and saturated soils.	N/A	NEP has incorporated measures into Project design and construction planning to minimize soil disturbance and compaction. Construction matting is a widely accepted BMP for work in wetlands and stream crossings and is recognized in USACE guidance and permitting standards as a means of minimizing soil disturbance. Matting distributes equipment loads and minimizes rutting, compaction, and disturbance to underlying soils and vegetation. Matting will be used in wetlands and other designated sensitive areas along the Project in accordance with applicable permit requirements and the BMPs provided in **Appendix H**. Access improvements will similarly be implemented based on existing and field conditions, with measures used as appropriate to maintain stable access and drainage during construction. Temporarily disturbed areas will be restored following construction in accordance with applicable restoration requirements and site-specific conditions.
9-2	2. Level of specificity of both existing conditions and final proposed conditions. Drawings and plans for permitting should be developed to a level of specificity to show the proposed final contours with 1' intervals at the end of the project. a. If there are proposed adjustments to the terrain, the applicant must demonstrate that stormwater flows are balanced for pre and post lows, not just for the current standard but for future projected rainfall amounts as outlined by the state for the installed project's projected future life span. b. Stormwater reports should be peer reviewed and critically evaluated for curve numbers applied, infiltration rates claimed and model storm amounts.	8-1:8-13	See **Appendix A** for the FEIR Plans, **Section 8** for a discussion of stormwater management and erosion and sediment control measures, and **Appendix F** for the Project's Stormwater Analysis. The FEIR Plans establish conservative limits of disturbance within which Project construction activities may occur. The specific extent and configuration of access improvements and grading within those limits will be based on site and field conditions and may be adjusted during construction. Stormwater and erosion and sediment control measures will similarly be implemented and adjusted as appropriate based on site and field conditions and applicable regulatory requirements.
9-3	3. As built with final topography required to confirm compliance with original permit documents. During construction, deviations are inherent with a complex project of sustained timelines and changing personal. a. Formalizing review and compliance with the project's initial proposal is essential to keep all parts of the effort accountable and ensure a successful project.	8-1:8-13	NEP will implement environmental monitoring and inspection throughout construction to document compliance with the FEIR Plans, applicable permit requirements, and Project BMPs. The Project Environmental Monitor will identify and document conditions requiring corrective action, and corrective measures will be implemented as appropriate. Where changes to permitted Project plans are necessary during construction, they will be addressed in accordance with applicable regulatory and permit requirements. See **Section 8** for additional information regarding environmental monitoring and compliance.
9-4	4. Avoid generic approaches that engage with terrain. Historically we have seen a practice of utility companies scraping the topsoil within the area of work and mounding it up alongside the upslope side of the maintenance road and easement, forming a linear dam above grade to protect the gravel road base and save effort of hauling topsoil offsite.	N/A	Where excavation and grading are required, NEP's Guidance for ROW Access, Maintenance and Construction Best Management Practices (EG-303NE) requires that topsoil be temporarily stockpiled separately from subsoil and redistributed over disturbed areas during restoration. The location of temporary soil stockpiles is determined based on project-specific site conditions and engineering considerations, including maintaining positive drainage along access roads, preserving stormwater management features, complying with electrical clearance requirements, and avoiding placement within sensitive resource areas or other locations where prohibited by permit conditions. Excess soil will be managed in accordance with NEP's applicable environmental guidance. Upon completion of construction, topsoil is redistributed as part of final grading and site restoration in accordance with applicable permit requirements. See **Appendix H** for additional details on BMPs.

9-5	5. Areas with high Groundwater: Areas with high groundwater are highly vulnerable to changes in groundwater and surface water inputs. a. The Commonwealth should require stricter oversight and infrastructure in areas with high groundwater and/or areas prone to groundwater flooding.	N/A	NEP acknowledges the comment regarding regulatory oversight of areas with high groundwater and areas prone to groundwater flooding.
9-6	6. Geotechnical Engineering: Geotechnical borings and analysis of soils can inform the design team early on about potential vulnerabilities of soil and groundwater. Require a geotechnical report for each proposed tower location. Generalized approaches may not capture site specific vulnerabilities to dynamic groundwater interactions and artesian affects. a. Require the utility company to address issues of artesian effects of punctured confinement layers of silt and clay by footings, and posts and the upward movement of lower layers of groundwater or aquifer introduced by the new towers.	N/A	NEP conducted a subsurface investigation to inform the engineering design and selection of Project foundation types. The investigation included traditional soil borings and rock core samples at proposed concrete caisson locations, as well as seismic refraction and Refraction Microtremor ("ReMi") investigations at intermediate structure locations. These investigations provided information regarding subsurface conditions, including depth to bedrock, groundwater levels, and general soil types, which was considered in selecting appropriate foundation types. Foundation locations and types are evaluated on a case-by-case basis considering subsurface conditions, structural requirements, terrain, constructability, environmental impacts, safety, and other design constraints.
9-7	7. Anticipate Corrosion and High Acidity of Existing Groundwater: Localized groundwater is fairly acidic. Tests conducted on site on my property and in upstream areas showed pH to be as low as 3.5 or 4.0. Structures submerged in highly acidic groundwater can be prone to corrosion. Review the proposed structures and materials for resistance to corrosion from highly acidic groundwater which is endemic to our area.	N/A	NEP has performed detailed assessments of structure requirements, including existing structure conditions, ground conditions, and applicable environmental conditions. Replacement structures and foundations are designed in accordance with NEP's applicable engineering standards and material specifications, including requirements for durability and corrosion protection.
9-8	8. The utility company should review their Restoration Plan with the underlying land owners as well as the permitting agencies, and the Utility's Restoration Plan should be deed or easement recorded.	N/A	Project restoration measures will be implemented in accordance with applicable permit requirements and NEP's environmental BMPs. NEP continues to coordinate with applicable regulatory agencies regarding restoration requirements, including for work within DCR-managed lands, NHESP-regulated habitat, and jurisdictional wetland resource areas. Restoration requirements will be incorporated into applicable Project plans and permit conditions, as appropriate.
9-9	9. No intimidation or attempt to remove private owner property rights, or attempt to discredit the character of landowners where the work is taking place	N/A	All Project activities are proposed within the existing E5/F6 ROW and associated off-ROW access routes, to which NEP has existing property or access rights. The Project does not propose any change in existing land ownership or property rights.
9-10	10. Repair of work: Repairs should be made by the utility company to restore the land to its original condition or better, including subgrade and above grade conditions, drainage, and low patterns, and type of vegetation cover. Cost of testing of issues, engineering, and permitting for repair work should not be borne by the underlying landowner.	8-3:8-8	NEP will restore the Project ROW in conformance with federal, state, and local permitting requirements. See **Table 8-1** for a summary of Project mitigation and restoration commitments, responsible parties, and approximate timeframes. Necessary repair work and restoration measures which result from Project activities will be the responsibility of NEP (and/or their contractors), and will not be borne by the underlying landowner.
9-11	11. Better communication about the material nature of work and the final conditions of the land during and after construction: Recommend meeting with individual property owners to walk their property affected by the work and talk through the proposed work as well as the proposed final condition of the land. Any initial letter notifications to property owners, should include detailed descriptions of the proposed work during construction as well as any requested permanent changes to terrain or surfacing of the underlying landowner's land. Any permanent changes to the land should be approved of by the landowner prior to the Utility company submitting permits.	2-1:2-5 8-1:8-13	See **Section 2** for additional information regarding Project outreach and stakeholder coordination and **Section 8** for Project restoration measures**.** NEP will continue to coordinate with affected landowners before and throughout construction. Prior to construction, NEP will provide construction-start notification to Project abutters, followed by more targeted notifications near active construction areas identifying the location and general timing of work, anticipated equipment and construction activities, and other information pertinent to the specific activity. NEP will also coordinate with individual property owners, as appropriate, regarding site-specific conditions, restoration, and access considerations.
9-12	12. Work with the University of Massachusetts Amherst's Department of Hydrogeology to identify areas vulnerable to groundwater flooding as well as areas prone to be susceptible to groundwater flooding in the future.	N/A	NEP acknowledges the recommendation.
9-13	13. Maximize existing Carbon Sequestration and stormwater management by protecting soils and trees.	7-1:7-4	See **Section 7.4** for a summary of the carbon analysis performed for the Project (full report provided in **Appendix G**), and **Section 7.2** for a summary of stormwater management (**Appendix F** for an updated Stormwater Analysis).
9-14	14. Publicly owned lands: Utility company to reach out to each owner of the publicly held land to confirm what department(s) or representatives need to be included on future correspondence.	3-3:3-7	See **Section 3.3** for information regarding coordination with public landowners, including DCR, DFG, UMass, and municipalities. NEP will continue to coordinate with the appropriate representatives of these entities regarding Project activities affecting their properties.
9-15	15. Engage with local public elected officials to provide more support for members directly affected by the work.	N/A	See Section 2 for information regarding Project outreach and stakeholder coordination. NEP has engaged with municipal officials throughout the Project, including through presentations to local Select Boards, and will continue to coordinate with municipal officials as the Project advances through permitting and construction.
Stacey McCullough, January 6th, 2026			
10-1	I'm concerned that National Grid's plan calls for indiscriminate clear-cutting throughout their project, rather than exercising due care to limit damage. I ask that you require National Grid to limit their project's damage to only the amount that's truly necessary to meet their project's goals.	N/A	See response to **Comment 3-1**.

10-2	To me, the universal application of the clear-cutting category within their ROW indicates that National Grid has not exercised sufficient care to distinguish areas that need to be clear-cut from those that don't. National Grid should be assiduous about managing via Selective Tree Removal or Pruning everywhere they can, and especially in areas that are priority habitats, water supplies, wetlands/streams/vernal pools, hiking areas, and otherwise sensitive.	N/A	See response to **Comment 3-1.**
10-3	They're saying: "We're not widening the ROW" and letting people think it means: "We're not widening the cleared corridor." Those two statements are not equivalent! Per National Grid's maps, they absolutely are widening the cleared corridor, albeit within their 125' ROW. The natural environment has value whether it falls on one side or the other of their property line, and National Grid should protect it wherever possible.	N/A	NEP acknowledges the distinction between the legal limits of the ROW and the existing cleared corridor. The Project does not propose to widen the existing ROW; however, tree removal and pruning will expand the existing cleared corridor in certain locations within the ROW. See response to **Comment 3-1** regarding the extent of proposed tree removal and pruning and measures to minimize vegetation removal.
Denise Prseley, January 7th, 2026			
11-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	1-11	See response to **Comment 3-1** and **Section 1.7.1** regarding proposed tree removal and pruning and measures to minimize vegetation removal.
11-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	7-1:7-4 8-1:8-13	See **Section 7** and **Appendix G** for the Project's updated carbon analysis, including the effects of proposed tree removal and associated mitigation, and **Section 8** and **Appendix F** for the Project's stormwater analysis and mitigation measures. See **Section 7.4** for additional information regarding the proposed tree-removal and carbon mitigation package.
11-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 8-9** regarding potential forest fragmentation and wildlife corridor impacts associated with proposed tree removal. See **Appendix H** for BMPs to minimize the introduction and spread of invasive species during construction and restoration.
11-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	NEP applies an Integrated Vegetation Management (IVM) approach to vegetation management within its ROWs, as described in NEP's Five-Year Vegetation Management Plan. The IVM program includes management of incompatible vegetation while retaining compatible low-growing vegetation. See response to **Comment 3-1** regarding proposed tree removal and pruning for the Project.
11-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	NEP acknowledges this comment, and will comply with all MEPA requirements determined by the Secretary.
Jacqueline Katz, January 7th, 2026			
12-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.

12-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
12-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
12-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
12-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Janet Sinclair January 7th, 2026			
13-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
13-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
13-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
13-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**

13-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Jodi Rodar, January 7th, 2026			
14-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
14-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
14-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
14-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
14-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Josette Henschel, January 7th, 2026			
15-1	Please, please rethink this project. We need every tree possible. I support improvement of the electric grid; I appreciate all that National Grid does to keep the energy flowing. This plan requires thoughtful planning and cutting to take into consideration the environment, the wildlife corridors, flooding, erosion, protection of this "green" legacy upon which we are dependent for tourism, beauty, oxygen, erosion protection, and on and on.	N/A	See response to **Comment 3-1**.
Lynne Man, January 7th, 2026			
16-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.

16-2	I reiterate and support the collective concerns of Responsible Grid: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
16-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
16-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
16-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
	Maryann Auriemma January 7th, 2026		
17-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
17-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
17-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
17-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**

17-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Miriam and Mike Kirkland, January 7th, 2026			
18-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
18-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
18-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
18-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
18-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Pam Younquist, January 7th, 2026			
19-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
19-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**

19-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
19-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
19-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Robert Seletsky, January 7th, 2026			
20-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
20-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
20-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
20-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
20-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Wren Veatch, January 7th, 2026			
22-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.

22-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
22-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
22-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
22-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Anita Ryan, January 8th, 2026			
23-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
23-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
23-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
23-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**

23-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Brittany Gravely, January 8th, 2026			
24-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
24-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
24-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
24-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
24-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Joanne Kasper-Dunne, January 8th, 2026			
25-1	MassDEP Central Regional Office Bureau of Waste Site Cleanup and Wetlands staff have reviewed the DEIR for the New England Power Central to Western Massachusetts Energy Improvement Project and have no additional comments.	N/A	NEP acknowledges this comment.

Judith Elseman, January 8th, 2026			
26-1	Granted, the towers are old and in need of extensive update work, but insisting that the portion of the right of way currently being used or cleared be enlarged seems overkill. Apparently work “needed" will be determined by whichever employee is on site and decides that cutting or clearing is necessary. This is unacceptable and since some of the work is in “sensitive" areas but others not, the Conservation Commissions and citizens of each town may not have an opportunity to weigh in or know how to object in advance. MEPA should intervene and fully review management plans to ensure that understory habitat is not damaged and that disturbed soils are not left to be replaced with invasive species or simply covered with traprock. That will undermine various species requirements and usefulness so actual soil should be replaced or not disturbed in the first place.	8-1:8-13	See response to **Comment 3-1** regarding proposed tree removal and pruning and measures to minimize vegetation removal. See **Section 8** and **Appendix H** for measures to minimize impacts to soils and vegetation, restore temporarily disturbed areas, and minimize the introduction and spread of invasive species.
26-2	It is unacceptable for National Grid to avoid adopting an Integrated Vegetation Management plan—no doubt to save money for them while damaging private and public resources here to increase potential electricity capacity for data centers and electrical uses elsewhere.	N/A	See response to **Comment 11-4** regarding NEP’s Integrated Vegetation Management approach.
Nancy Haver, January 8th, 2026			
27-1	I urge you to require National Grid to complete a comprehensive EIR for their management plan.	N/A	NEP acknowledges the recommendation. See response to **Comment 11-4** regarding NEP’s Integrated Vegetation Management approach and Five-Year Vegetation Management Plan.
27-2	I ask that MEPA make the transition from clearcutting in favor of IVM forestry practices.	N/A	See response to **Comment 11-4**.
Alisa Plazonja, January 9th, 2026			
28-1	While maintaining a reliable electrical grid is essential, National Grid needs conduct its business in a manner that respects the critical role that our tree canopy plays in our Commonwealth’s ecosystem resilience and overall environmental health by providing carbon sequestration and storage, absorbing stormwater to reduce runoff and the pollution of our watersheds, protecting against erosion and invasive species, and serving as wildlife habitat. Because our tree canopy is so essential to our wellbeing, rather than approving wholesale clearcutting within their right of way, MEPA should require National Grid to submit a comprehensive Environmental Impact Report.	N/A	See responses to **Comment 3-1, Comment 11-2,** and **Comment 11-3** regarding proposed tree removal and pruning, carbon and stormwater impacts, wildlife habitat, and invasive species.
28-2	should also require that National Grid adopt an Integrated Vegetation Management plan that prioritizes selective cutting and pruning that would balance grid integrity with the preservation of our Commonwealth’s critical green infrastructure. Clear cutting is a drastic measure that should only be used when absolutely necessary, and by emphasizing clear cutting, Eversource’s proposed plan would cause substantial, avoidable harm to the environment, people, and the planet. I therefore ask that you exercise your authority to see that they adopt a more targeted plan that does not unnecessarily remove trees that pose no realistic or near-term danger to the grid.	N/A	See response to **Comment 11-4** regarding NEP’s Integrated Vegetation Management approach, and response to **Comment 3-1** regarding proposed tree removal and pruning**.**
Department of Conservation and Recreation, January 9th, 2026			
29-1	DCR requests that the Proponent continue to coordinate with DCR staff to avoid and minimize temporary and permanent impacts to sensitive resources, avoid accidental discharge of hazardous materials in the public water supply lands, reduce the threat of invasive species, minimize clearing of trees, and identify restoration and mitigation opportunities for loss or conversion of wetlands, rare species habitat, forest, and recreational resources resulting from Project work activities.	N/A	NEP acknowledges this comment, and confirms that they will continue to coordinate with DCR staff to minimize project impacts within DCR owned land.
29-2	The Proponent is directed to coordinate with DCR-DWSP-Quabbin staff regarding protocols for enhanced vigilance and care by contractors to avoid or immediately report spills.	N/A	NEP acknowledges this comment, and confirms that they will coordinate with DCR-DWSP Quabbin staff prior to the commencement of Project activities within the Quabbin WsPA.
29-3	DCR notes that vehicles are not permitted in the Quabbin Watershed during mud season.	3-4	See **Section 3.3.1**. NEP has been coordinating with DCR-DWSP to avoid vehicle travel within the Quabbin Reservoir watershed during mud season to the extent reasonably practicable considering Project outage requirements. Where mud-season travel cannot be avoided, NEP will continue consultation with DCR-DWSP regarding appropriate measures to minimize impacts associated with vehicle travel during mud season.
29-4	DCR also requests continued coordination with DCR’s Ecology and Management Forestry staff prior to and during the permitting process to implement measures to avoid, minimize, or mitigate adverse effects to significant natural resources, and for final review of flagged work limits to reduce clearing and construction impacts to sensitive resources.	N/A	NEP acknowledges this comment, and confirms that they will continue to coordinate with DCR’s Ecology and Management Forestry staff prior to and during the permitting process.

29-5	DCR similarly requests that the Proponent coordinate with DCR Management Forestry before work is conducted to ensure that work on DCR land is consistent with DCR's mission and policies related to effective forest management. The Proponent should coordinate with DCR Forestry, Ecology and Watershed staff to ensure that appropriate drainage measures to prevent erosion and future degradation are in place and implemented to the satisfaction of DCR at the end of this Project.	N/A	NEP acknowledges this comment, and confirms that they will coordinate with DCR Management Forestry before work is conducted within DCR land.
29-6	NEP indicates they will coordinate with DCR staff to identify locations where gates will be required to secure any access roads that remain in place post construction. We look forward to further consultation and detailed construction and access plans that will inform required mitigation and restoration of these access roads and other components of this Project.	N/A	NEP acknowledges this comment, and confirms that they will coordinate with DCR staff regarding required mitigation and restoration, and the installation of gates, on DCR land.
29-7	DCR also appreciates the Proponent's offer to coordinate additional field visits as the Project progresses. The Department stands ready to continue coordinated Project review with NEP.	N/A	NEP acknowledges this comment.
29-8	Where applications for environmental or other permits for work activities on DCR land must be signed by the Department as 'Owner', DCR requires that the Proponent provide applications and corresponding documents to DCR at least 45 days prior to submission to regulatory agencies.	N/A	NEP acknowledges this comment, and confirms that they will provide applications and corresponding documents to DCR at least 45 days prior to submission to regulatory agencies, for applications which must be signed by the Department as "Owner."
29-9	The Watershed Protection Act (M.G.L. c. 92A ½, §§1 et seq.) and regulations promulgated thereunder (313 CMR 11.00), defines an area of regulatory control around water resources in the Quabbin Reservoir watershed. While the regulations contain exemptions for utility work (see 313 CMR 11.05(11) and (12)), the Project must be reviewed by DCR to determine that such maintenance, repair or expansion activities, structures, or facilities do not materially impair the quality of water in the public water supply watersheds as determined by DWSP after consultation with the Department of Environmental Protection. DCR will initiate review of the Project only after the Proponent has filed a Watershed Request for Determination of Applicability, along with all required documentation.	N/A	NEP acknowledges this comment, and confirms that they will submit a Watershed Request for Determination of Applicability, along with all required documentation, to DCR.
29-10	The DEIR indicates that the ROW covers a total of 167 acres within DCR properties. Quantification of tree removal from the DCR properties has not been provided.	3-9	See **Section 3.4** for details of tree removal activities, including proposed tree removals within DCR land. In total, 30.8 acres of tree removals are required within DCR land, 4.7 acres of selective tree removals, and 4.0 acres of tree trimming.
29-11	DCR's Management Forestry staff requests coordination with NEP regarding mitigation for tree clearing and other activities proposed for this Project.	N/A	NEP will coordinate with DCR Management Forestry staff.
29-12	Multiple DCR trails cross and/or meander along the utility ROW at South River, West Brookfield, and Spencer State Forests, including a segment of the Midstate Trail, a priority long distance hiking trail. DCR requests that NEP develop a trail safety and closure plan for all trails affected during construction. Such plan, which should be submitted for DCR's review and approval, should identify safe routes, when possible, and trail closures, when safe bypass routes are unavailable. The Department requests that the trails be posted with project information at least 30 days in advance of the initiation of any Project activity. DCR will review the information and provide posting locations. The same information will be posted on the DCR Parks website, and the Midstate Trail website.	3-10:3-11	See response to **Comment C-27**, and **Section 3.5.1**. NEP will continue to coordinate with DCR to design and implement an appropriate trail safety and closure plan. The plan will address issues including: establishing appropriate by-pass routes, providing adequate public notice of trail closures and diversions, and installing appropriate barriers around work zones. This information will be made available to DCR (and other applicable organizations) at least 30 days in advance of the initiation of any project activity.
29-13	DCR notes that several trails within the Quabbin watershed coincide with the Proponent's activities along access roads. DWSP requests coordination prior to any activities that may impact Quabbin walking trails.	N/A	NEP will coordinate with DCR-DWSP prior to the start of construction, to design and implement appropriate trail protection measures, and (where applicable), an appropriate trail safety and closure plan.
29-14	DCR is concerned that the Project may result in increased OHV access to the state forests, potentially causing further degradation of natural, cultural, and recreational resources. DCR requests that the Proponent continue to coordinate with DCR Trails and Operations staff to develop and implement strategies to deter unauthorized motorized trail use, including the installation of gates or boulders at strategic locations identified by DCR.	N/A	See response to **Comment C-28.** Where the NEP easement is co-located within DCR trail networks, NEP will coordinate with DCR to design appropriate measures to minimize unauthorized motorized trail use. Measures typically include the installation of gates and boulders at appropriate locations (i.e. locations where these measures may reasonably be effective in reducing unauthorized entry, without compromising NEP's access to the ROW to perform essential emergency or maintenance work).
29-15	DCR will continue to evaluate NEP plans to determine if the proposed off-ROW activities and associated impacts and use amount to a change in use or control under Article 97 of the Amendments to the Constitution of the Commonwealth. Such change in use or control would require the Proponent to meet the requirements, including obtaining easements, set forth in the Open Space Act (M.G.L. c. 3, § 5A; the "OSA") and the Executive Office of Energy and Environmental Affairs' Article 97 Land Disposition Policy (the "Policy") to ensure no net loss of lands protected under Article 97.	3-1	See **Section 3** for NEP's evaluation of Article 97 applicability to the Project, including activities on DCR-managed lands. NEP's existing property rights are sufficient for the proposed Project activities and that the Project does not constitute a change in use or disposition requiring compliance with the Article 97 disposition process. NEP will continue to coordinate with DCR regarding proposed off-ROW activities through the applicable DCR permitting process.

29-16	DCR determined that there are generally three types of proposed access roads: areas that are more like trails and include sensitive resources, and that would need significant widening and additional work to support the heavy equipment needed for construction (Type 1); areas that are existing roads but need a fair amount of upgrading to support NEP's proposed use (Type 2); and areas where the roads are basically in place, may have been previously developed by NEP, and need some upgrading (Type 3). There may be overlap between Types 2 and 3 depending on specific work activities which, presumably, will be set forth in the Proponent's detailed construction plans. DCR requests copies of these construction plans as soon as available.	1-10:1-11	See **Section 1** and **Table 1-5** for a description of the Project's proposed temporary access improvements and **Appendix A** for the locations and types of proposed access. NEP has provided DCR with plans depicting the proposed access improvements on DCR-managed lands and will continue to coordinate with DCR regarding these improvements through the DCR permitting process**.**
29-17	some of these roads will be used primarily by NEP for the Project and for ongoing maintenance, while others will also benefit DCR and the public. DCR would like to discuss cooperative use of those roads that are beneficial to both parties.	N/A	NEP will coordinate with DCR to discuss the future cooperative use of access routes by DCR and the public.
29-18	Some off-ROW areas may not be needed beyond construction or will not function as permanent roads when the temporary matting used to traverse wetlands are pulled, leaving these sensitive areas vulnerable to unauthorized vehicular traffic and further degradation. DCR prefers restoration of these roads and sensitive resources in accordance with a restoration plan approved by DCR.	N/A	NEP acknowledges this comment. Restoration of off-ROW access routes within DCR-managed lands will be coordinated with DCR.
29-19	The following are DCR's observations and initial recommendations for each proposed off-ROW access Area: DCR State Parks • South River State Forest, Conway: The main stem of the access route is an established dirt road that will need some improvements which DCR views as a Type 2 road as described above, including regrading, filling in ruts, and possible replacement of culverts. There are three spurs leading off this road that appear to be less established and more consistent with a path or trail. Current plans call for widening, grading and graveling these areas. Further discussion is needed to determine the appropriate final outcome and use for these sections of the off-ROW area.	N/A	NEP acknowledges this comment. NEP will continue to coordinate with DCR regarding the proposed access improvements and appropriate post-construction condition of the South River State Forest mainstem and spur access routes through the DCR Construction and Access Permit process.
29-20	Connecticut River Greenway, Deerfield: Additional ownership information is needed for Steam Mill Road in Deerfield where access rights are a mixture of NEP, DCR and private ownership. DCR requests that NEP continue to research ownership of the road and share that information with DCR when complete. DCR also notes that the outcome of a pending court case involving a section of Steam Mill Road in Deerfield may impact DCR ownership in this area and necessitate additional consultation and review of work proposed at this location. It is difficult to provide feedback on this section of the off-ROW area without this information. For the area beyond Steam Mill Road, specifically the east-west off-ROW access route to reach structure 423 shown on the Map on pages 43 and 44 in the DEIR, DCR views this as an unofficial trail not intended for public use. Given this, DCR requests full restoration of this portion of the off-ROW area.	N/A	Pursuant to that judgement in the Land Court (21 MISC 000597) on July 28, 2025, Steam Mill Road is a public way for the portion identified in a 1952 layout plan recorded with the Franklin County Registry of Deeds in Plan Book 15, Page 36. The remainder of Steam Mill Road is a private way permanently open to the public, including to both DCR and National Grid, to use for access as public ways are commonly used in the Commonwealth. Regarding the east-west off-ROW access route from Steam Mill Road, NEP acknowledges DCR's request for restoration. As proposed, the route will be primarily matted, with limited improvements made only as necessary to provide safe construction access. Following construction, temporary matting and aggregate will be removed and the route will be substantially restored to its pre-existing condition. NEP will continue to coordinate with DCR regarding the specific restoration measures through the DCR Construction and Access Permit process.
29-21	Spencer State Forest: This entire off-ROW area appears to be a trail or woods road which overlaps with the Midstate Trail. DCR requests that it is fully restored after work is completed. Further discussion and coordination with DCR Trails Staff and AMC is needed regarding impacts to the Midstate Trail and how to mitigate impacts to public use during the construction period as noted in Recreational and OHV use section above.	N/A	NEP acknowledges this comment. Following construction, the off-ROW access route within Spencer State Forest will be restored in coordination with DCR. NEP will also continue to coordinate with DCR and AMC regarding trail safety, temporary closures, public notification, and other measures to minimize impacts to use of the Midstate Trail during construction through the DCR Construction and Access Permit process**.**
29-22	Quabbin Reservoir Watershed, Pelham, Belchertown and Ware: Access routes across DWSP land vary widely in their existing condition, ranging from established internal management roads, to woods roads in fair to poor condition, to less-defined trails or paths. In less-established areas, such as the access route west of Gate PL6 and between Structures 345 and 346, DCR requests that temporary matting be used, and that these areas be fully restored after work is completed.	N/A	NEP has conducted multiple site visits and consultations with DCR-DWSP regarding proposed access across Quabbin Reservoir watershed lands, and the Project plans have been revised in multiple locations based on that coordination. NEP will continue to coordinate with DCR-DWSP regarding the appropriate use of temporary construction matting and restoration of off-ROW access routes based on existing conditions and the extent of improvements required. Restoration measures will be developed in coordination with DCR-DWSP to protect water quality and watershed resources.
29-23	DCR notes that vehicle access is not permitted within the Quabbin Watershed during mud season, and that Gate 5 should not be utilized by the Proponent or its contractors. The timing of any use of off-ROW access routes, particularly in areas closest to the reservoir, should be coordinated with DCR to minimize impacts to management roads and to address erosion and water quality protection concerns. Additional discussion will be needed to determine the appropriate long-term treatment and use of each segment of the off-ROW area.	N/A	See response to **Comment 29-3** regarding mud season access. NEP will continue to coordinate with DCR-DWSP regarding the timing and use of off-ROW access routes, to the extent reasonably practicable considering Project outage requirements, and measures to minimize erosion and protect water quality where access cannot be avoided. Appropriate post-construction treatment of off-ROW access routes will also be coordinated with DCR-DWSP.

29-24	The DEIR indicates that NEP will provide DCR with copies of any easement documents that grant access over DCR land in these properties. Easement documents have been provided for DWSP. DCR requests that NEP provide these documents for the State Parks portions of the Project as soon as feasible.	N/A	NEP provided easement documentation to DCR State Parks and Recreation on January 8, 2026, during the DEIR review process.
Massachusetts Department of Environmental Protection, January 9th, 2026			
30-1	Based on the information available at this time, certain scopes of the project may be subject to Chapter 91 licensing. The Department agrees that certain other scopes of the project may be exempt from licensing or eligible for authorization through an administrative review and approval, but at this time the filing does not include evidence to support such determinations by the Department. The Department reiterates its recommendation that the Proponent consult with the Department, and suggests this coordination should occur prior to preparation and submittal to ensure the filing includes adequate information about the scope of work as it relates to Chapter 91.	4-2	Refer to **Section 4.3**. NEP met with MassDEP Waterways on June 30, 2026 to review the 22 perennial non-tidal river and streams proposed to be crossed using temporary timber mats during construction. The consultation and subsequent correspondence concluded that none of the perennial streams, for which temporary construction-phase crossings are proposed, are navigable as defined by the Massachusetts Waterways Regulations at 310 CMR 9.04, nor are the 22 non-tidal river or stream crossings proposed within any geographic area subject to Chapter 91 jurisdiction. MassDEP Waterways determined that no further review or approval of the proposed work is required under G.L. c.91 or the Waterways Regulations. No new licensing will be required for the Project, and all of the jurisdictional crossings can be addressed through applicable exemptions in 310 CMR 9.05 The FEIR Plans in Appendix A display flagged crossings and matting, if it is used at that crossing.
Elizabeth Pols, January 9th, 2026			
31-1	Here in Belchertown we have carefully crafted robust Stormwater bylaws, and as the PVPC observed, our Conservation Commission would have to permit this work.	N/A	See response to **Comment 5-9** regarding review of Project activities by the Belchertown Conservation Commission. NEP will also submit a Stormwater Permit application in accordance with the Town of Belchertown's applicable stormwater requirements.
31-2	Belchertown also takes the protection of our cold water fisheries very seriously when considering permitting land-use changes. It is concerning that proposed work in Pelham's Cadwell Forest risks a cold water fishery largely in Belchertown, but with its headwaters in the middle of the Cadwell Forest.	4-1:4-2	See **Section 4.2** for a discussion of potential impacts to coldwater fisheries and associated avoidance and minimization measures, and **Appendix H** for the Project BMPs. NEP will implement BMPs to minimize potential thermal and sediment impacts to coldwater fisheries, including sediment and erosion controls, minimizing tree removal and pruning along stream banks, and retaining understory vegetation to the extent practicable.
31-3	even as we celebrate the recent acquisition of more than 1,000 acres of unfragmented forest (critical to completing the wildlife corridor between the Holyoke range and the Quabbin reservoir) we face uncertain and unquantified forest loss with this aggressively extended ROW clearing.	N/A	See response to **Comment 3-1** regarding the extent of proposed tree removal and pruning and measures to minimize vegetation removal, and response to **Comment 8-9** regarding potential forest fragmentation and wildlife corridor impacts associated with proposed tree removal.
31-4	That some of this clearing will be executed on conserved and public land, on land thought to be protected by Article 97 will be a crippling disincentive to future land conservation. Having worked with land owners willing to put their land in conservation, I know that permanent conservation is key to their gifts. Please take any land protected by Article 97 out of consideration of this project.	3-1	See **Section 3** regarding Article 97 lands. The existing transmission ROW and associated NEP property rights predate Article 97. As described in **Section 3**, the Project does not constitute a change in use or disposition of Article 97-protected land requiring compliance with the Article 97 disposition process.
31-5	I add my voice to those of the current Pioneer Valley Planning Commissioners and ask you to listen to and respect their well reasoned comments.	N/A	NEP acknowledges this comment.
Franklin County Regional Council of Governments, January 9th, 2026			
32-1	Appendix C of the DEIR provides impact tables by municipality, but the table is limited to a summary of impacts to wetland resources and, where relevant, impact to Department of Conservation Resources (DCR) properties. It would be good to see permanent and temporary "new land altered" numbers (as provided in Table 1-3) broken down by town as well as other statistics. Perhaps a fact sheet for each town could be made that summarizes pertinent impacts by town.	N/A	See **Appendix E** for a more detailed break-down of Project impacts by municipality, including all permanent and temporary impact types, within different resource areas, for each Town.
32-2	In Table 4-2: Under Buckland, the Gardner Falls Recreation Area is not owned by Western Massachusetts Electric Company. It is owned by CRP MA Gardner Falls LLC (a subsidiary of Patriot Hydro LLC which is a subsidiary of something else) and "Veterans Memorial Field" is now called "Cricket Field" and the Town of Buckland owns this park, so it is a public ("local") park. Under Leverett, Rattlesnake Gutter Trust might be best categorized as a land trust. Under Shelburne, "Bradwell Farms CR" should be spelled "Bardwell Farms CR" (this is an error in MassGIS).	N/A	NEP acknowledges this comment, and has amended references to these areas on the FEIR Plans in **Appendix A**, and within the FEIR text, where appropriate.
32-3	Table 4-3 summarizes the locations where the project intersects DCR properties. It would be helpful to understand the comparative size (acres) of impact on each DCR property. The information might be in Appendix C, but the name of each DCR state forest or park is not provided in Appendix C.	3-10	See **Section 3.4** and **Table 3-5** for a more detailed break-down of Project impacts within DCR land, including the four parks and state forests.
32-4	The proposed project will permanently impact this segment of the Mohican-Mohawk Trail, which is already heavily impacted by the aesthetics of the power line. We recommend that DCR and National Grid seek to re-route the trail corridor away from the impacted area so that hikers can hike in forest.	N/A	NEP acknowledges this comment. See **Section 3.5.3** for measures to manage potential impacts to public trails during construction, including coordination with applicable landowners and trail managers, temporary closures and public notification, and post-construction restoration.

32-5	FRCOG staff hiking along Conway section of the Mohican-Mohawk trail in 2025 observed Oriental bittersweet proliferating along the power line and spreading into the forest in this area. Widening of the corridor will encourage the further spread of bittersweet, which tends to grow best in forest edge areas. FRCOG recommends that the proponent commit to manually pull young plants and cut mature bittersweet in this area and within a 100-foot swath from the corridor as a regular maintenance activity.	N/A	NEP acknowledges this comment.
32-6	Page 45 of the Environmental Resources Map in Attachment A has a “hiking trail” label on the map but the map shows no marked hiking trail. This is the Pocumtuck Ridge Trail on DCR property in this area. This trail is not identified in section 4.3 where other trails and unpaved roads are listed.	N/A	NEP acknowledges this comment, and has amended the FEIR Plans in **Appendix A**.
32-7	FRCOG requests that, prior to construction, the proponent contact local outdoor organizations (Appalachian Mountain Club, Northeast Mountain Bike Association, etc.) and municipalities to let them know of upcoming recreational trail impacts. Additionally, during construction, trailhead kiosks/signs and trail crossings should have temporary signage installed to offer wayfinding on the trail through the construction zone (see photo below showing need for signage during these types of projects).	3-10:3-11	See **Section 3.5.1** for measures to manage potential impacts to public trails during construction. NEP will coordinate with applicable municipalities, landowners, trail managers, and other relevant organizations in advance of construction activities affecting recreational trails. Measures will include appropriate public notification, temporary signage and wayfinding, and trail closures or detours, as necessary, to maintain public safety during construction.
32-8	FRCOG’s comment letter on the Environmental Notification Form (ENF) dated February 27, 2025 expressed concerns about mitigating visual impacts to two nationally-designated scenic byways, the Connecticut River Byway on Route 47 in Sunderland and the Mohawk Trail Scenic Byway on Route 2 in Shelburne. On page 13-18, the proponent’s response referred to Section 11 for impacts and planned efforts to avoid, minimize, and mitigate impacts. However, we were unable to find any reference to avoid, minimize, and mitigate impacts to scenic byways.	3-10:3-11	NEP’s approach to avoiding, minimizing, and mitigating impacts to scenic byways is consistent with general minimization of open space resources. Refer to **Section 3.5**.
32-9	FRCOG recommends that BMPs for vernal pools also include the BMPs listed in section 5.3.1.1 for wetlands.	N/A	NEP acknowledges this comment, and confirms that all BMPs for vernal pools include those for wetlands listed in Section 5.3.1.1 in the DEIR.
32-10	Section 8.1.2: FRCOG supports offering wood to landowners and community wood banks, along with leaving felled trees and snags to decompose where possible, to create habitat.	N/A	NEP acknowledges this comment, and confirms that cut wood will be offered to landowners and community wood banks, and that (where suitable) cut wood and snags will remain in place to provide wildlife habitat.
Ian Buchanan, January 9th, 2026			
33-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
33-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
33-3	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
33-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid’s December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**

33-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Jenn Suprenant, January 9th, 2026			
34-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
34-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
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34-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Jill Buchanan January 9th, 2026			
35-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
35-2	My concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**

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35-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Lara Wahl, Eli Elkus, Zuleica Booth, January 9th, 2026			
36-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.
36-2	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
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36-4	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
36-5	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5.**
Lenore Bryck, January 7th, 2026			
37-1	If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species.	N/A	See response to **Comment 11-1**.

37-2	We understand and support the necessity of a reliable electrical grid, but the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning, which should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans.	N/A	See response to **Comment 3-1.**
37-3	Our collective concerns across these municipalities include: 1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.	N/A	See response to **Comment 11-2.**
37-4	2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.	N/A	See response to **Comment 11-3.**
37-5	3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.	N/A	See response to **Comment 11-4.**
37-6	4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.	N/A	See response to **Comment 11-5**.
Shelly Kirkwood, January 9th, 2026			
38-1	Adding here the comments submitted today by the Franklin Regional Council of Governments, which I'd like to endorse as well.	N/A	See response to **Comment 32-1** through **Comment 32-10.**
Shelly Kirkwood, January 9th, 2026			
39-1	It is unique in the there are miles of uninterrupted woodland, which is unusual in this particular area. It is also in extremely close proximity to our drinking water. Consider that your project will likely impact clean water for the region and that you will be held liable if this occurs.	4-1	NEP acknowledges this comment and reiterates its commitment to protecting public and private water supply, in accordance with all federal, state and local regulations. In addition to the BMPs outlined in **Appendix H**, which will be implemented across the entire Project area to protect water quality, NEP is required to implement additional protective measures when working within drinking water supply watersheds and their associated wetlands and waterways. See **Section 4.1** for details of these additional measures.

39-2	This project, if it proceeds will represent yet another devastating loss for our collective natural spaces, all of which are deeply in need of protection in this moment. I urge you to reconsider this endeavor as we witness the undoing of so many environmental protections in our country. Please protect this very special forestland.	1-5 8-3:8-8	NEP acknowledges this comment. As described in **Section 1.2**, NEP has evaluated Project needs and alternatives and has incorporated measures throughout Project design to avoid and minimize impacts to natural resources to the extent practicable. Where impacts cannot be avoided, mitigation measures are proposed as described in **Section 8 and Table 8-1**. See also **Appendix H** for BMPs that will be implemented during construction to avoid and minimize impacts to environmental resources.
Division of Fisheries and Wildlife, January 12th, 2026			
40-1	Based on with the information in the DEIR, the Division's ongoing consultations with the Proponent, and in advance of a formal MESA filing, we continue to anticipate that the Project is likely to result in a Take of American Bittersweet (Celastrus scandens; Threatened), Muskflower (Erythranthe moschata; Threatened), and a Data-sensitive species. The Division anticipates, based on ongoing consultations with the Proponent, and in advance of a formal MESA filing that the project can be sufficiently conditioned to avoid a prohibited Take (321 CMR 10.18(2)(b)) of Variable Sedge (Carex polymorpha; Endangered), Eastern Whip-poor-will (Antrostomus vociferus; Special Concern), American Bittern (Botaurus lentiginosus; Endangered) and Pied Bill Grebe (Podilymbus Podiceps; Endangered). The Division cannot yet determine whether the Project can be sufficiently conditioned to avoid a prohibited Take (321 CMR 10.18(2)(b)) of additional state-listed species habitat. If the Division determines the project will result in a Take of state-listed species, then the project may only be permitted if they meet the performance standards for 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.	5-1:5-2	**See Section 5** for details of the Project's impacts and proposed mitigation within NHESP Priority and Estimated Habitat. NEP will continue to coordinate with NHESP to determine appropriate minimization and mitigation for impacts within NHESP Rare Species Habitats, and will be preparing a CMP for all species for which a "Take" cannot be avoided. In accordance with 321 CMR 10.23, the CMP will include a detailed assessment of Project impacts and the minimization and mitigation measures to be employed by the Project, assessment of alternatives to both temporary and permanent impacts to the state-listed species, and commitment to a conservation and management plan that provides a long-term net benefit to the conservation of the state-listed species.
40-2	The Division recommends that the Proponent continue to work proactively with the Division to address development of stringent protection measures during construction, and restoration measures post-construction for state-listed species habitat. The Division anticipates being able to address these issues through the MESA review process and looks forward to continued consultation with the Proponent.	N/A	NEP acknowledges this comment, and will continue to consult with NHESP regularly throughout the Project permitting process, including during the preparation of the CMP for applicable species and Project activities.
Elizabeth Stefanik, January 14th, 2026			
41-1	In the FEIR, MassDEP Wetlands requests that New England Power Company (NEP) provide more detailed information on the project specific "proposed mitigation for tree removal." NEP states that they look forward to continuing the partnership with both DCR and Mass Audubon on this mitigation package and that they will provide an update on the mitigation package and additional details in the FEIR.	8-13	See **Section 8.2.7** for details of NEPs proposed mitigation for tree removals.

41-2	The following ENF comment, provided by MassDEP Wetlands - Central Region was not fully addressed: "The ENF does not provide descriptions for compensatory storage for other activities which will occur within BLSF including the placement of utility structures and roadway improvements. The Proponent must provide compensatory storage for any fill of BLSF resource."	7-2	See **Section 7.3** for additional information regarding Project activities within BLSF and the evaluation of potential effects on flood storage. Access roads and work pads within BLSF will be constructed in a manner that does not result in fill or a loss of flood-storage capacity. Permanent fill within BLSF is limited to replacement structure foundations and is not anticipated to result in a significant loss of flood-storage capacity; therefore, NEP is not proposing compensatory flood storage for these impacts.
41-3	The following ENF comment, provided by MassDEP Wetlands - Central Region was not fully addressed: "The ENF does not provide descriptions for compensatory storage for other activities which will occur within BLSF including the placement of utility structures and roadway improvements. The Proponent must provide compensatory storage for any fill of BLSF resource." … MassDEP requires Applicants to provide justification that the "activities within BLSF will not result in demonstratable loss of flood storage capacity." Per 310 CMR 10.57(4)(a)1., Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project.	N/A	See response to **Comment 41-2**.

Appendix A – FEIR Plans

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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BSC Project Number: 100181.02

Central to Western Massachusetts Energy Improvement Project

Shelburne, Buckland, Conway, Deerfield, Sunderland, Leverett, Shutesbury, Pelham, Belchertown, Ware, West Brookfield, North Brookfield, East Brookfield, Spencer, Leicester, Auburn, and Millbury, MA

MEPA General Purpose Plans - 100% Design

August 2026



PREPARED FOR:

nationalgrid

170 Data Drive
Waltham, MA 02451

ISSUED FOR PERMITTING
NOT CONSTRUCTION

INDEX OF FIGURES

Appendix A is organized by municipality from a general northwest to southeast orientation. Each municipality has an index page ("I#") that shows the location of each map page ("#") in the context of the municipality's open space resources.

Shelburne: 1-29
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Conway: 19, 20, 30-41
Deerfield: 41-62
Sunderland: 63-77

Leverett: 77-94
Shutesbury: 94-102
Pelham: 102-127
Belchertown: 126-155
Ware: 155-180

West Brookfield: 180-200
North Brookfield: 200-217
East Brookfield: 217-220
Spencer: 220-241

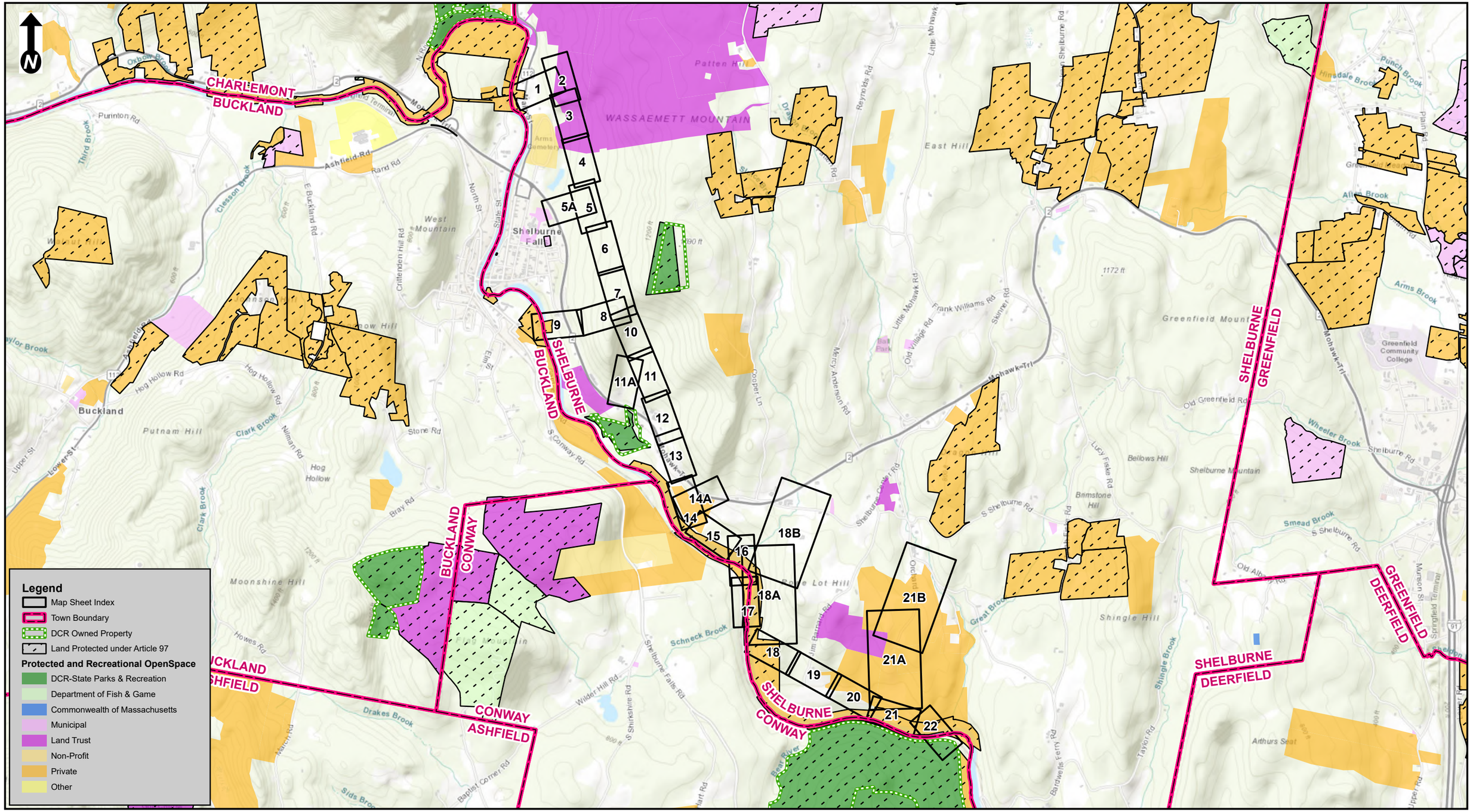
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Auburn: 255-270
Millbury: 270-284

PREPARED BY:

BSC GROUP

803 Summer Street, Third Floor
Boston, MA 02127

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Legend

- Map Sheet Index
- Town Boundary
- DCR Owned Property
- Land Protected under Article 97

Protected and Recreational OpenSpace

- DCR-State Parks & Recreation
- Department of Fish & Game
- Commonwealth of Massachusetts
- Municipal
- Land Trust
- Non-Profit
- Private
- Other

Scale:
1 inch = 3,000 feet
(page size: 11 X 17)
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Feet

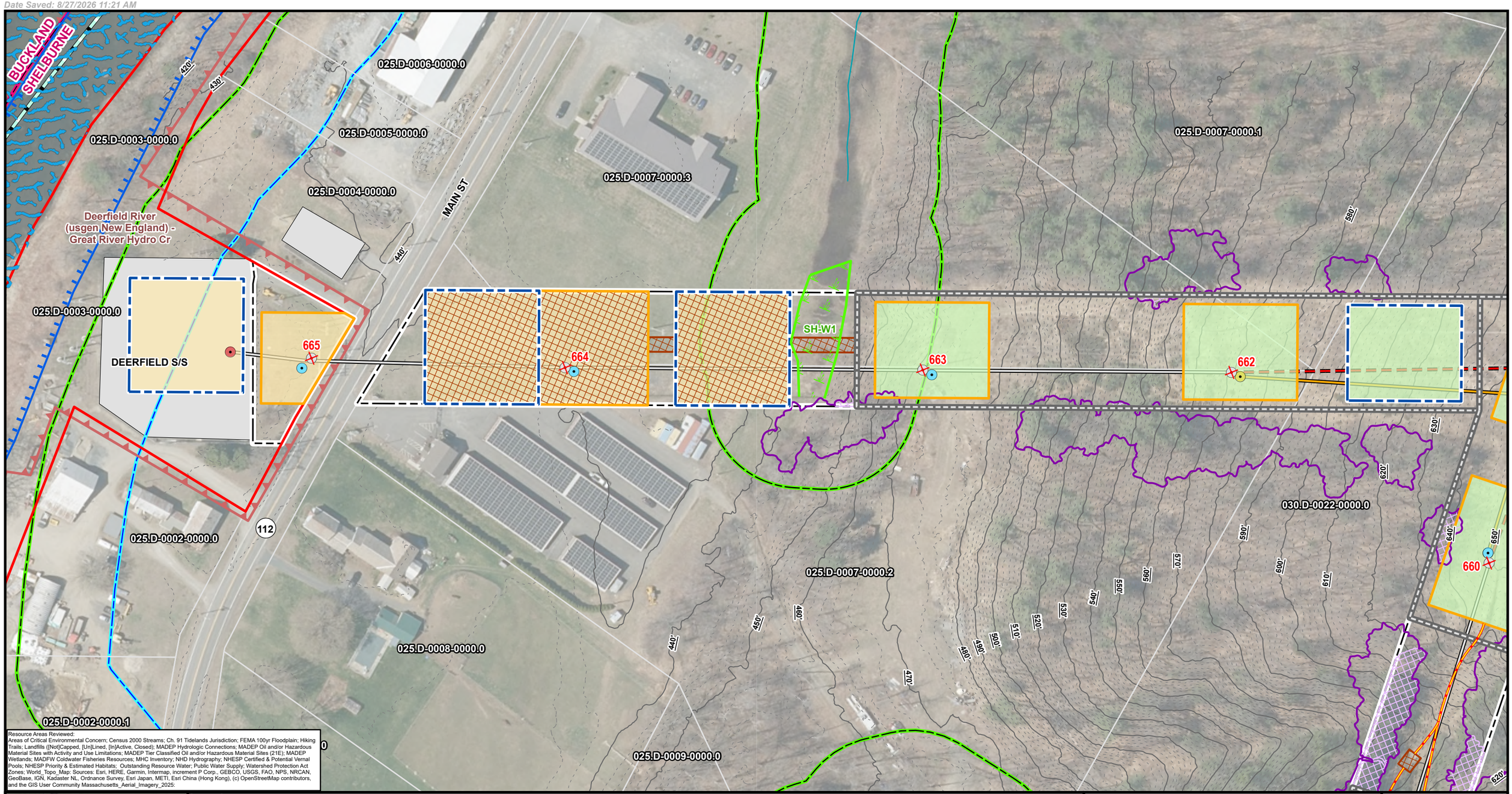
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Shelburne, MA

Source: 2013 National Geographic Society, i-cubed

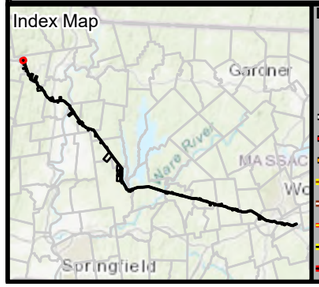
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Resource Areas Reviewed:
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shelburne, MA
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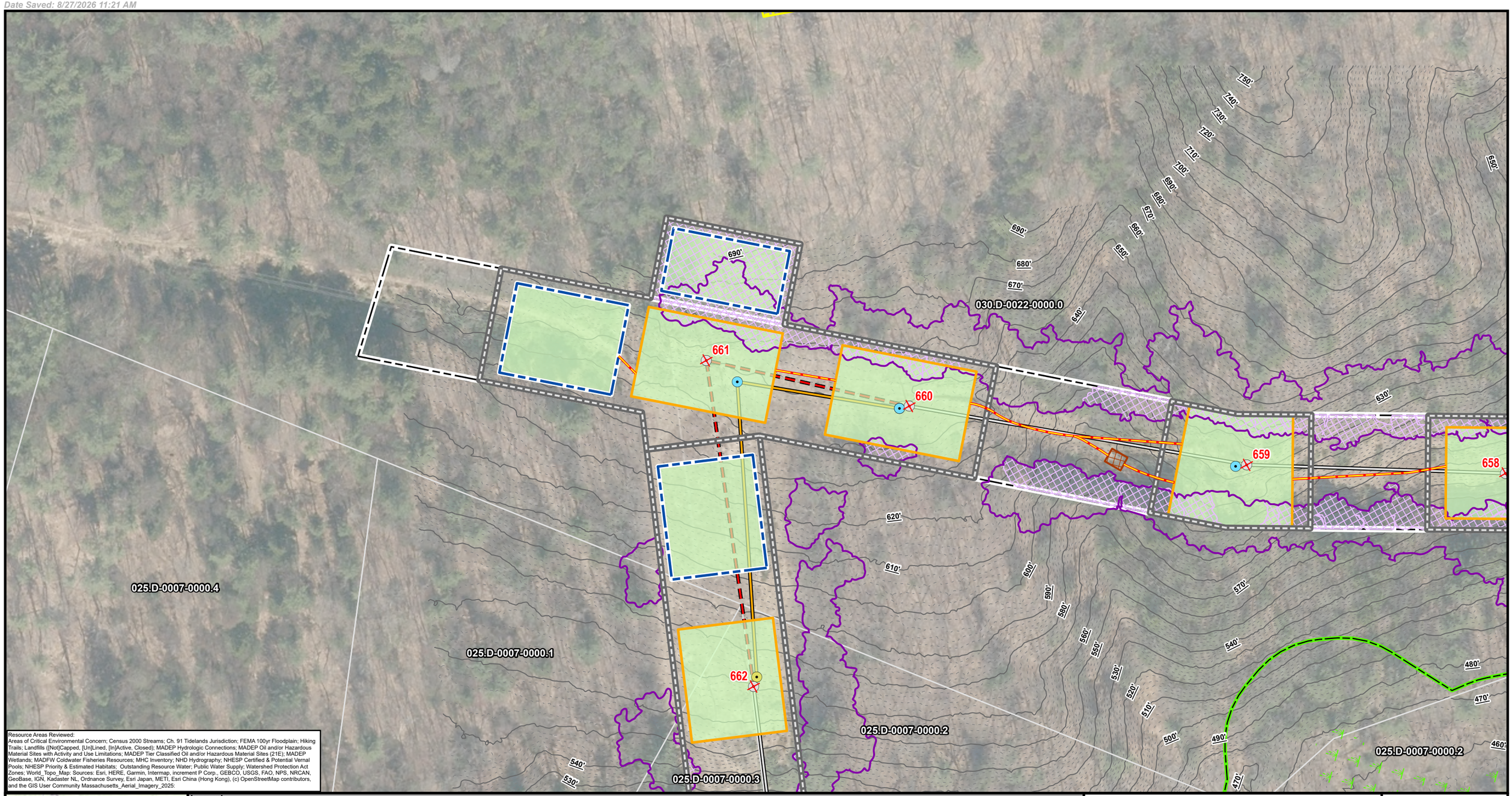
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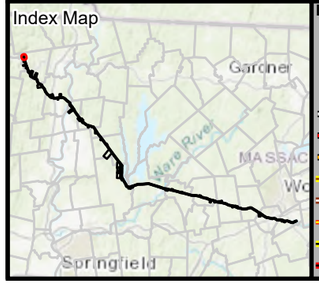
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SH-W3
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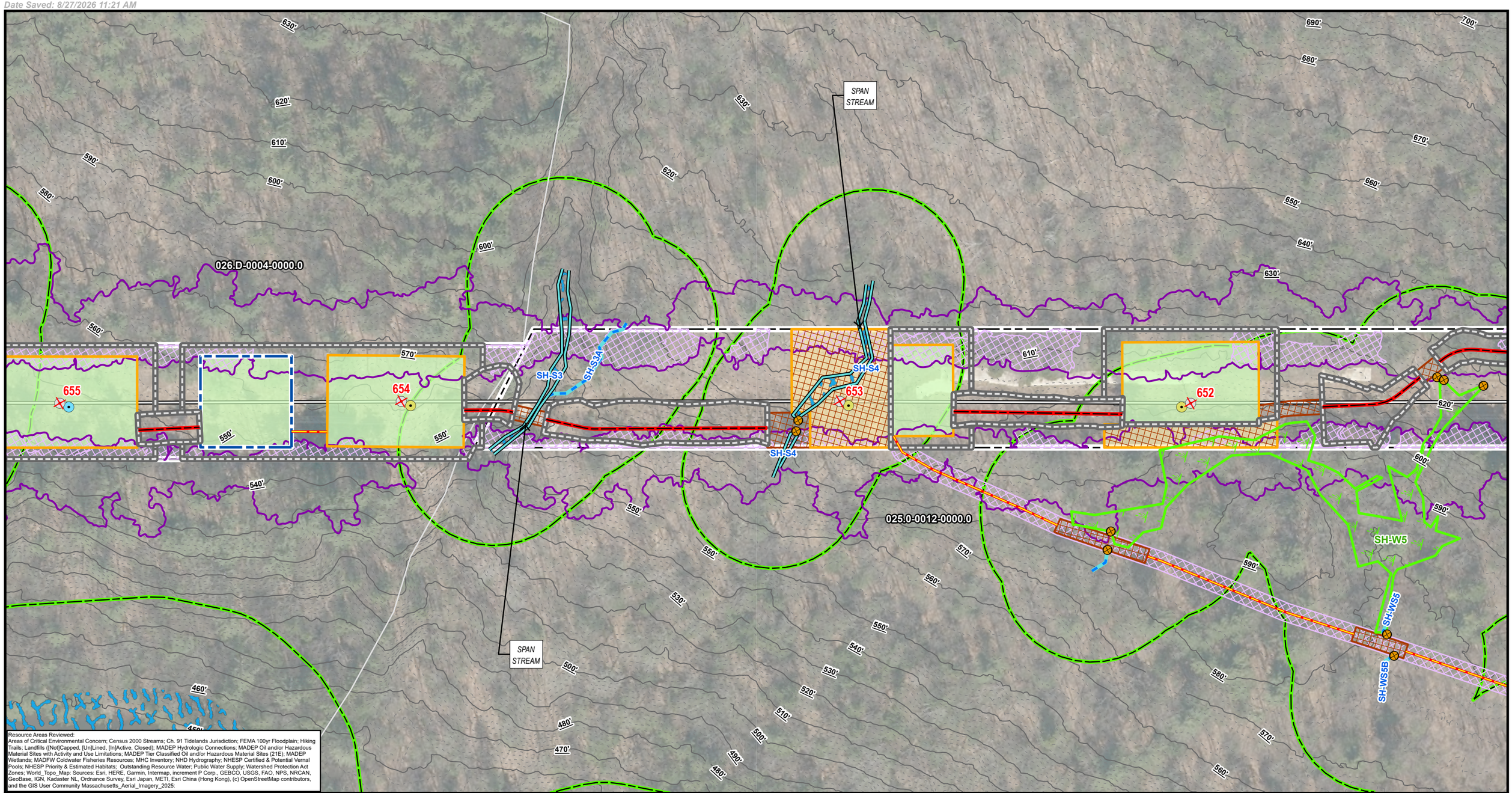
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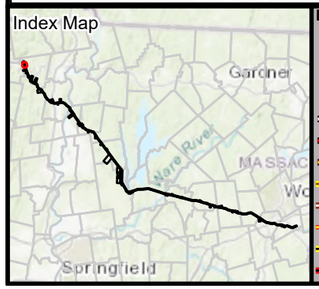
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Environmental Resources Map

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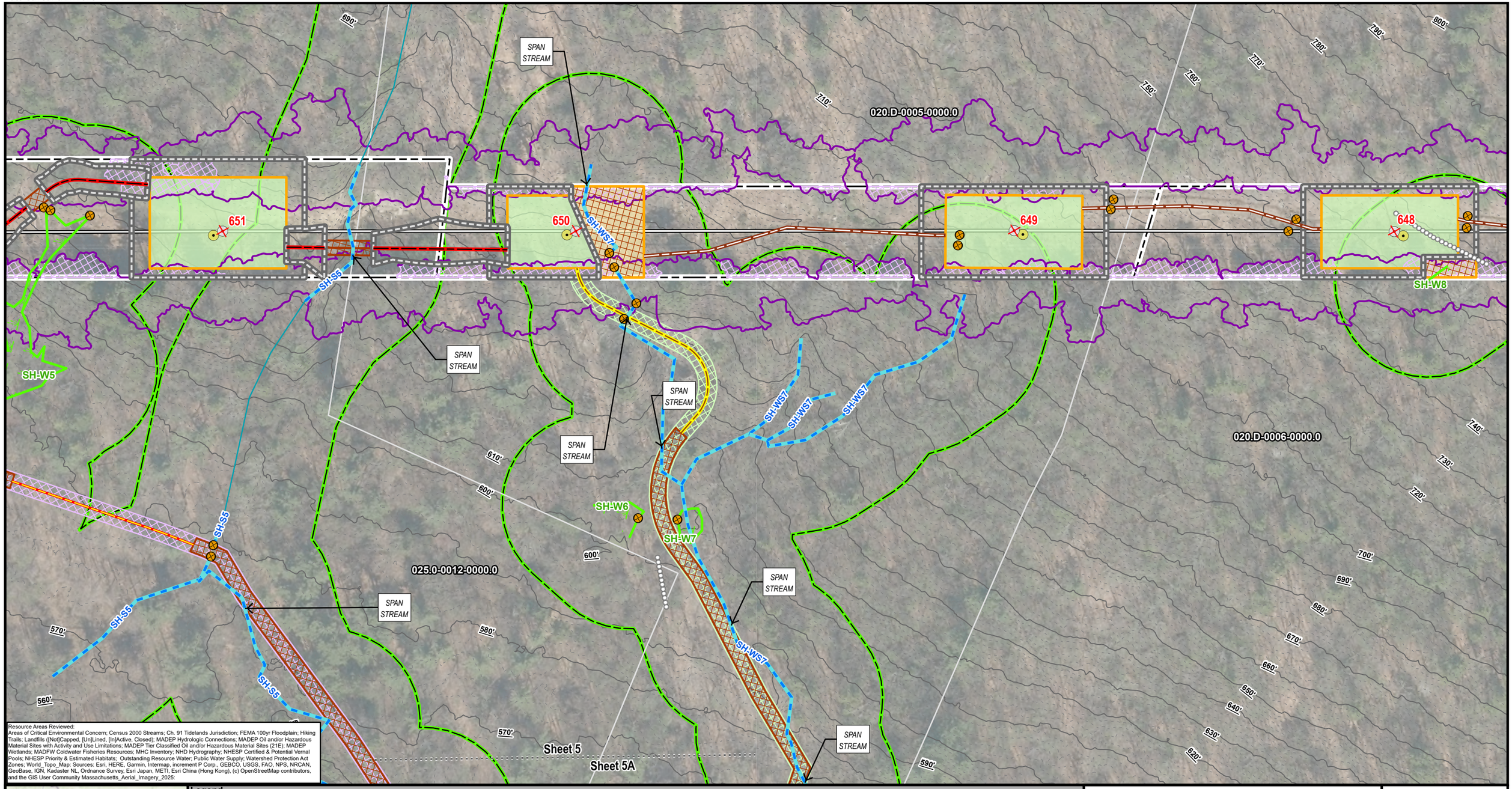
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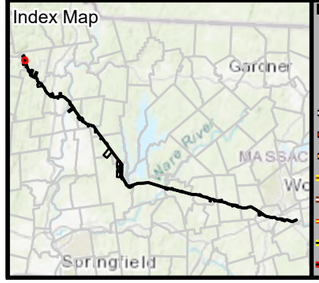
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Environmental Resources Map

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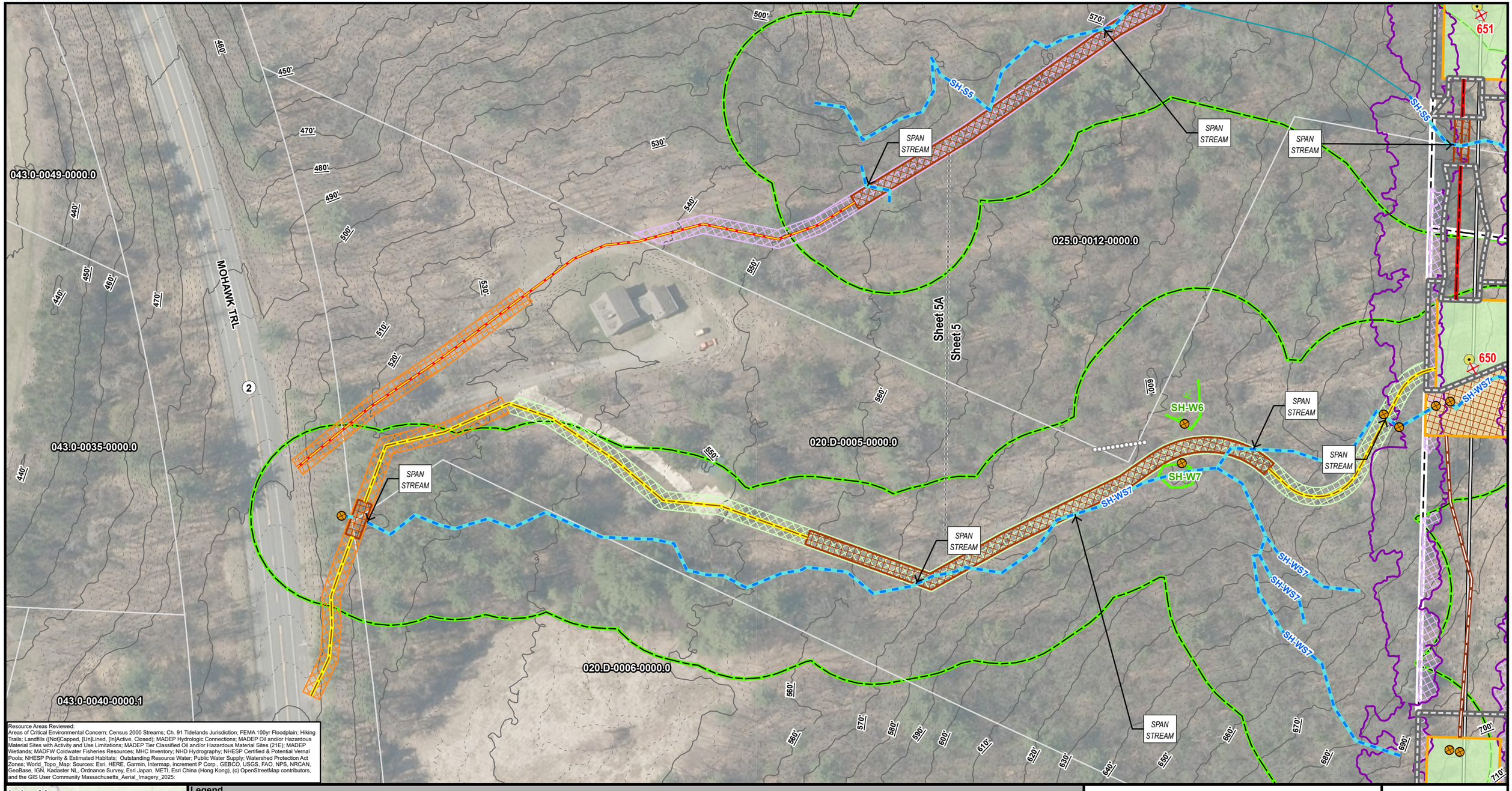
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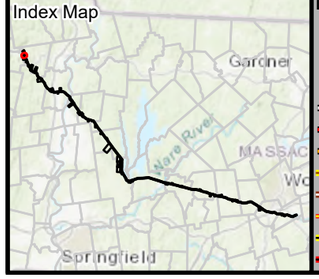
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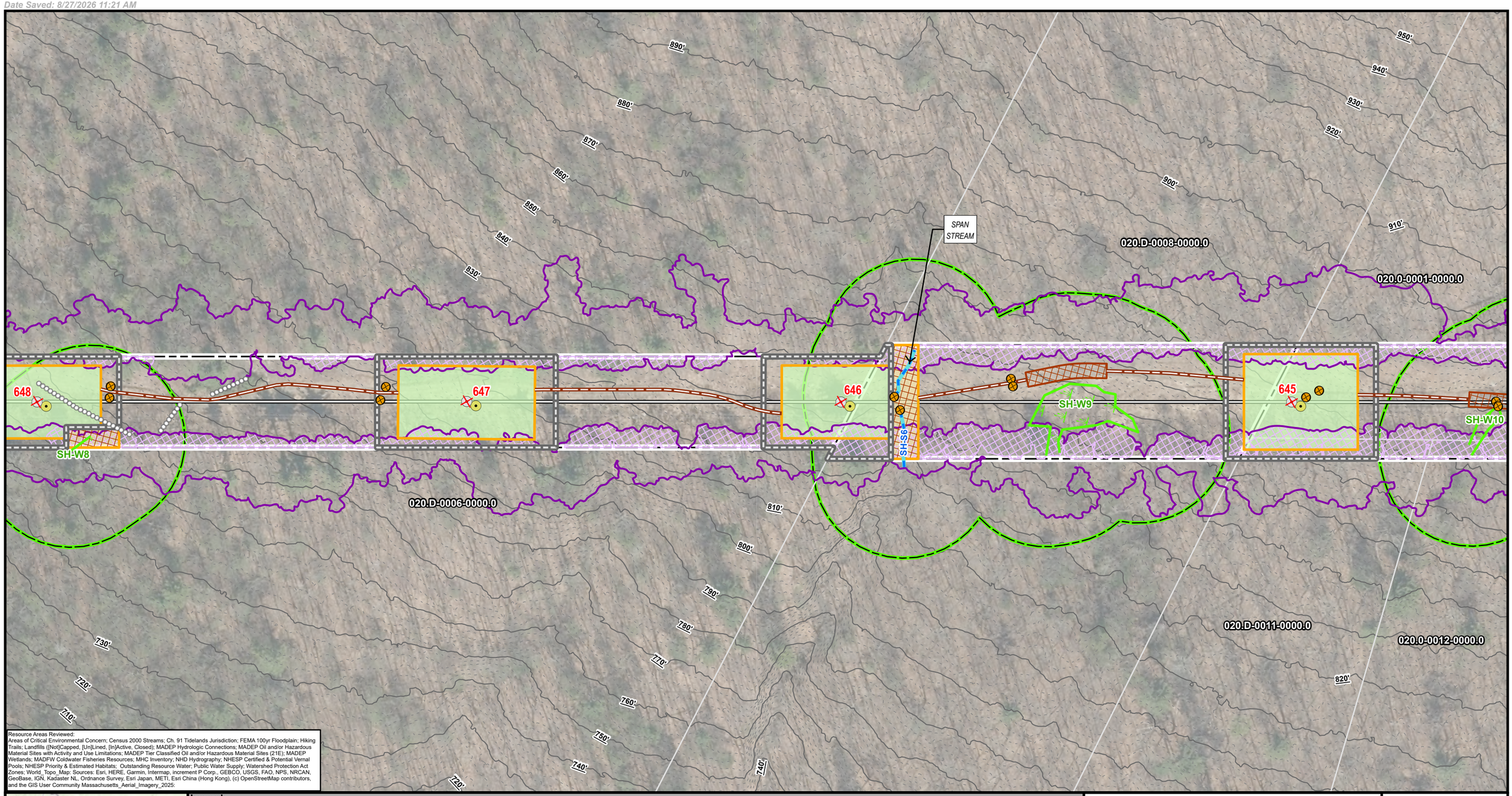
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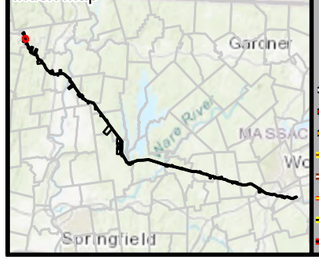
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

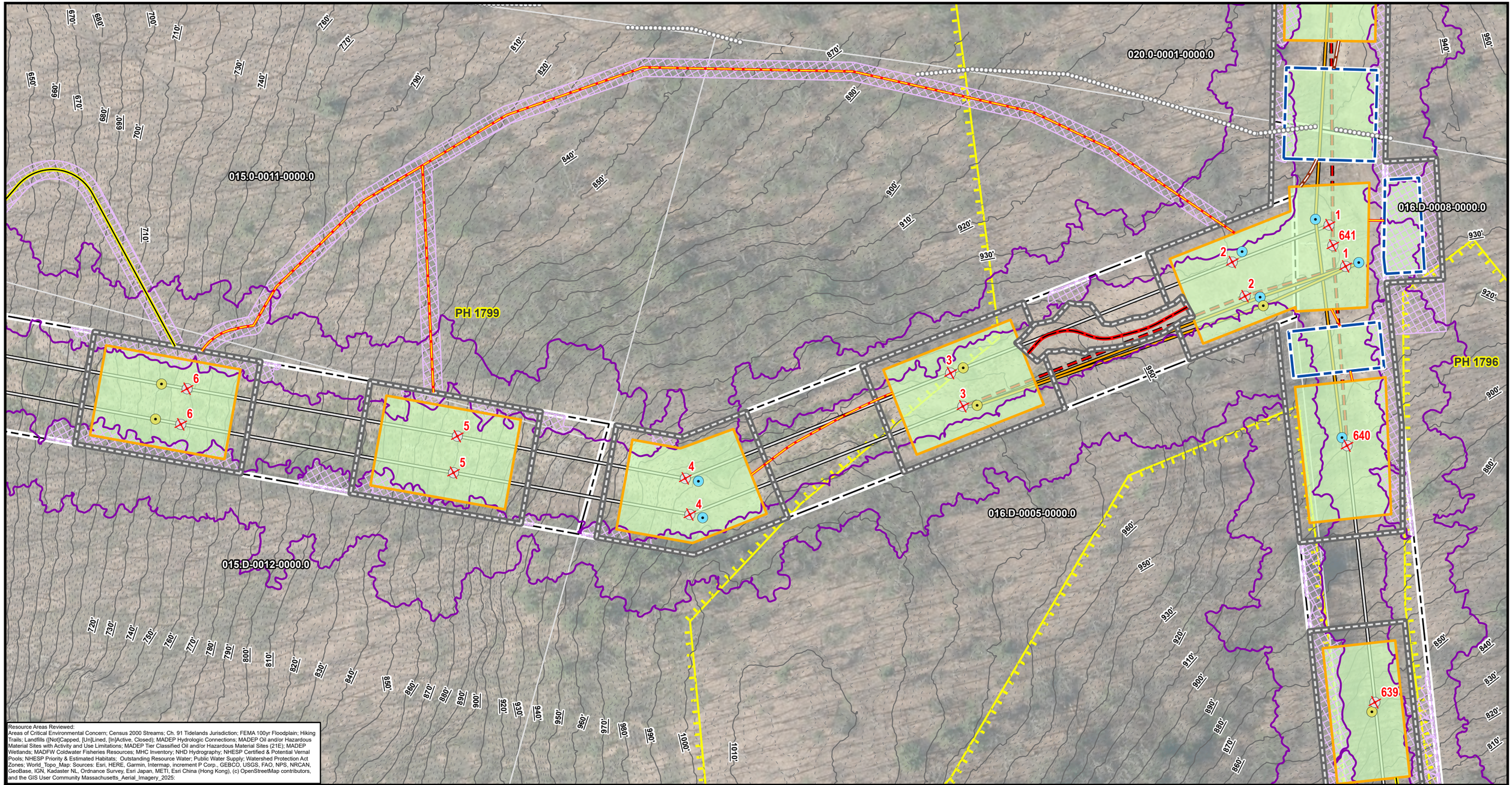
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Shelburne, MA
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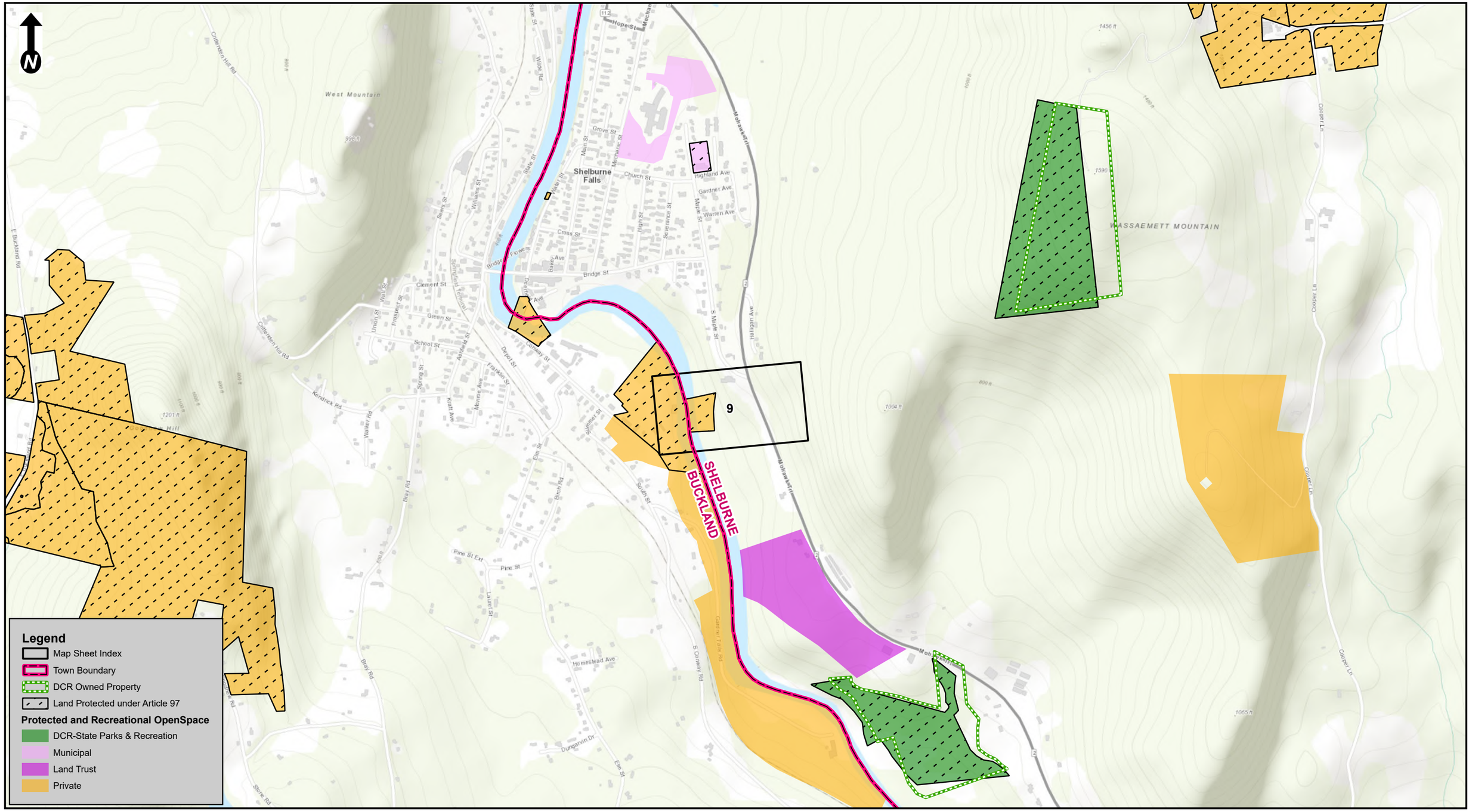
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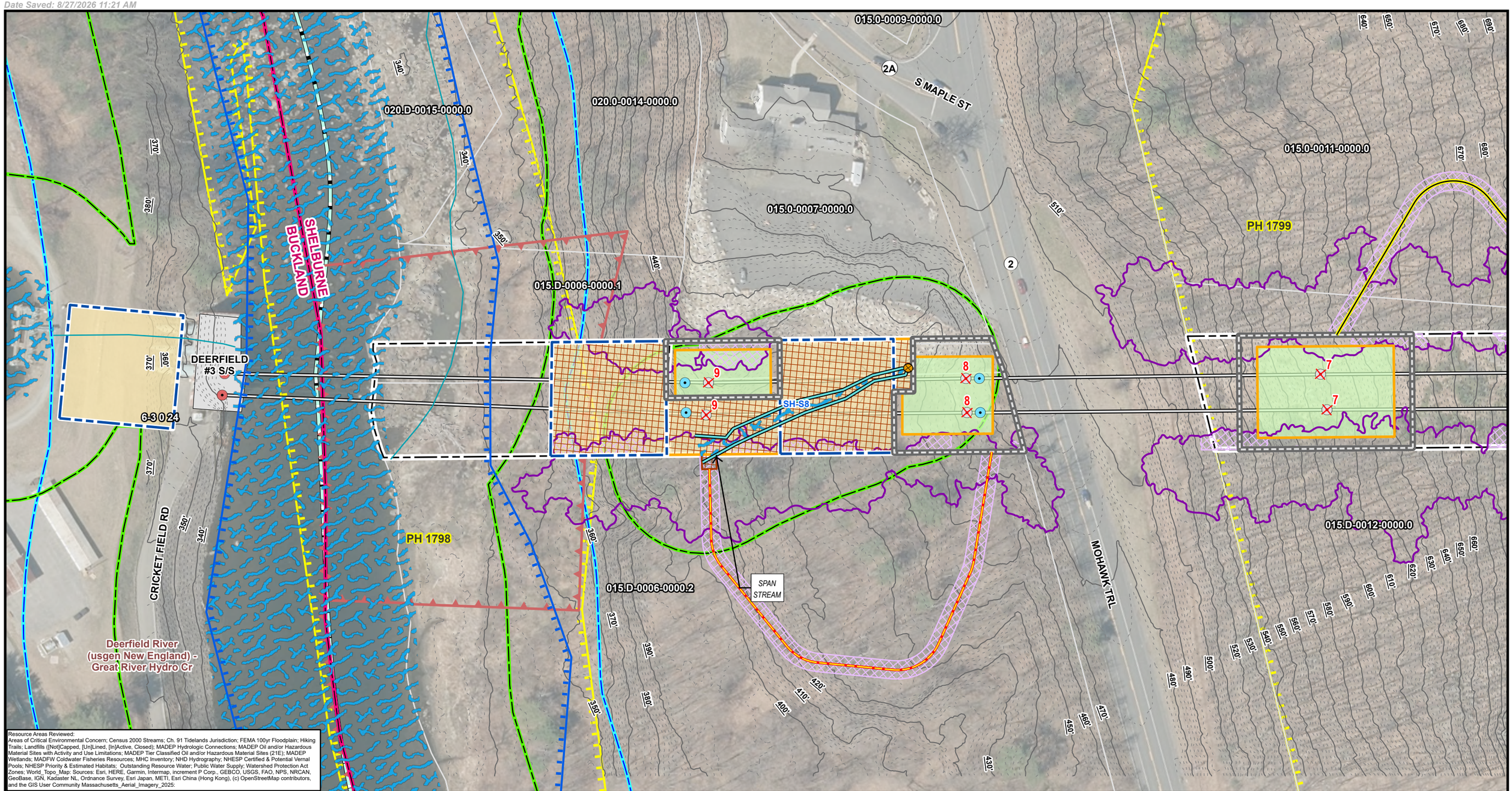
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Buckland, MA

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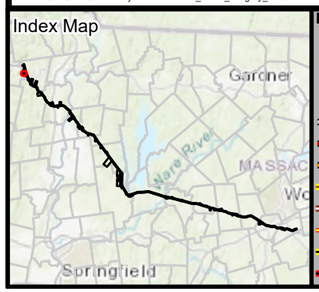
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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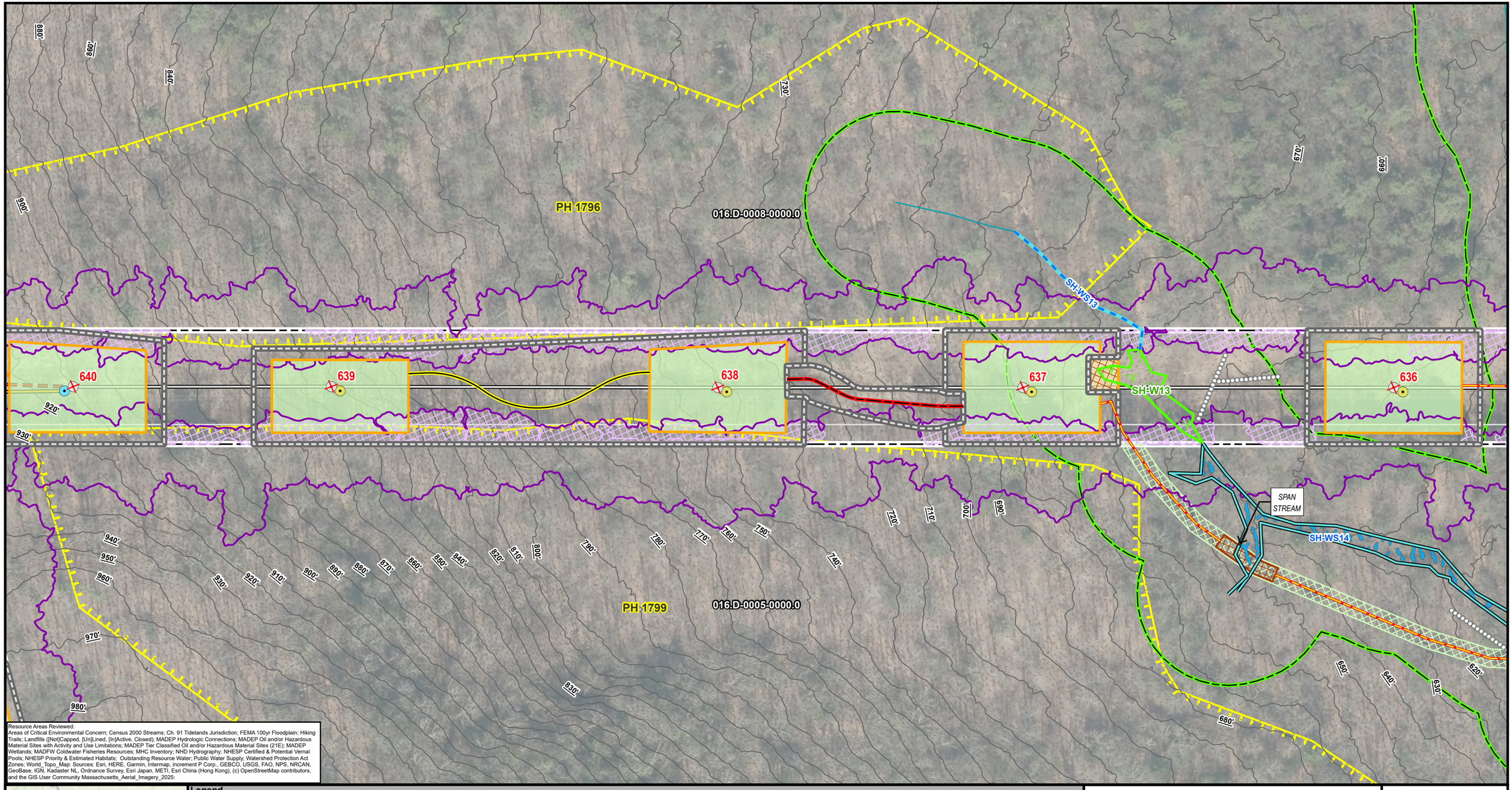
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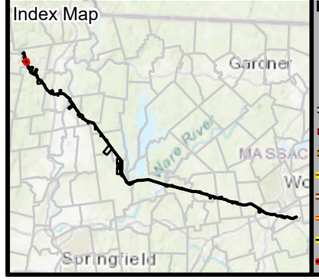
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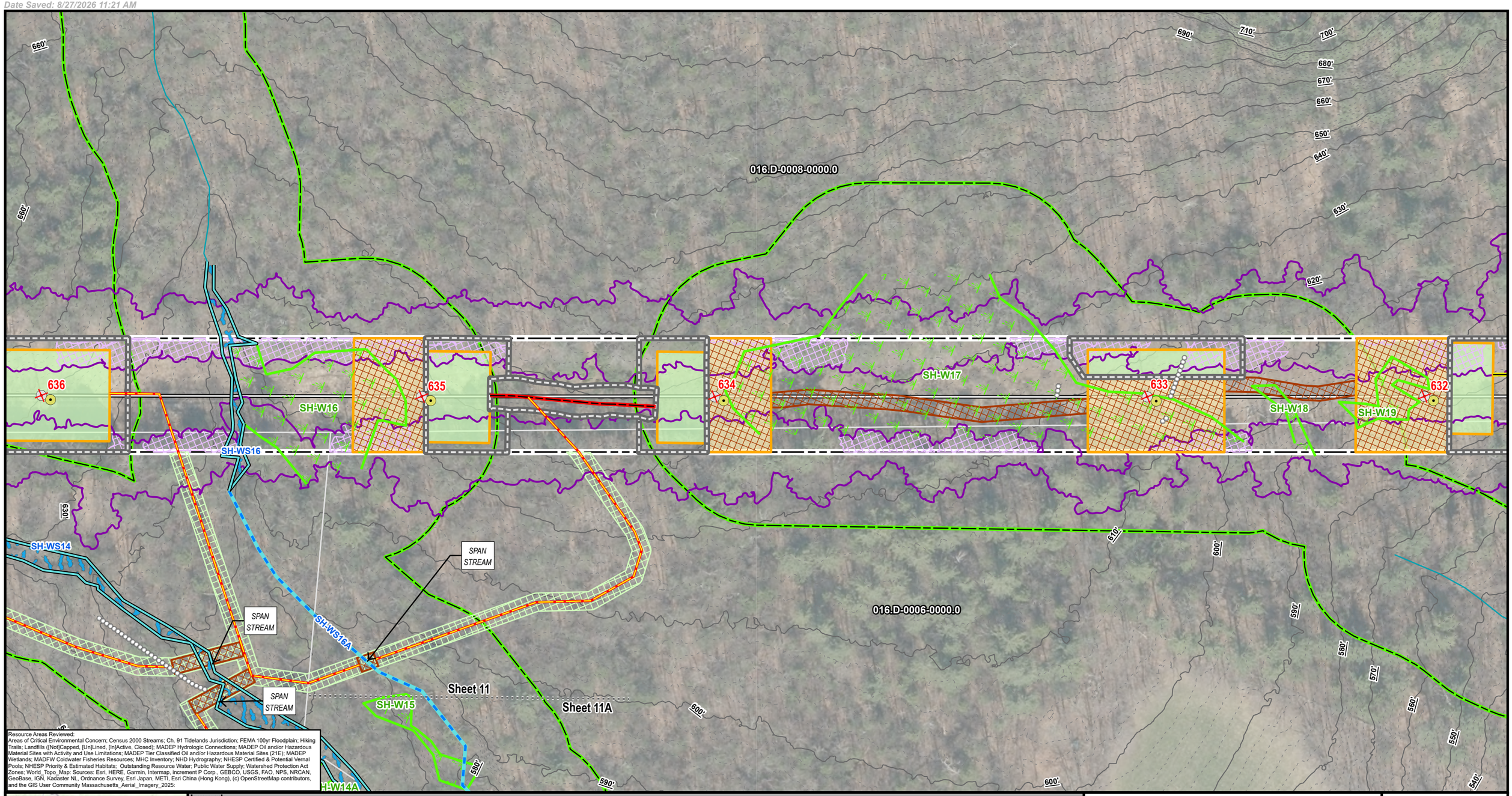
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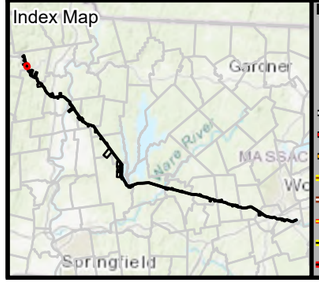
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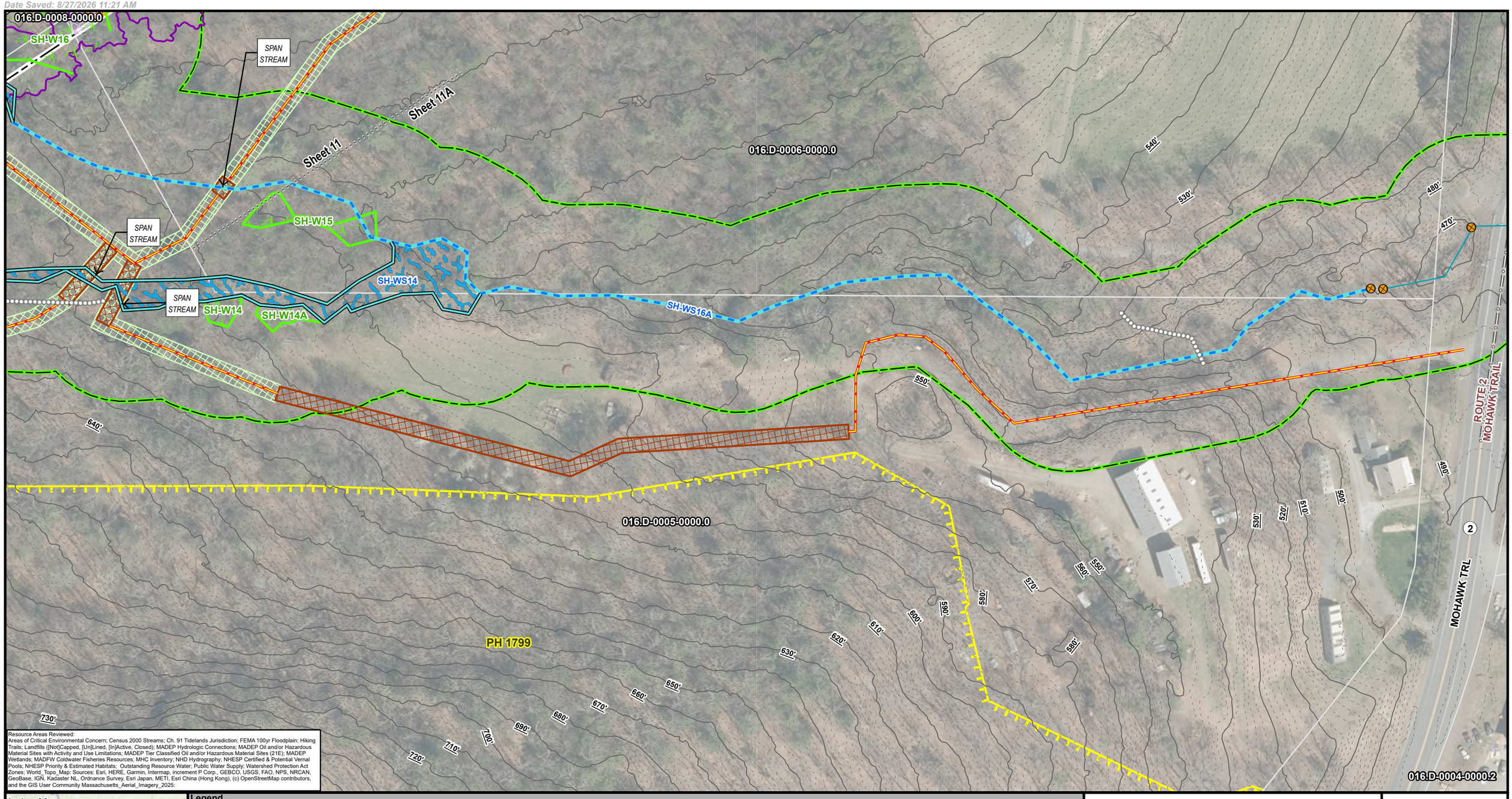
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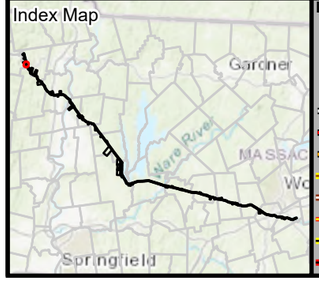
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Shelburne, MA
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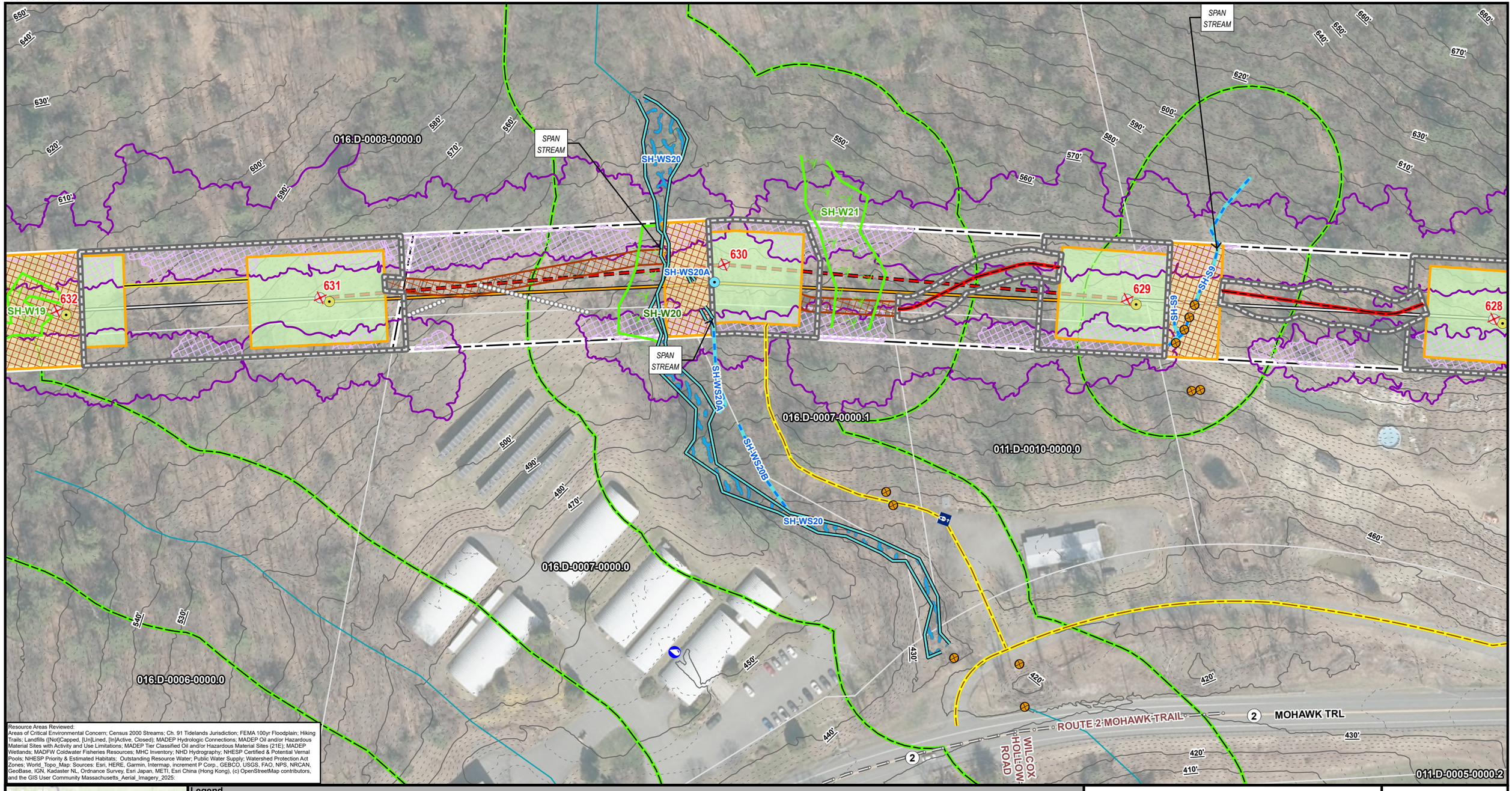
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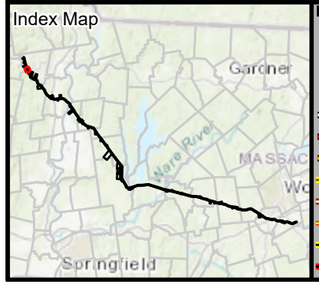
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Environmental Resources Map

Shelburne, MA
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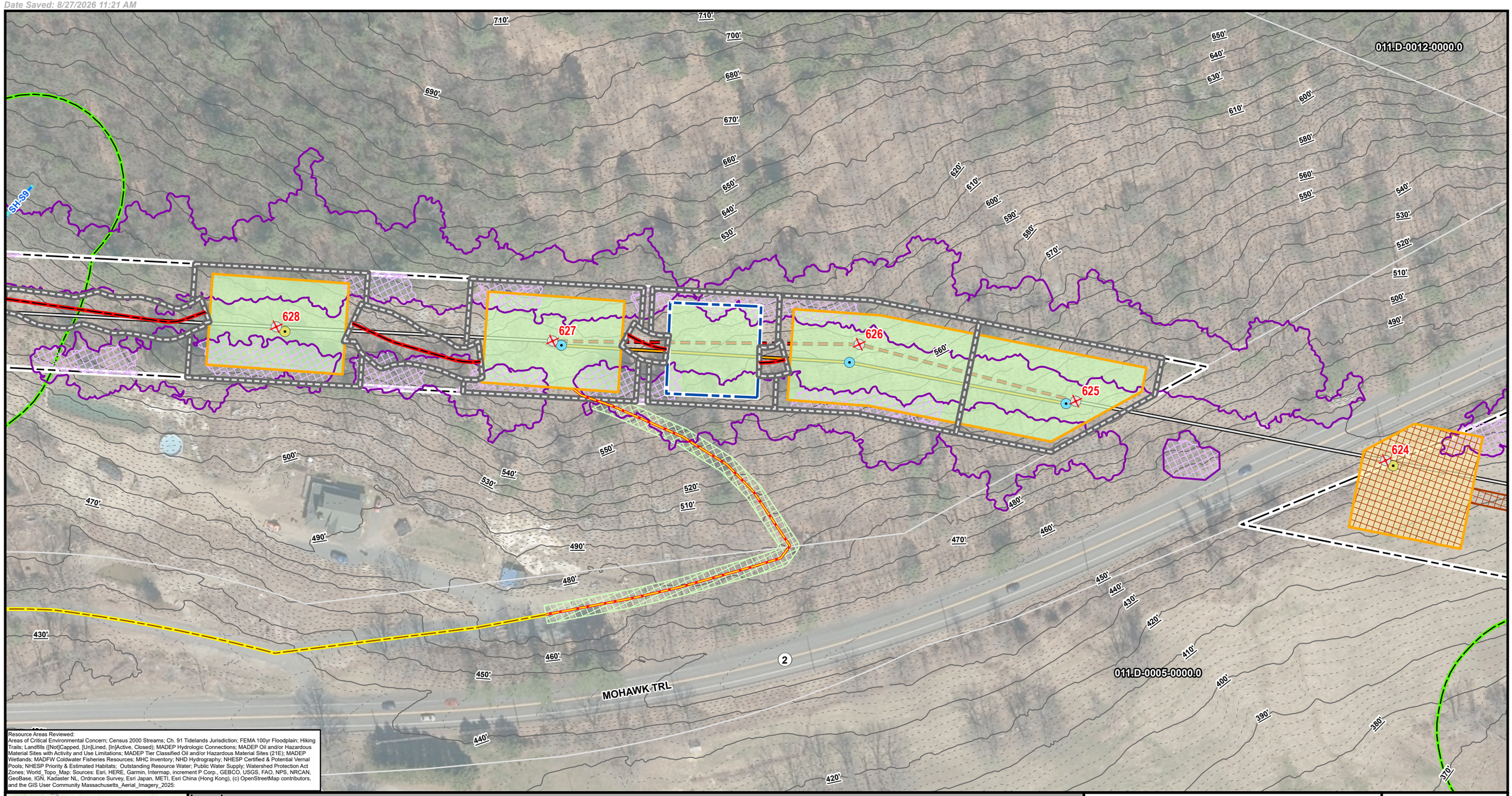
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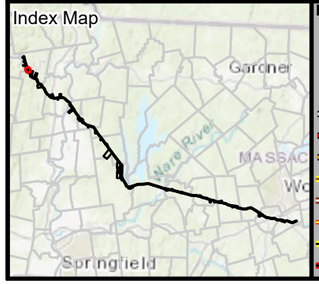
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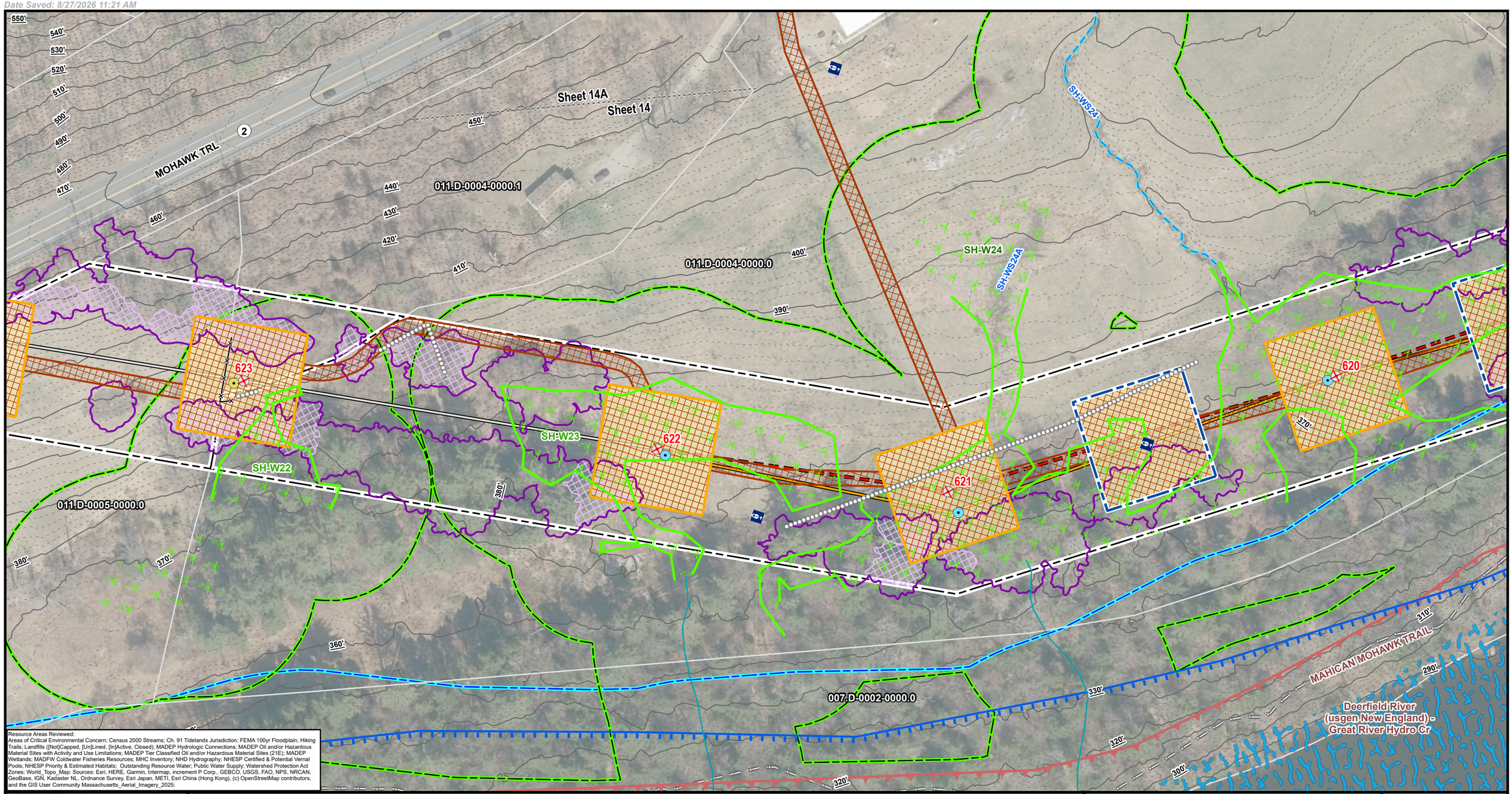
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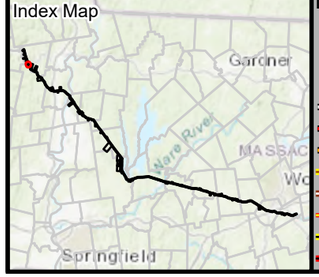
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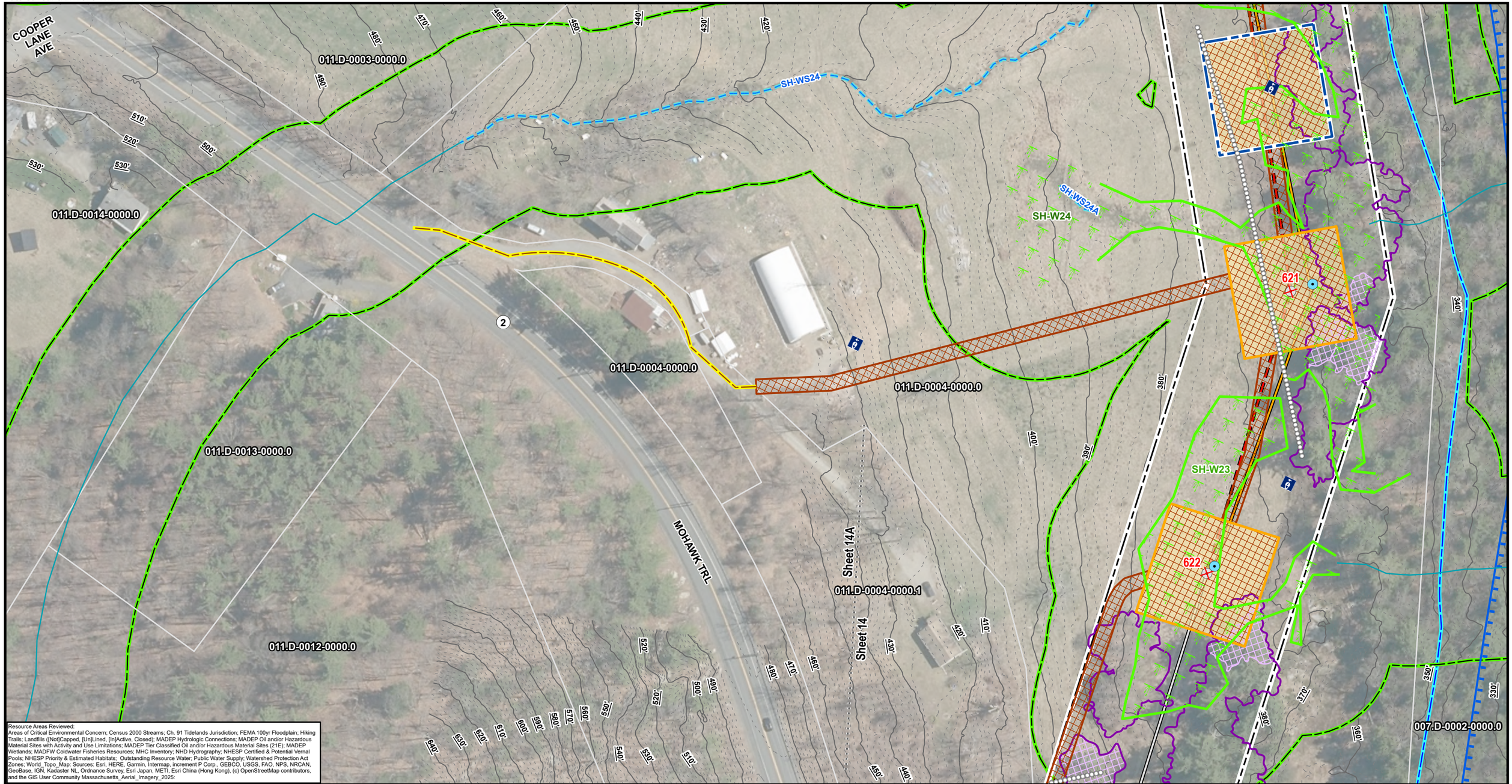
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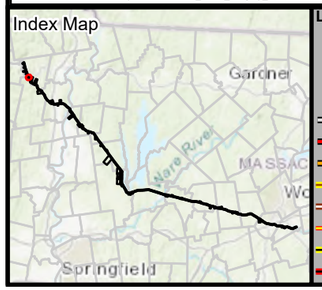
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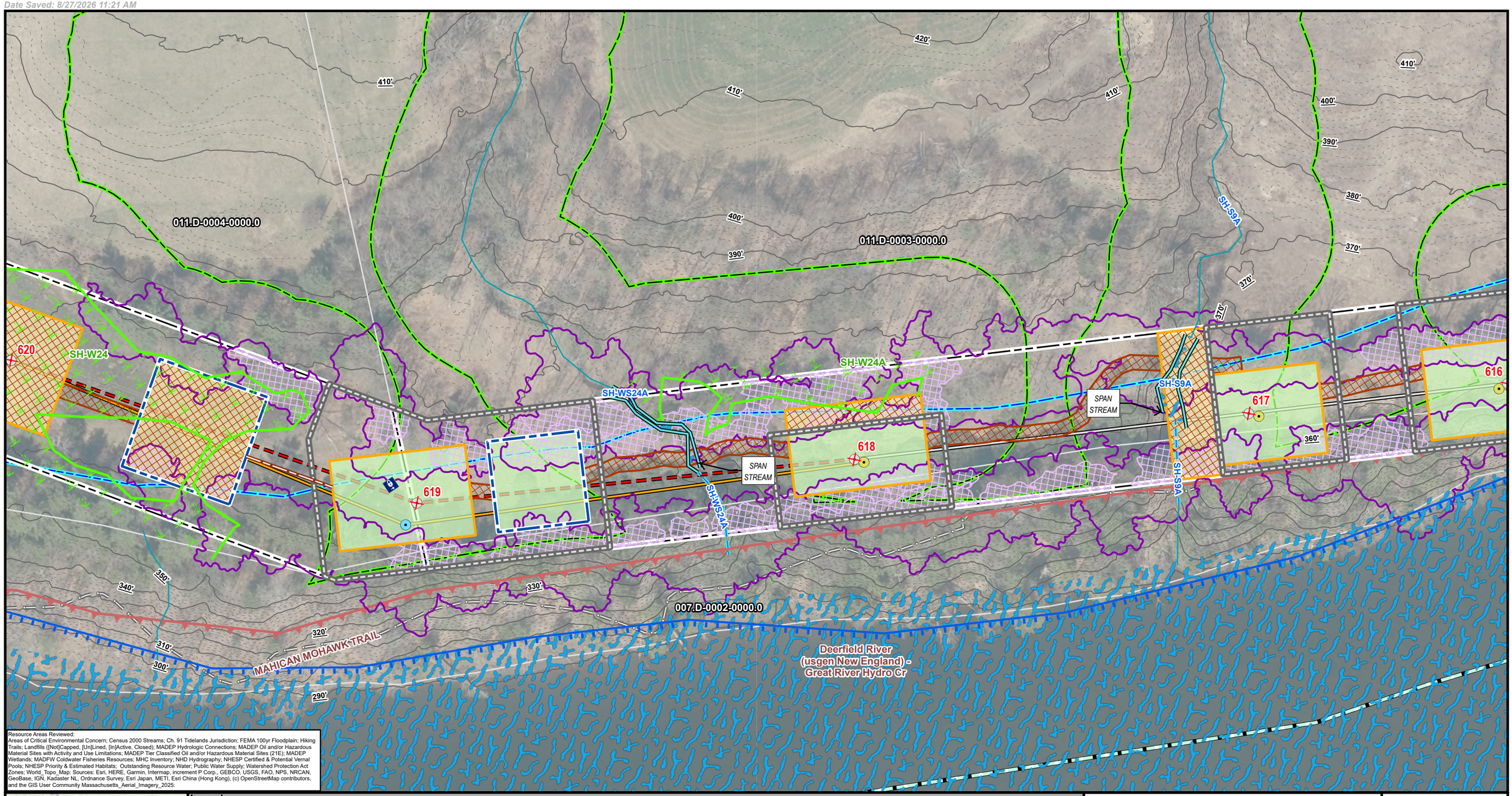
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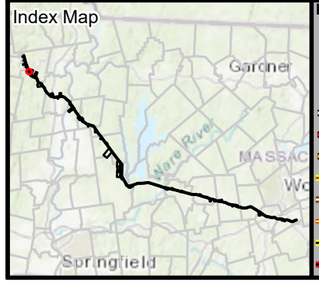
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Environmental Resources Map

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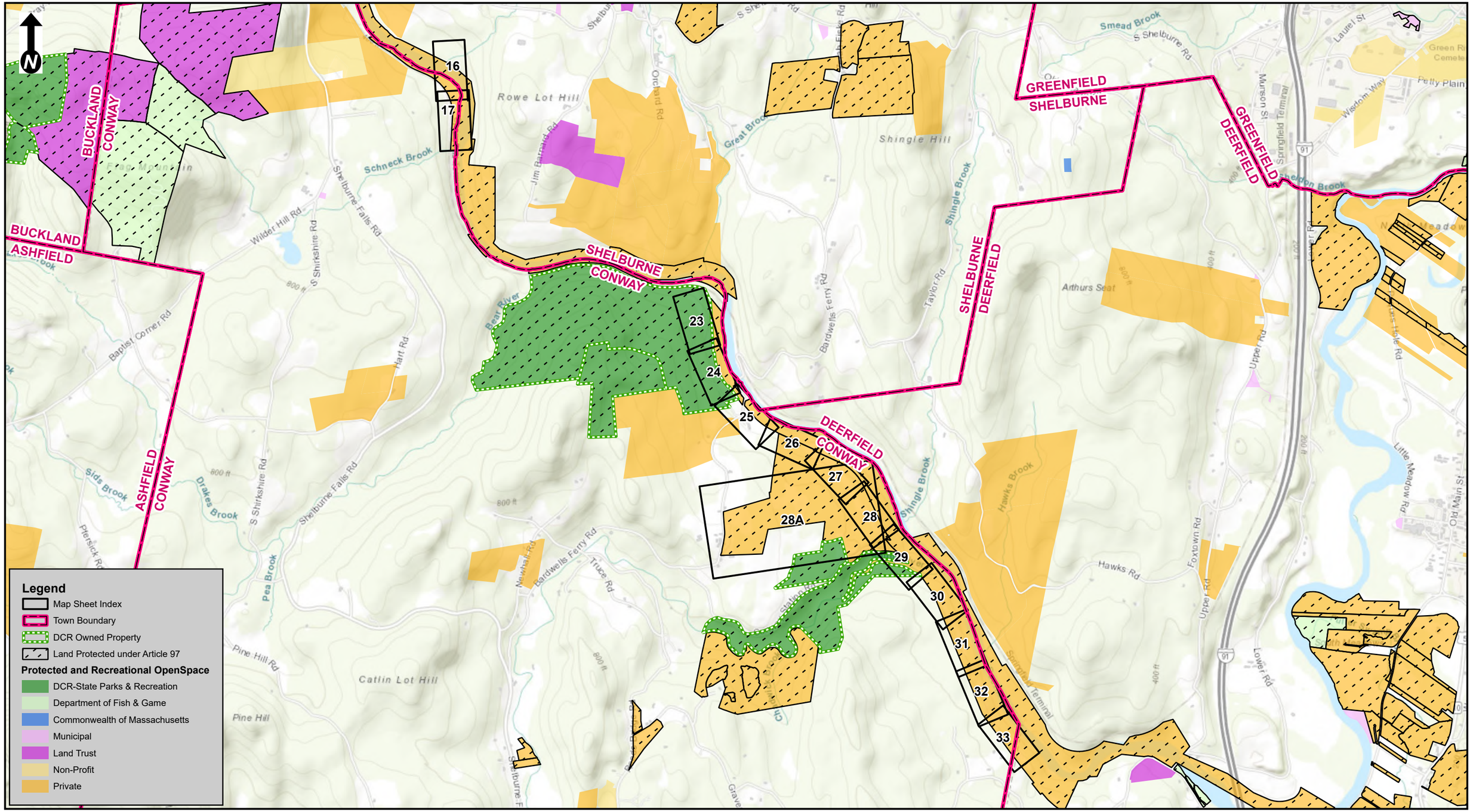
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Conway, MA

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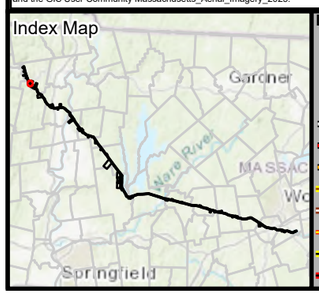
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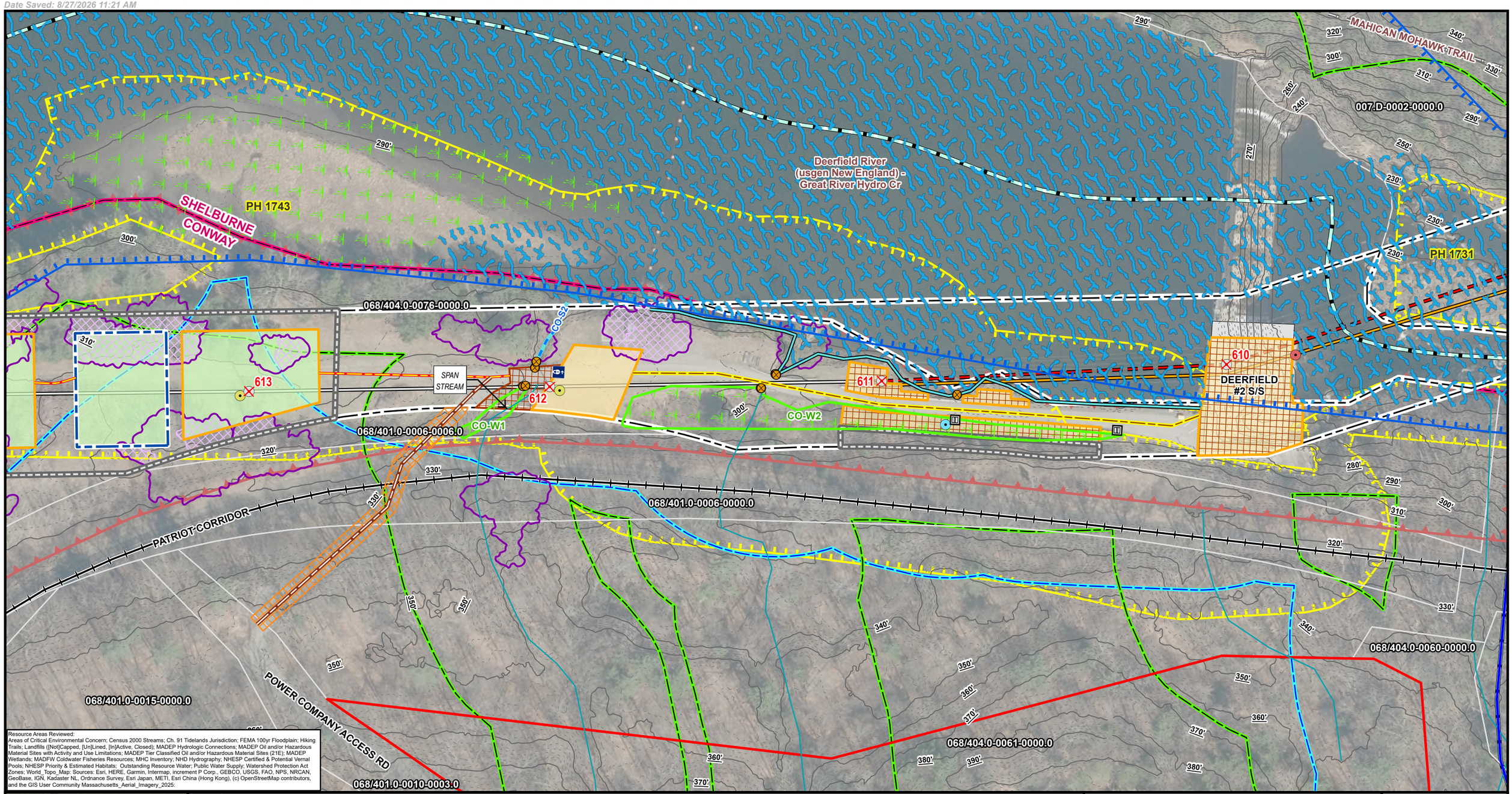
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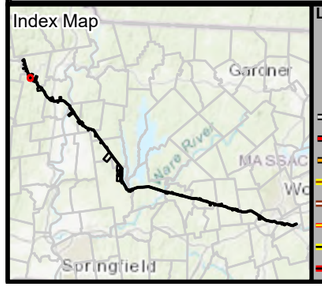
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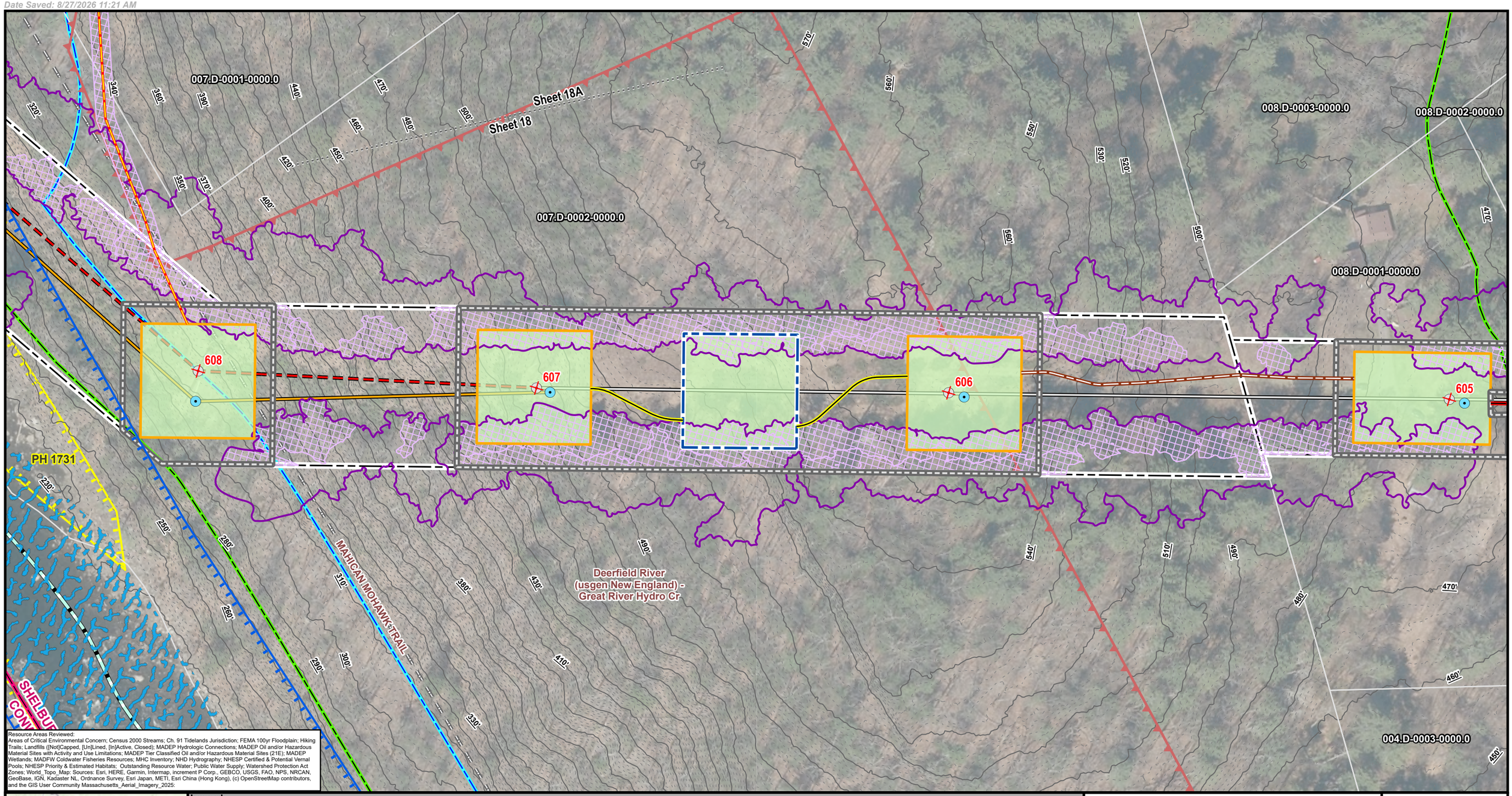
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shelburne, MA
Page 18 of 240

Created for: nationalgrid

Created by: BSC GROUP

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1 inch = 100 feet

0 50 100

Feet

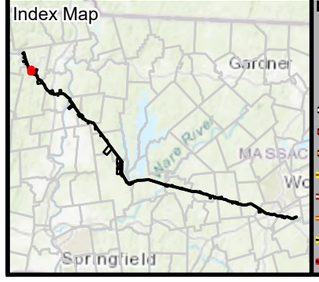
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MAHICAN MOHAWK TRAIL
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Sluice Brook
Schneck Brook
PH 1743
PH 1731
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DEERFIELD #2 S/S
SHELBURNE
CONWAY

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Environmental Resources Map

Shelburne & Conway, MA
Page 18A of 240

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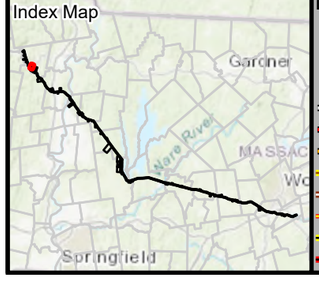
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SH-S10
SH-WS26
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390'
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300'

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shelburne & Conway, MA
Page 18B of 240

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Created by: BSC GROUP

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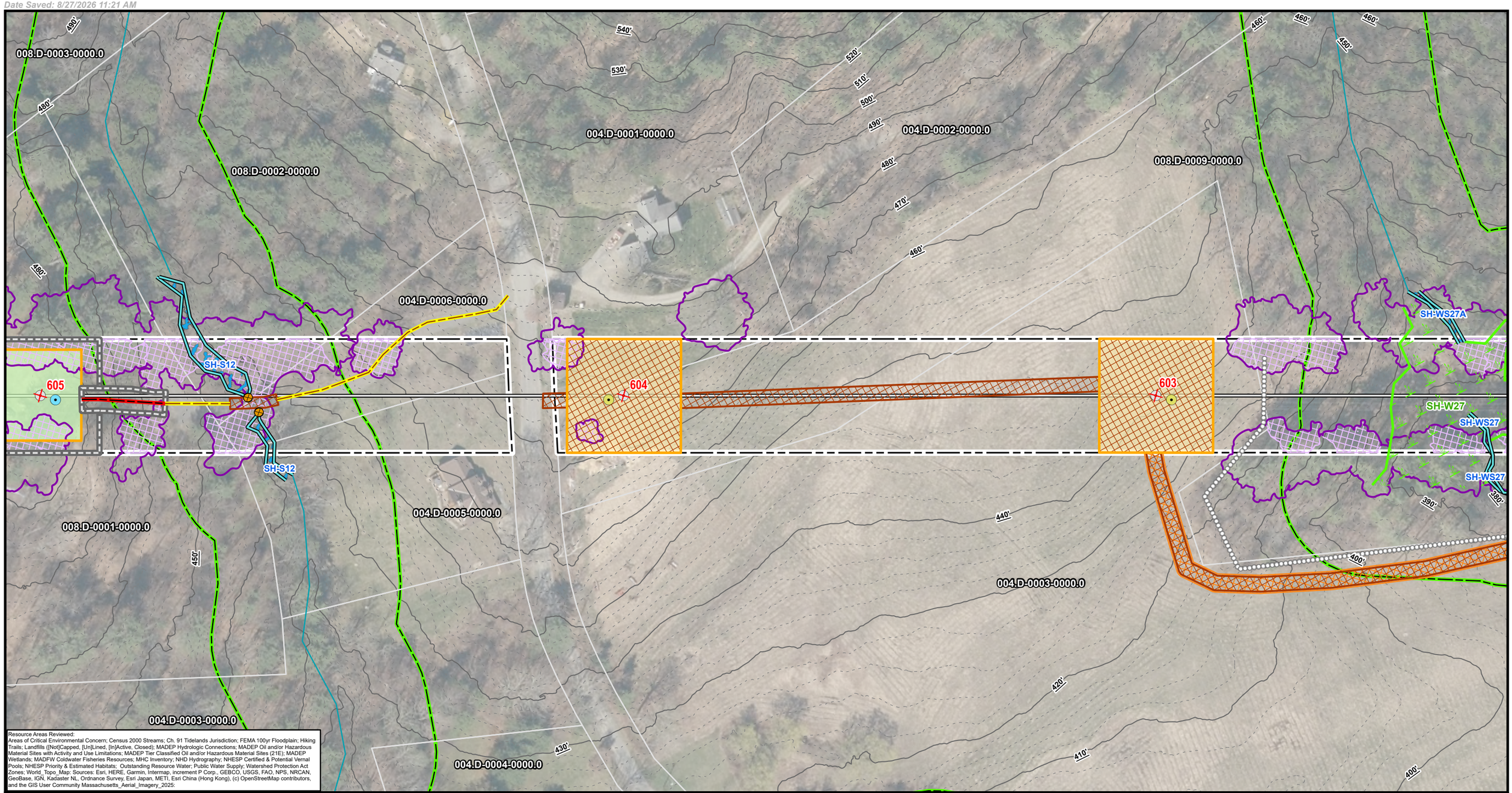
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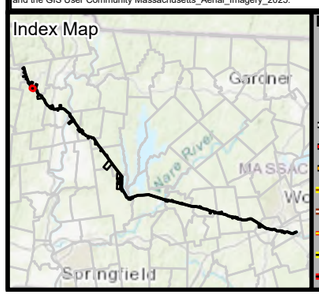
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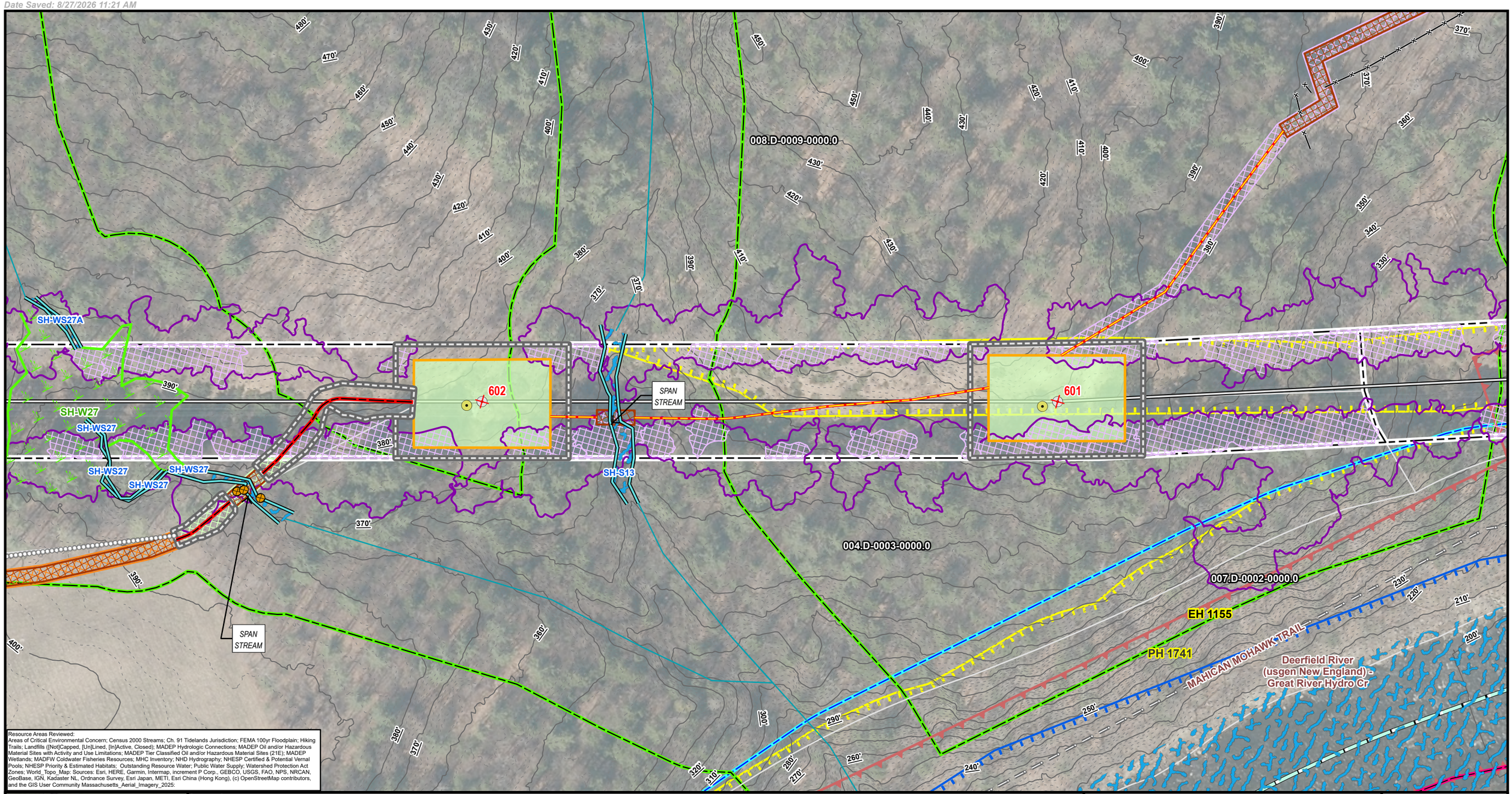
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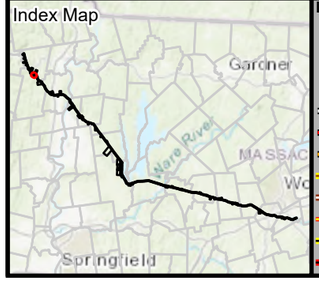
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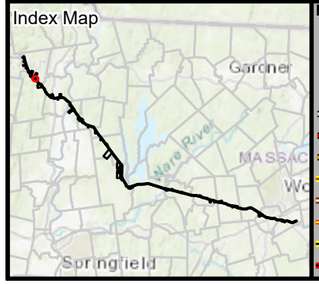
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PH 1741

SPAN STREAM

SPAN STREAM

Sheet 21A

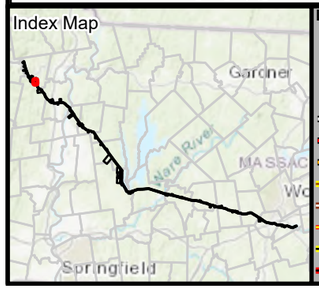
Sheet 21

Sheet 21B

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- Non Profit
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shelburne, MA
Page 21A of 240

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Created by: BSC GROUP

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1 inch = 200 feet

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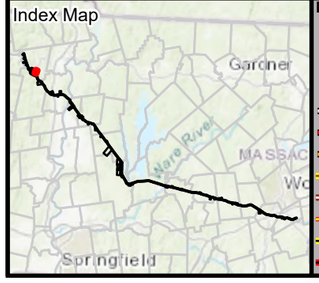
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BARDWELLS FERRY RD
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008.D-0005-0000.1
BARDWELL FERRY RD
008.D-0009-0000.1
Sheet 21B
Sheet 21A
008.D-0013-0000.0

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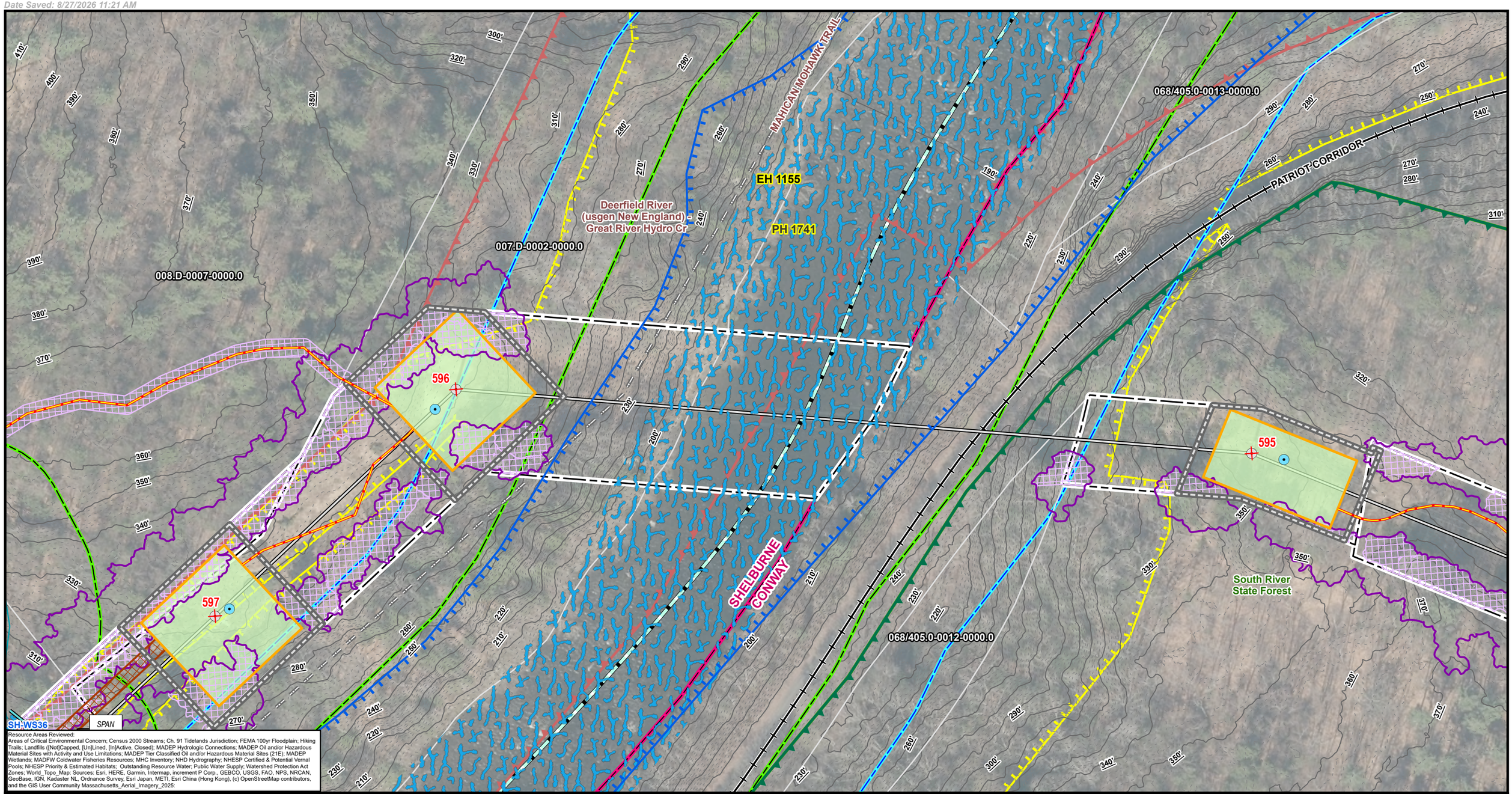
Shelburne, MA
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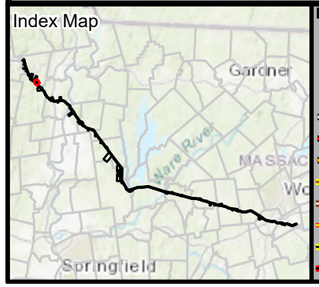
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Environmental Resources Map

Shelburne & Conway, MA
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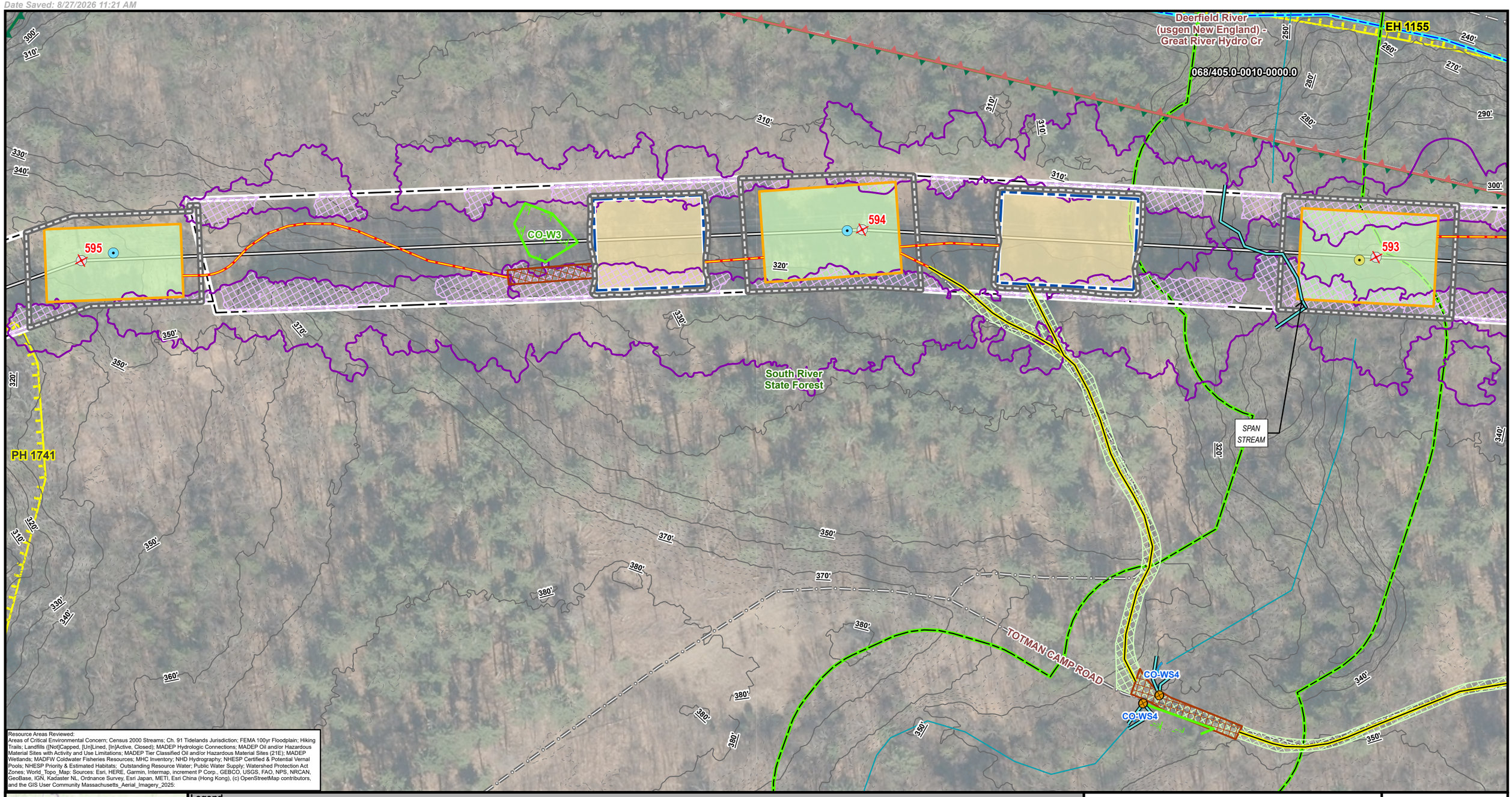
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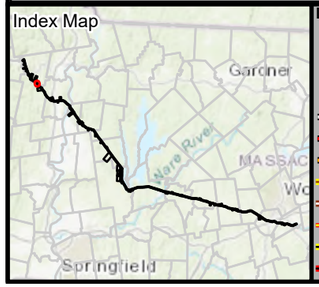
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Conway, MA
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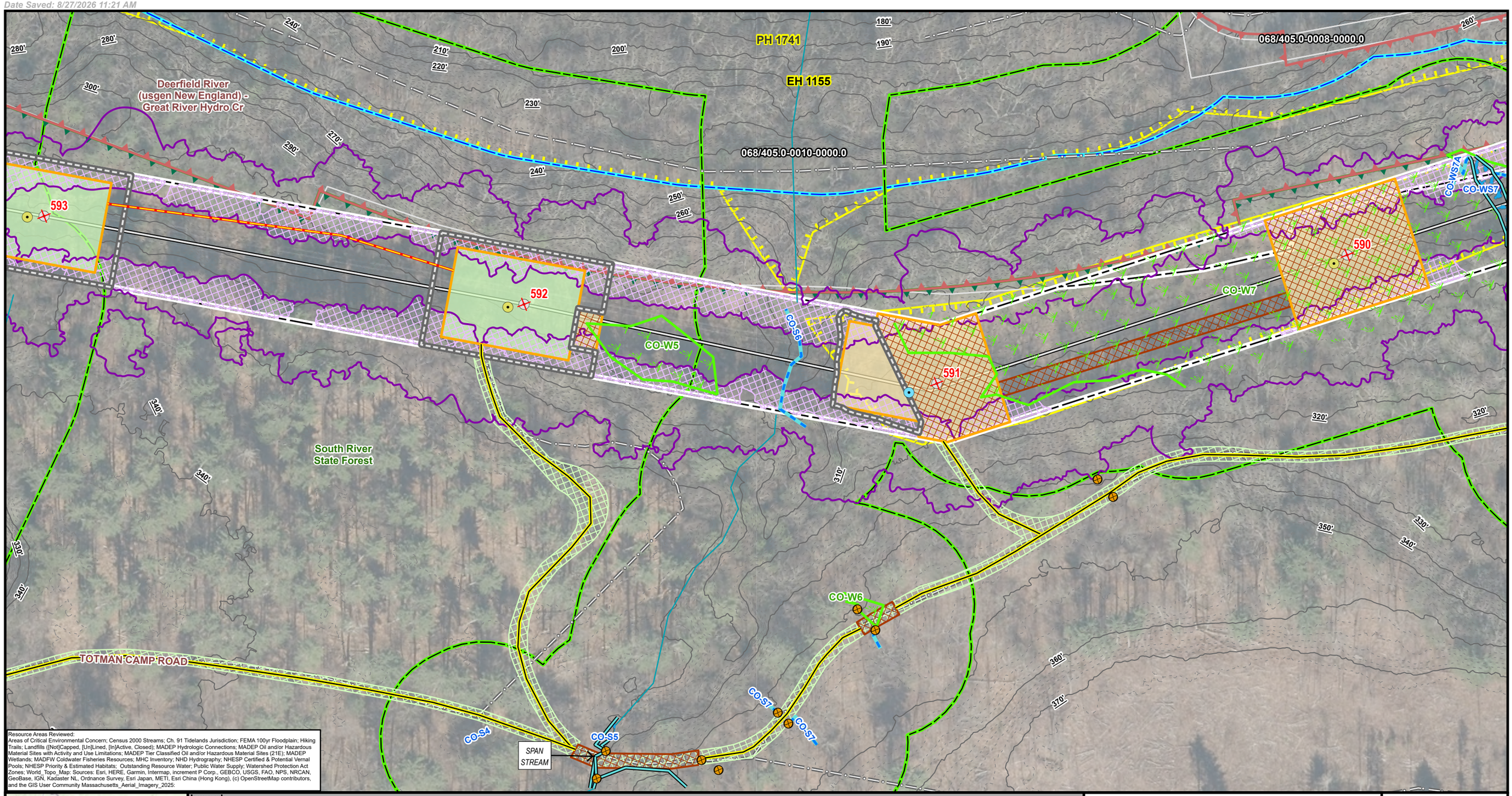
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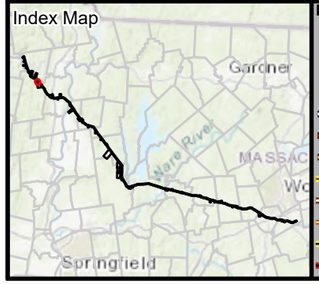
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Conway, MA
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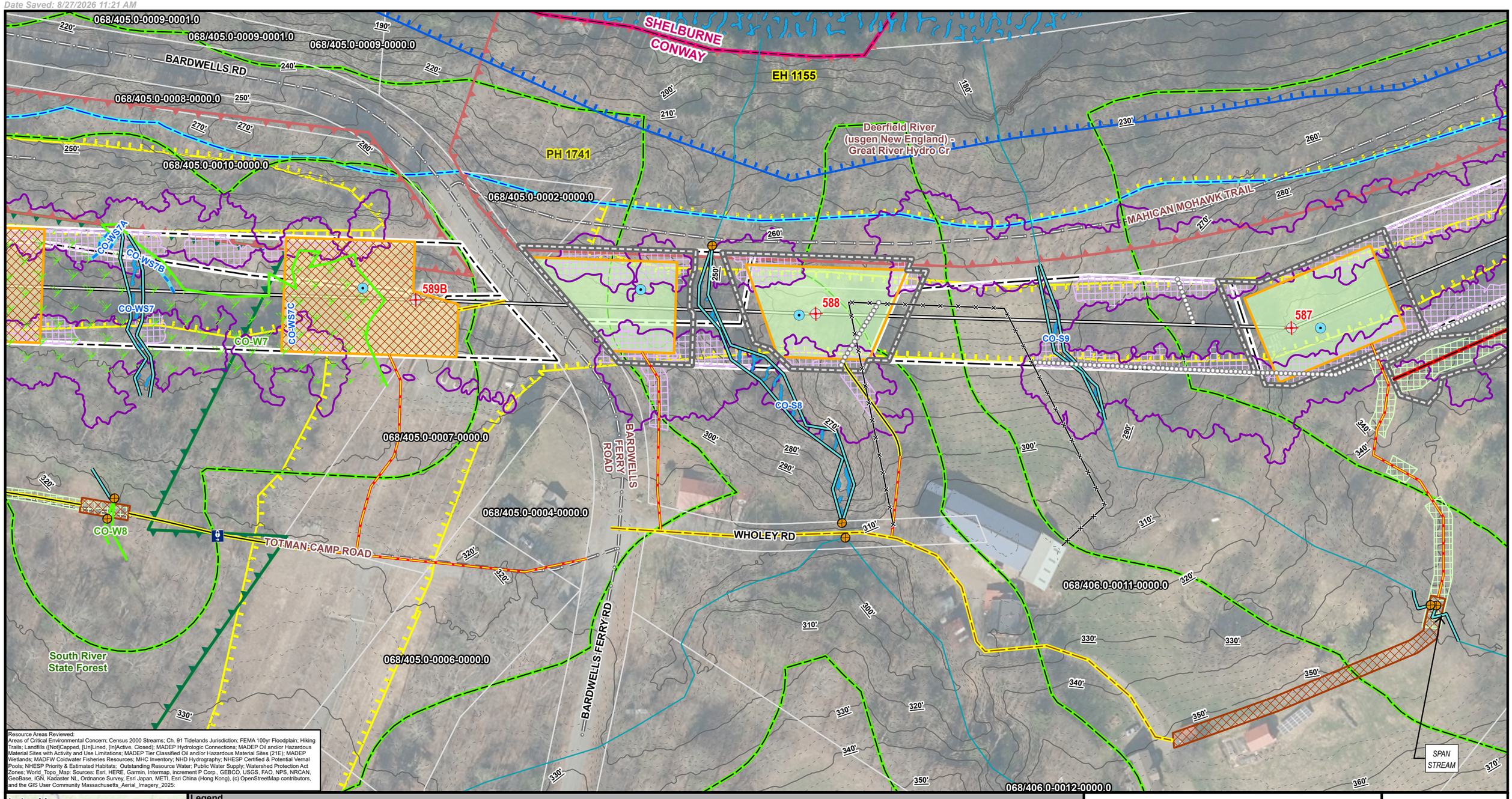
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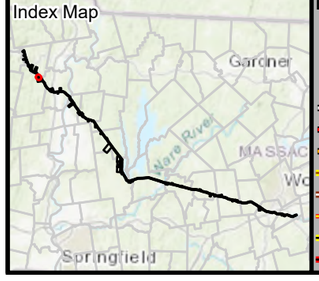
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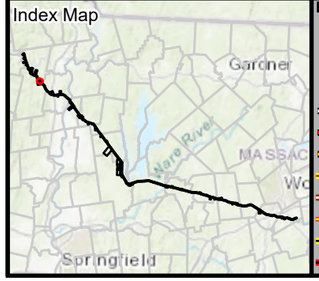
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CONWAY
EH 1155
PH 1741
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MAHICAN MOHAWK TRAIL
CO-W9
CO-S10
CO-S10
CO-S11
586
585
584
Totman Farm Apr
068/406.0-0011-0000.0
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180'
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300'
310'
320'
330'
340'
350'
360'
370'
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PH 1741
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(usgen New England) -
Great River Hydro Cr
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581
CO-W10
CO-W11
CO-W12
CO-W13
CO-WS10
CO-WS12
CO-S11
SPAN
STREAM
068/406.0-0013-0000.0
Totman
Farm Apr

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Index Map
Gardner
Springfield

Legend

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway, MA
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1 inch = 100 feet
0 50 100
Feet
(Page Size 11 x 17)

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Deerfield River (usgen New England) - Great River Hydro Cr

MAHICAN MOHAWK TRAIL

CO-W13

CO-W12

CO-W14

581

580

579

578

CO-WS16

CO-WS16

SPAN STREAM

068/406.0-0013-0000.0

PH 1741

Totman Farm Apr

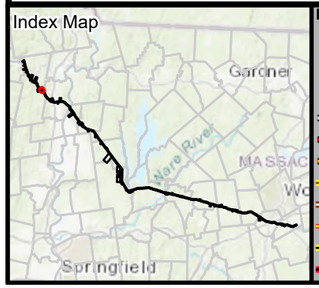
EH 1155

Sheet 28

Sheet 28A

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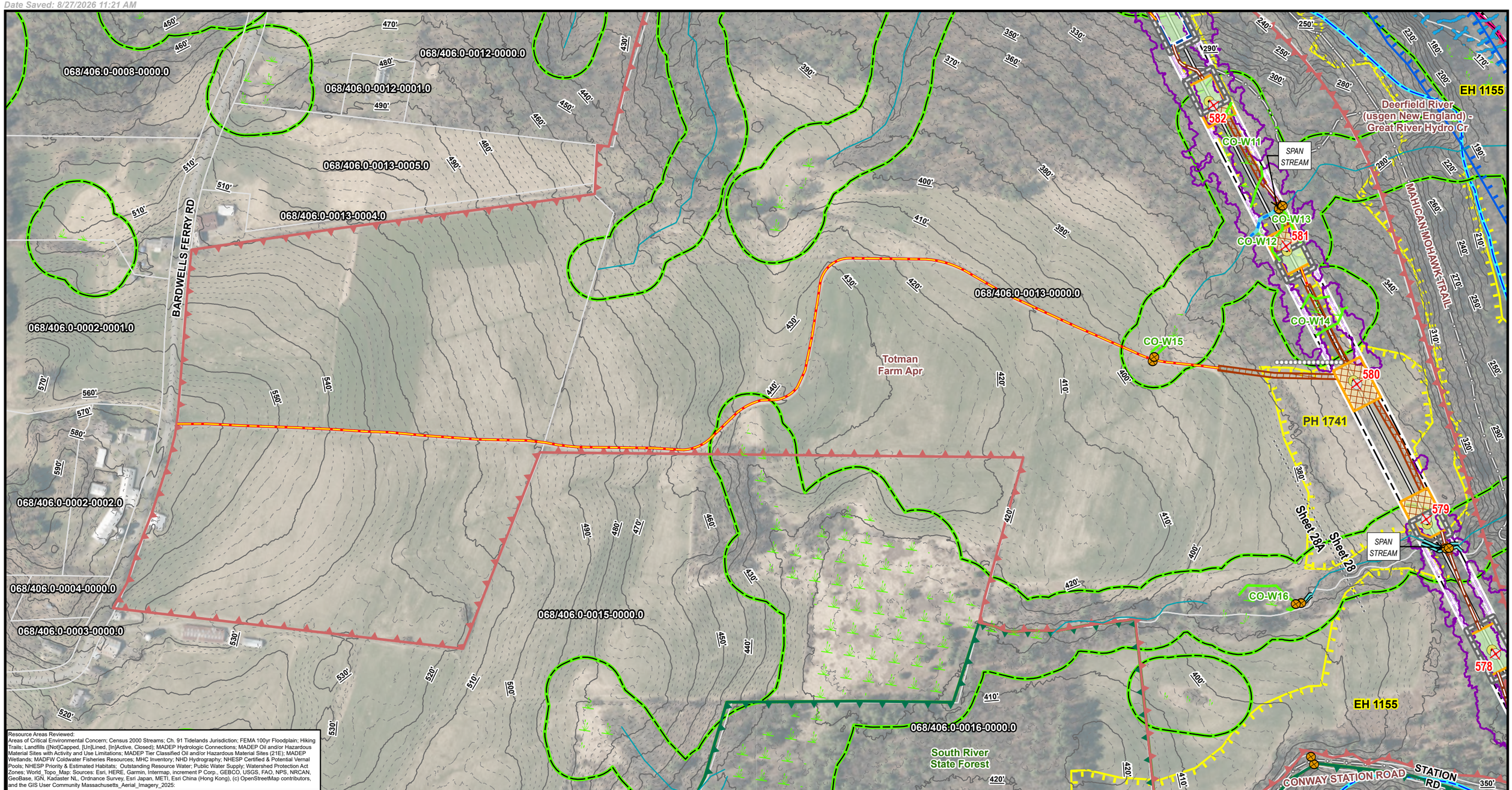
Conway, MA
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway, MA
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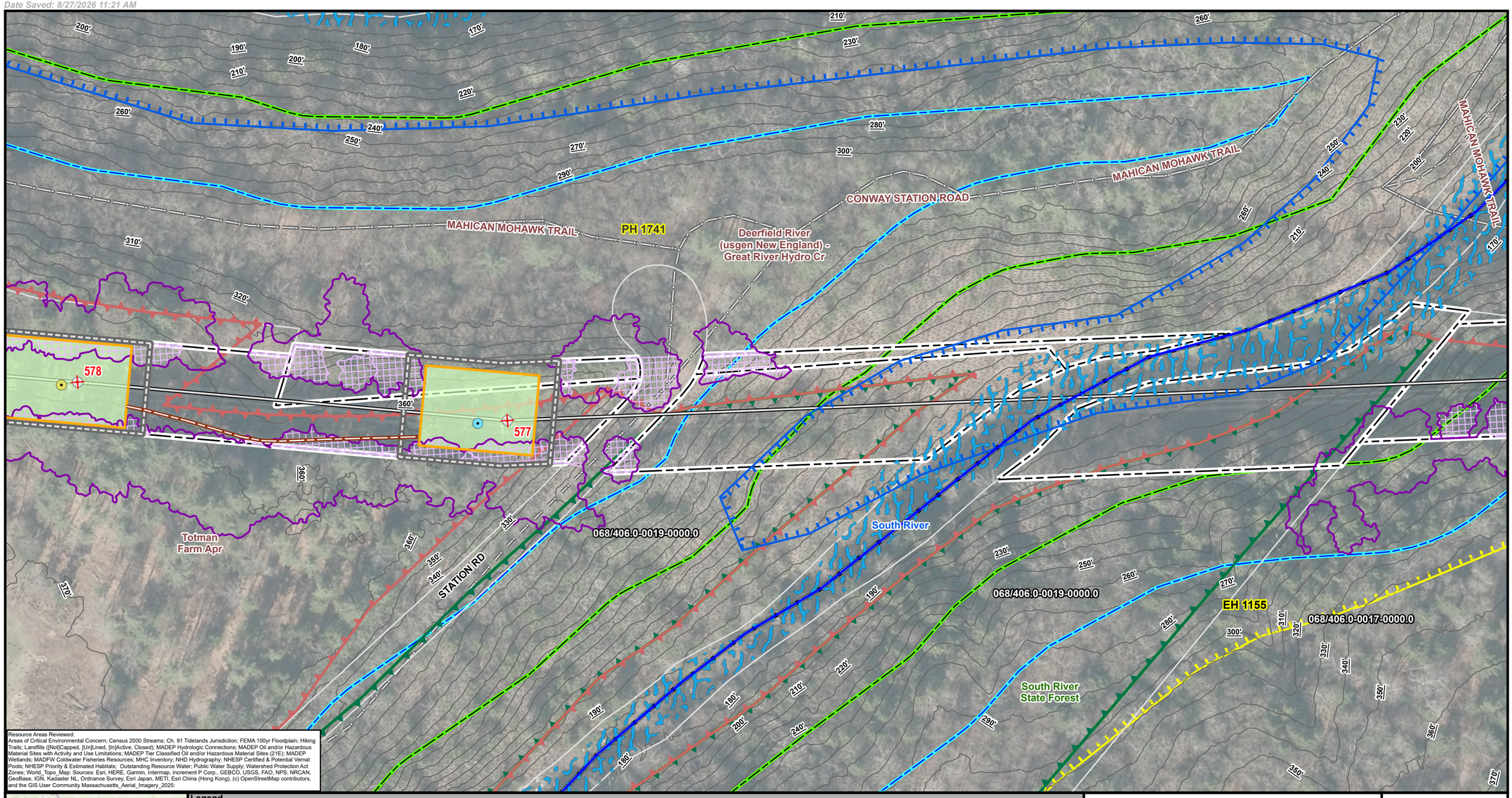
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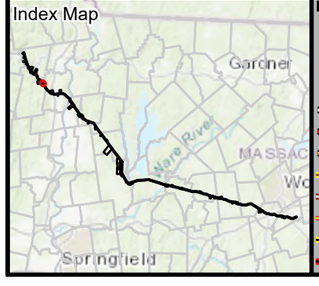
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway, MA
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EH 1155

PH 1741

MAHICAN MOHAWK TRAIL

South River

Deerfield River (usgen New England) - Great River Hydro Cr

575

576

574

CO-W18

CO-W19

CO-W20

CO-W21

CO-W22

CO-WS22

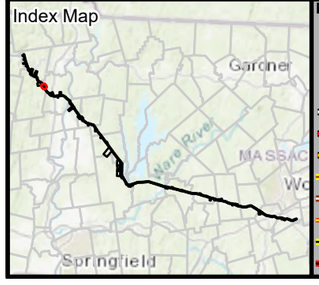
CO-WS23

068/406.0-0019-0000.0
South River State Forest

068/406.0-0017-0000.0

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway, MA
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CONWAY
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EH 1155
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CO-S13A
CO-S14
CO-WS22
CO-W22
CO-WS23
CO-W23
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway, MA
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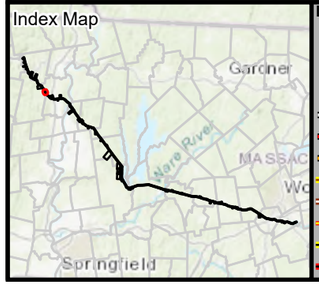
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170'
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200'
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220'
230'
240'
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270'
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290'
300'
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380'
CO-S15
CO-S14
CO-S15A
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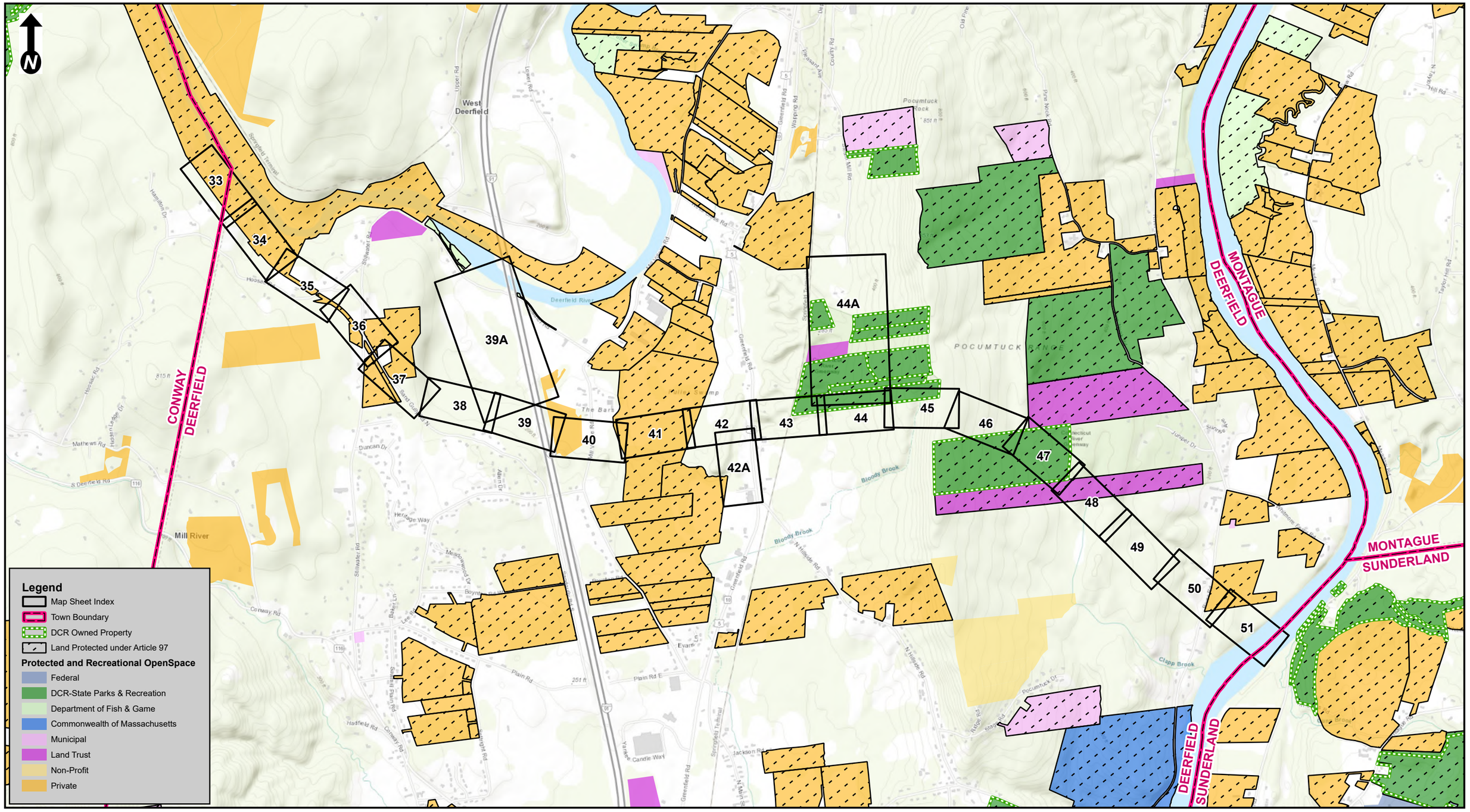
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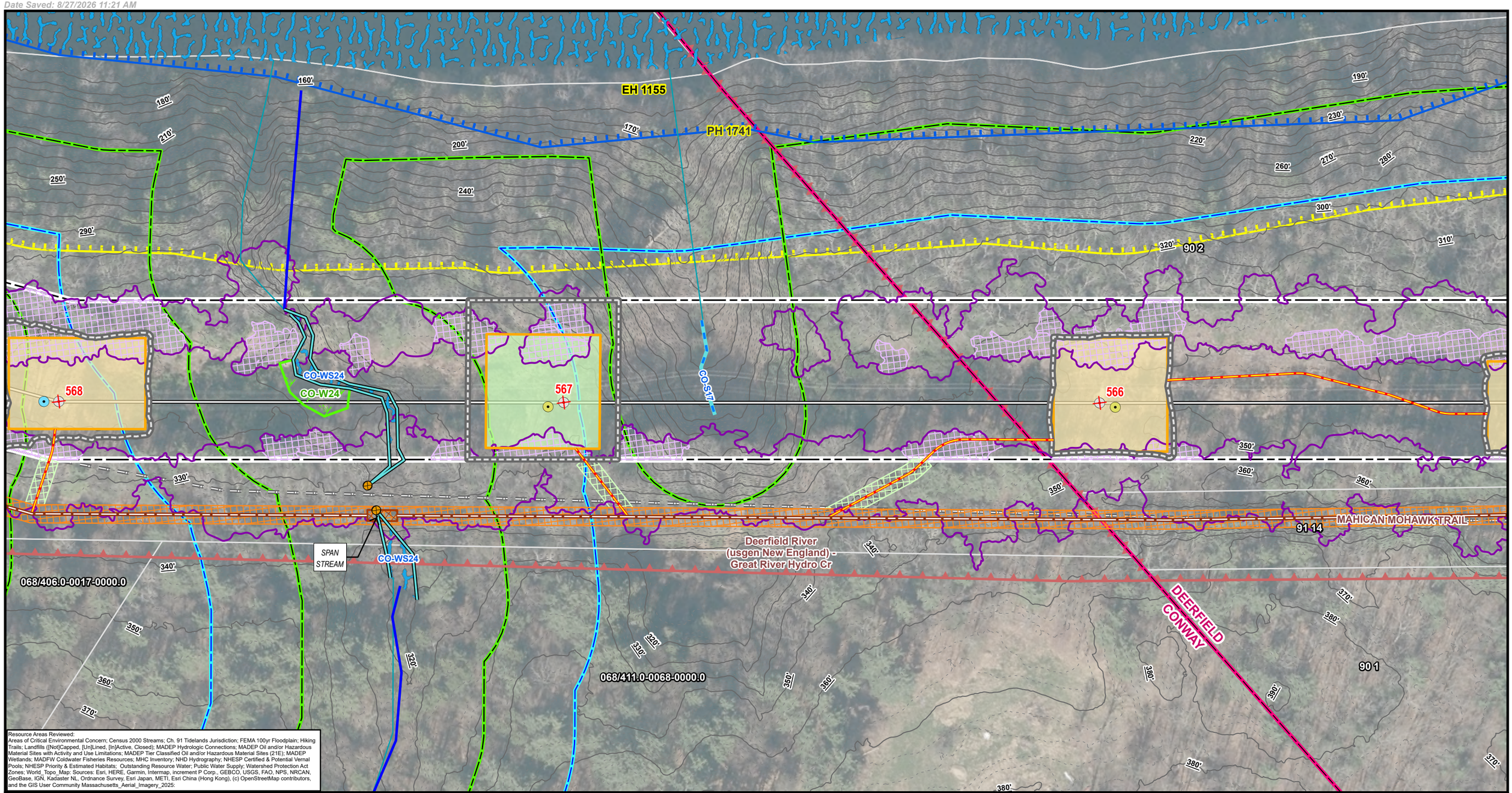
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Deerfield, MA

Source: 2013 National Geographic Society, i-cubed

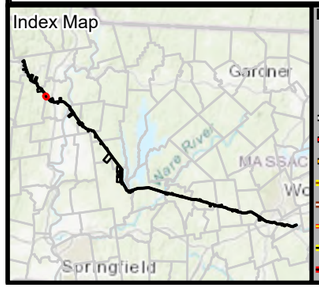
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Conway & Deerfield, MA
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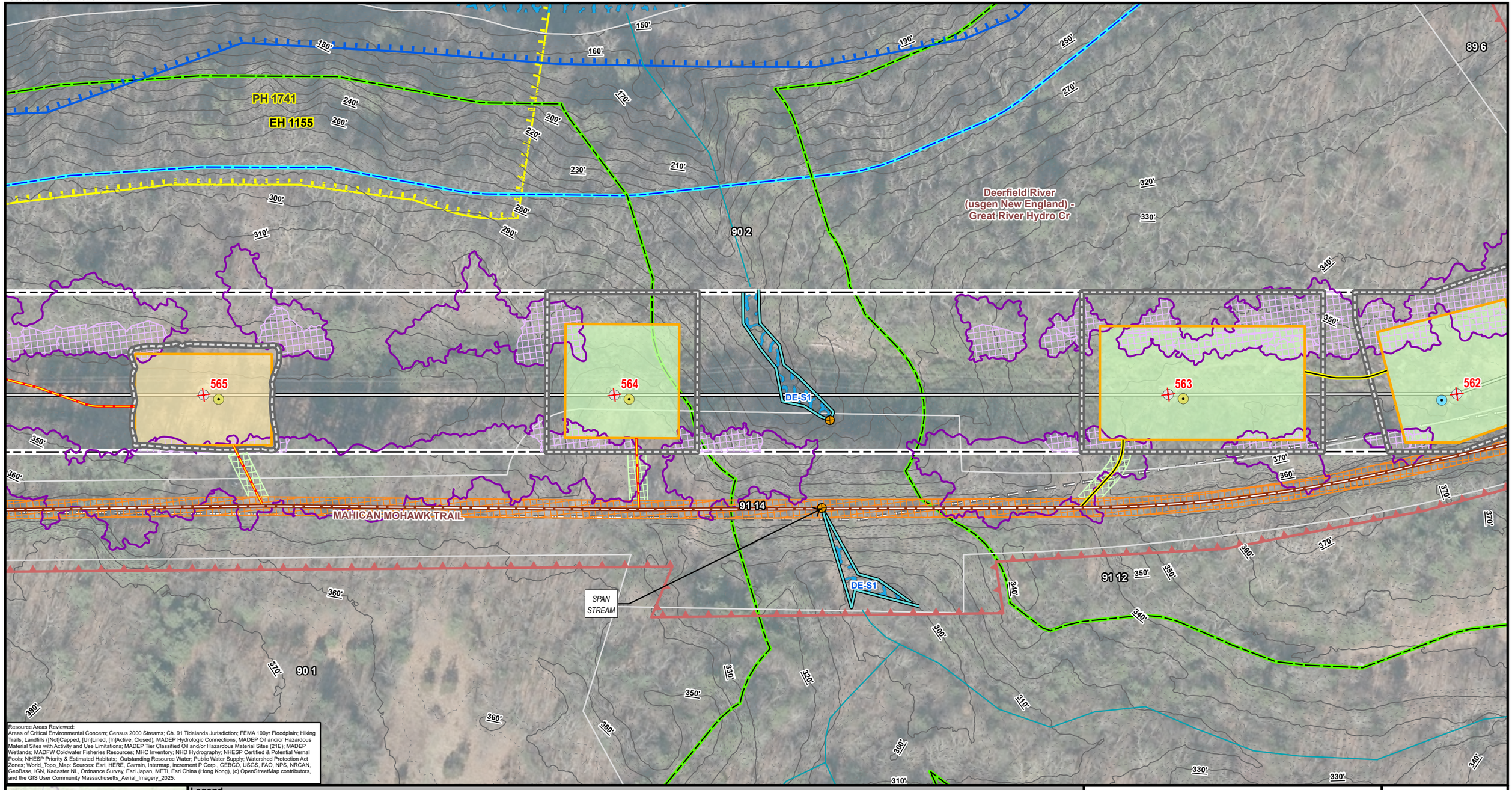
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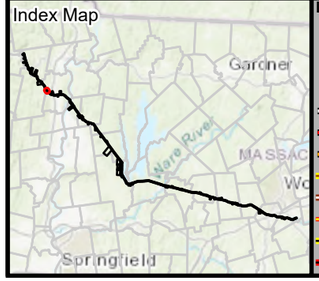
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Deerfield, MA

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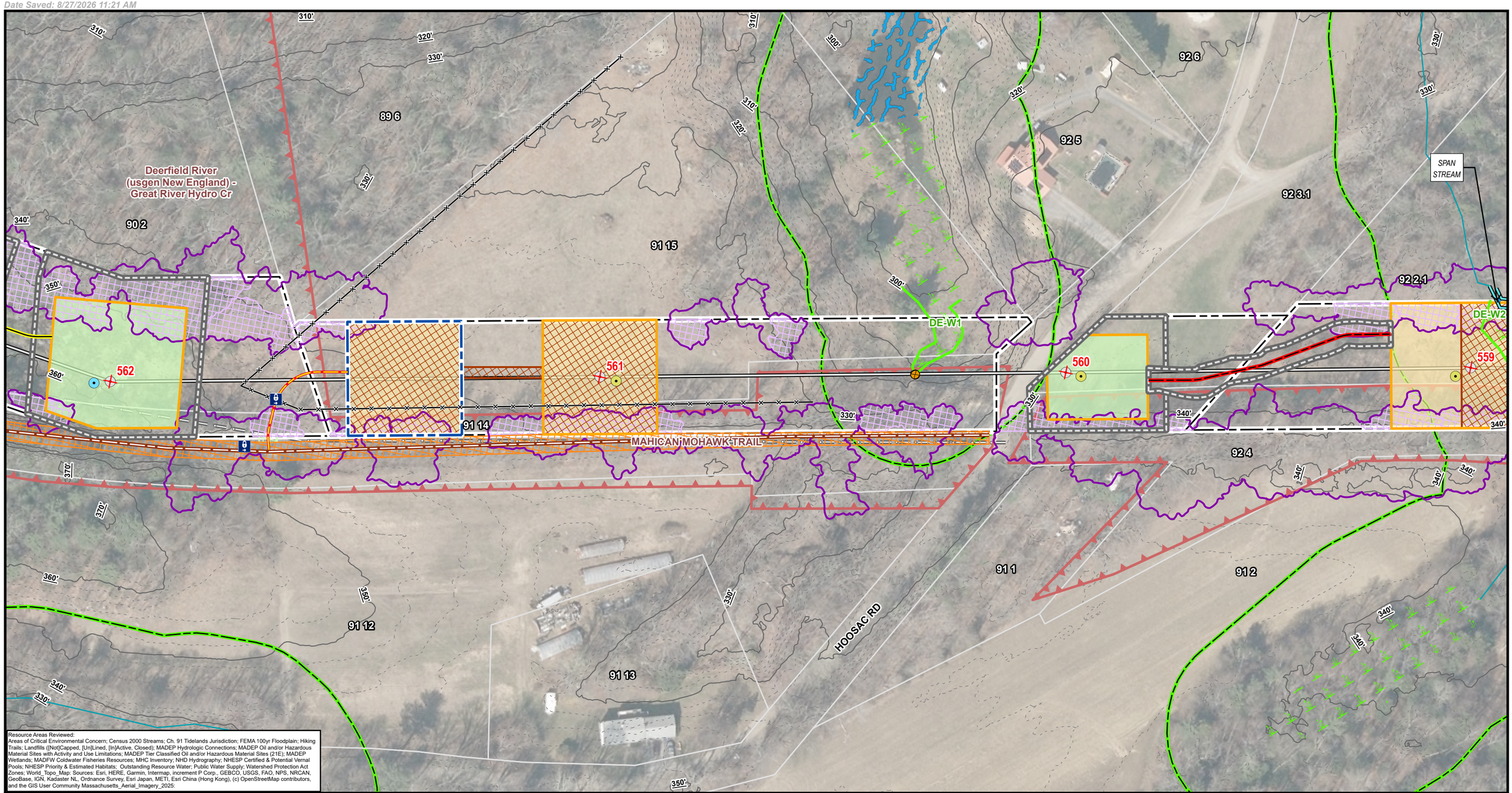
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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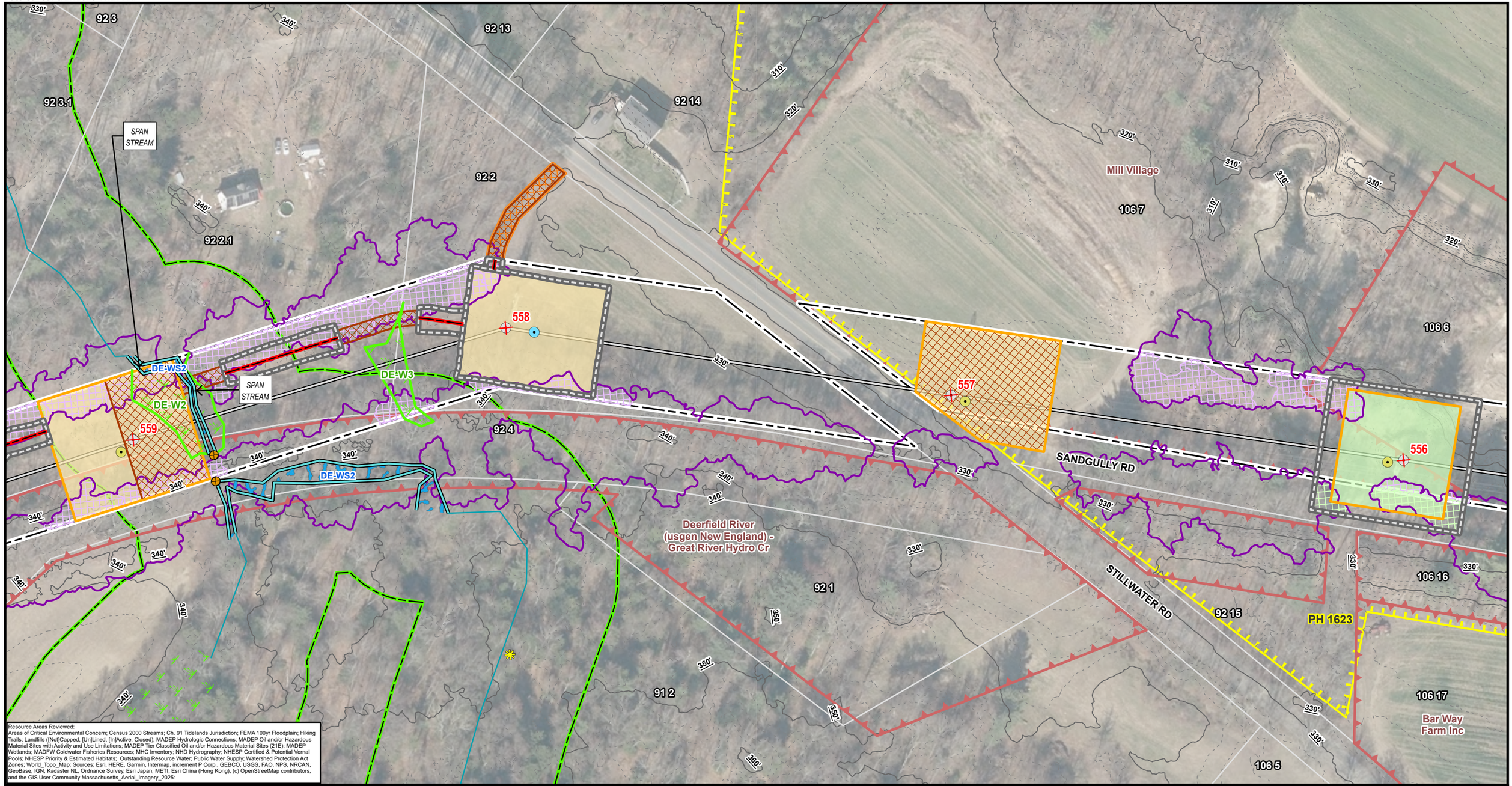
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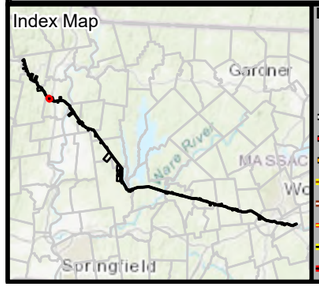
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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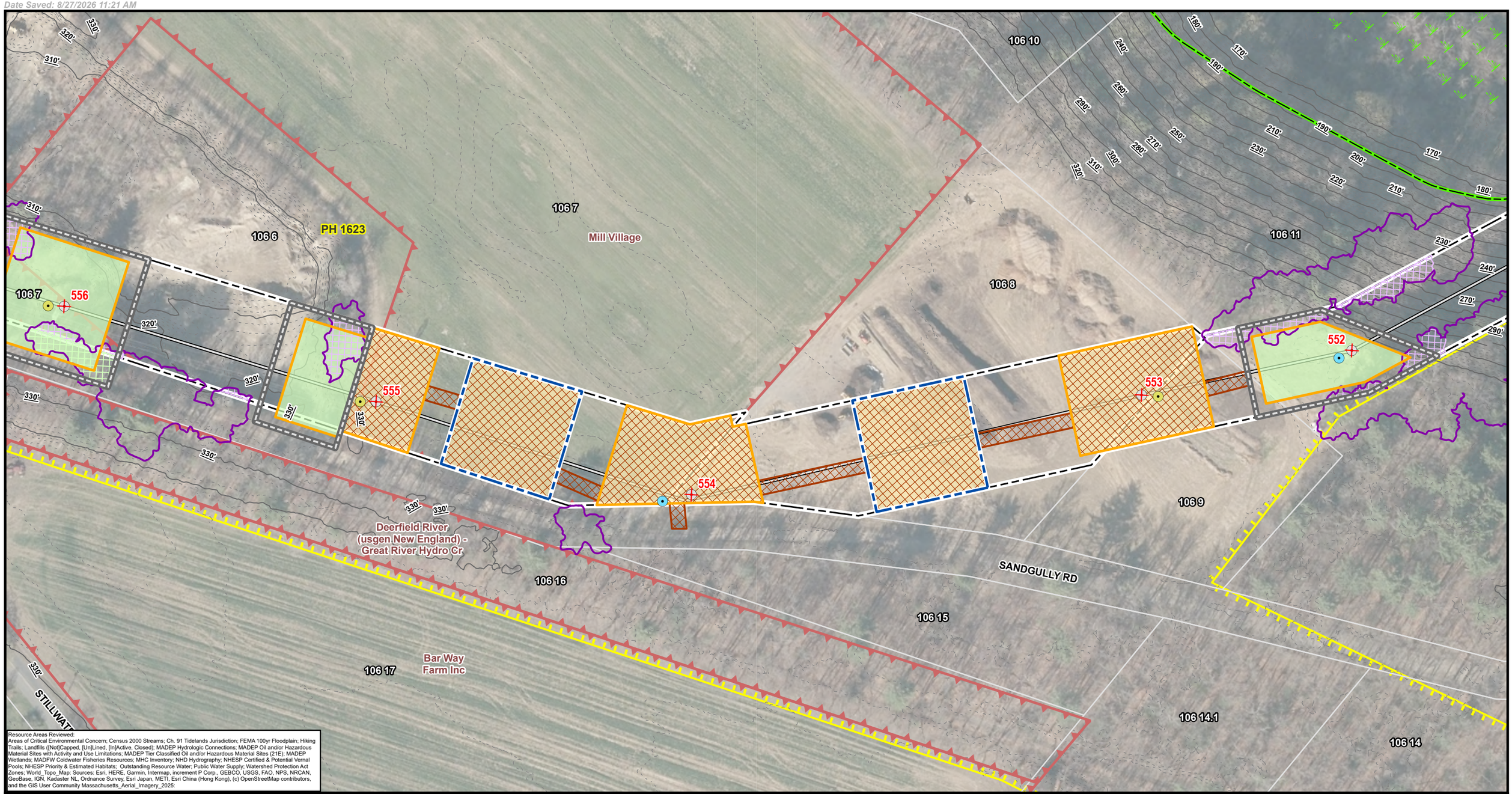
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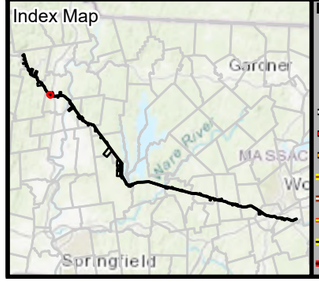
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Deerfield, MA
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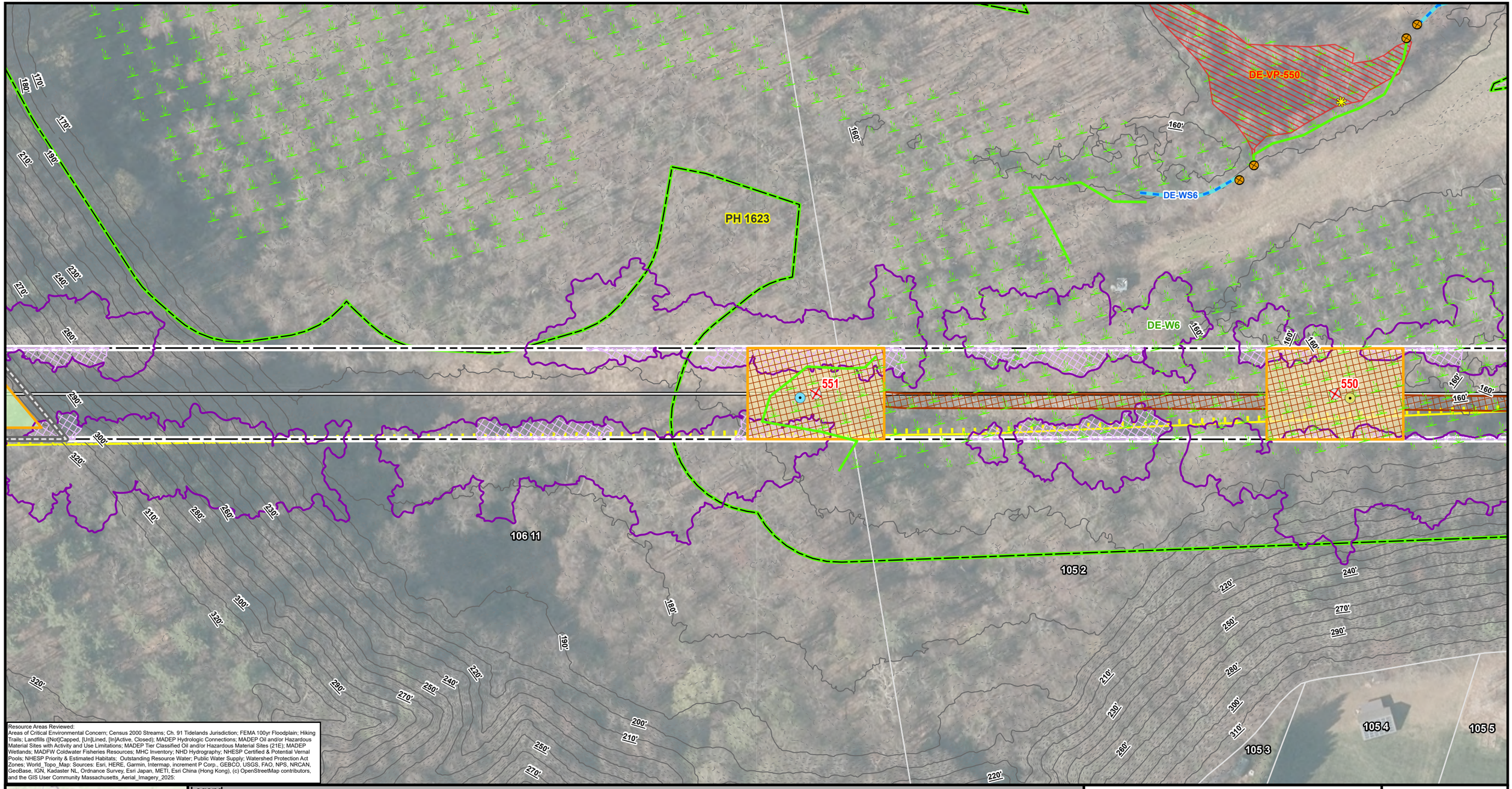
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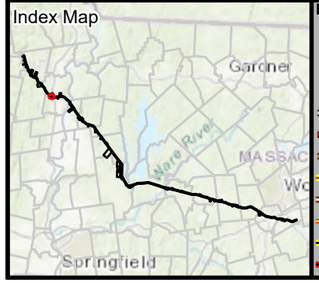
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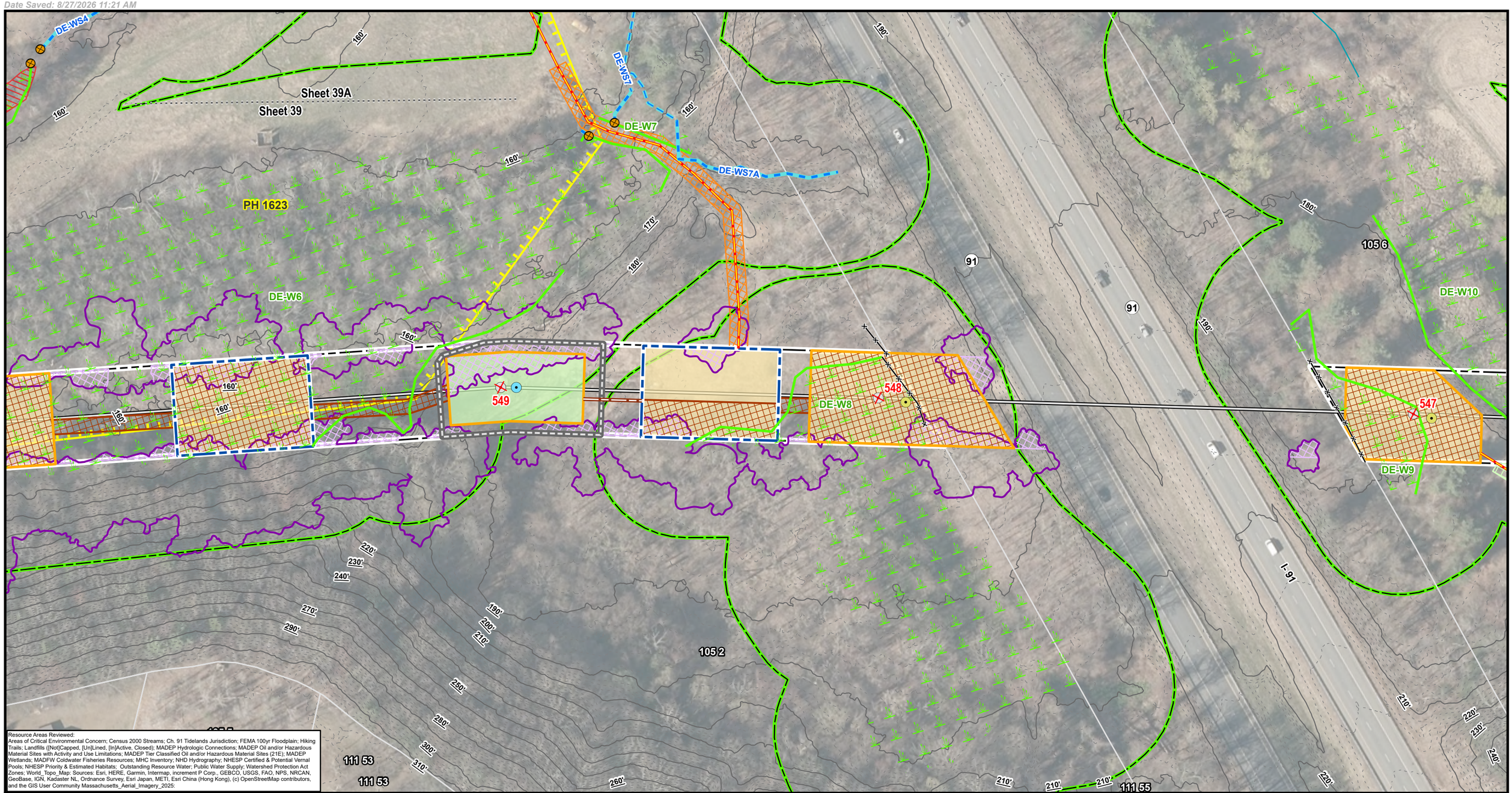
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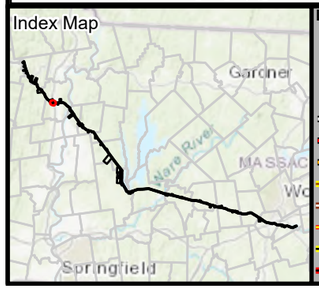
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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1 inch = 100 feet

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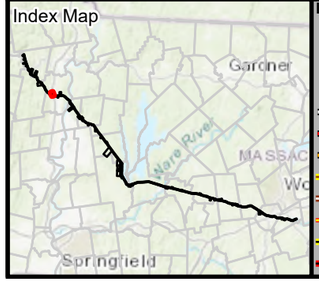
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Deerfield River Access
EH 1319
PH 2084
I- 91
STILLWATER RD
DE-W5
DE-WS5
DE-W4
DE-W7
DE-WS4
DE-W6
PH 1623
DE-VP-550
DE-WS6
550
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Sheet 39
931
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10611
8916
9217

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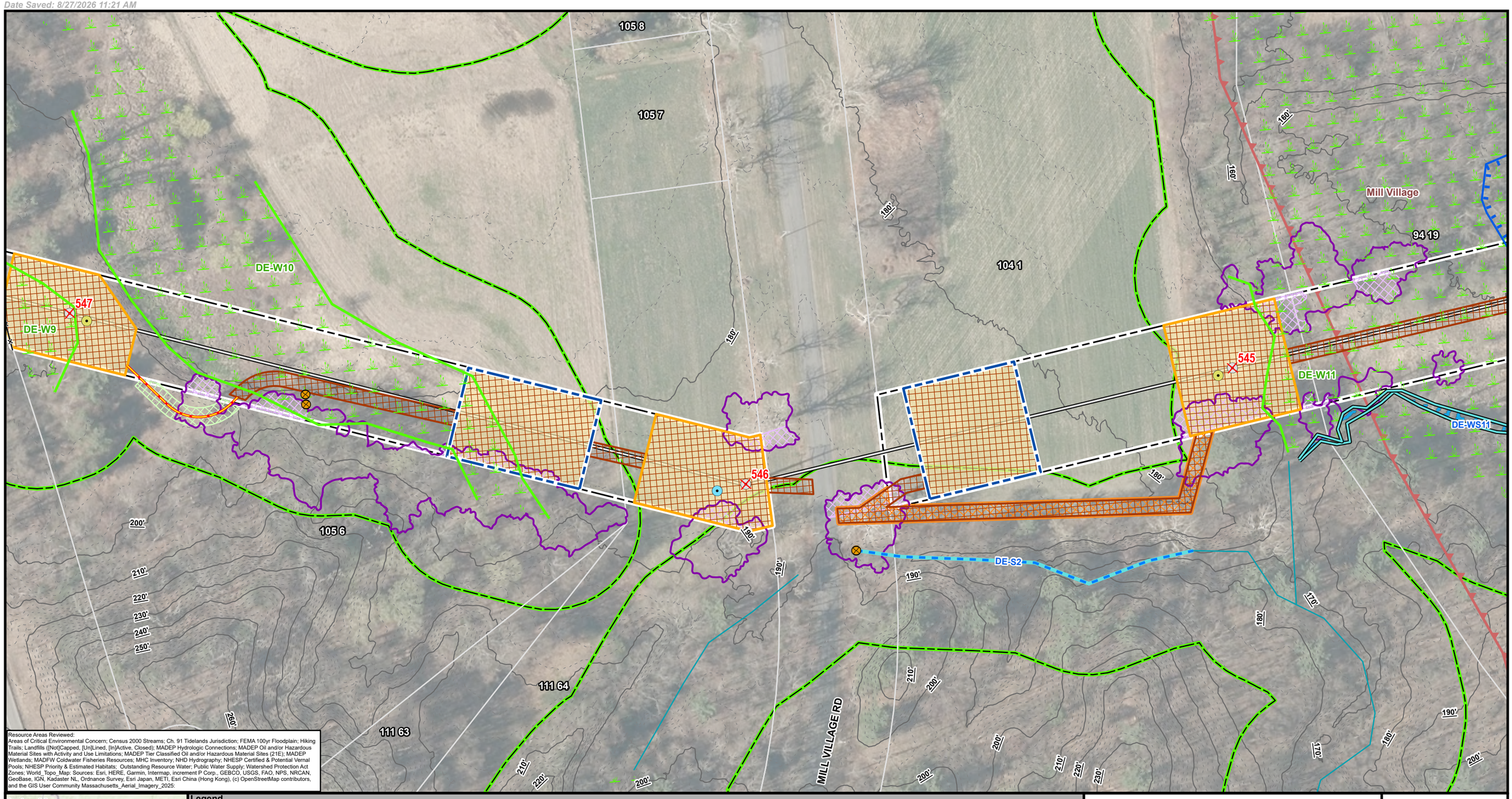
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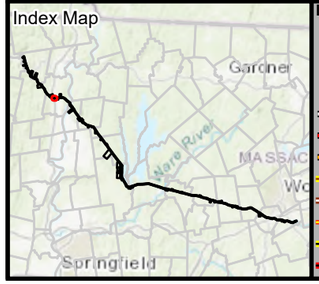
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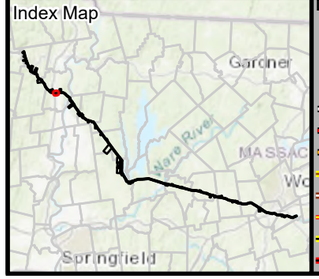
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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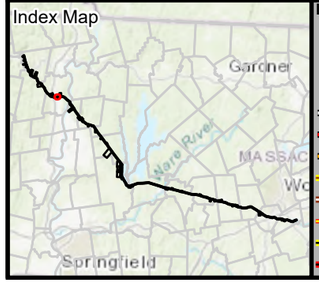
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Mill Village
94 19
DE-W11
542
541
540
103 6
103 8
103 9
103 2
103 1
113 9
113 8
113 7.1
GREENFIELD RD
DE-S3
DE-W12
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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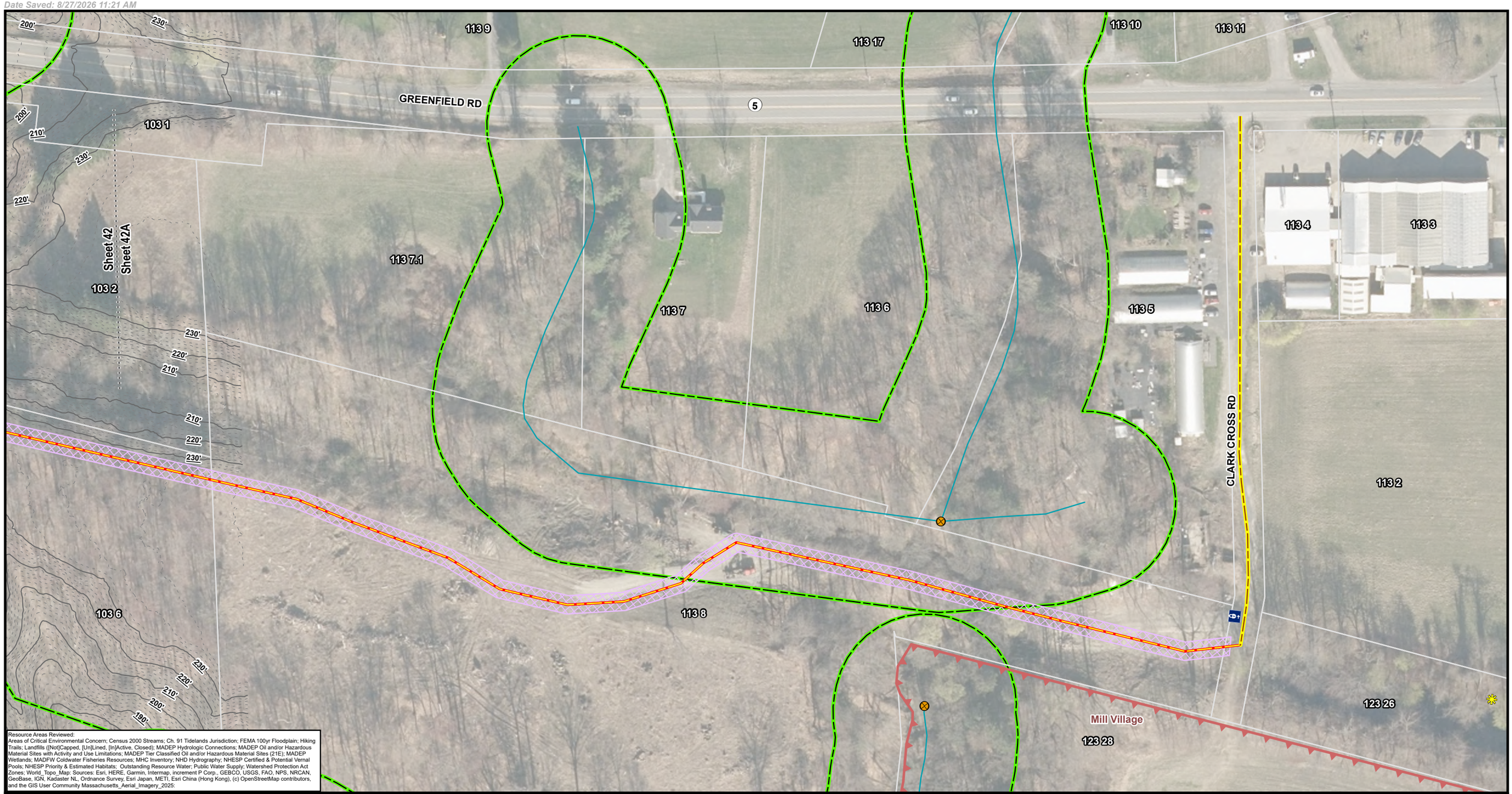
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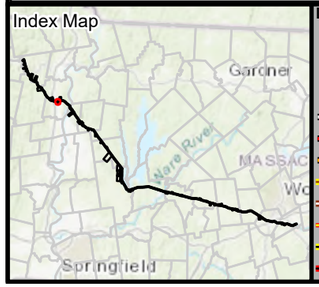
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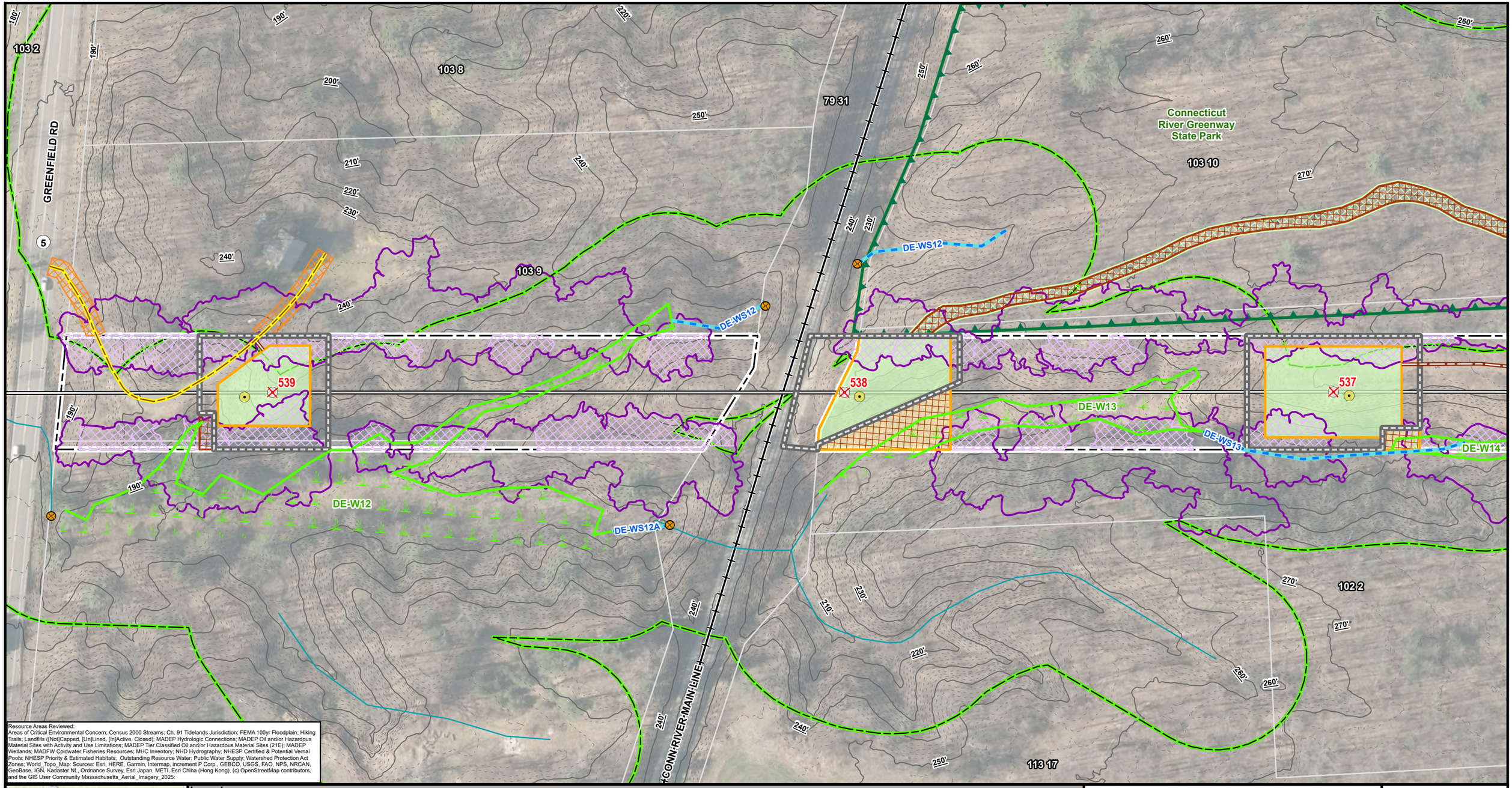
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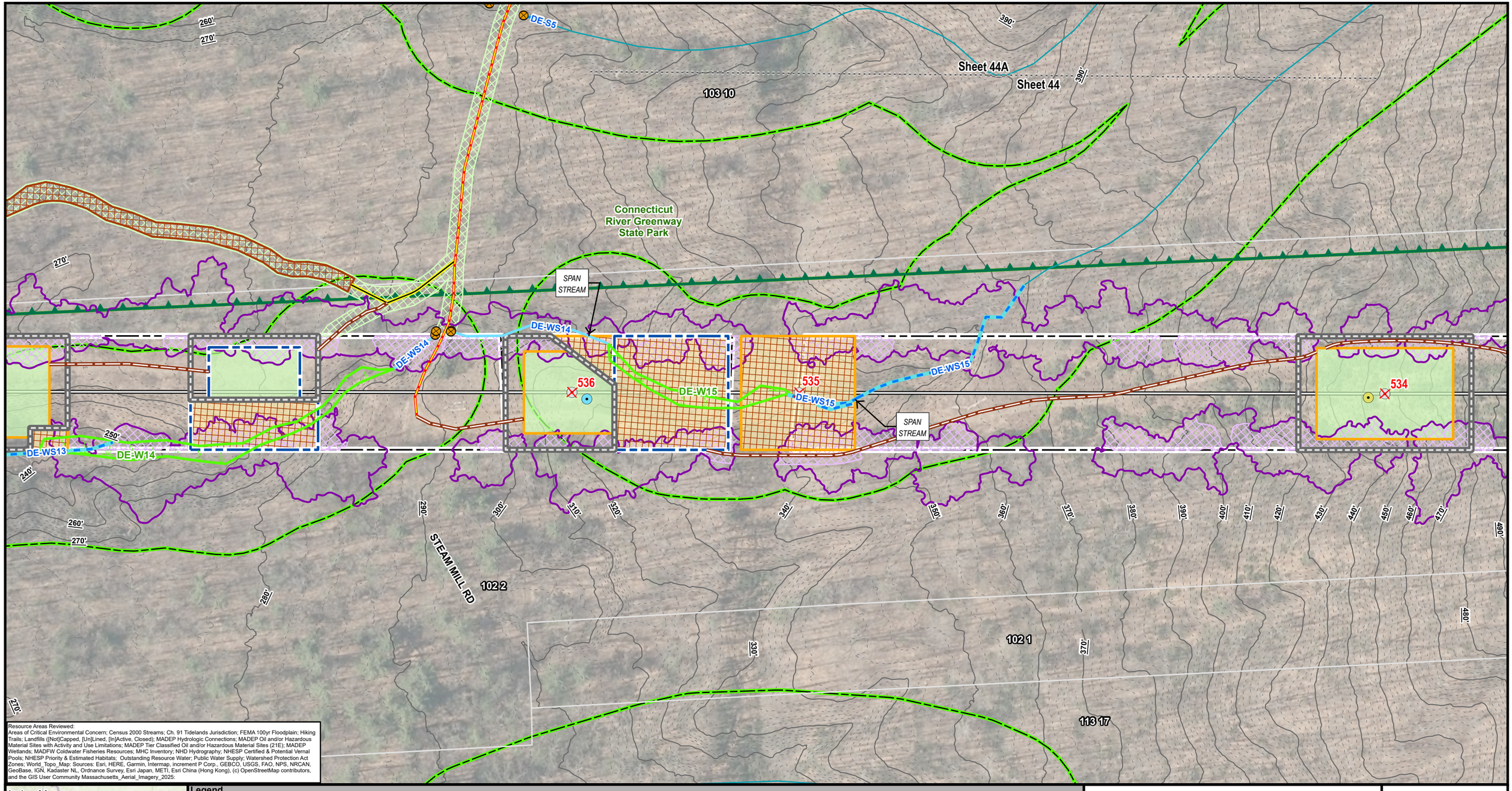
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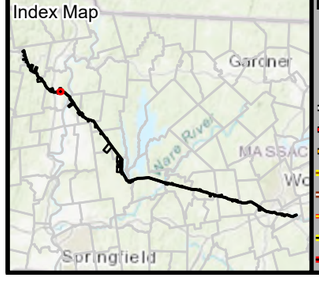
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Environmental Resources Map

Deerfield, MA
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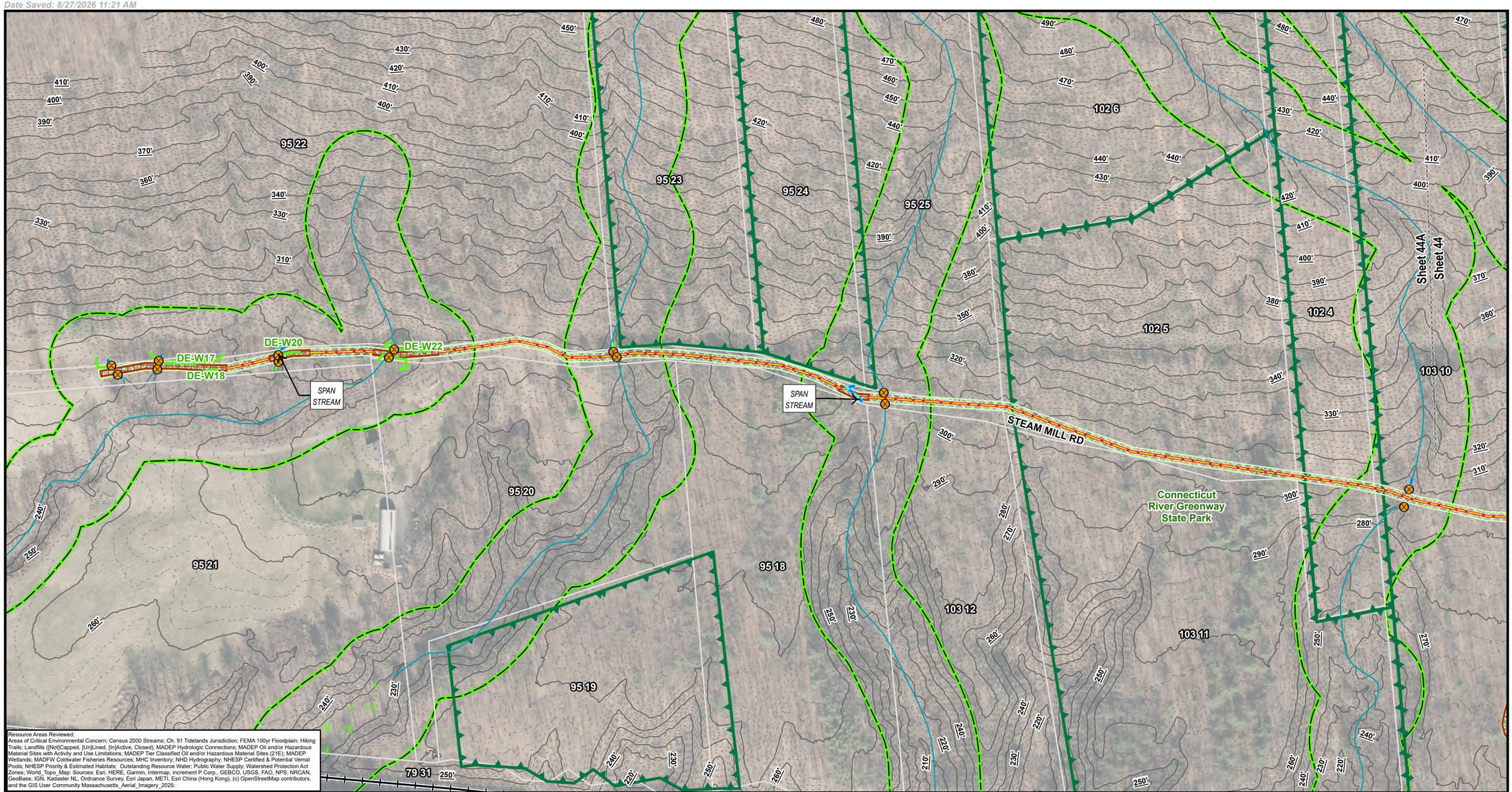
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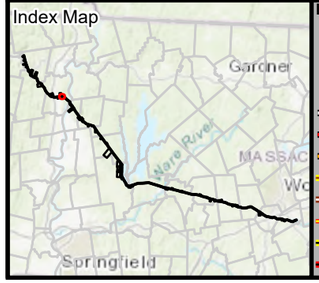
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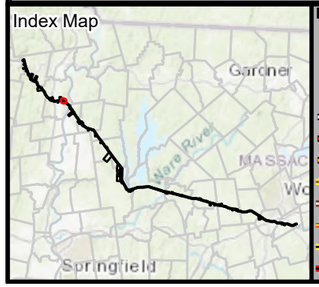
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Environmental Resources Map

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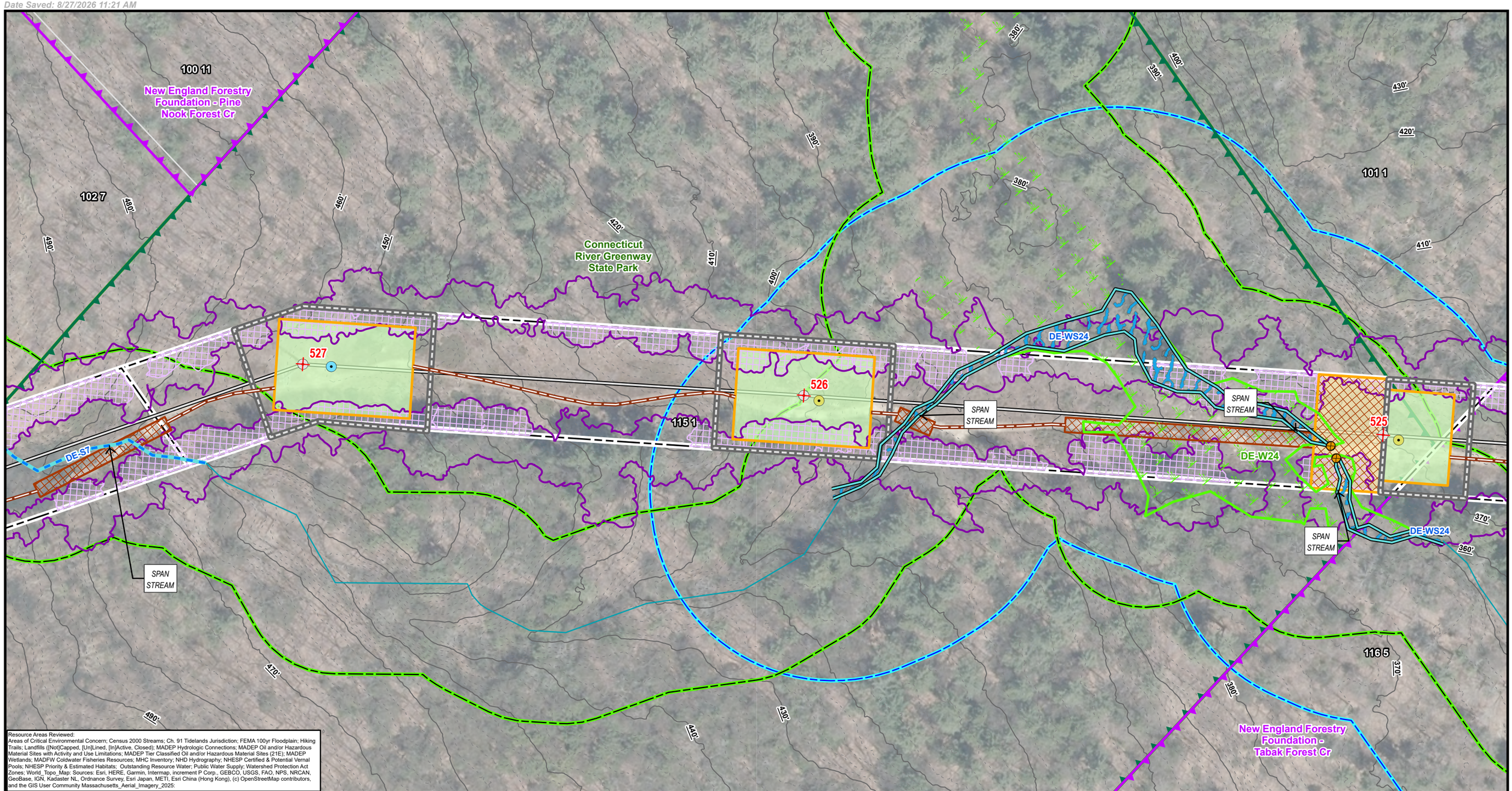
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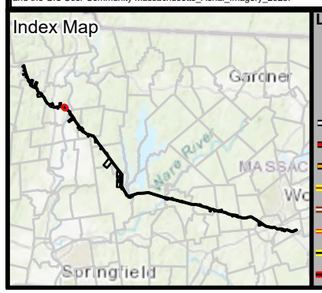
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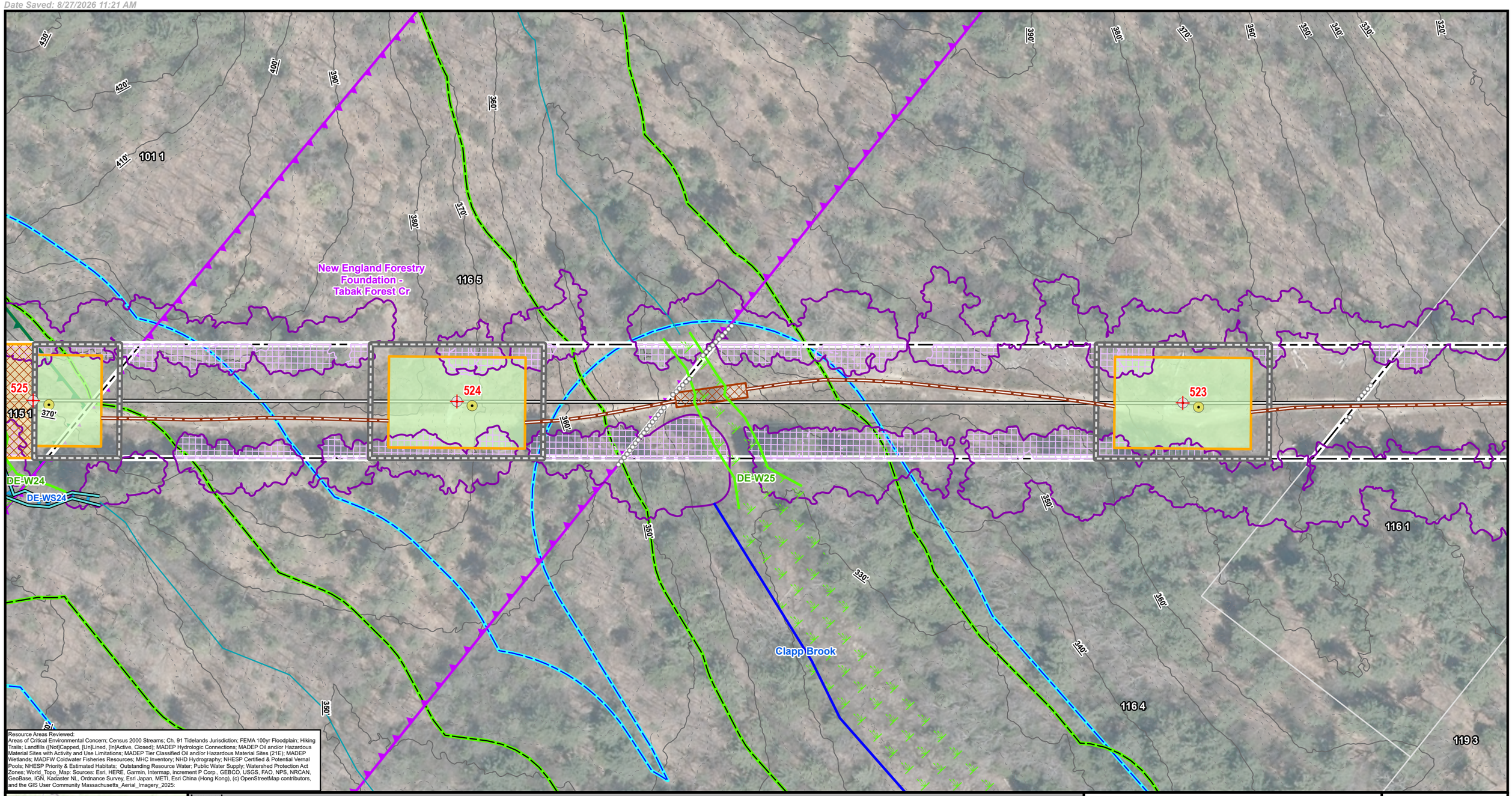
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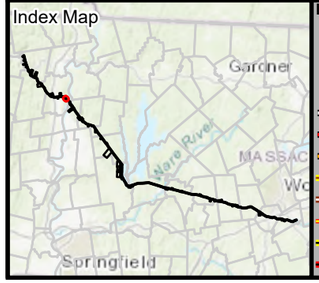
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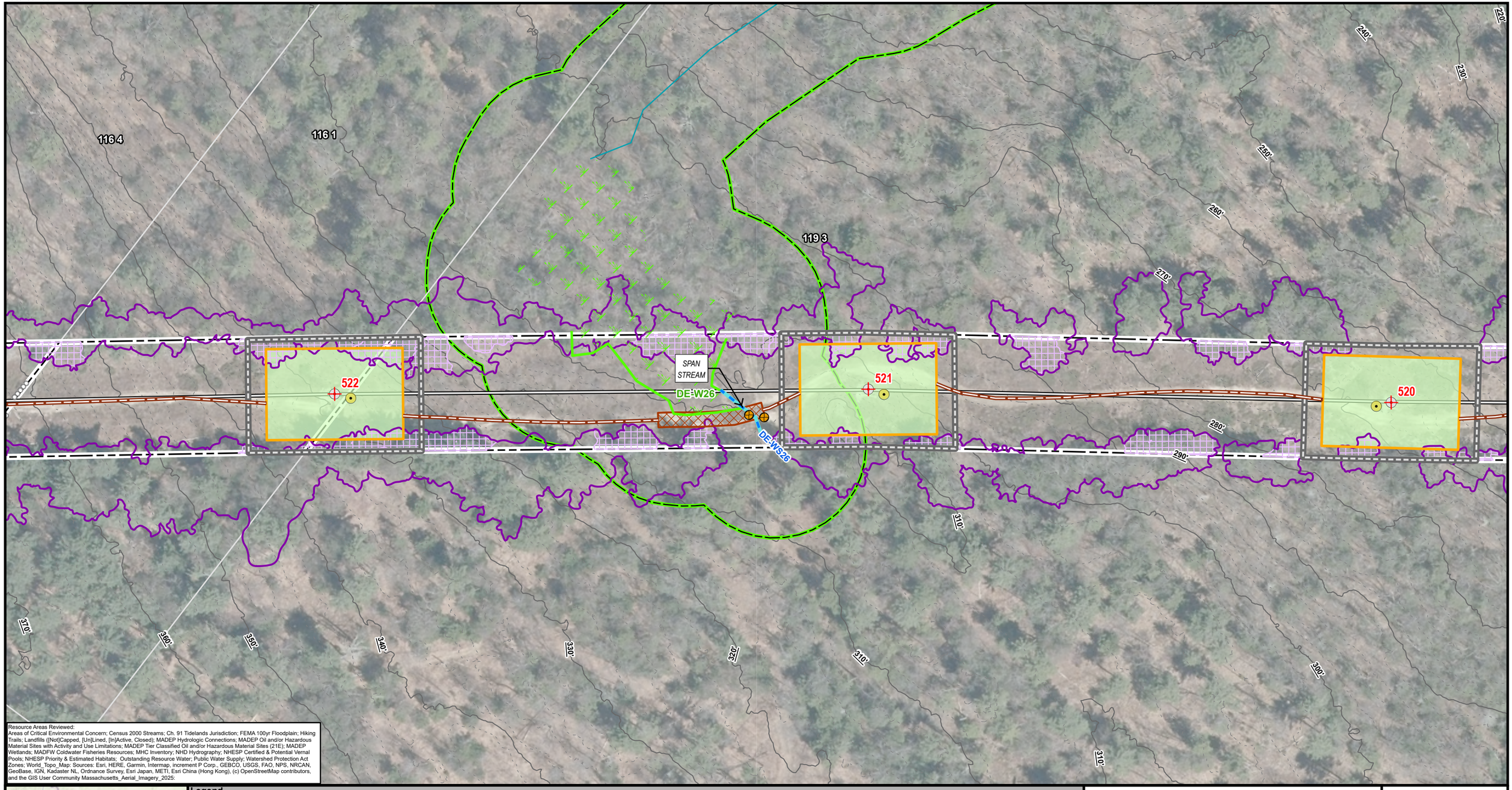
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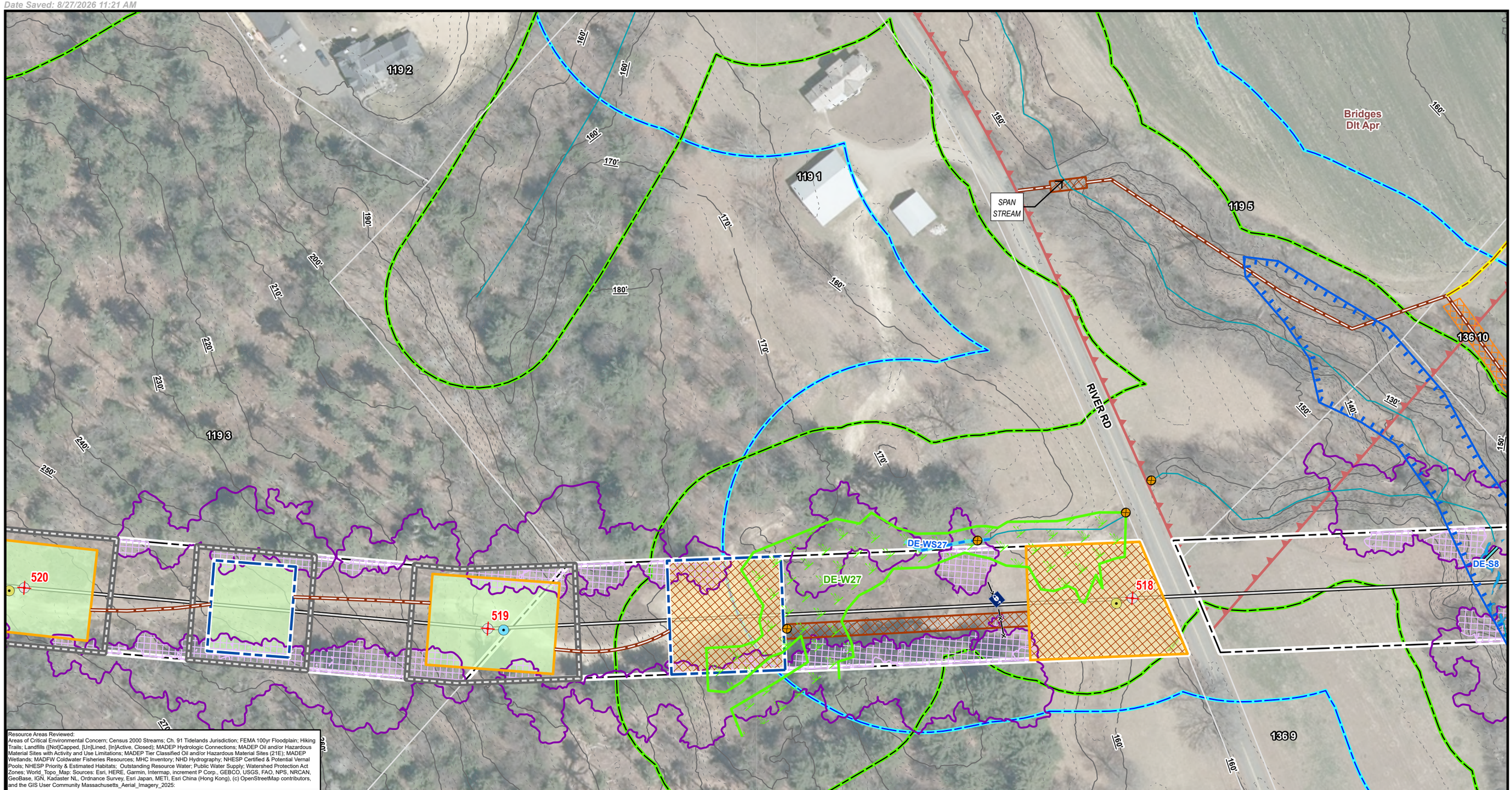
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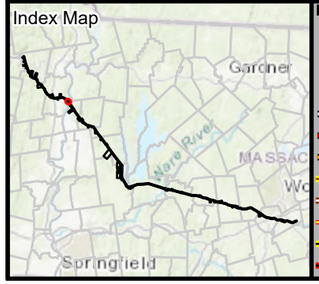
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- Land Trust
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- Non Profit
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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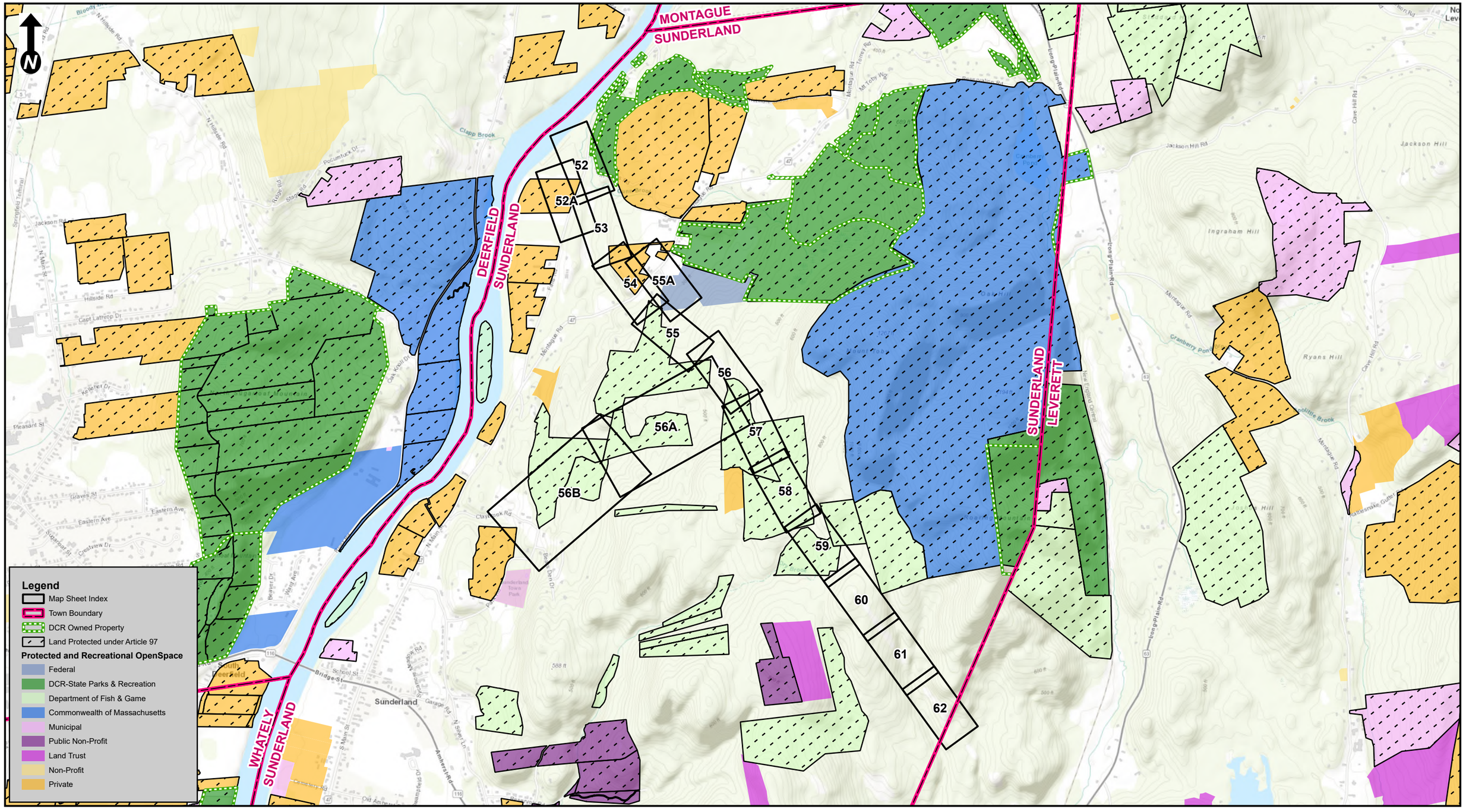
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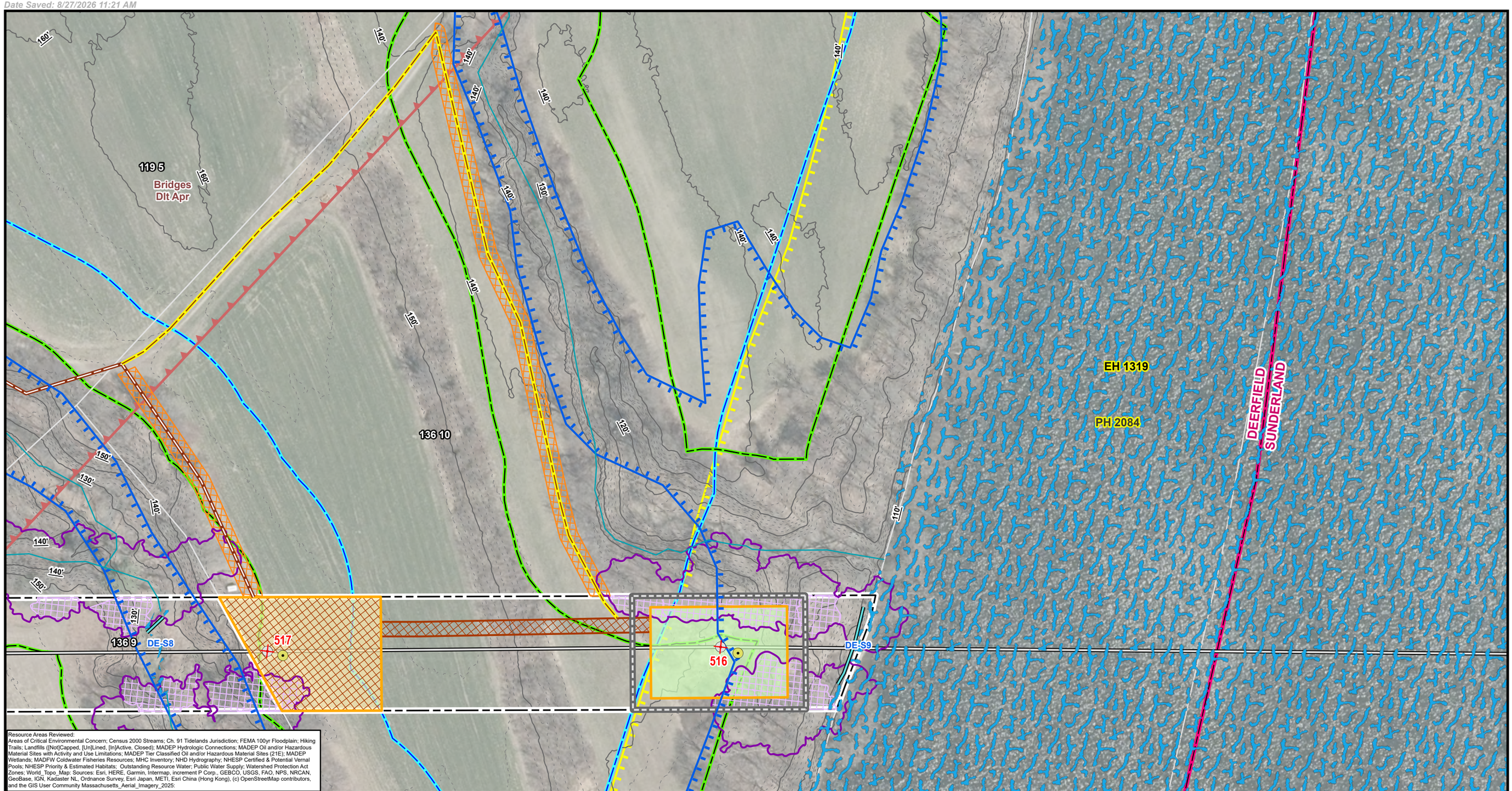
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Sunderland, MA

Source: 2013 National Geographic Society, i-cubed

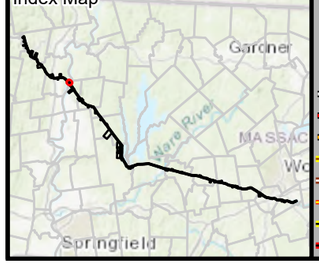
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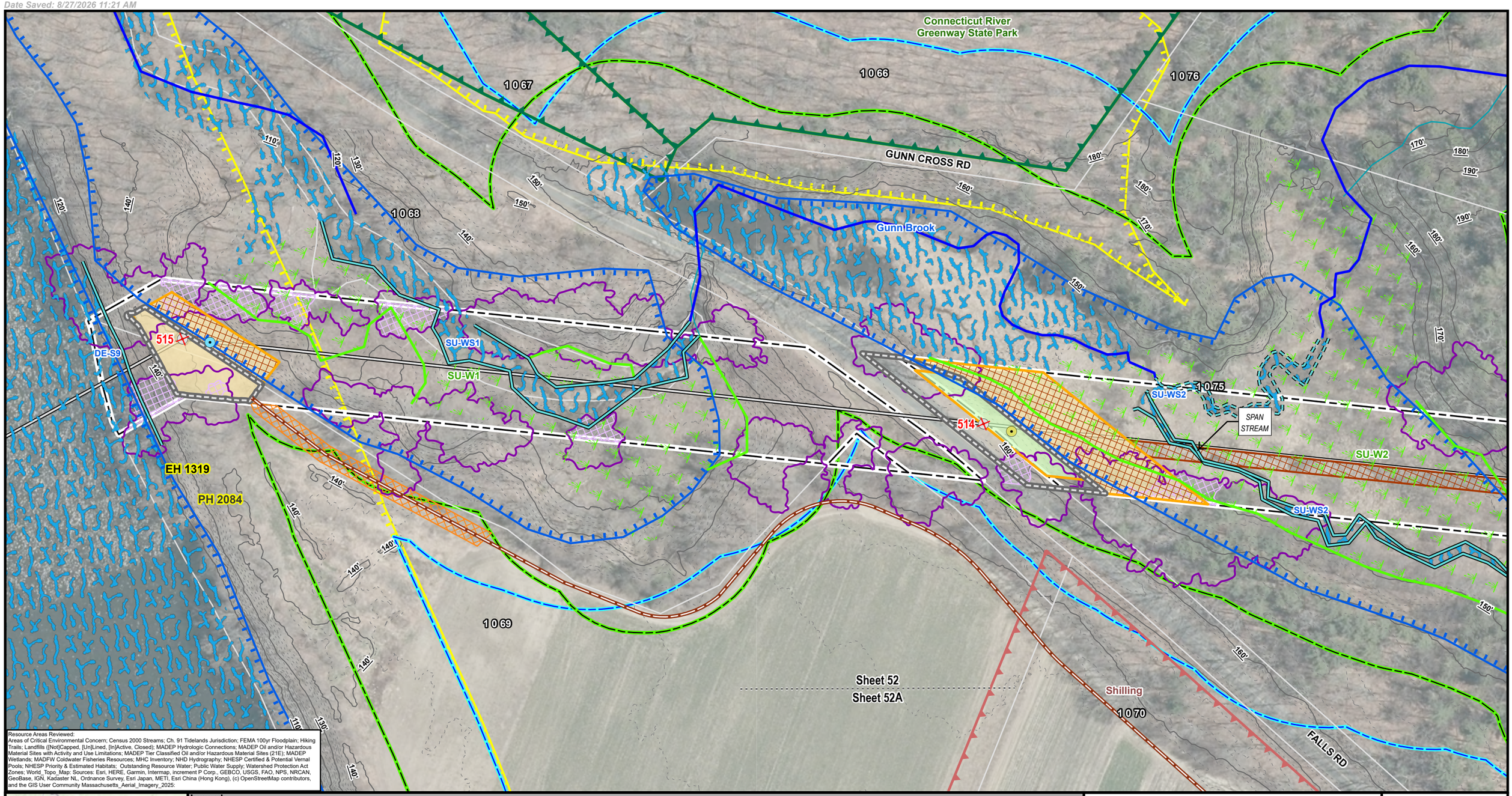
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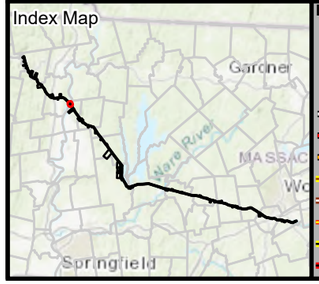
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Environmental Resources Map

Sunderland, MA
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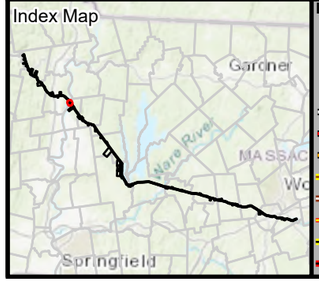
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SU-WS2
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EH 1319
PH 2084
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150'
160'
140'
180'

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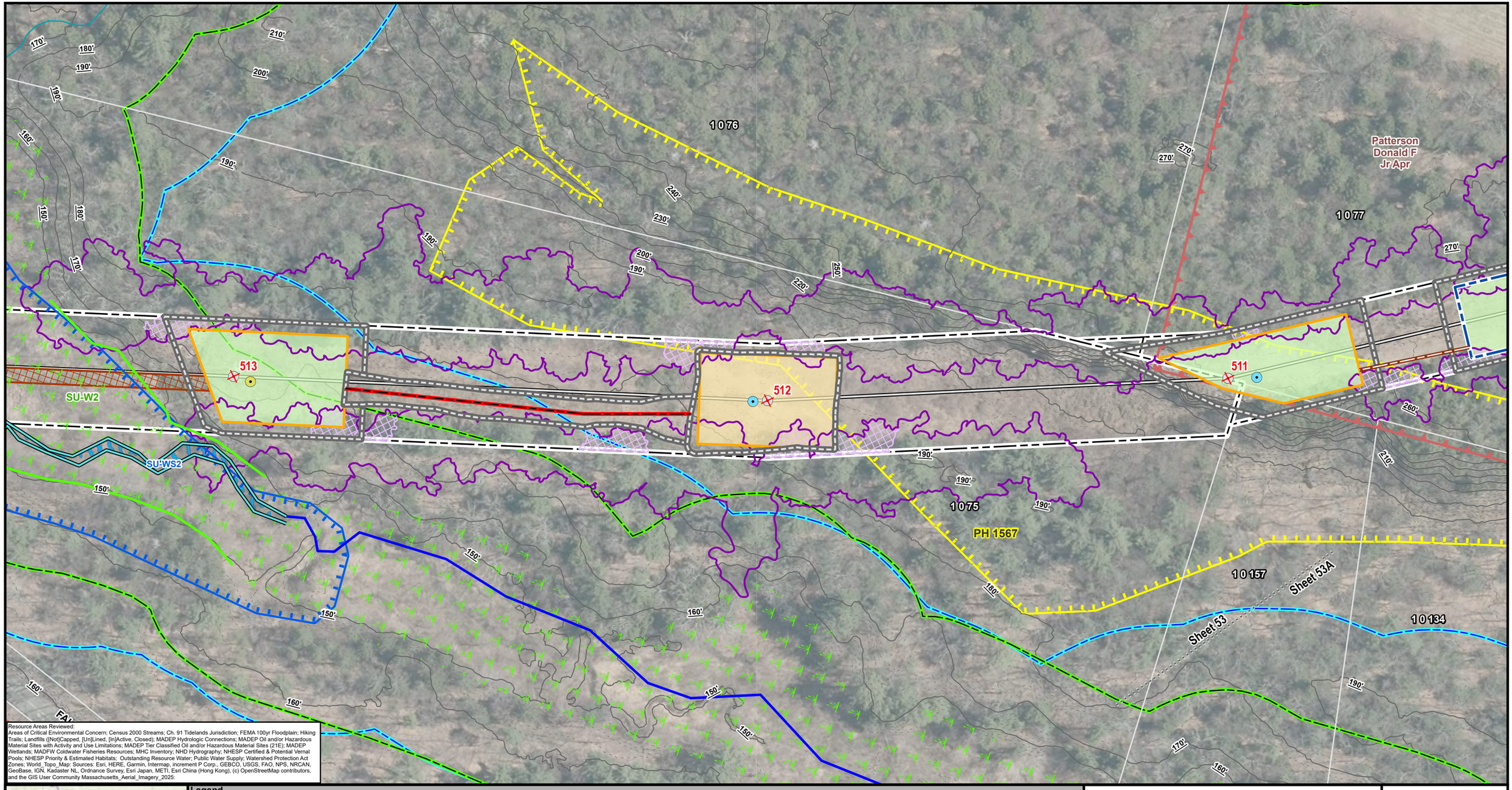
Sunderland, MA
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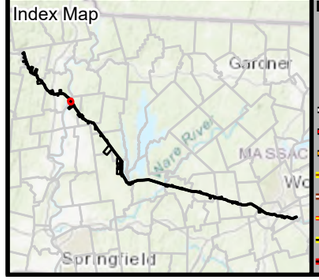
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Sunderland, MA
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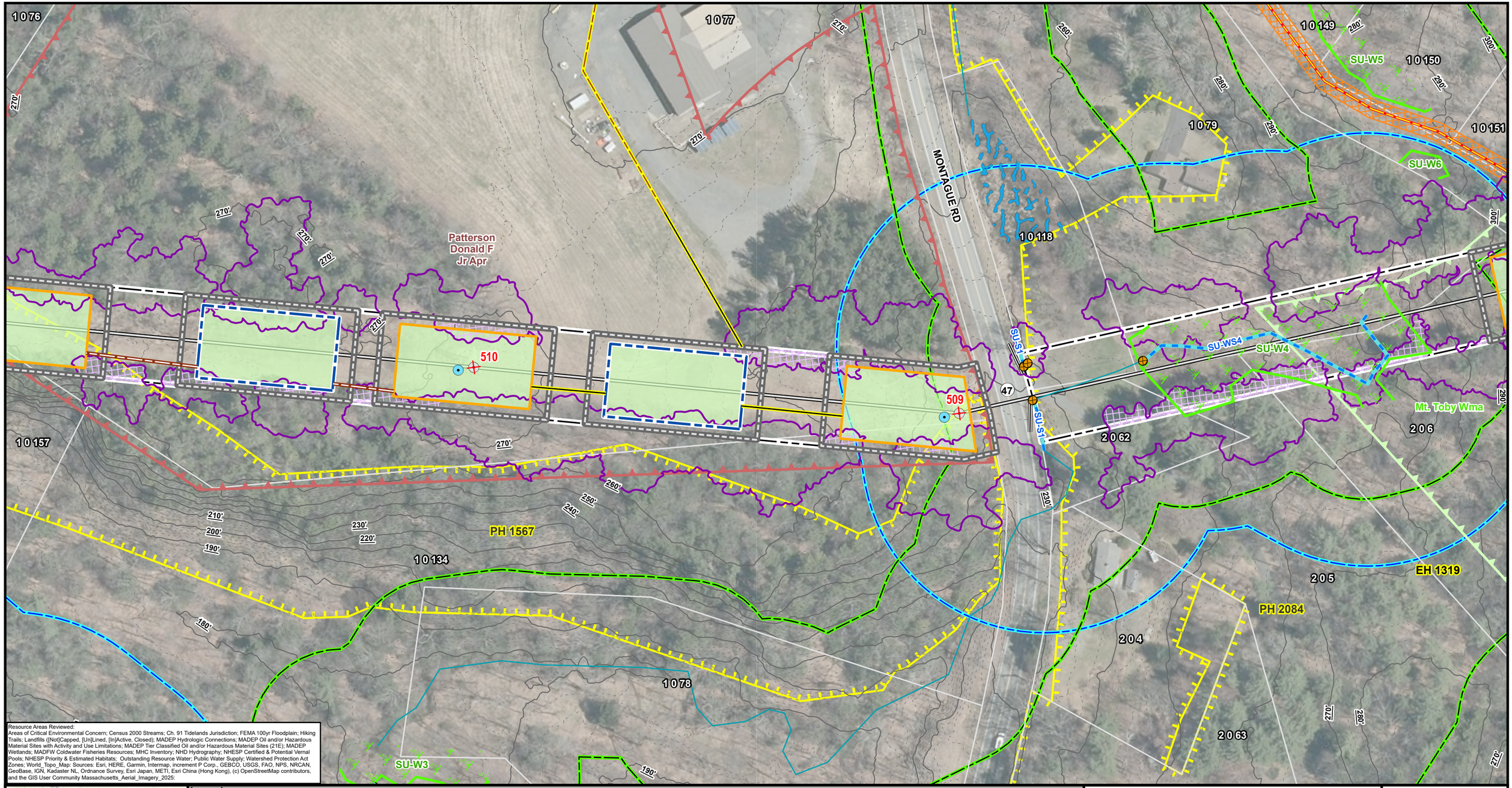
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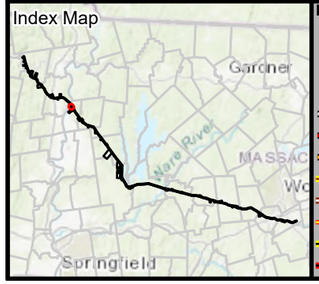
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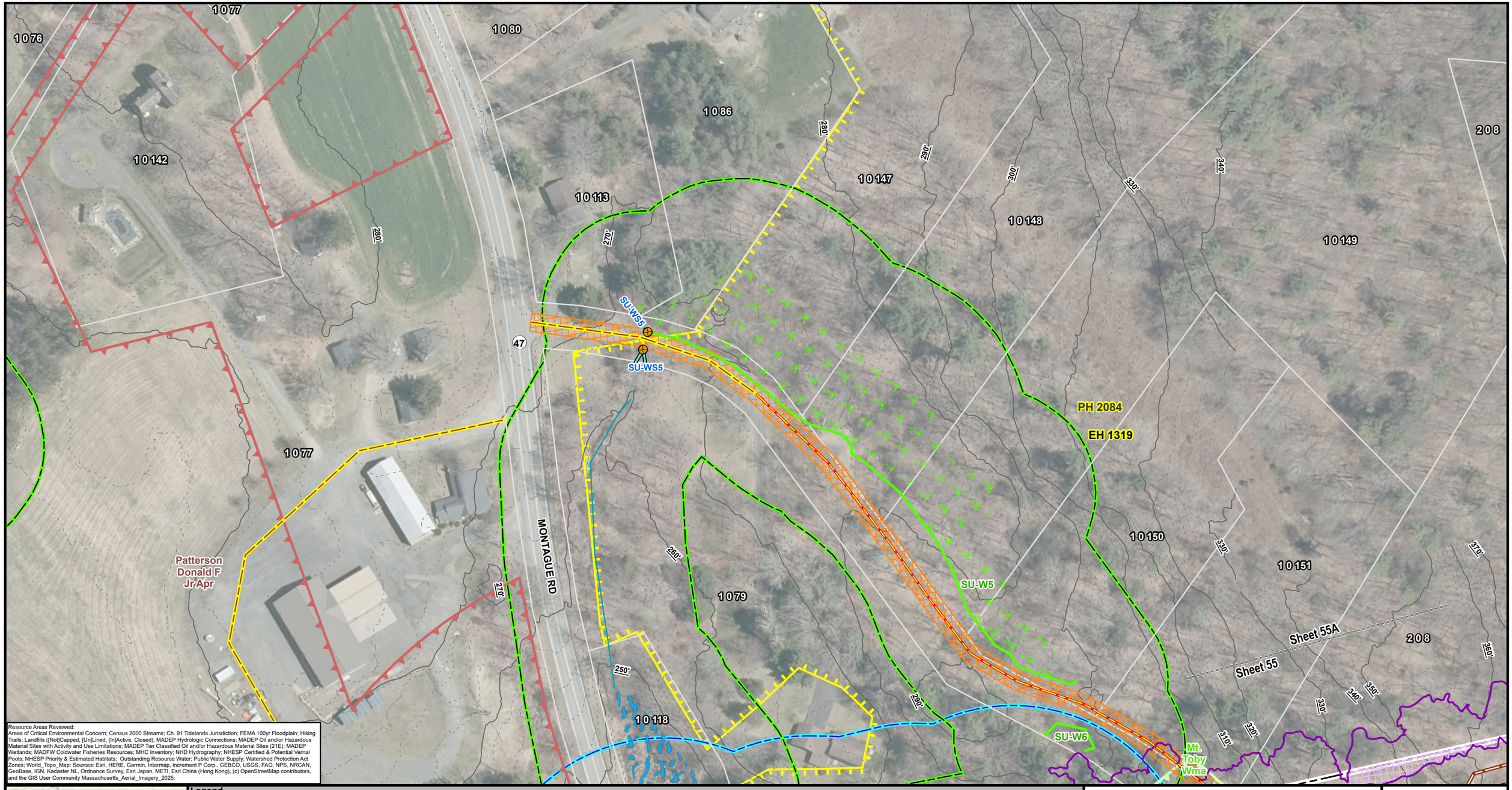
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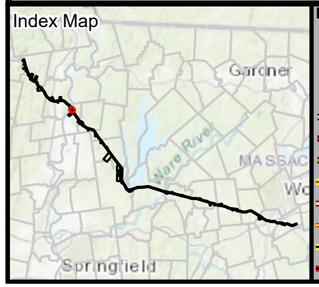
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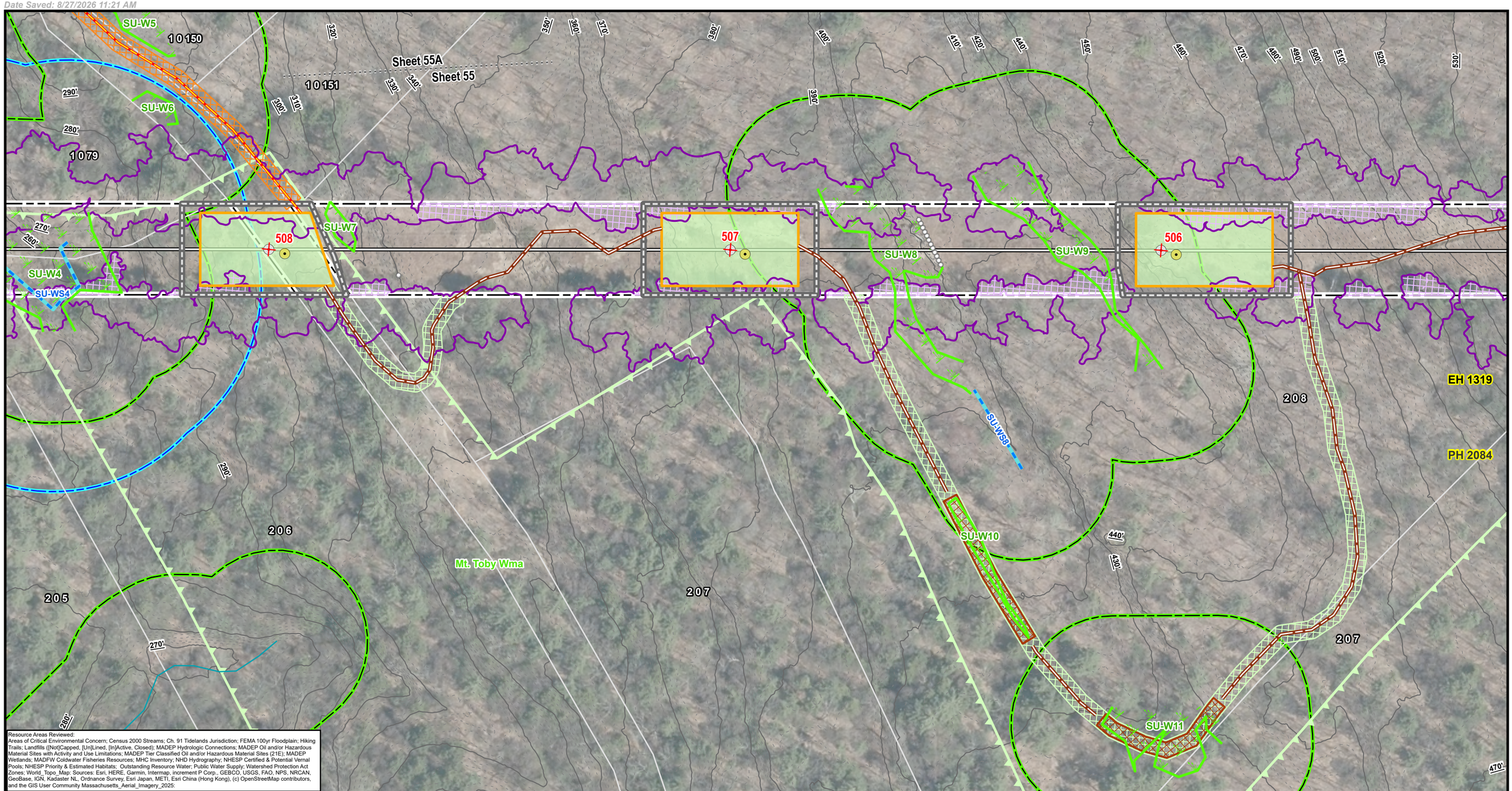
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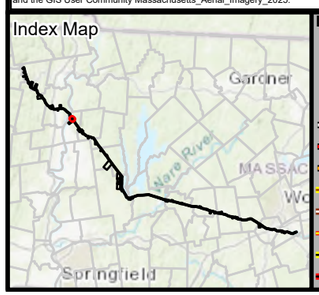
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Sunderland, MA
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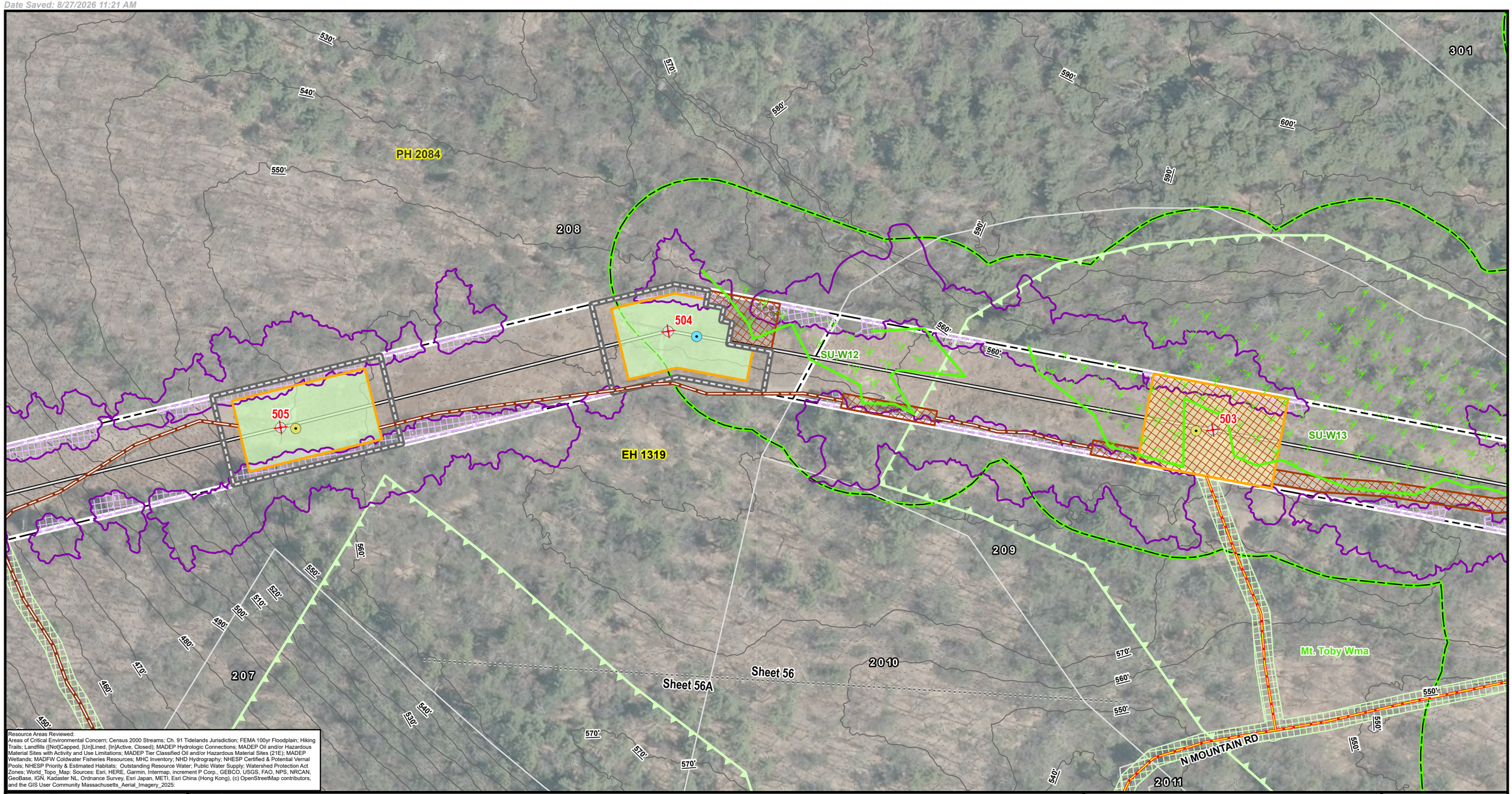
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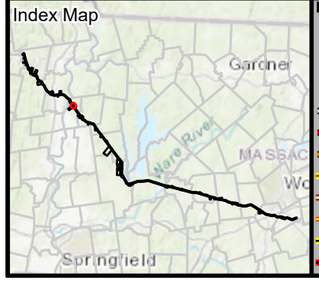
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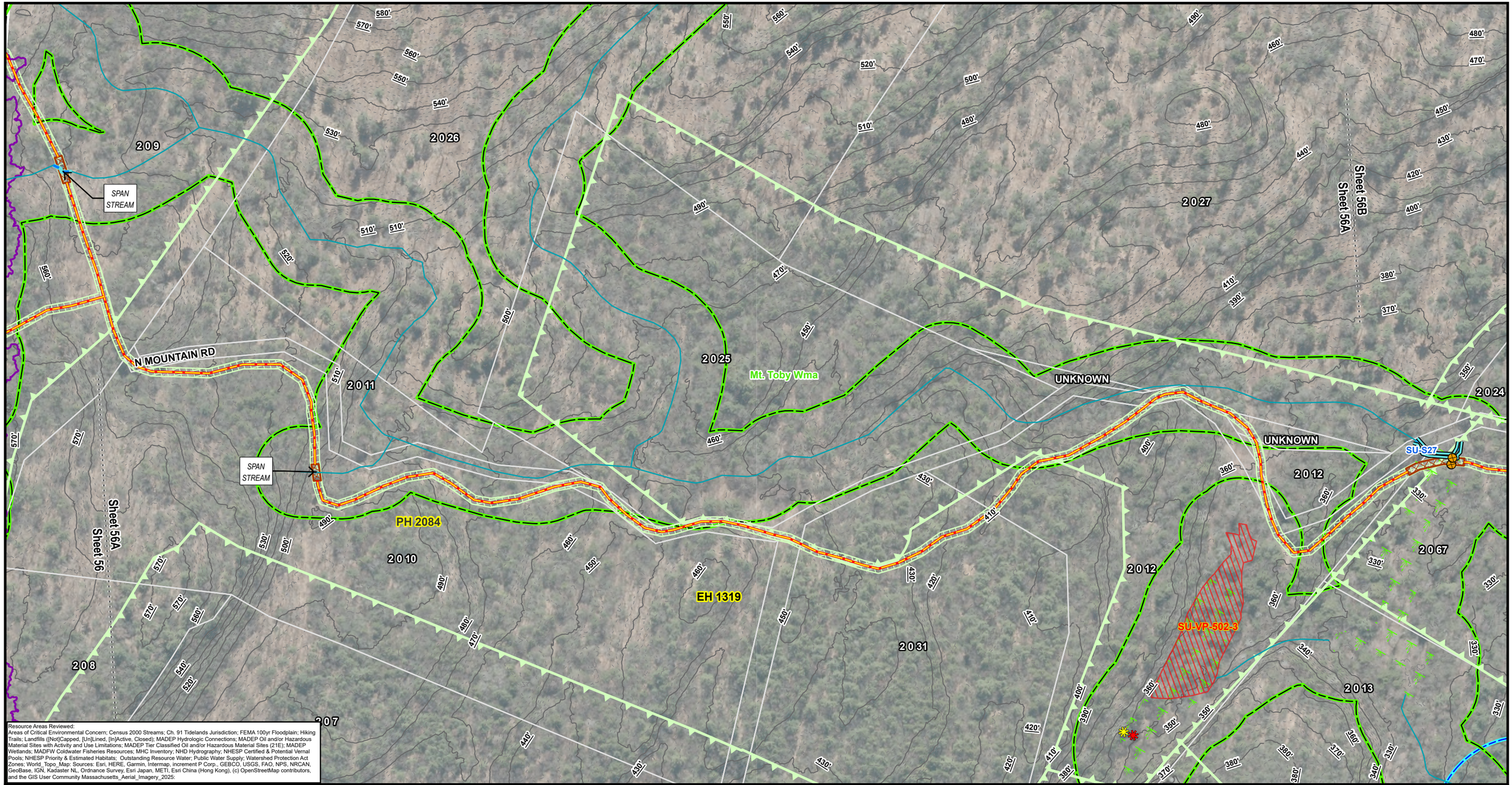
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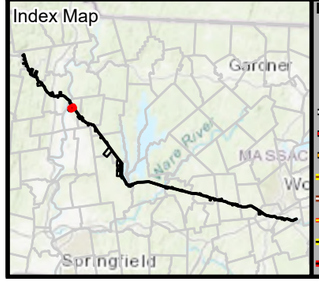
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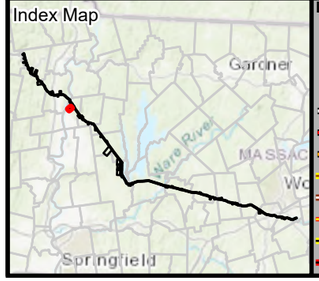
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Environmental Resources Map

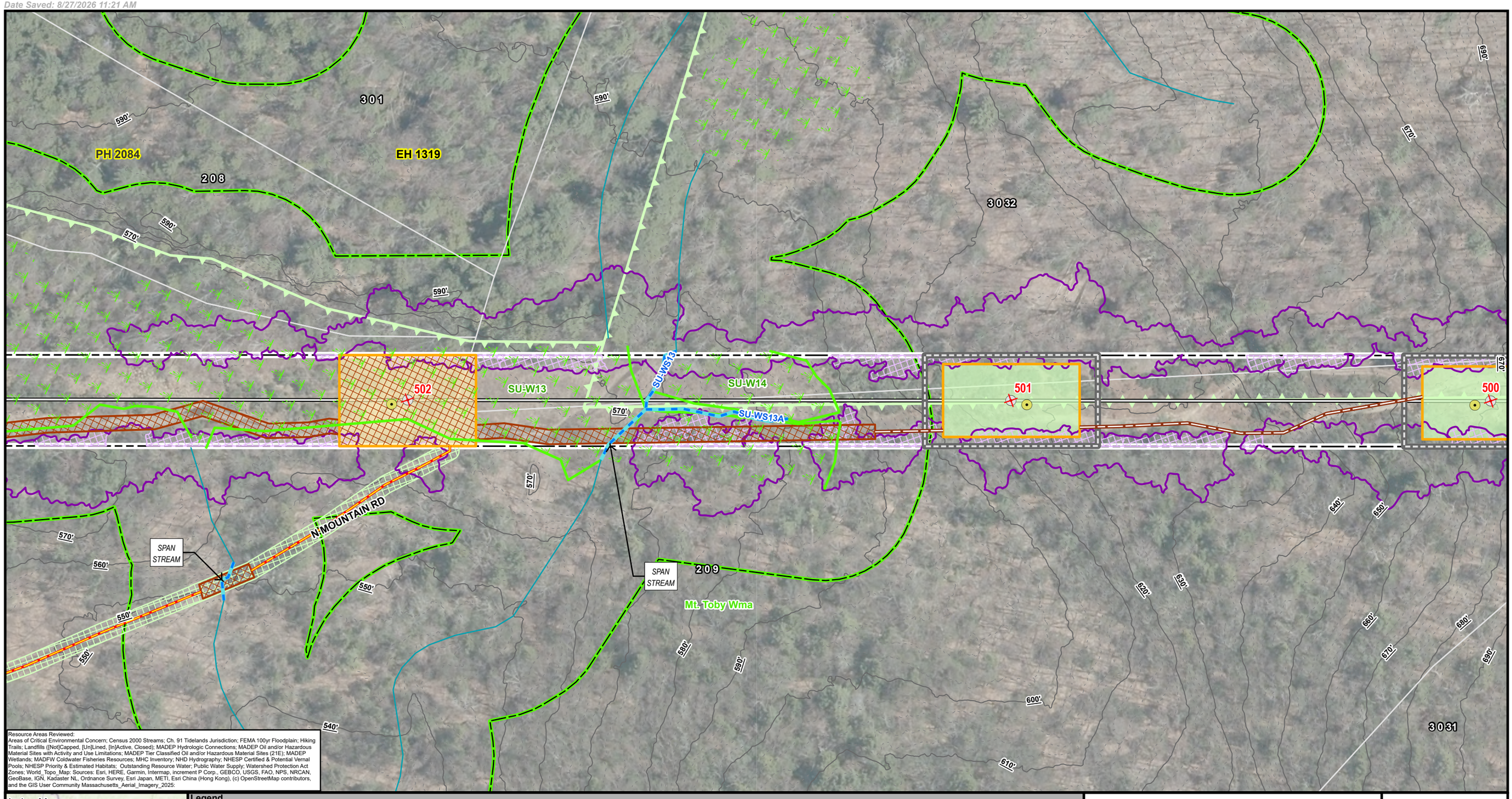
Sunderland, MA
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Sunderland, MA
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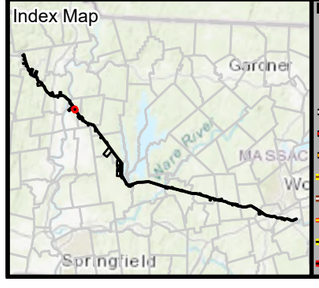
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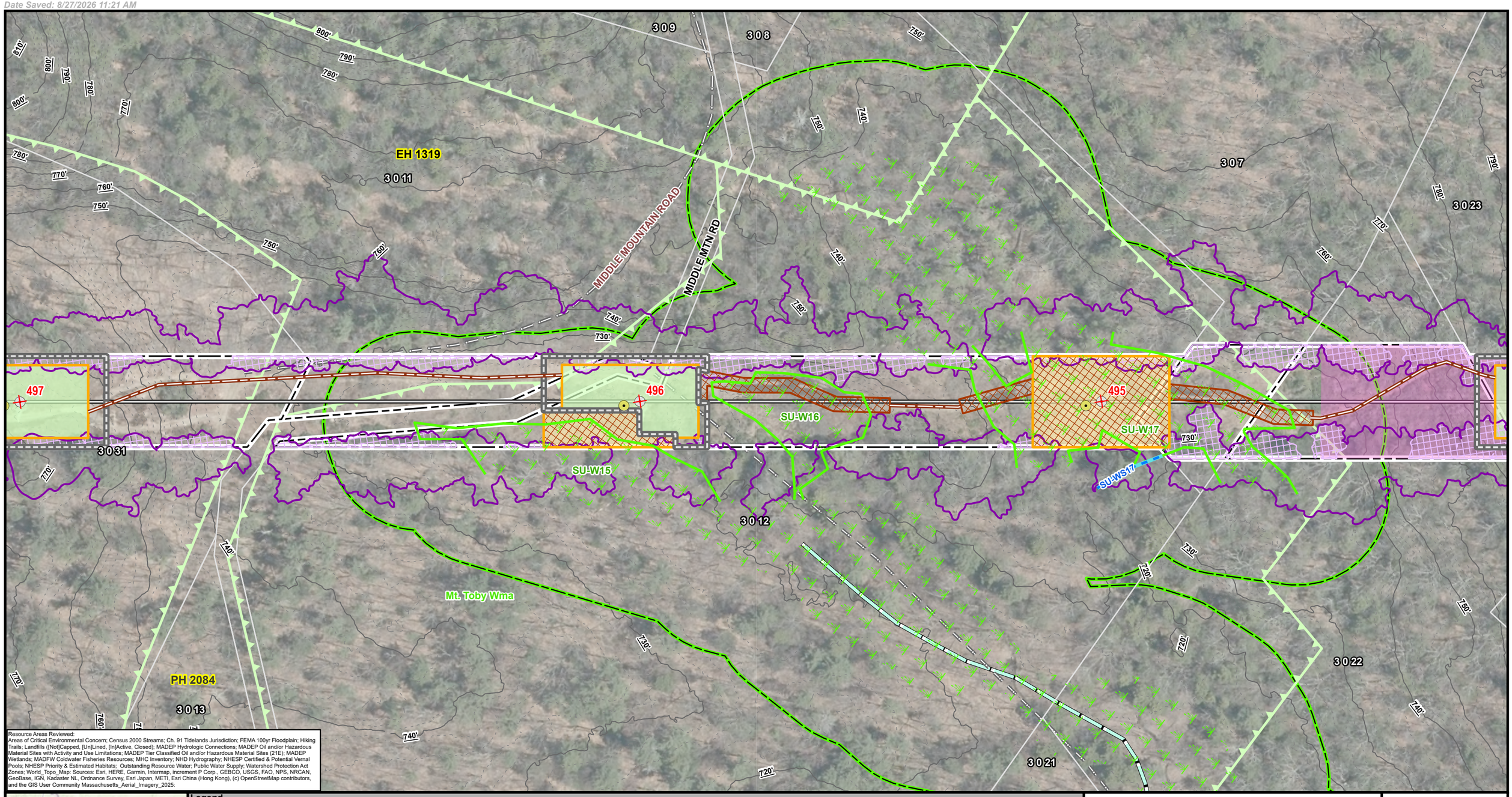
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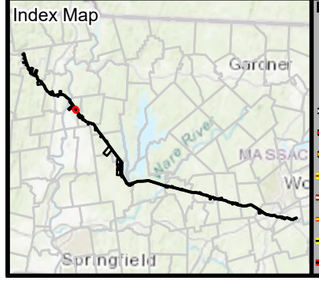
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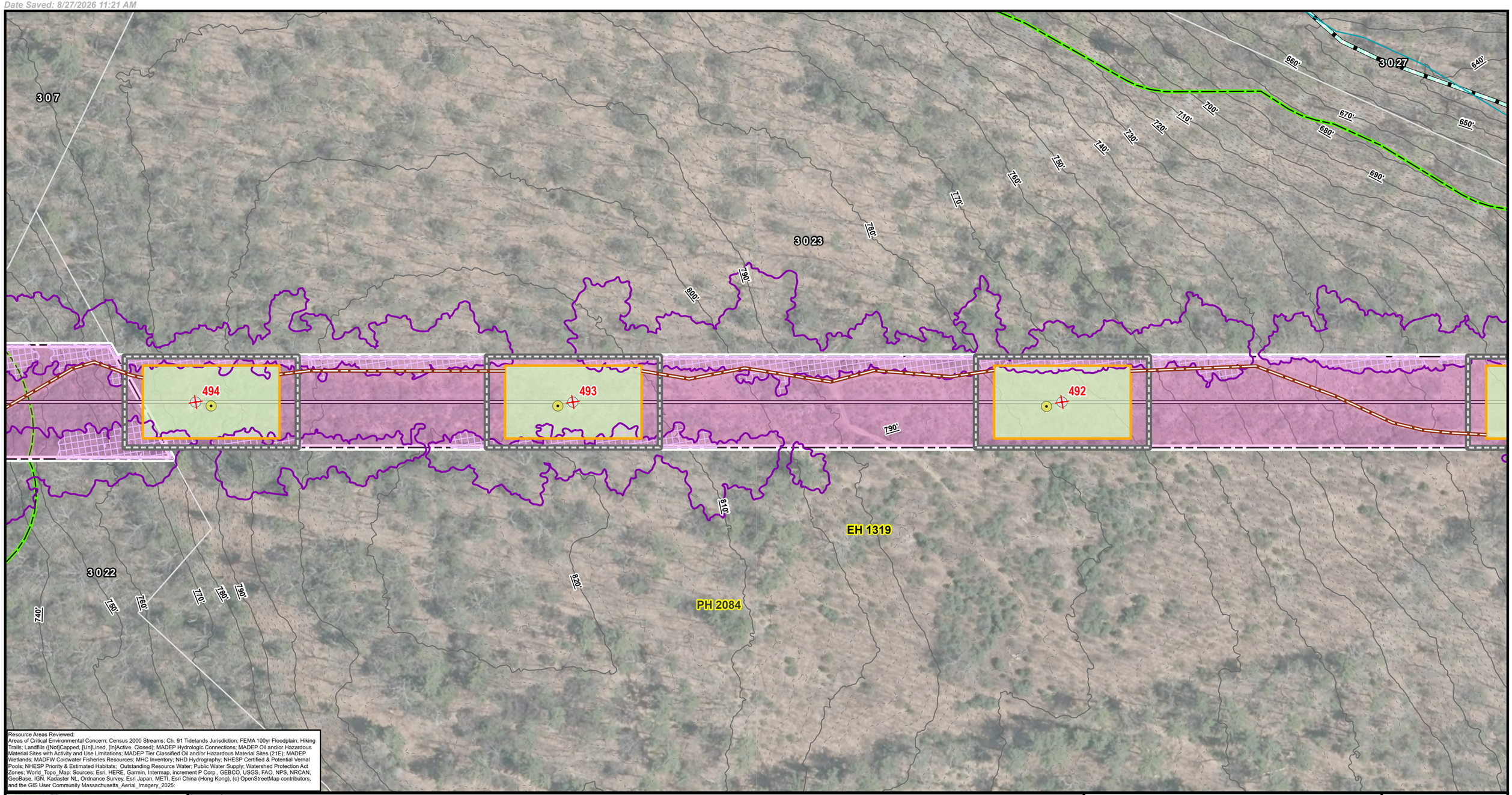
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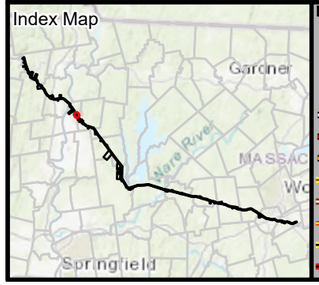
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Sunderland, MA
Page 60 of 240

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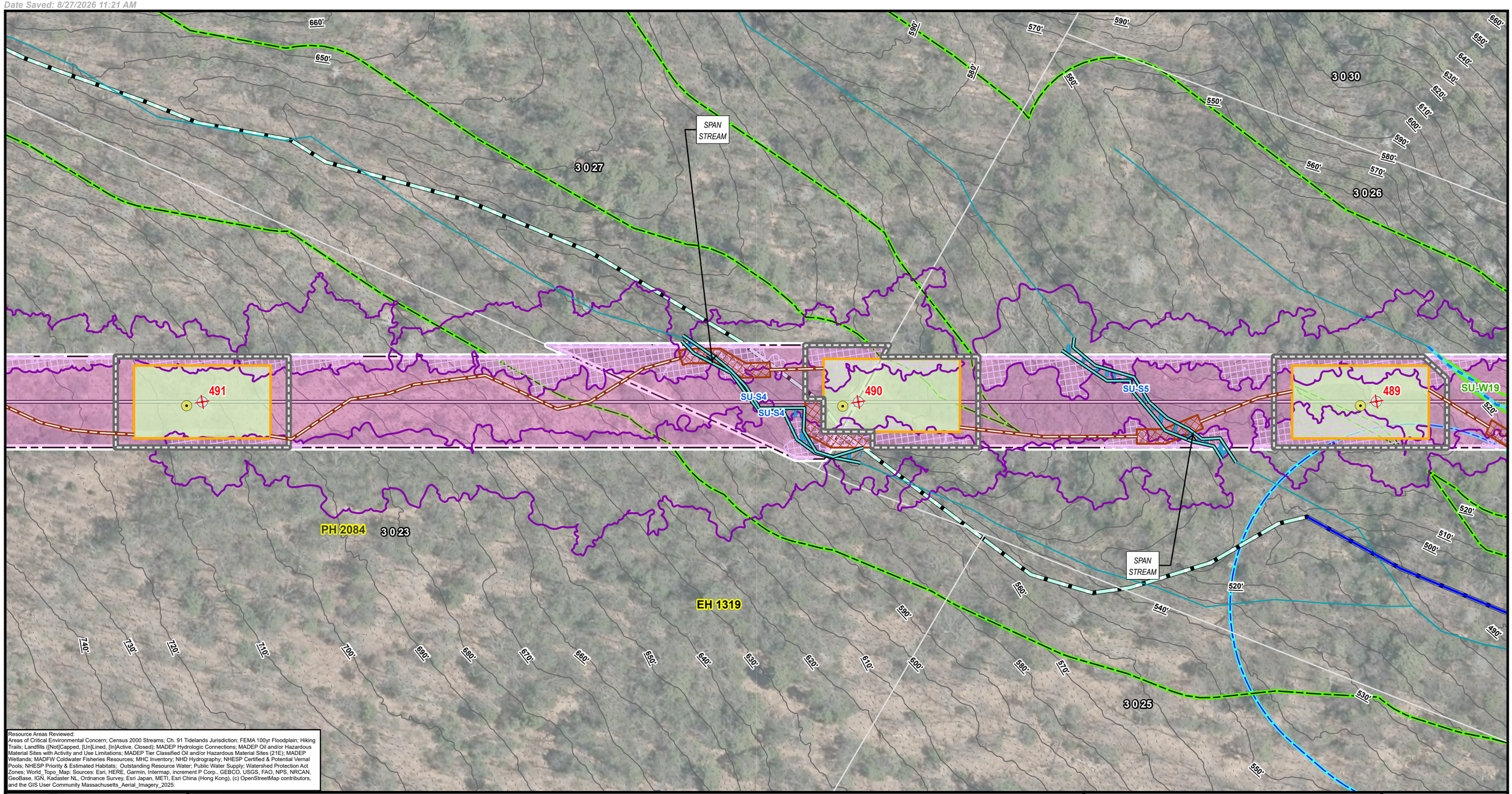
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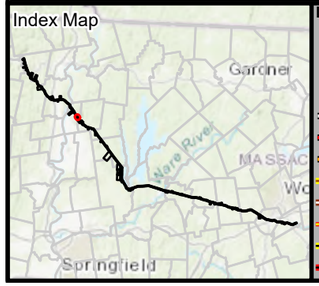
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Sunderland, MA
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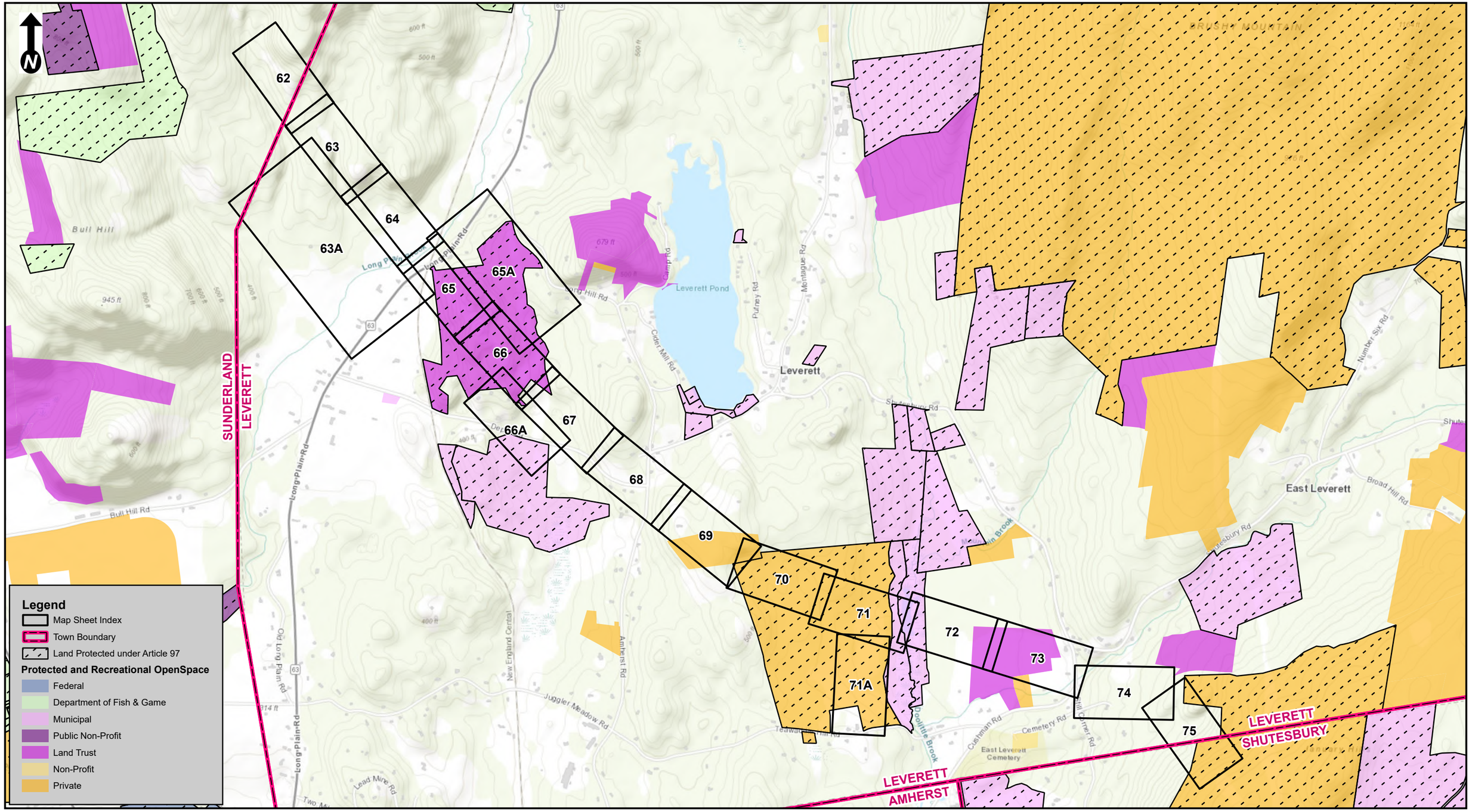
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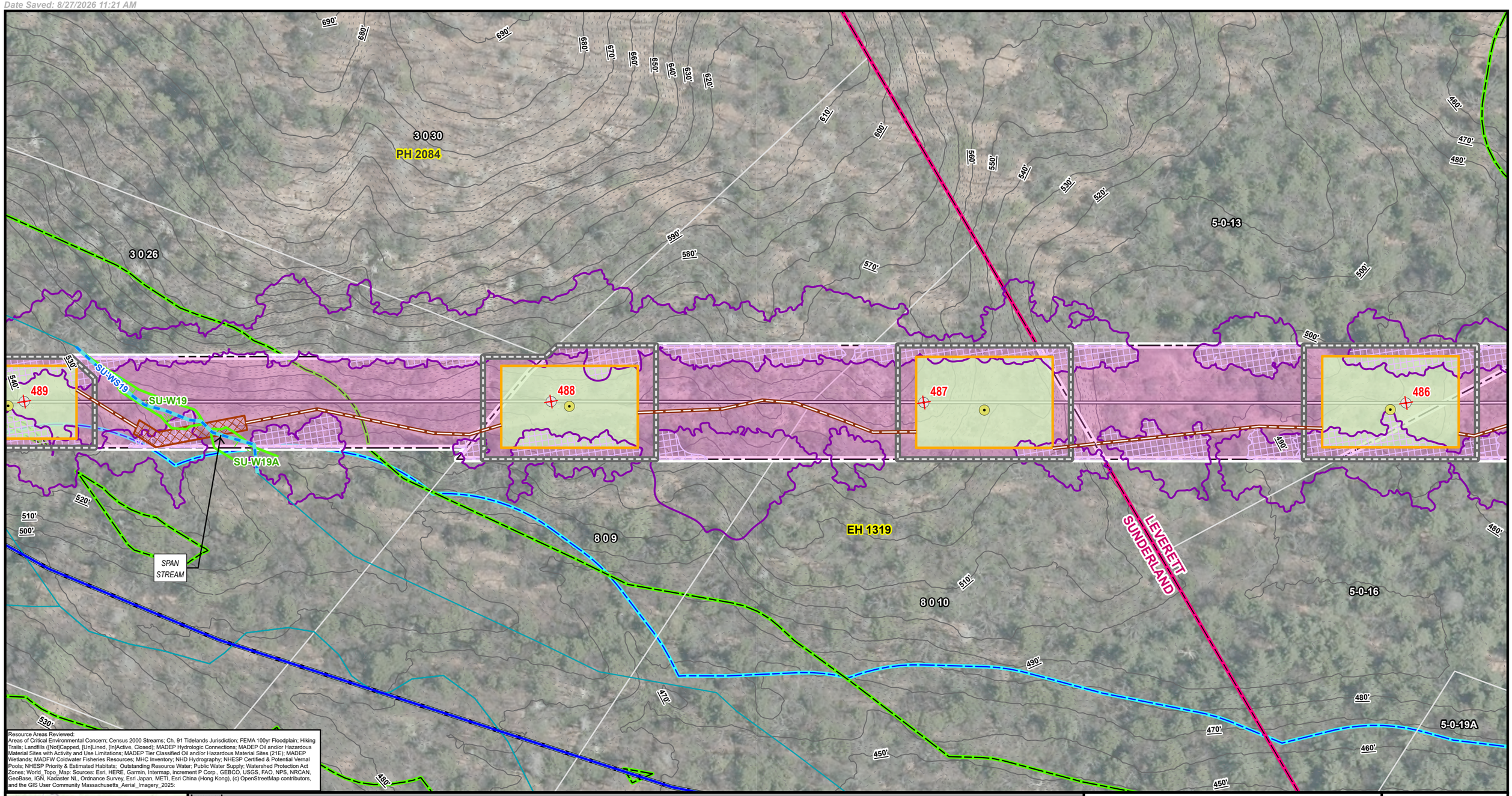
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Leverett, MA

Source: 2013 National Geographic Society, i-cubed

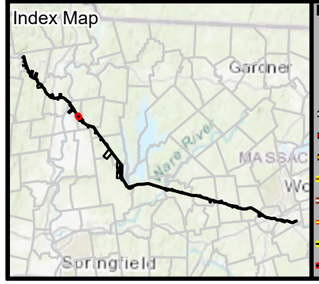
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Sunderland & Leverett, MA
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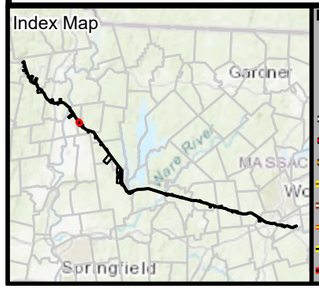
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Leverett, MA
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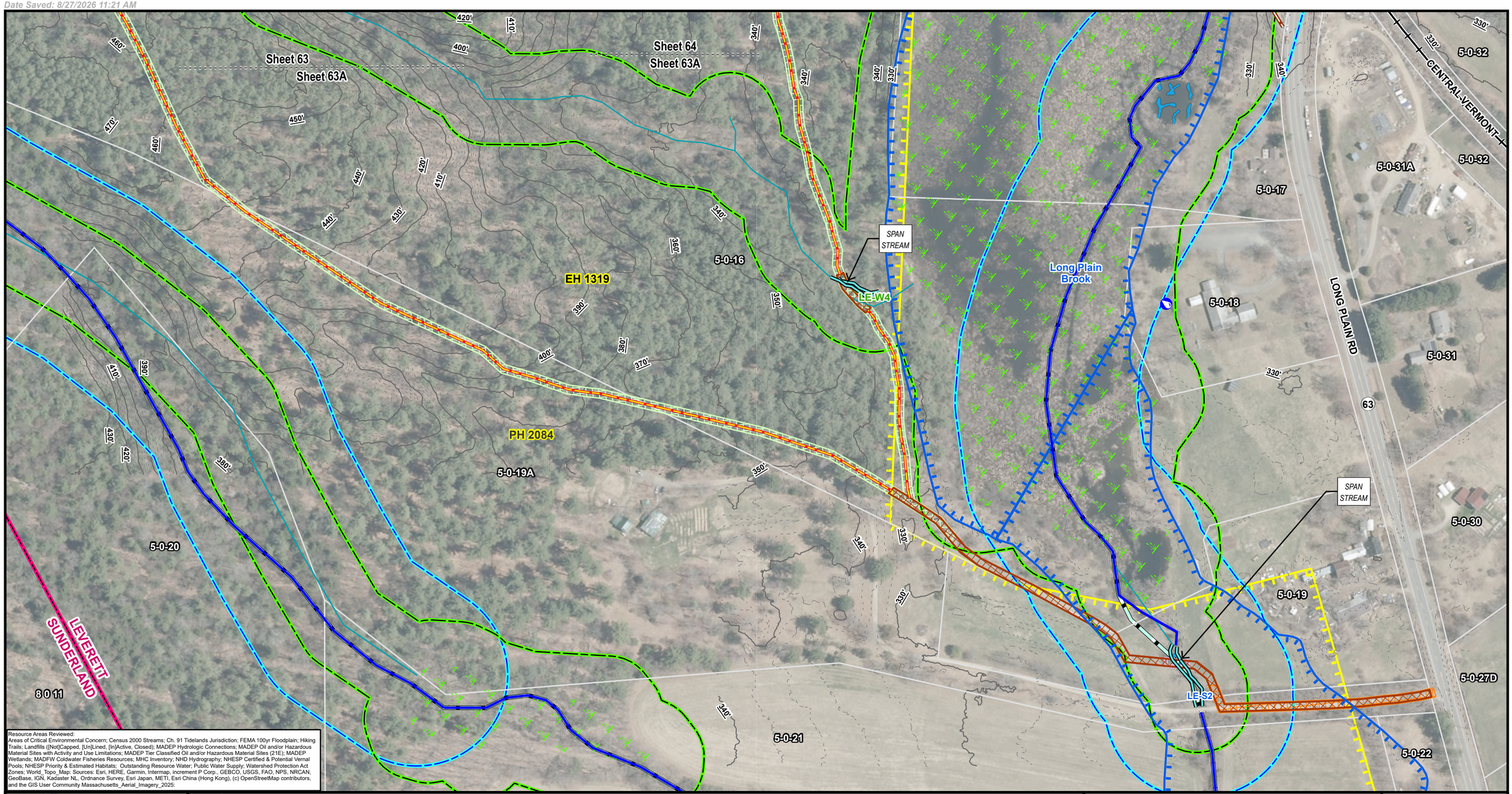
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Deerfield, MA
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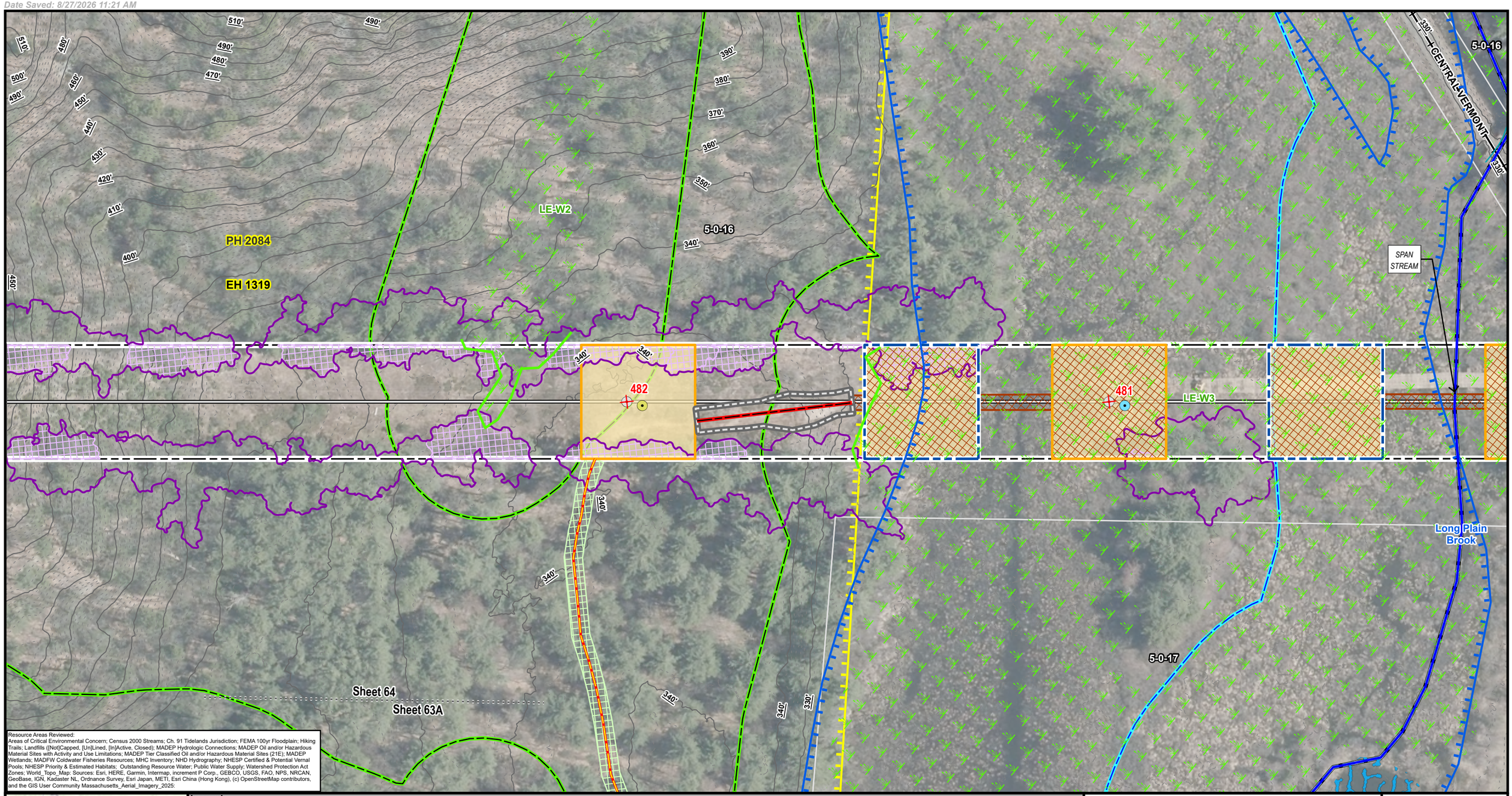
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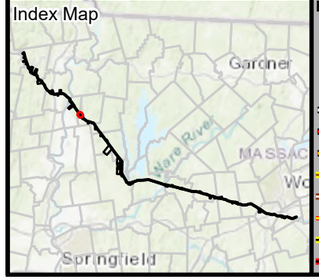
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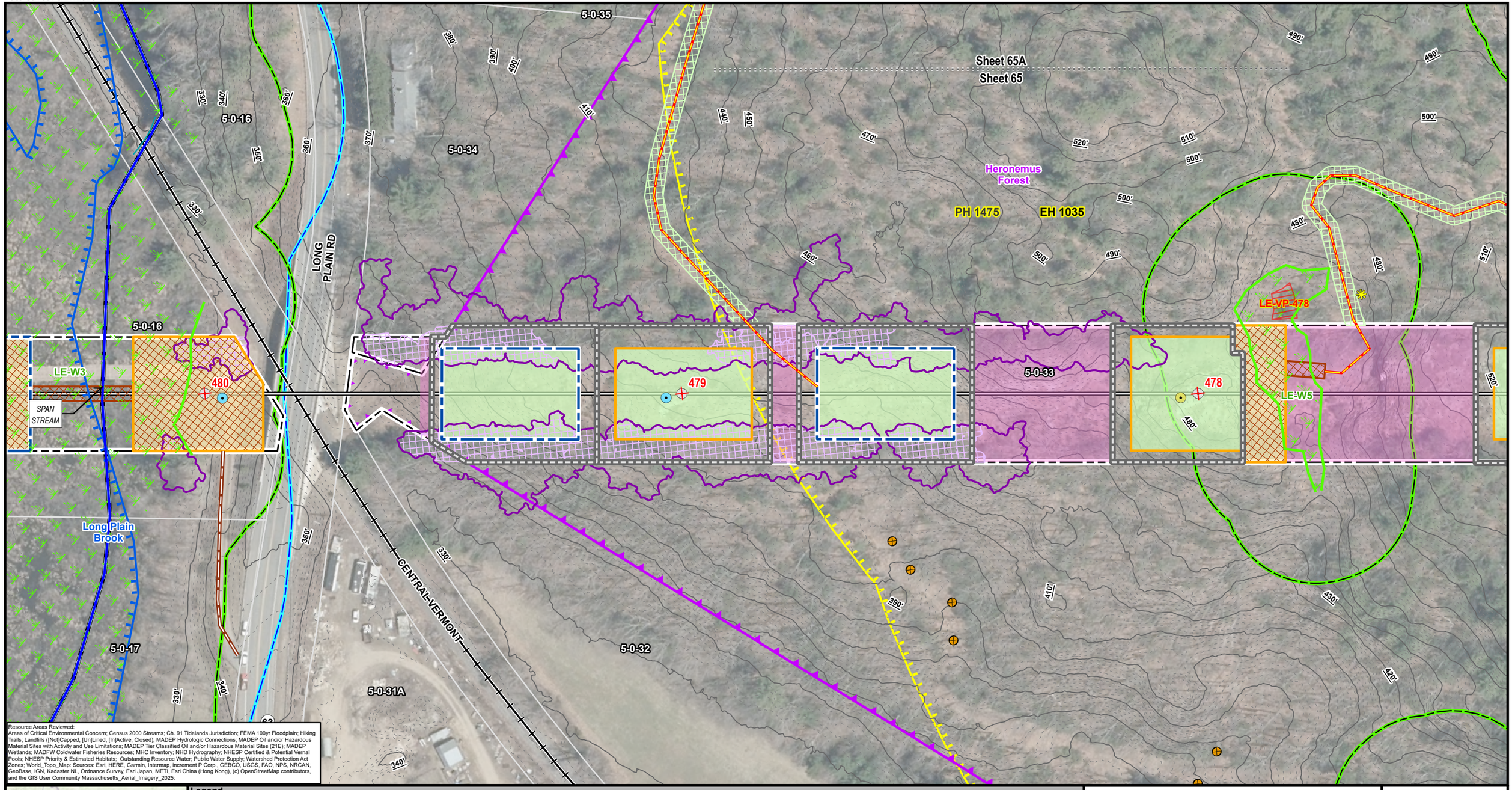
Leverett, MA
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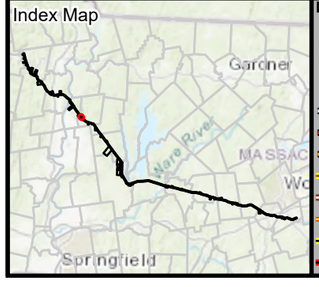
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Environmental Resources Map

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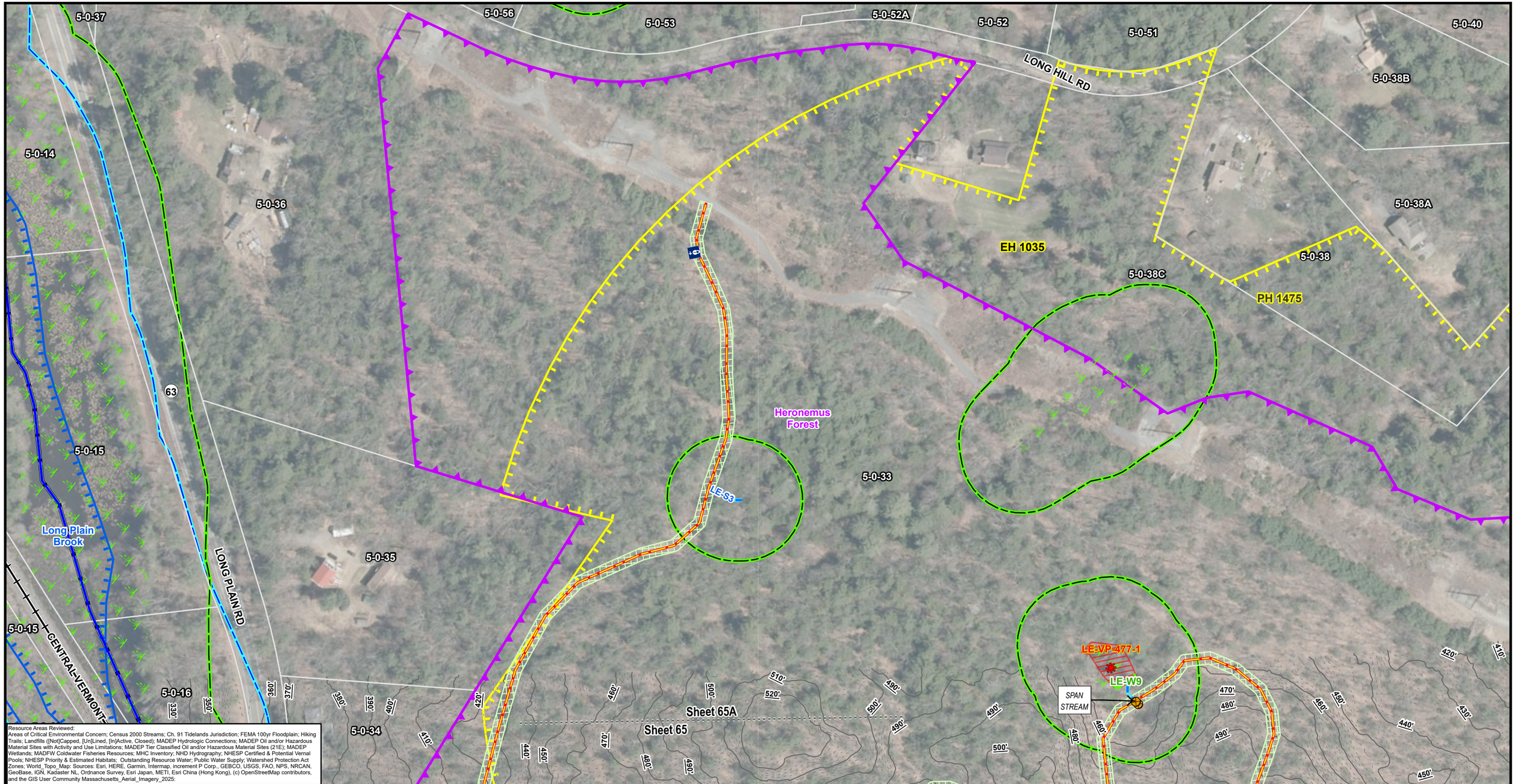
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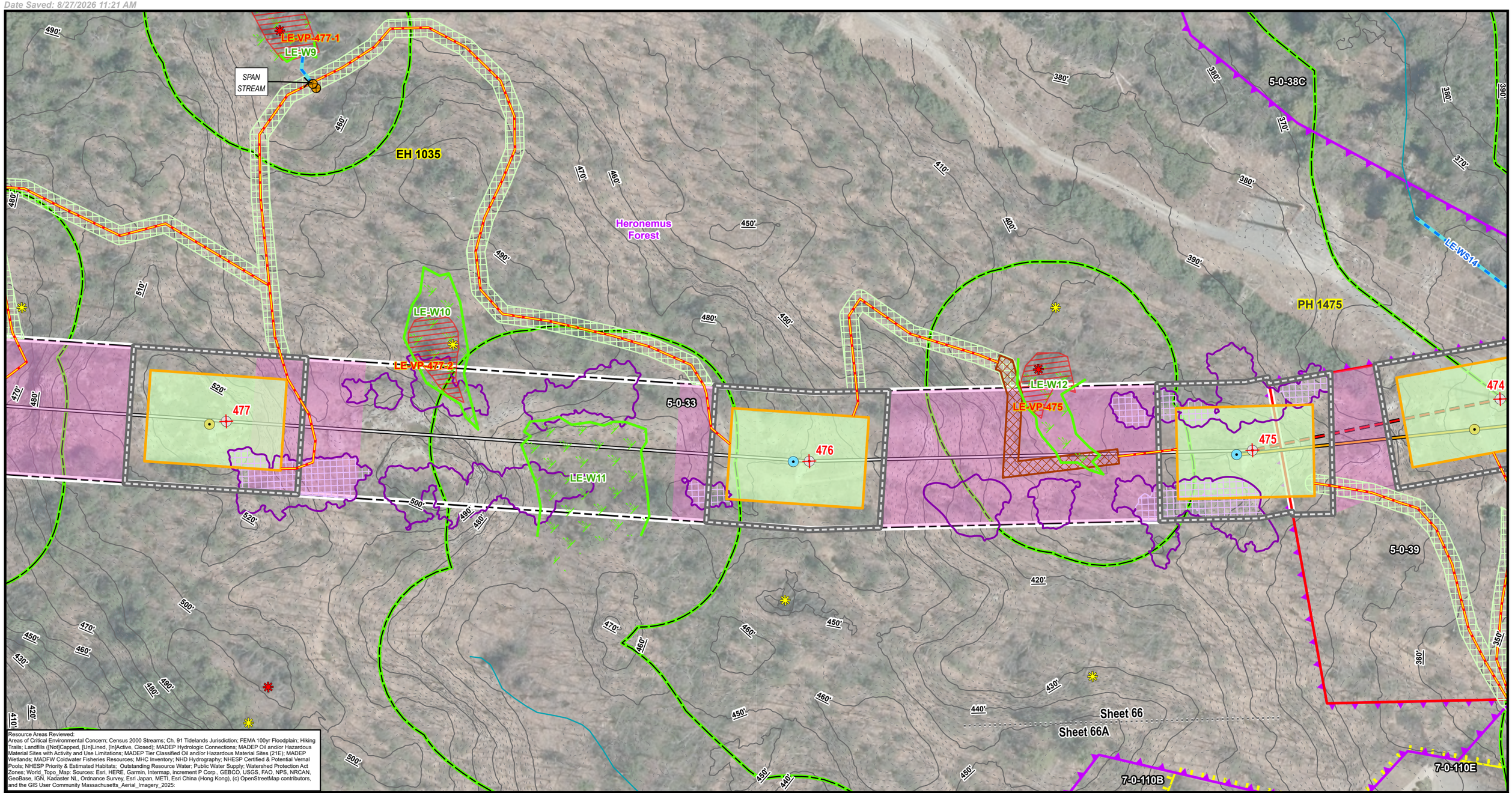
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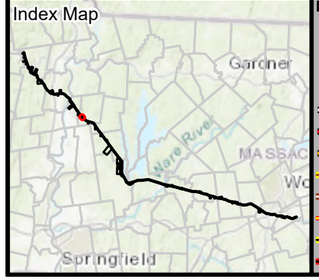
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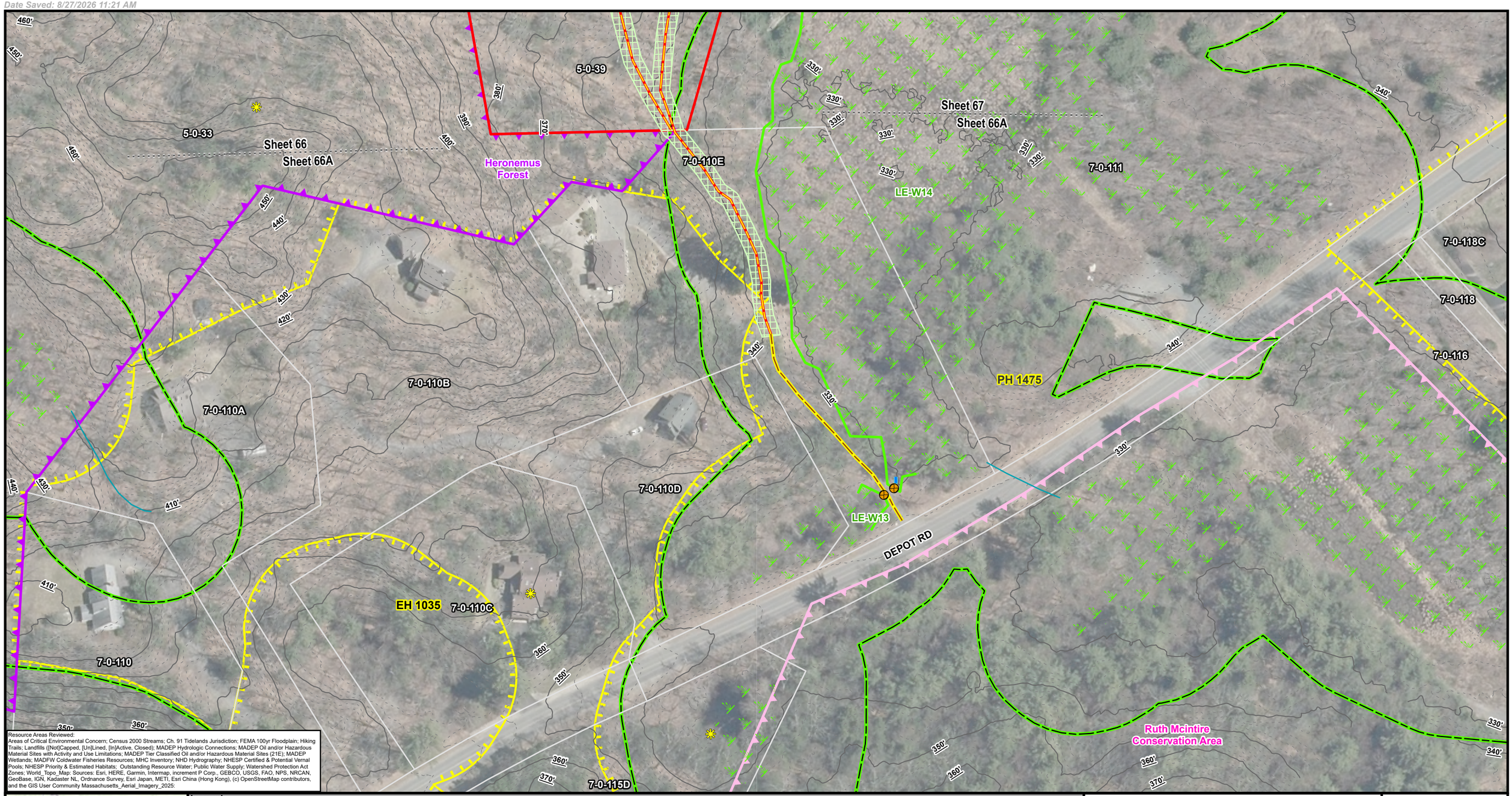
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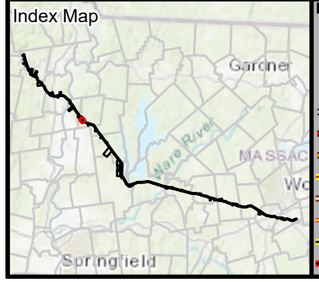
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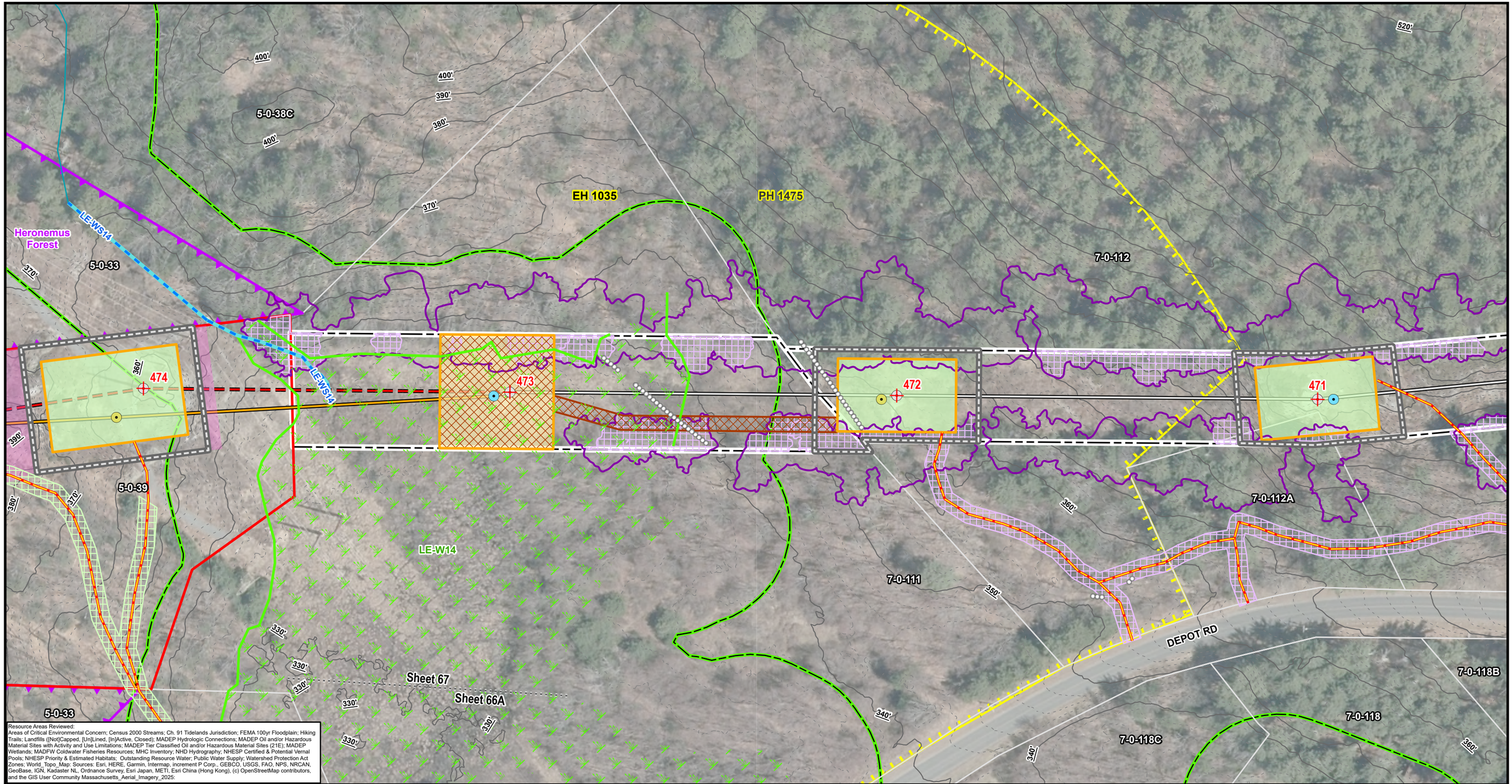
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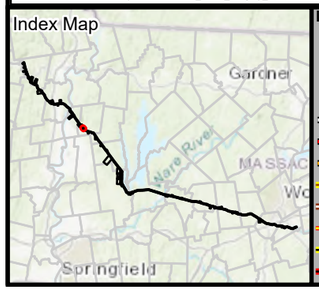
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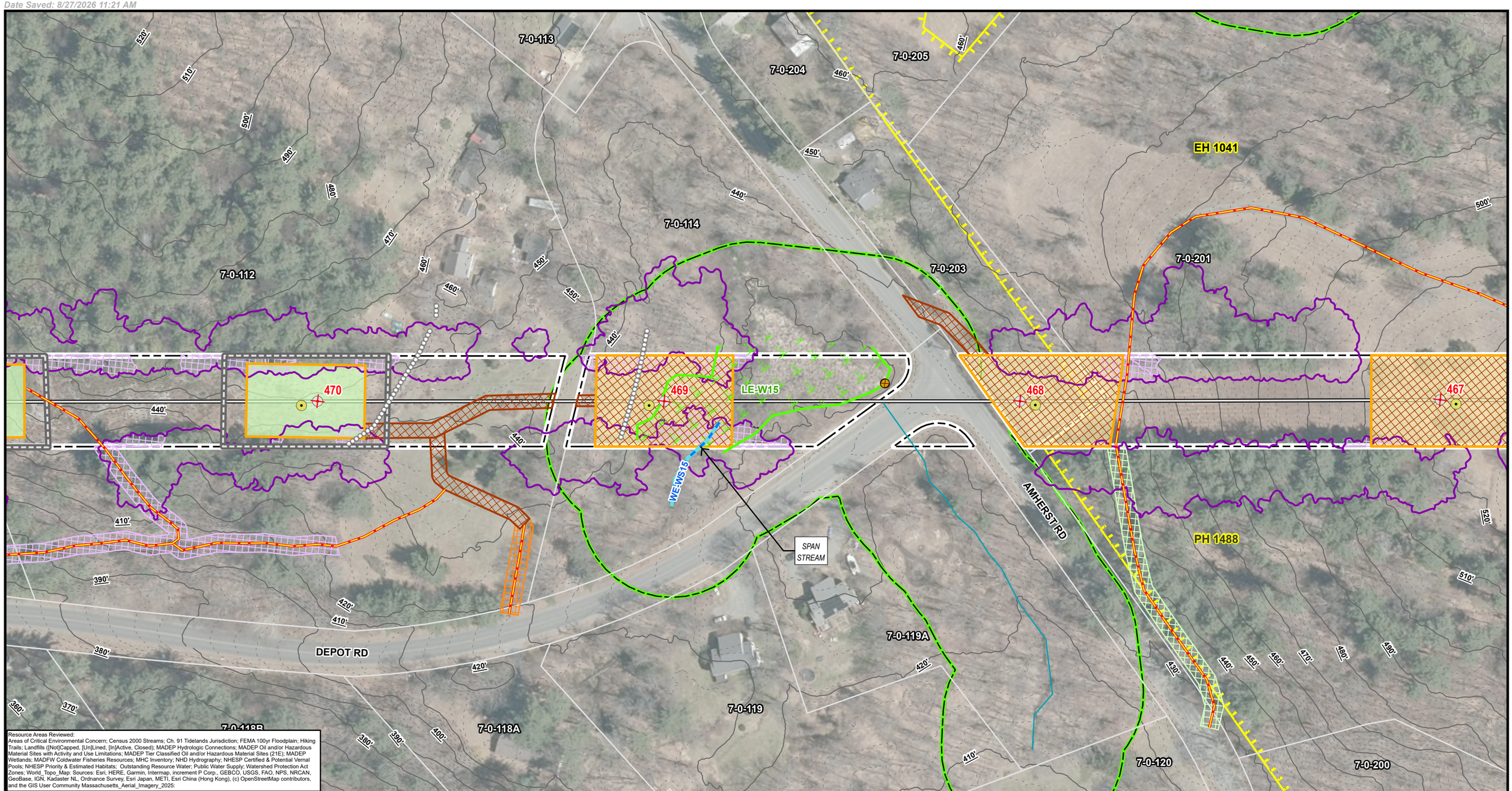
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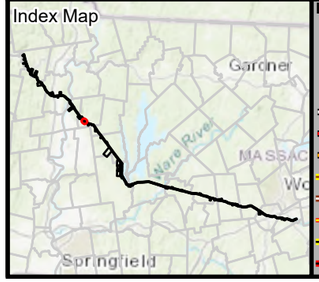
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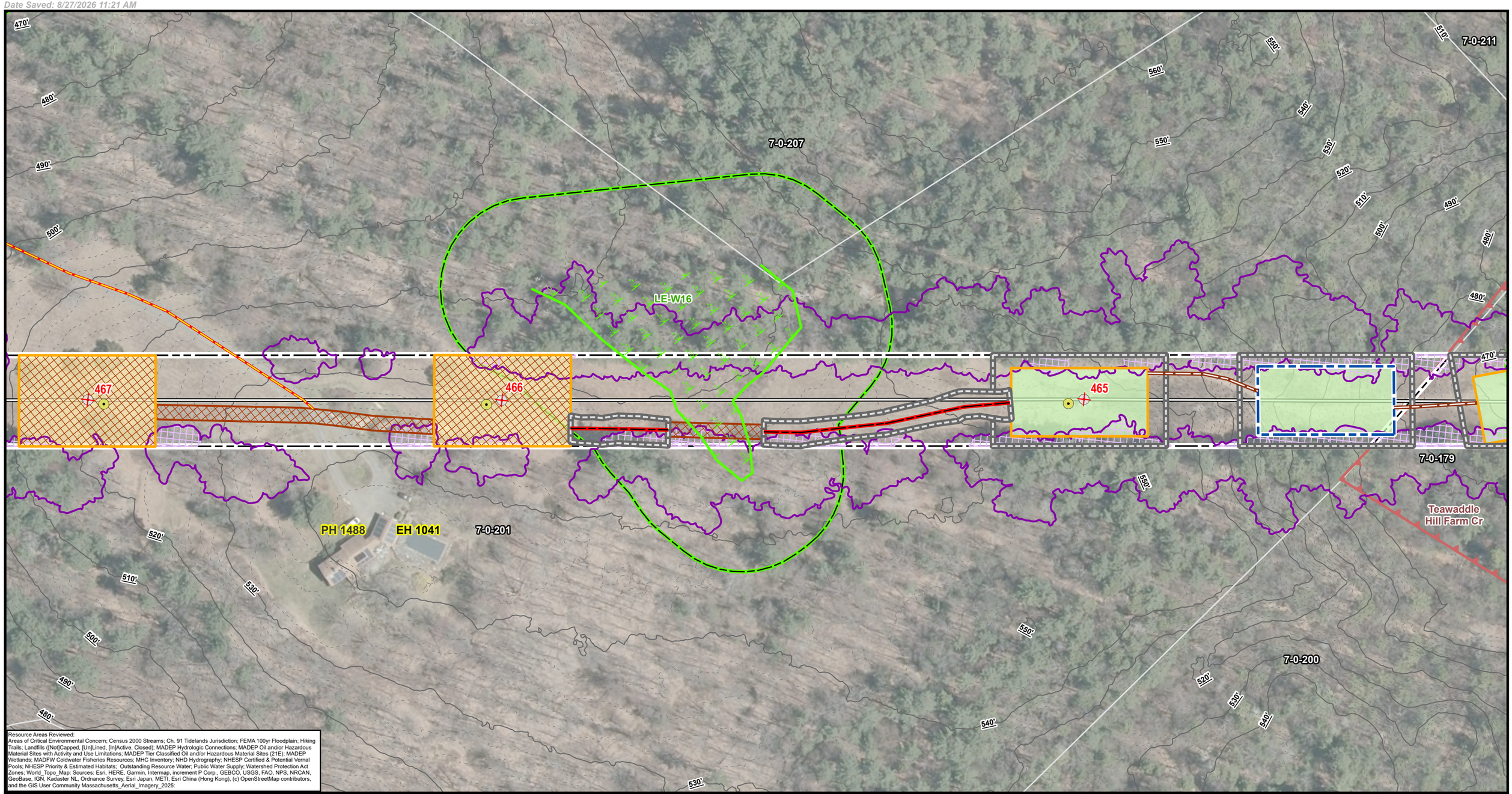
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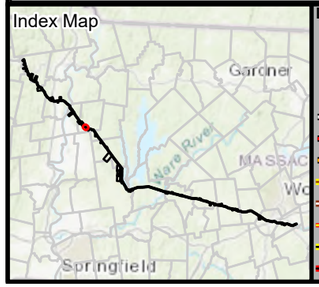
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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1 inch = 100 feet

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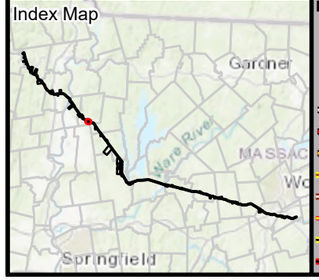
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Adams Family Conservation Area
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LE-WS22
LE-W19
PH 1488
7-0-179
EH 1041
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Williams Family Conservation Area
7-0-178
Doolittle Brook
Sheet 71
Sheet 71A

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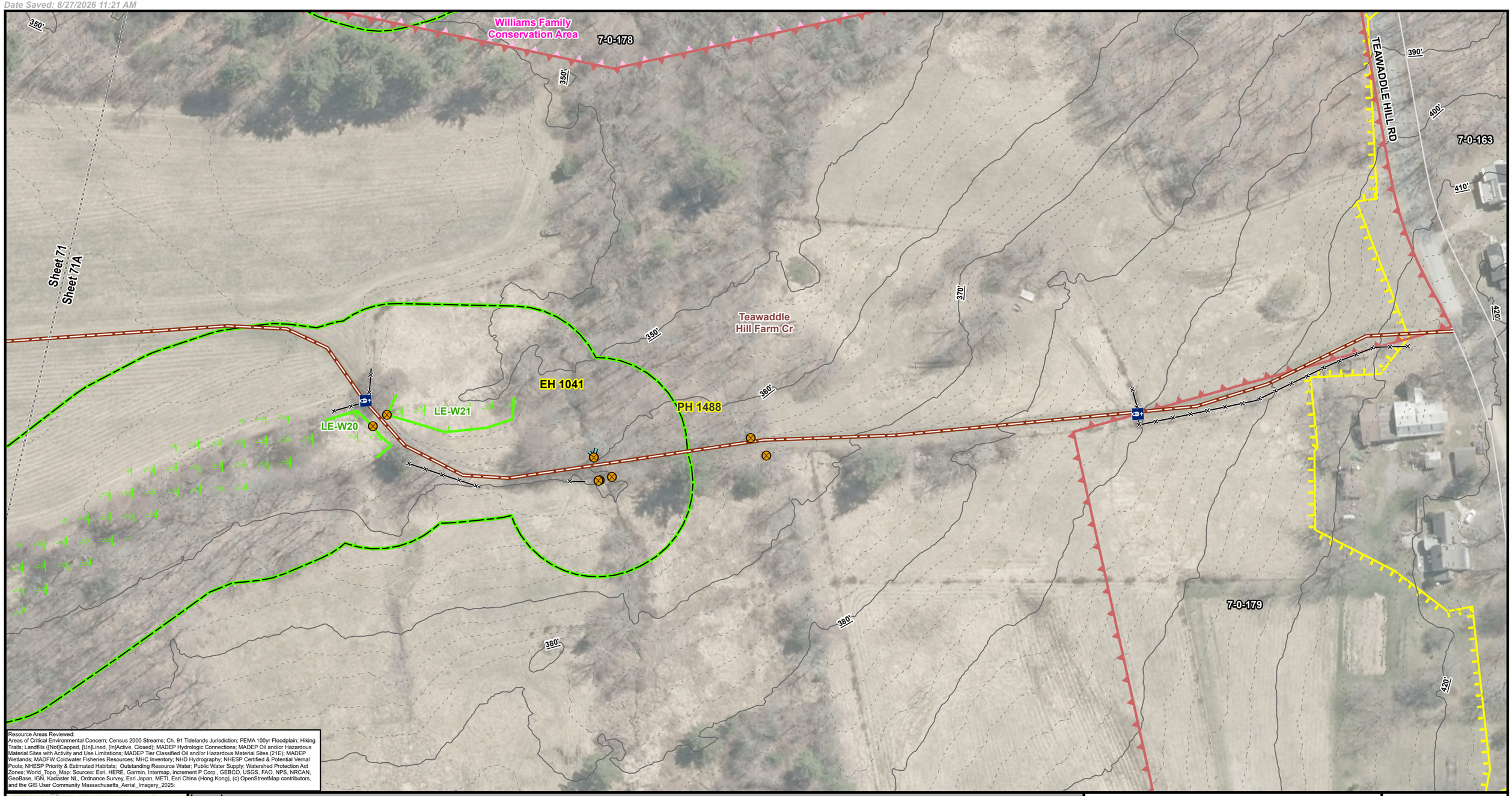
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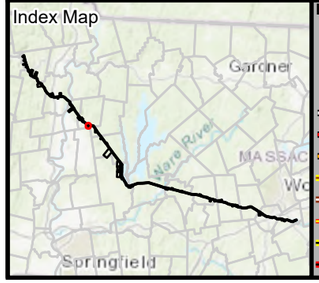
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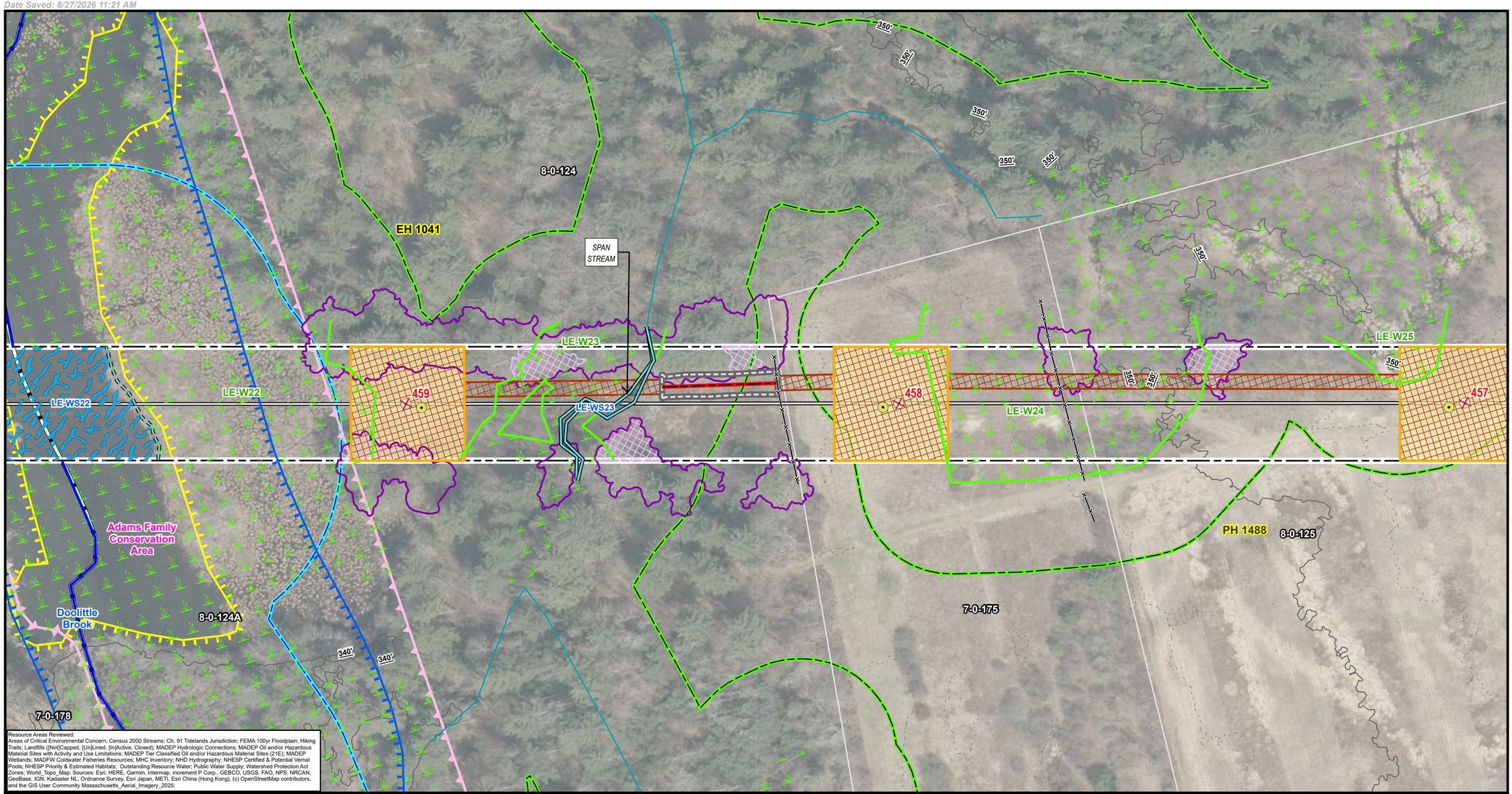
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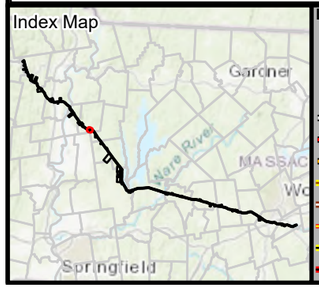
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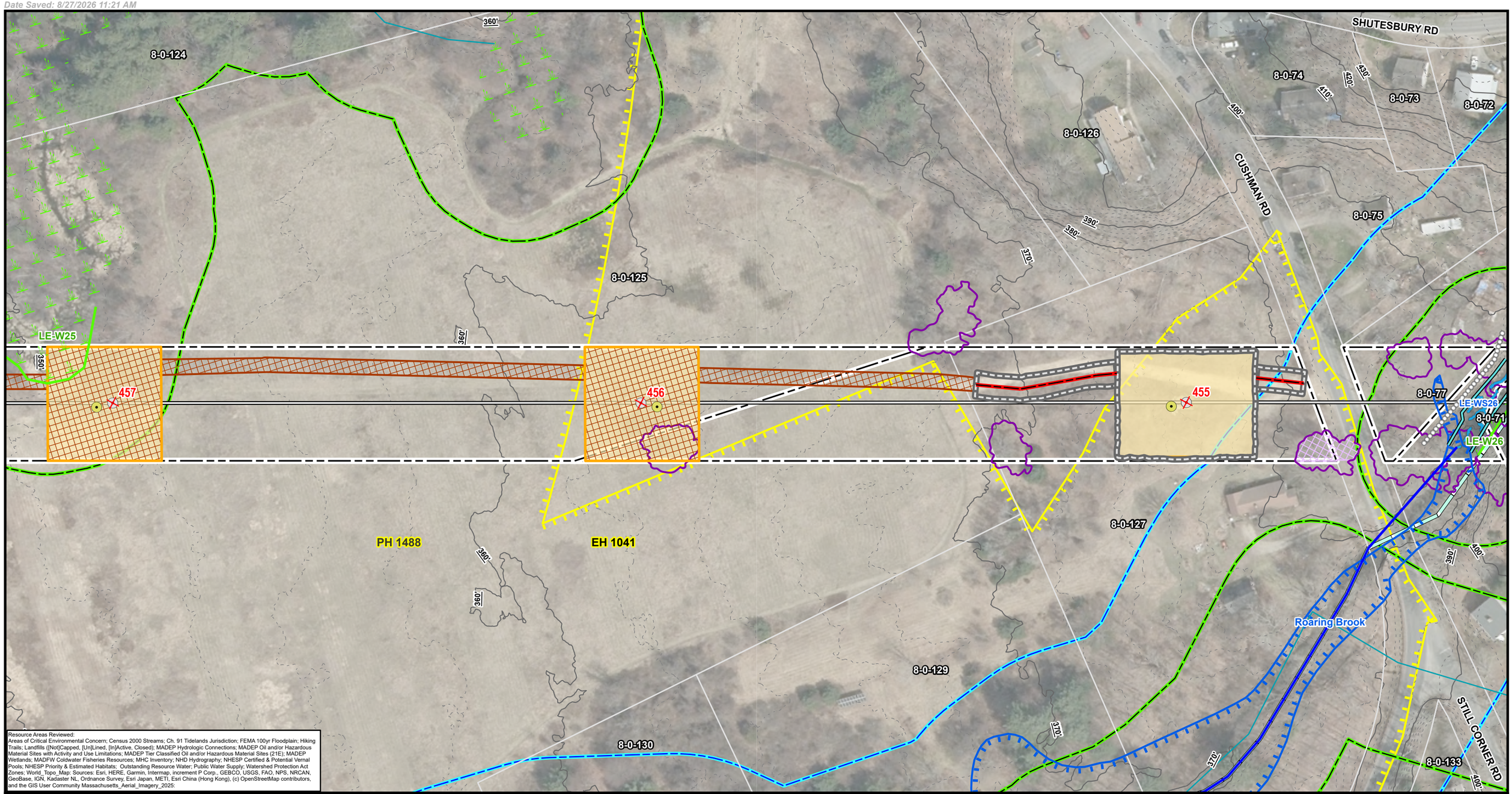
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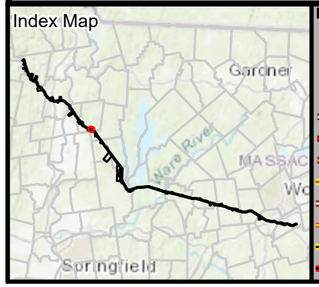
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Leverett, MA
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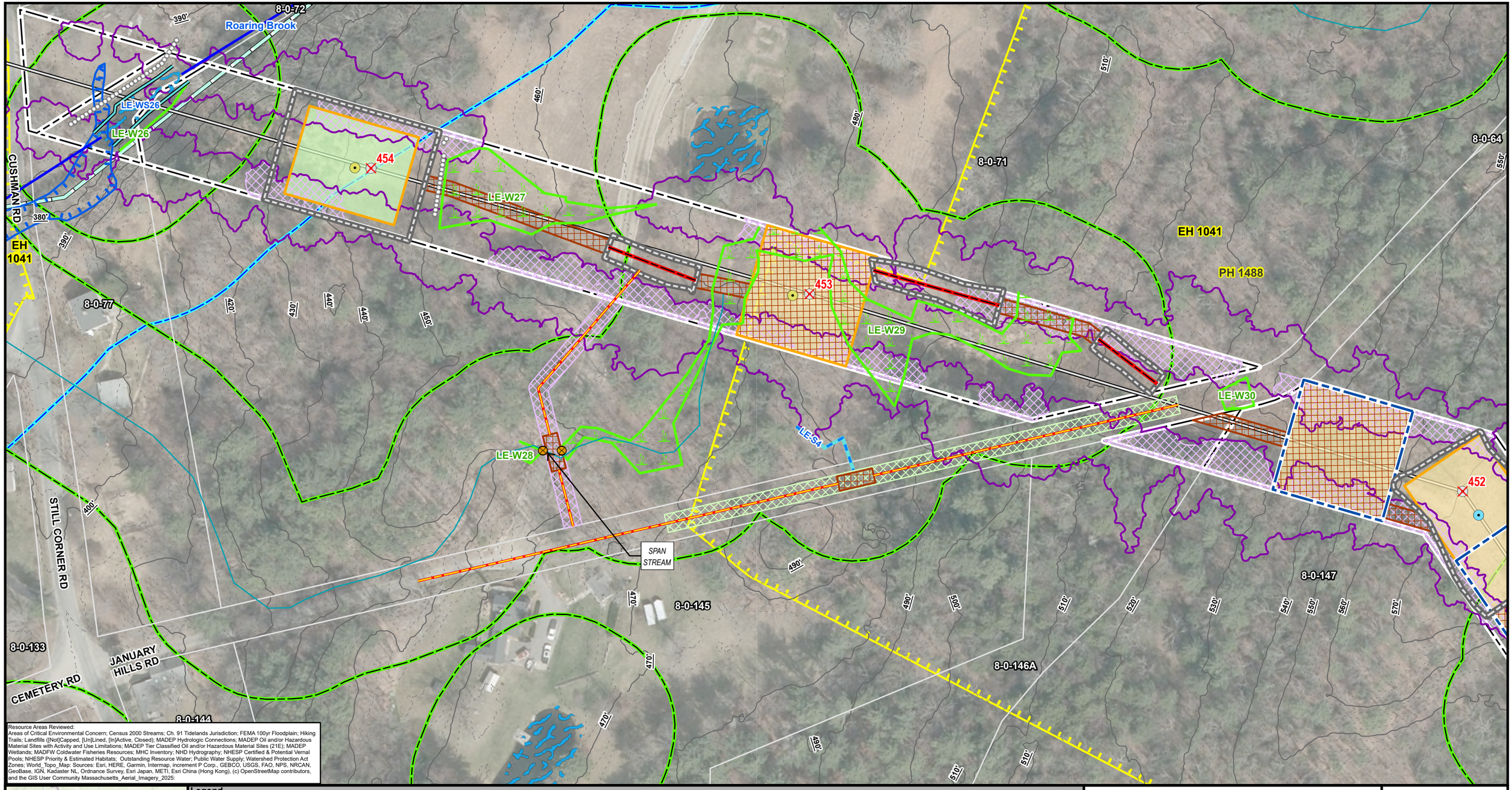
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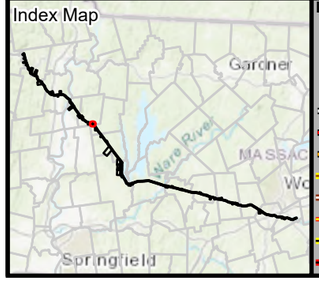
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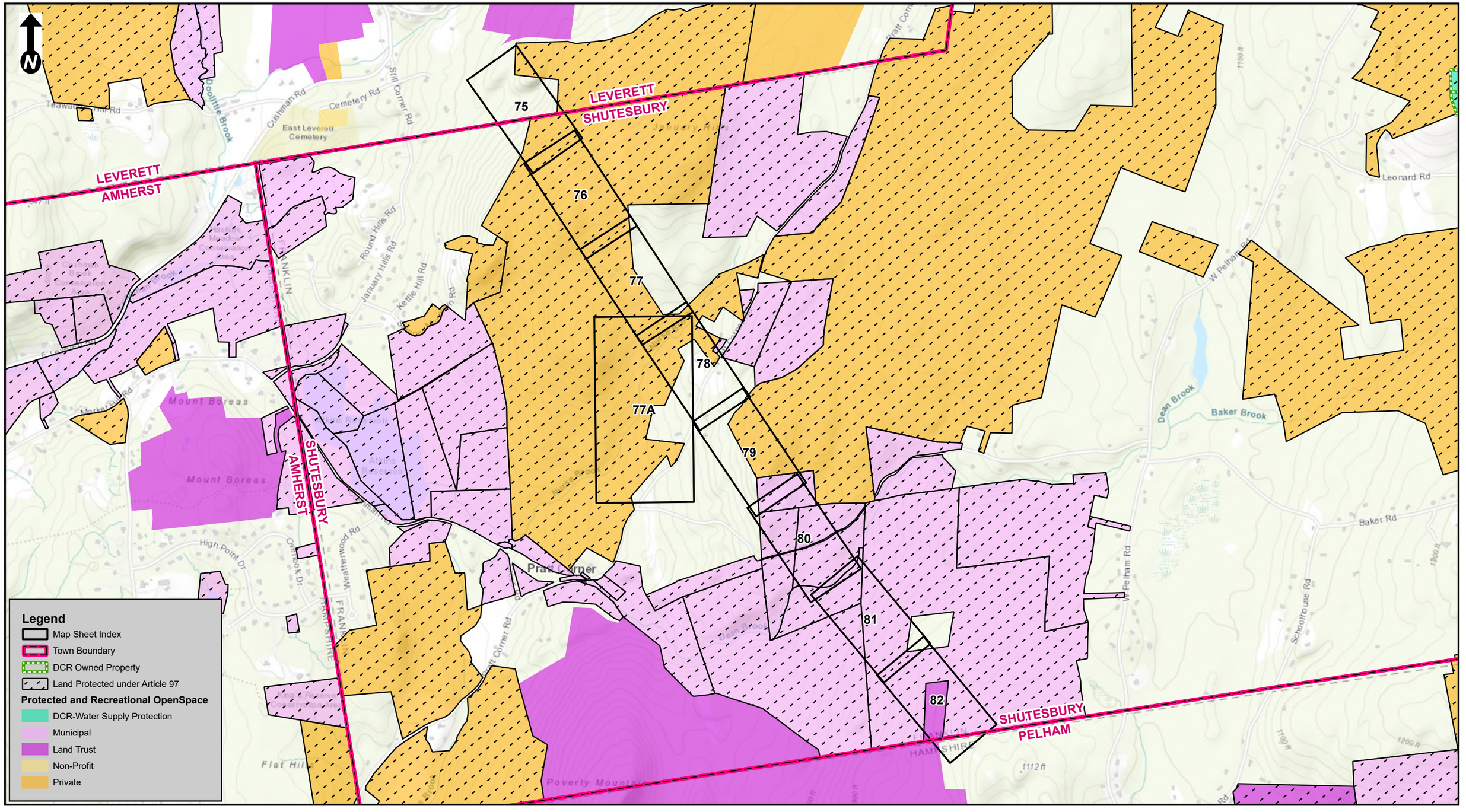
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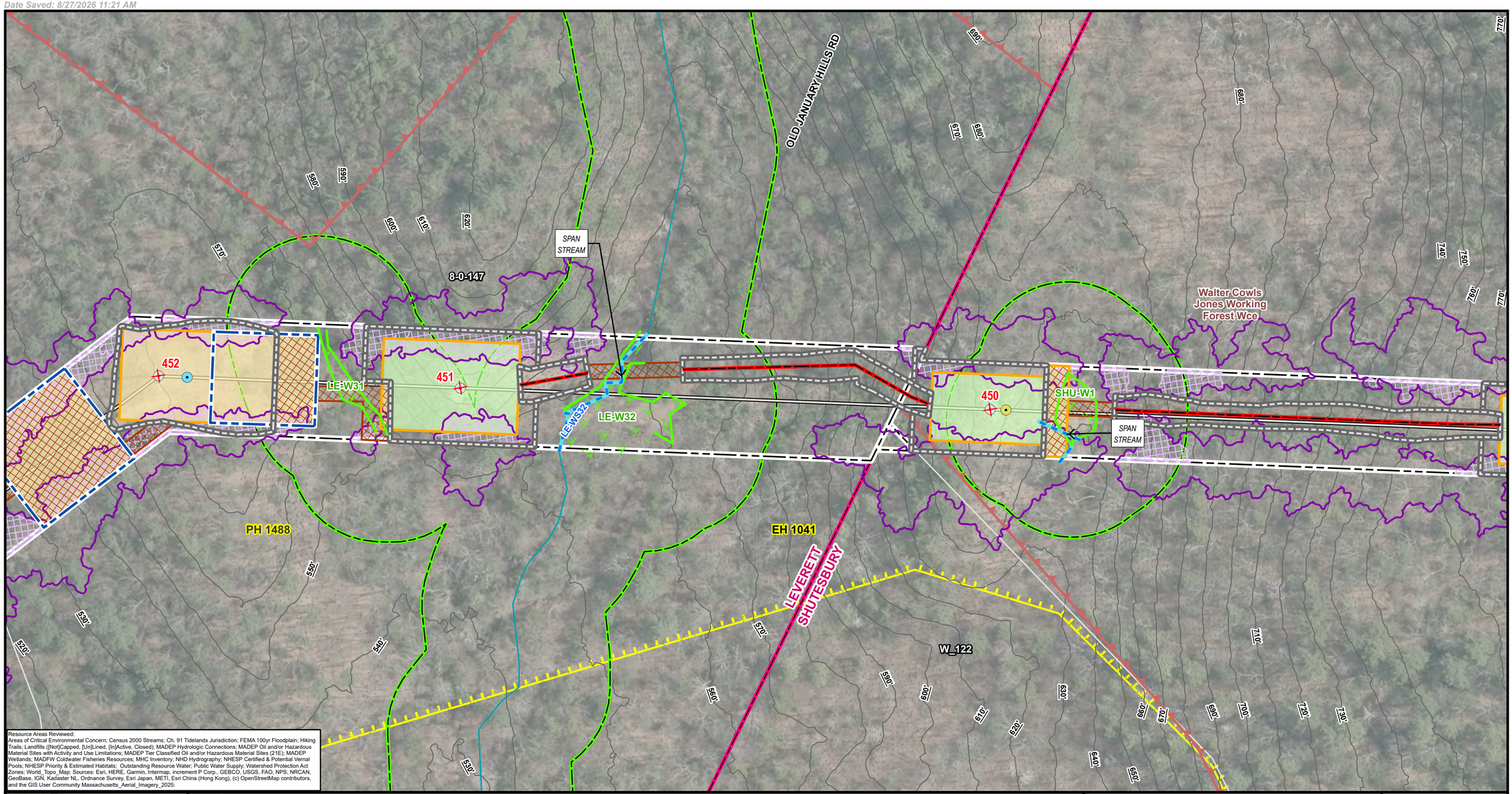
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Environmental Resources Map - Coverpage
Shutesbury, MA

Source: 2013 National Geographic Society, i-cubed

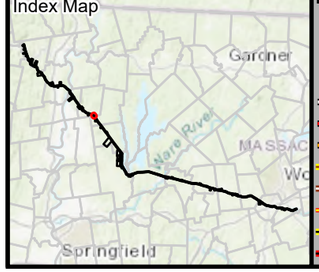
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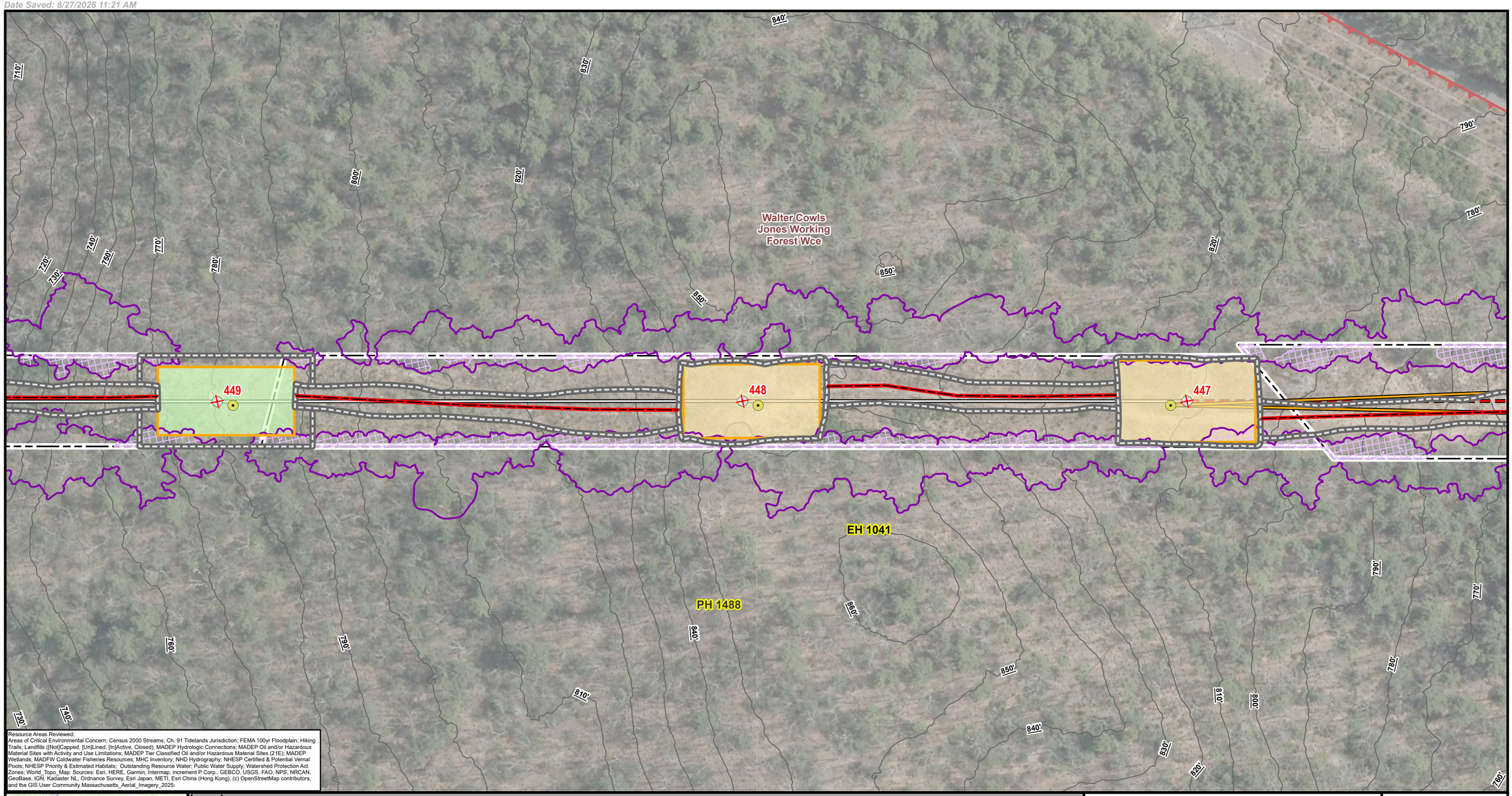
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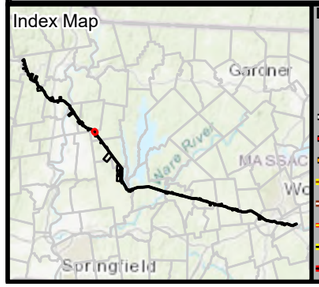
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shutesbury, MA
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PH 1488

Walter Cowls Jones Working Forest Wce

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SHU-W3

SHU-W4

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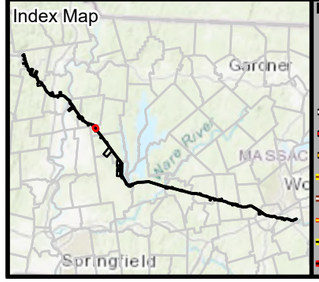
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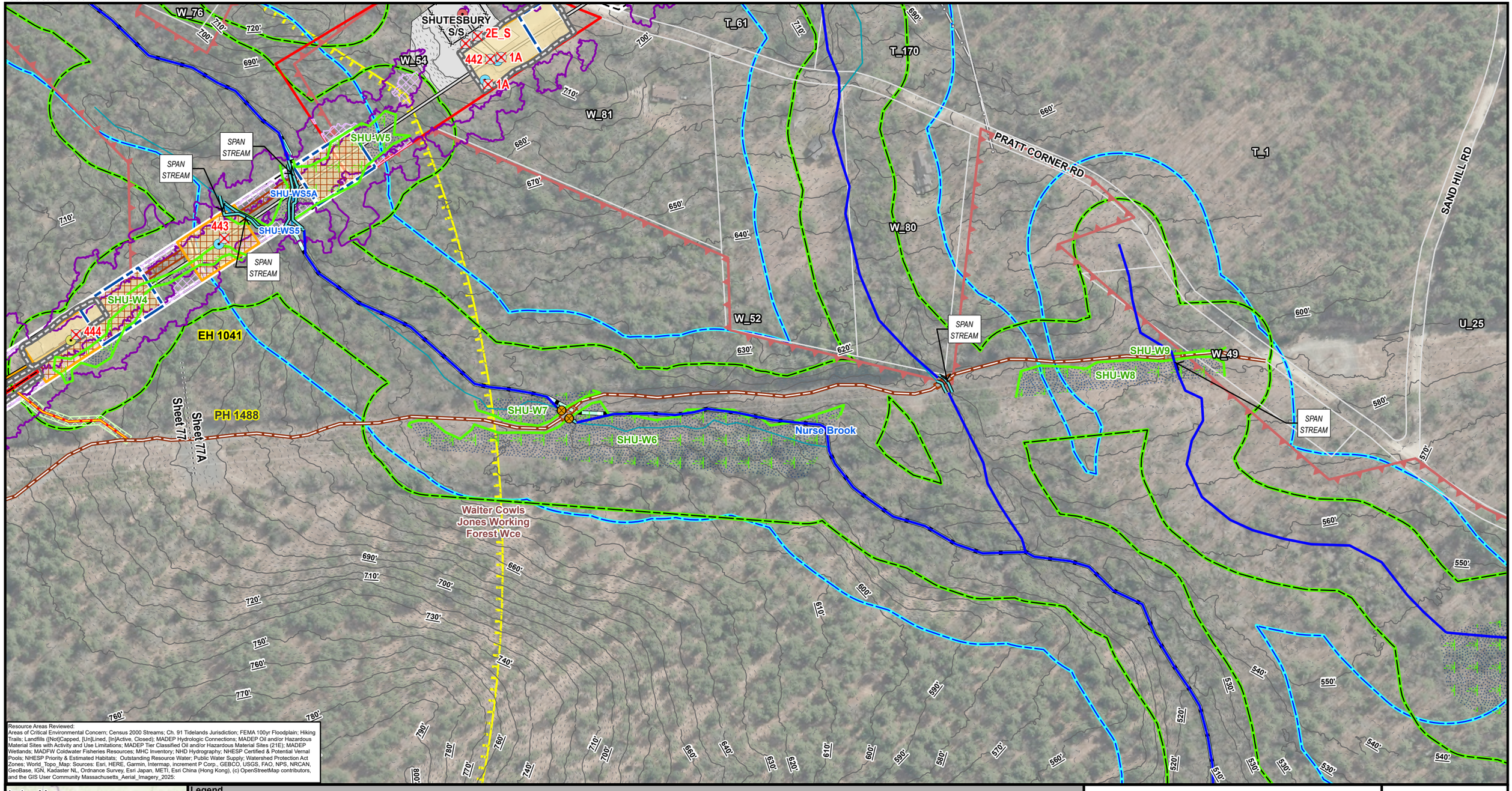
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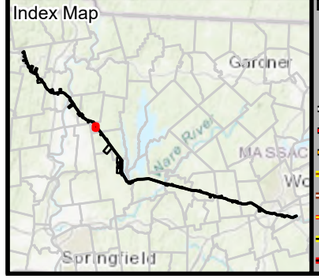
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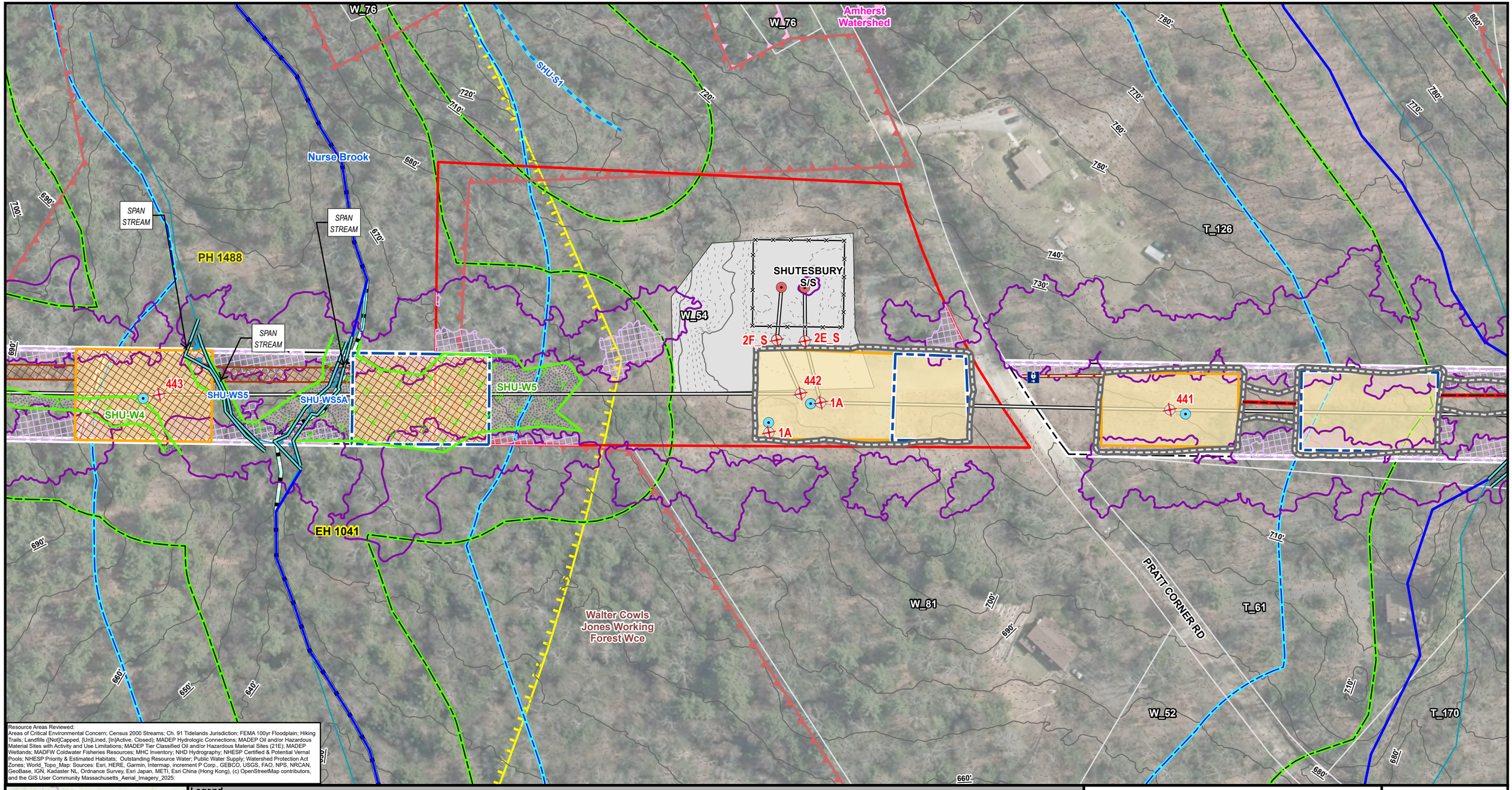
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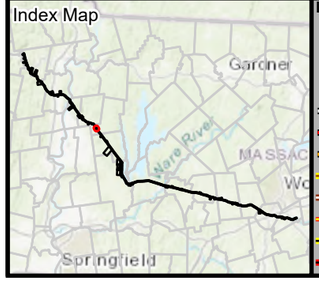
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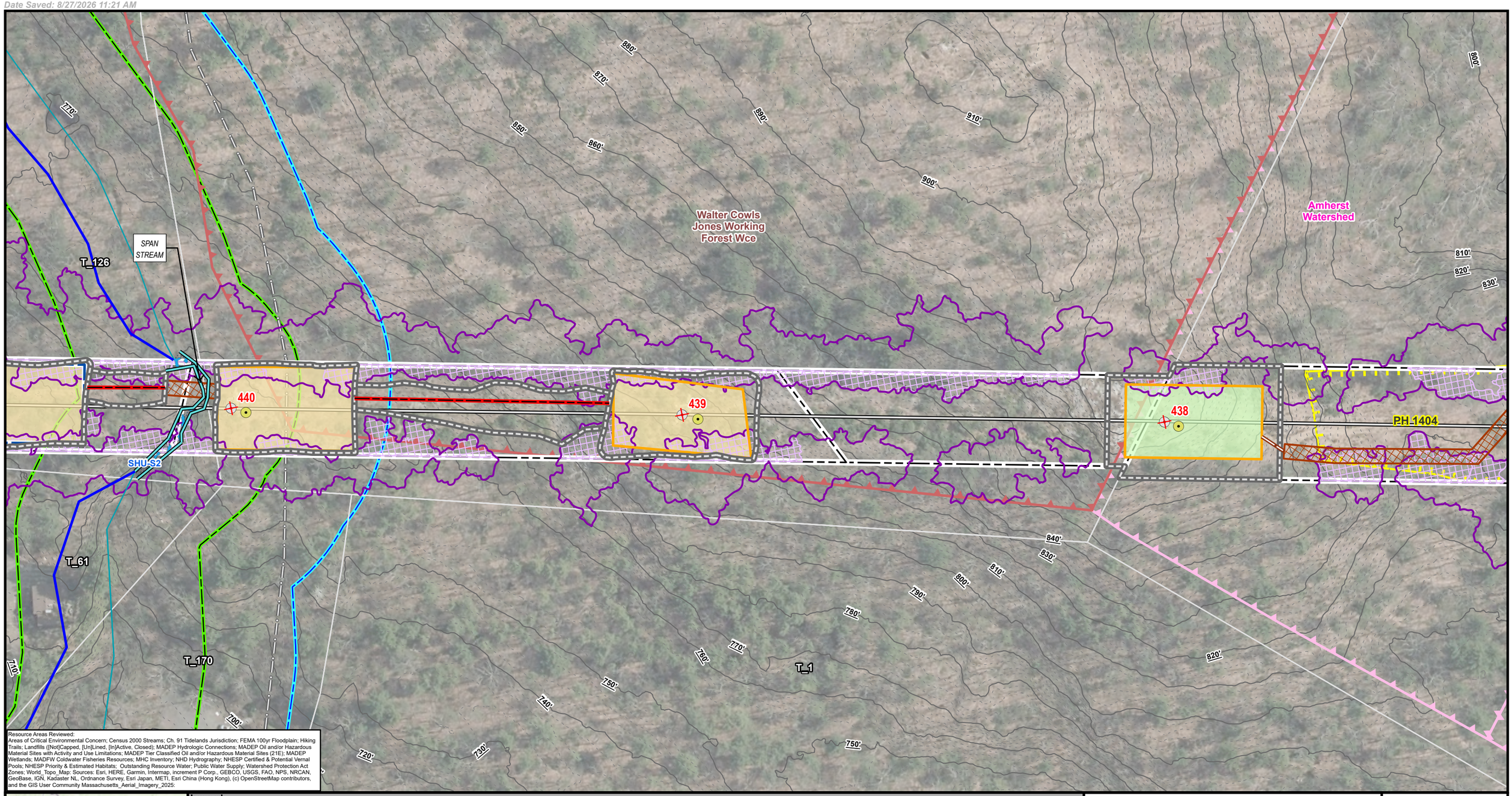
Shutesbury, MA
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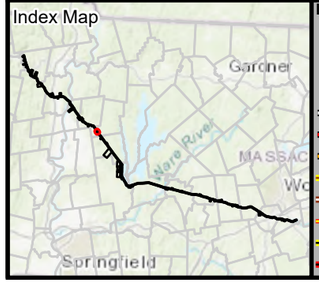
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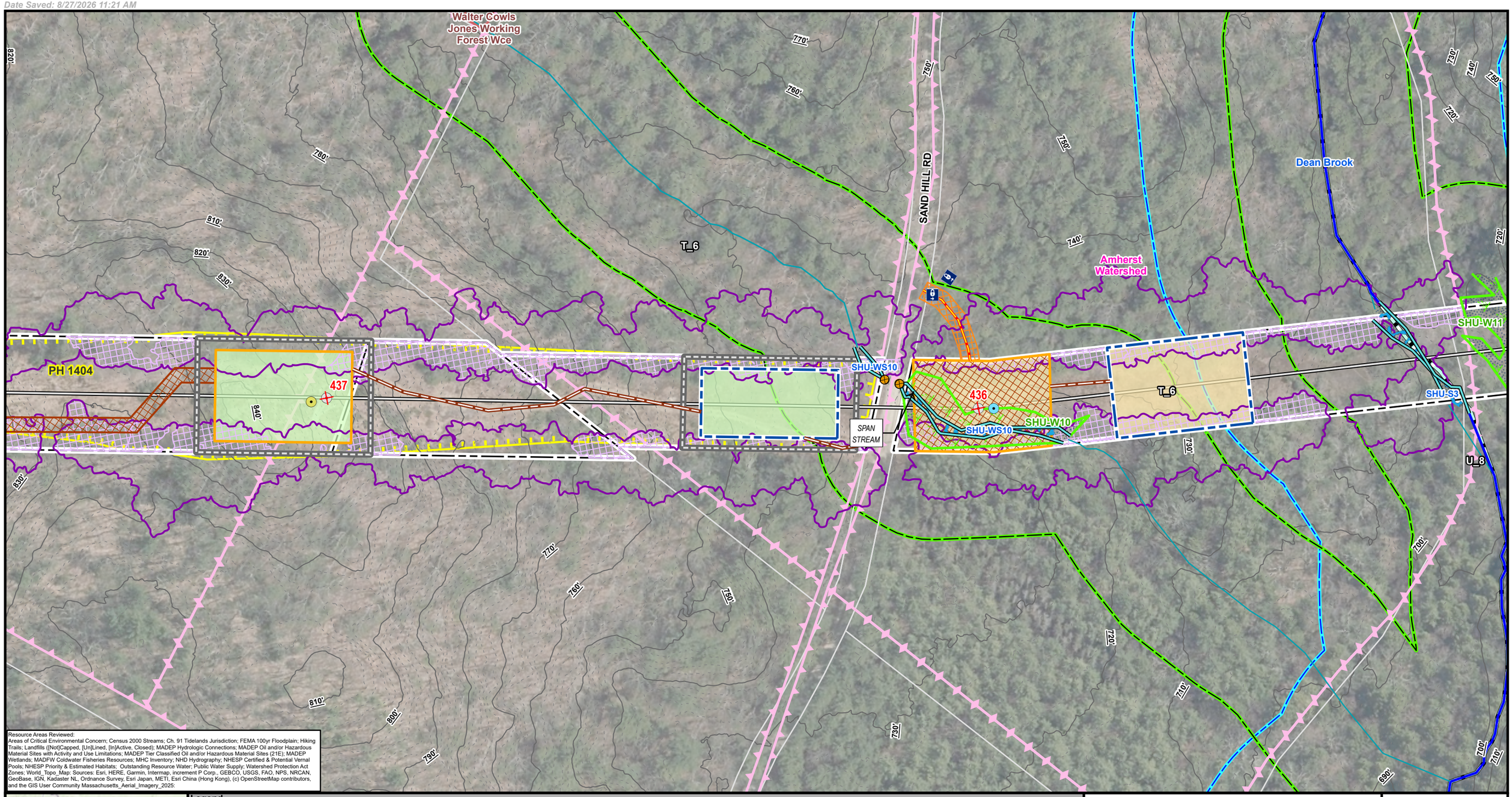
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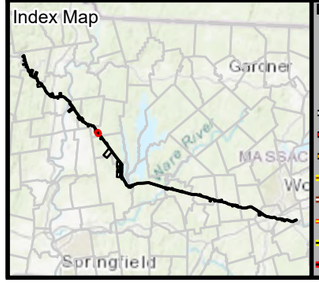
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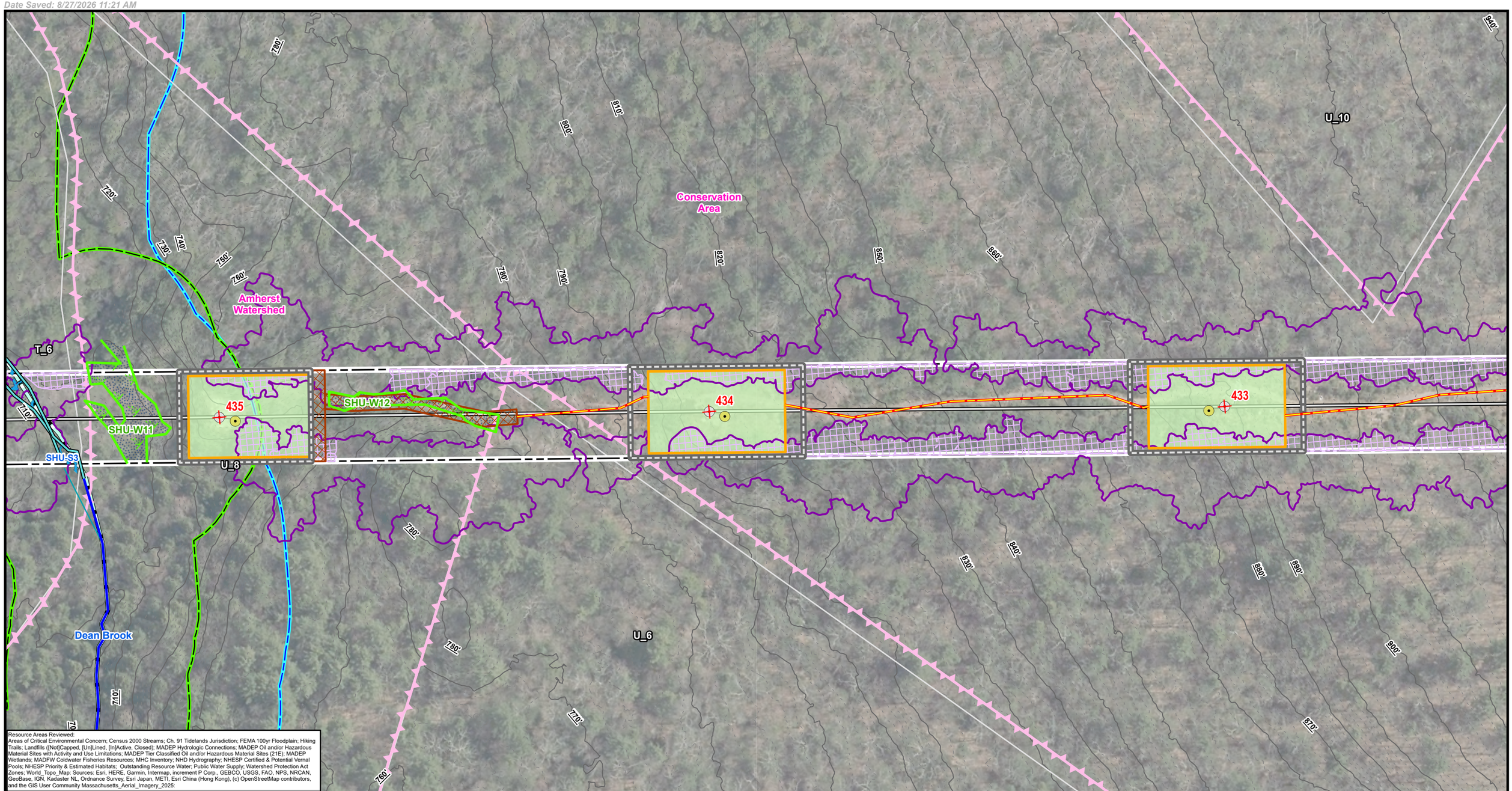
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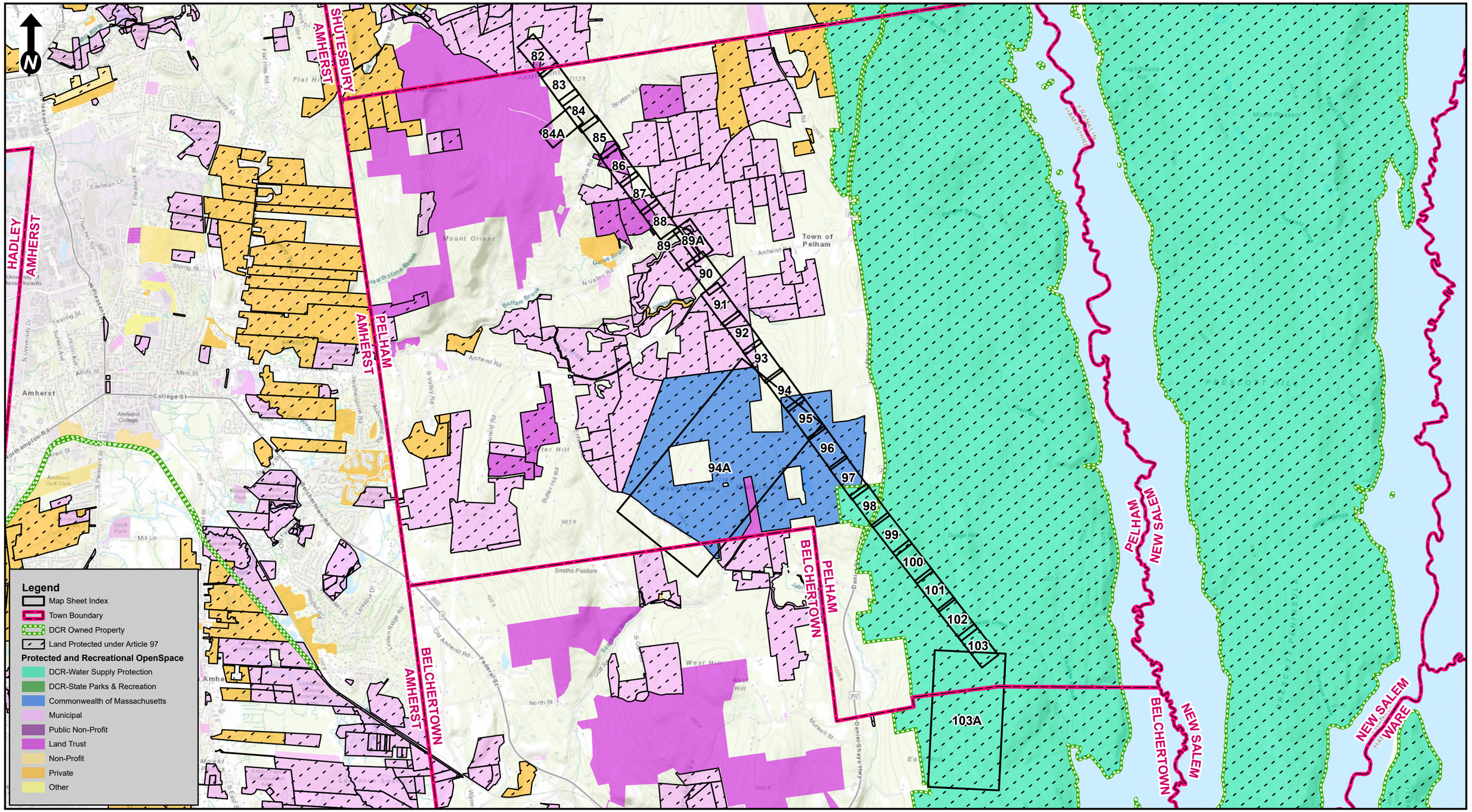
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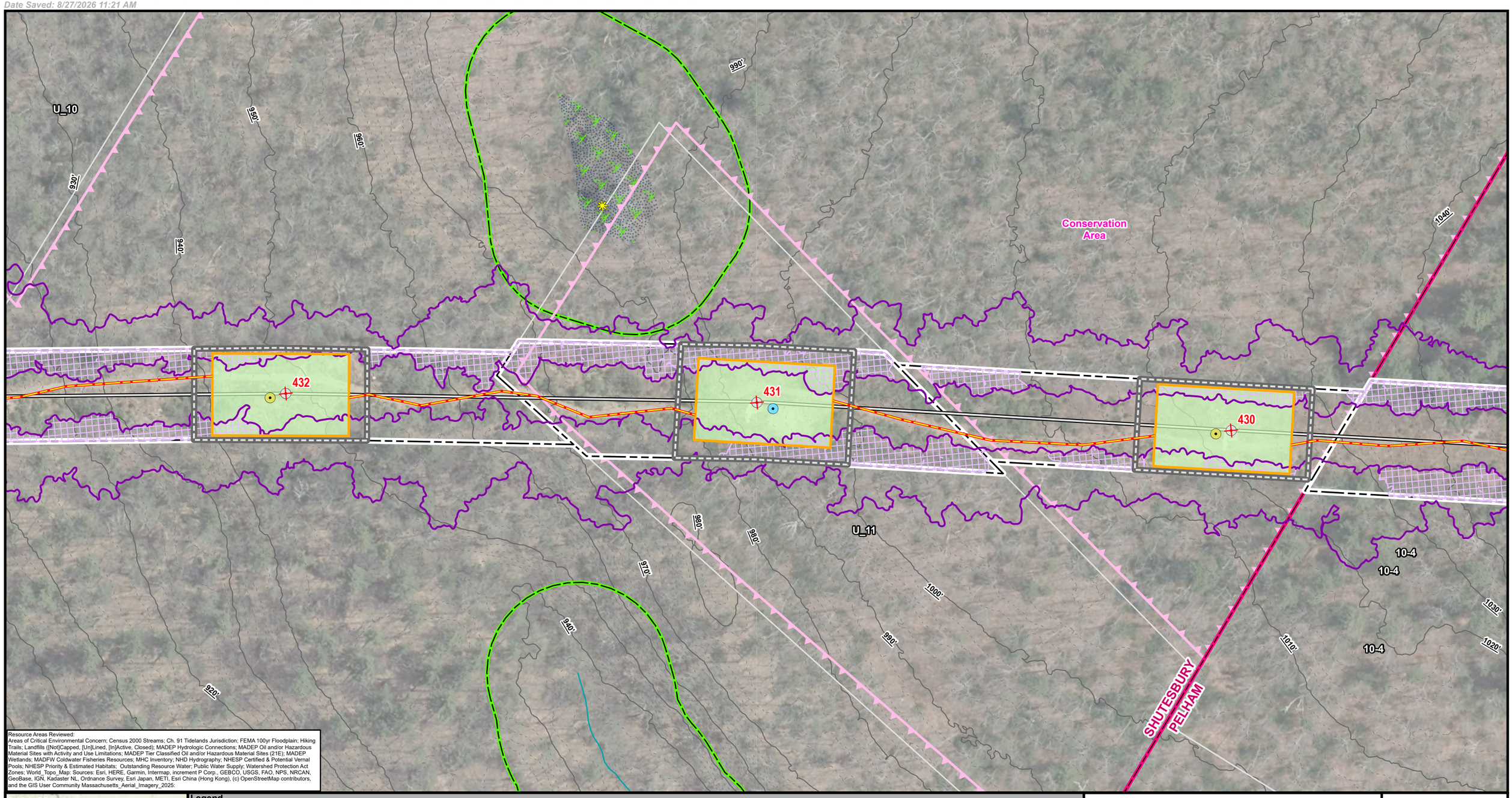
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Pelham, MA

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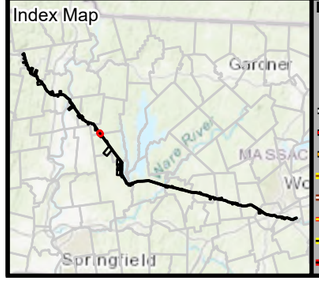
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Shutesbury & Pelham, MA
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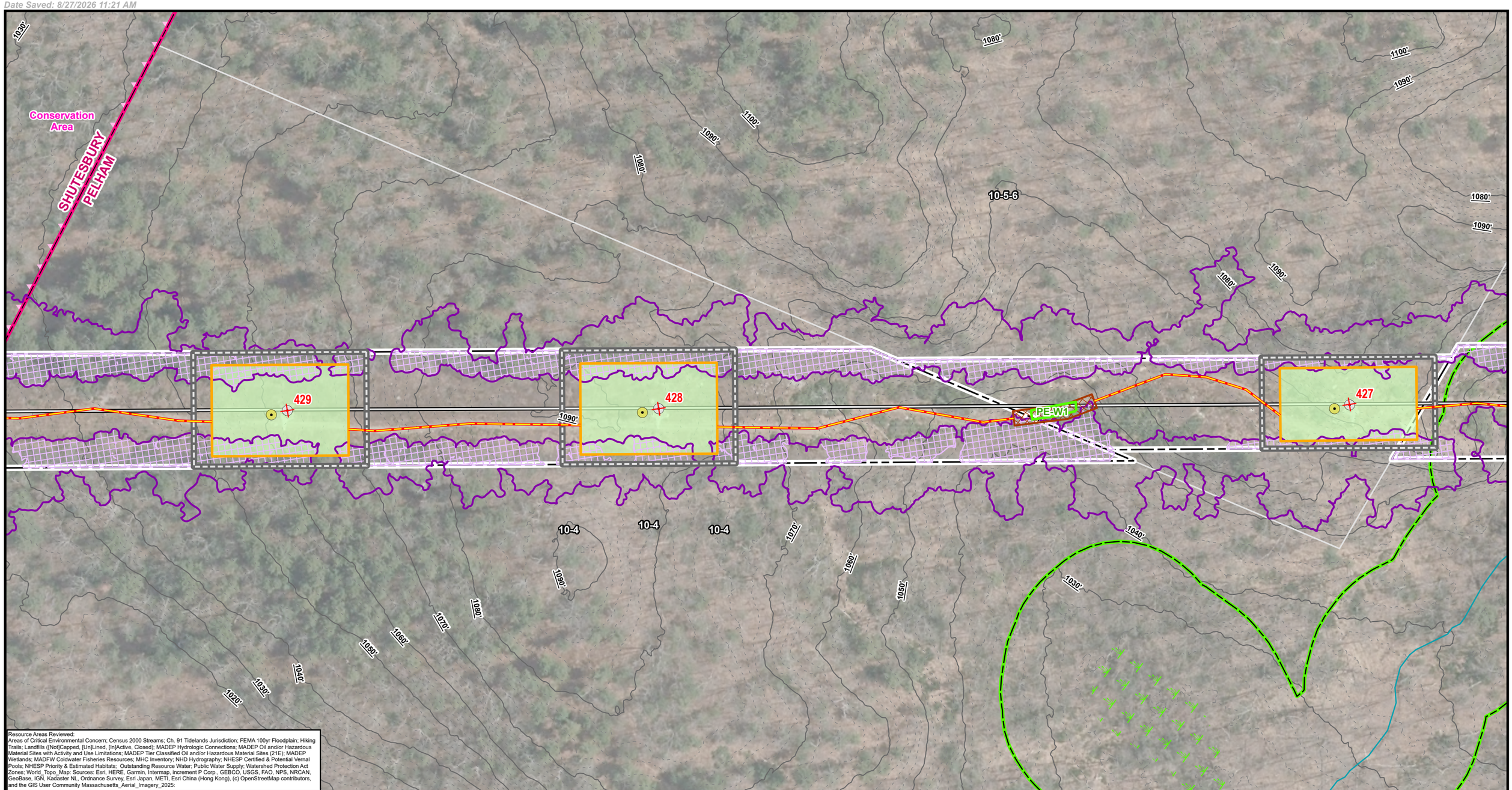
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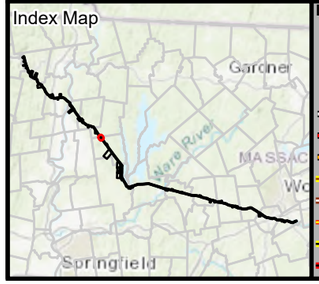
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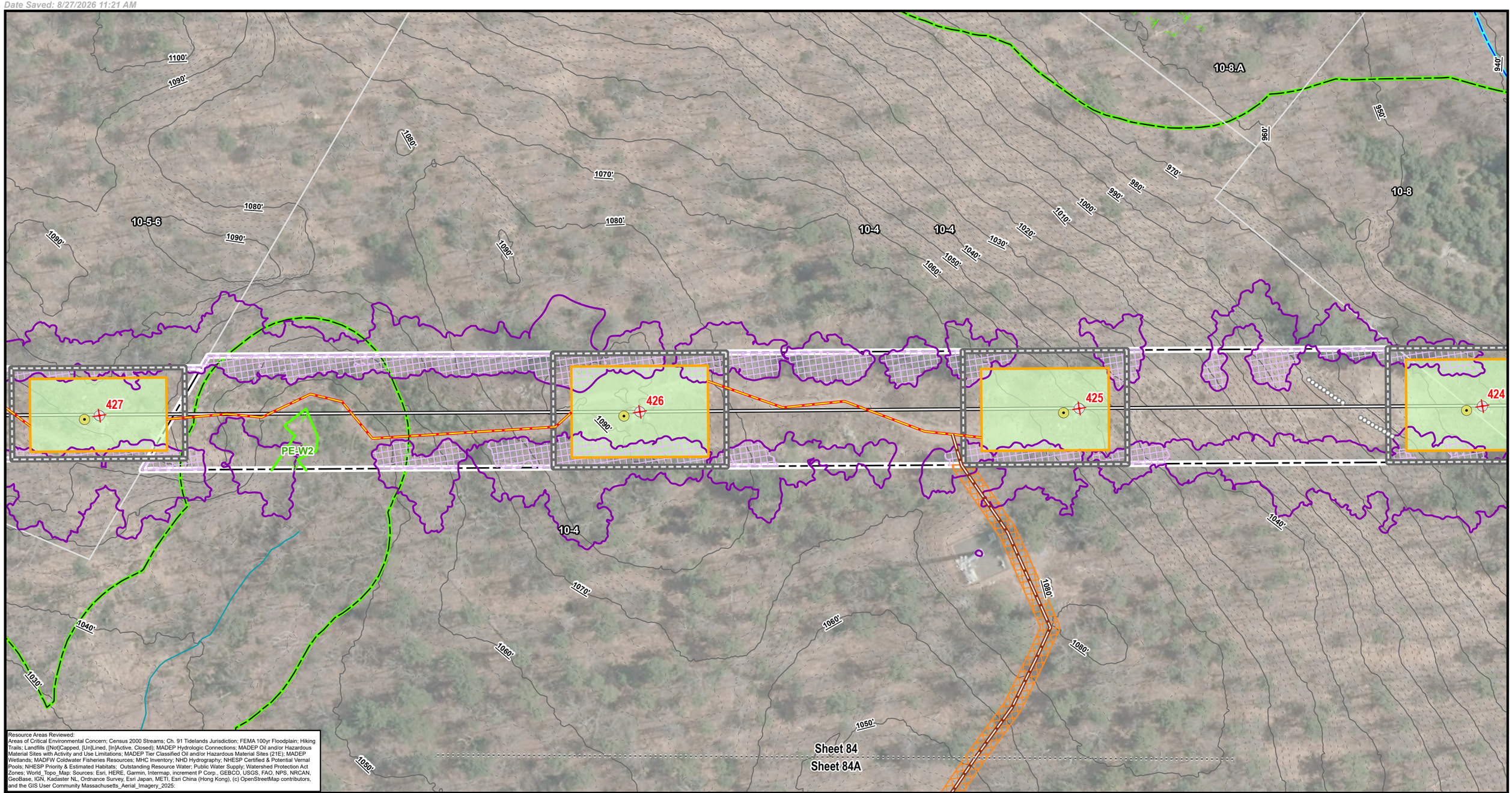
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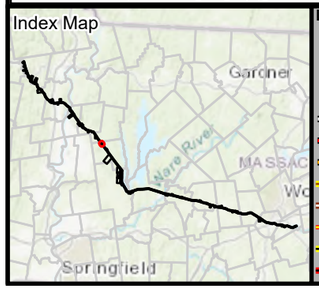
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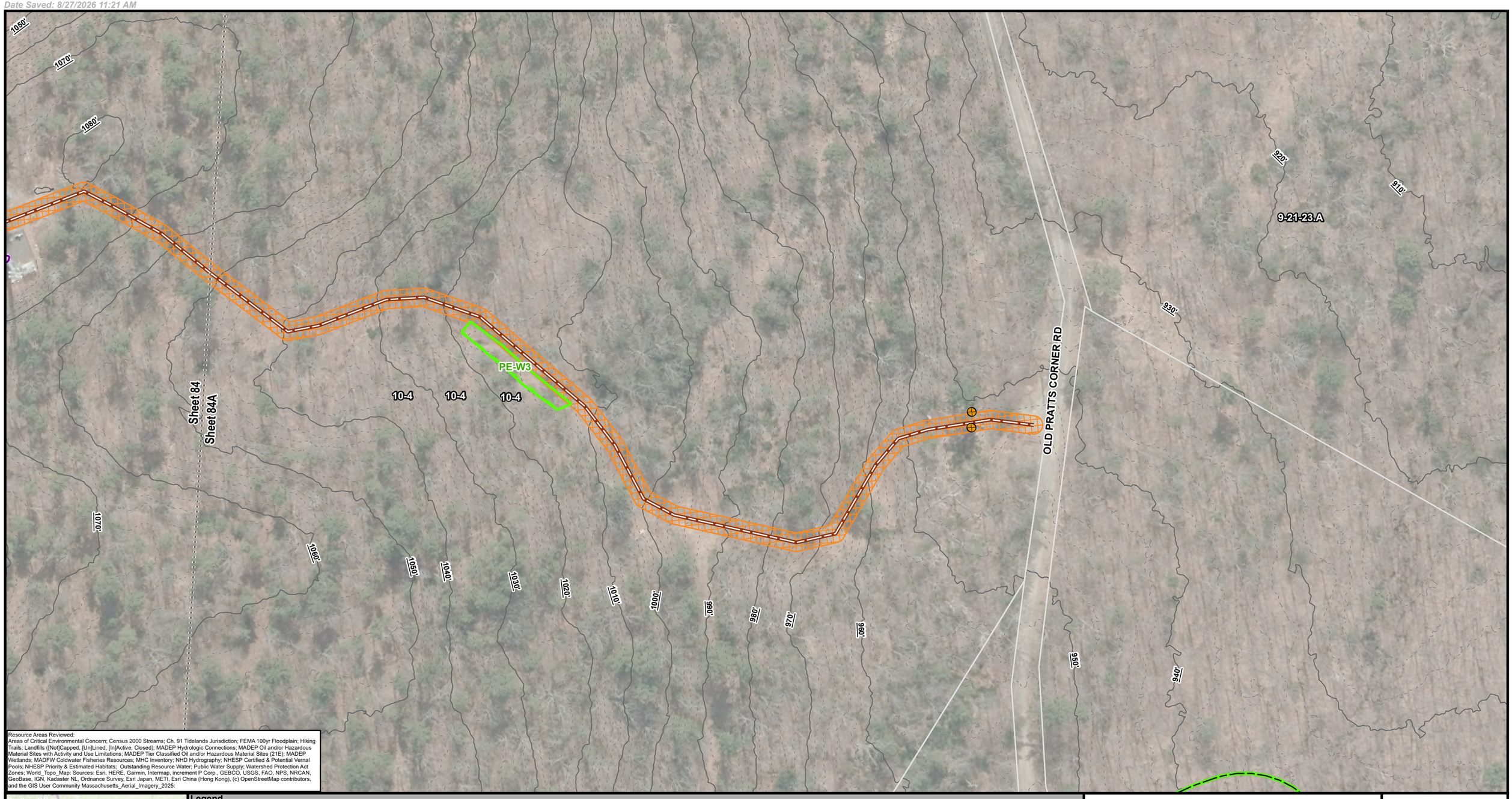
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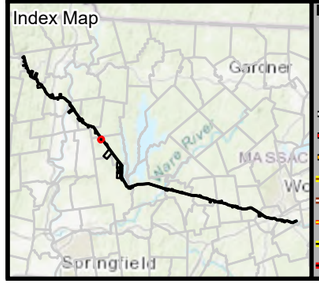
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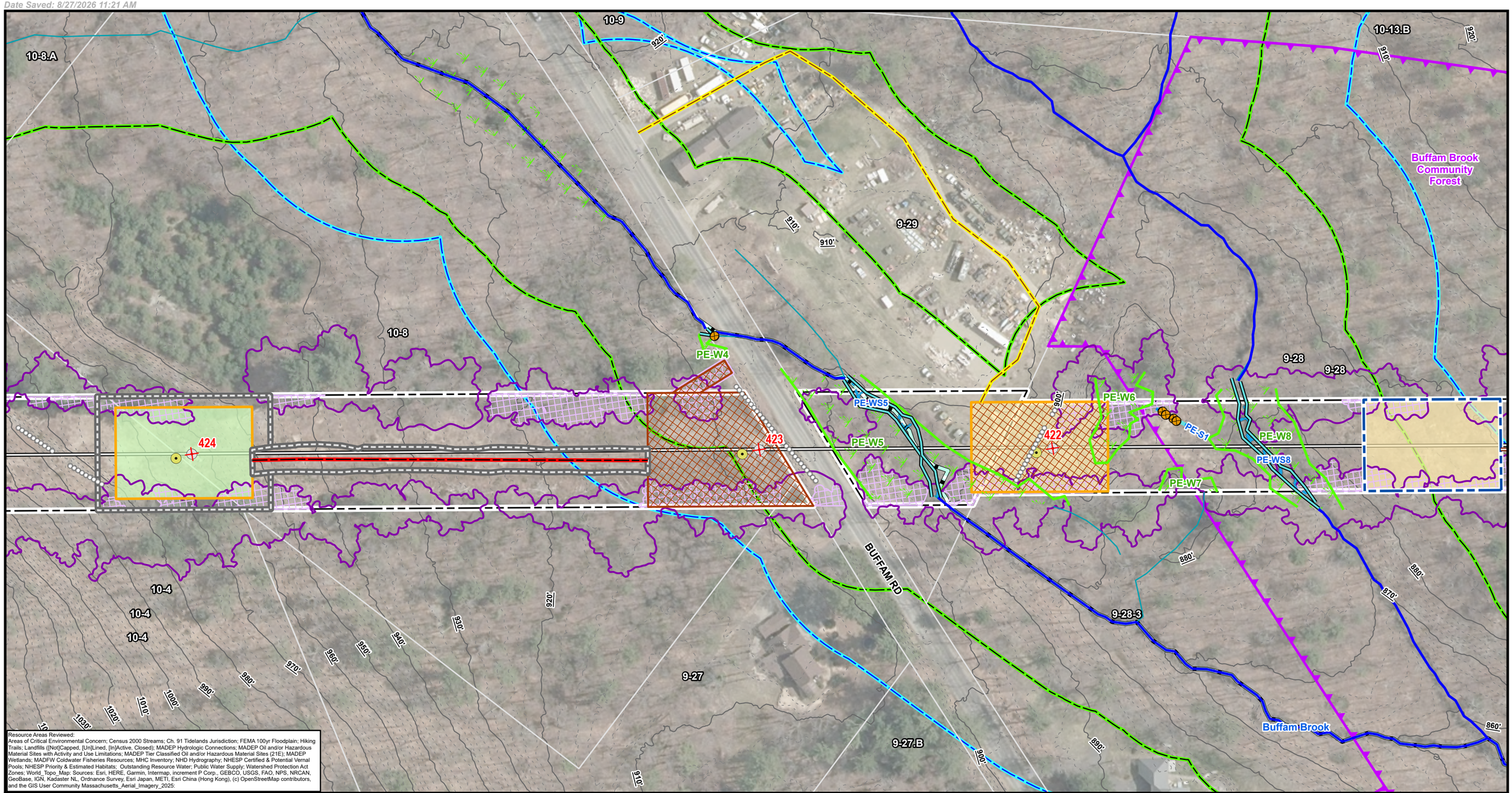
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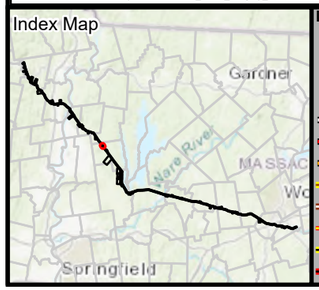
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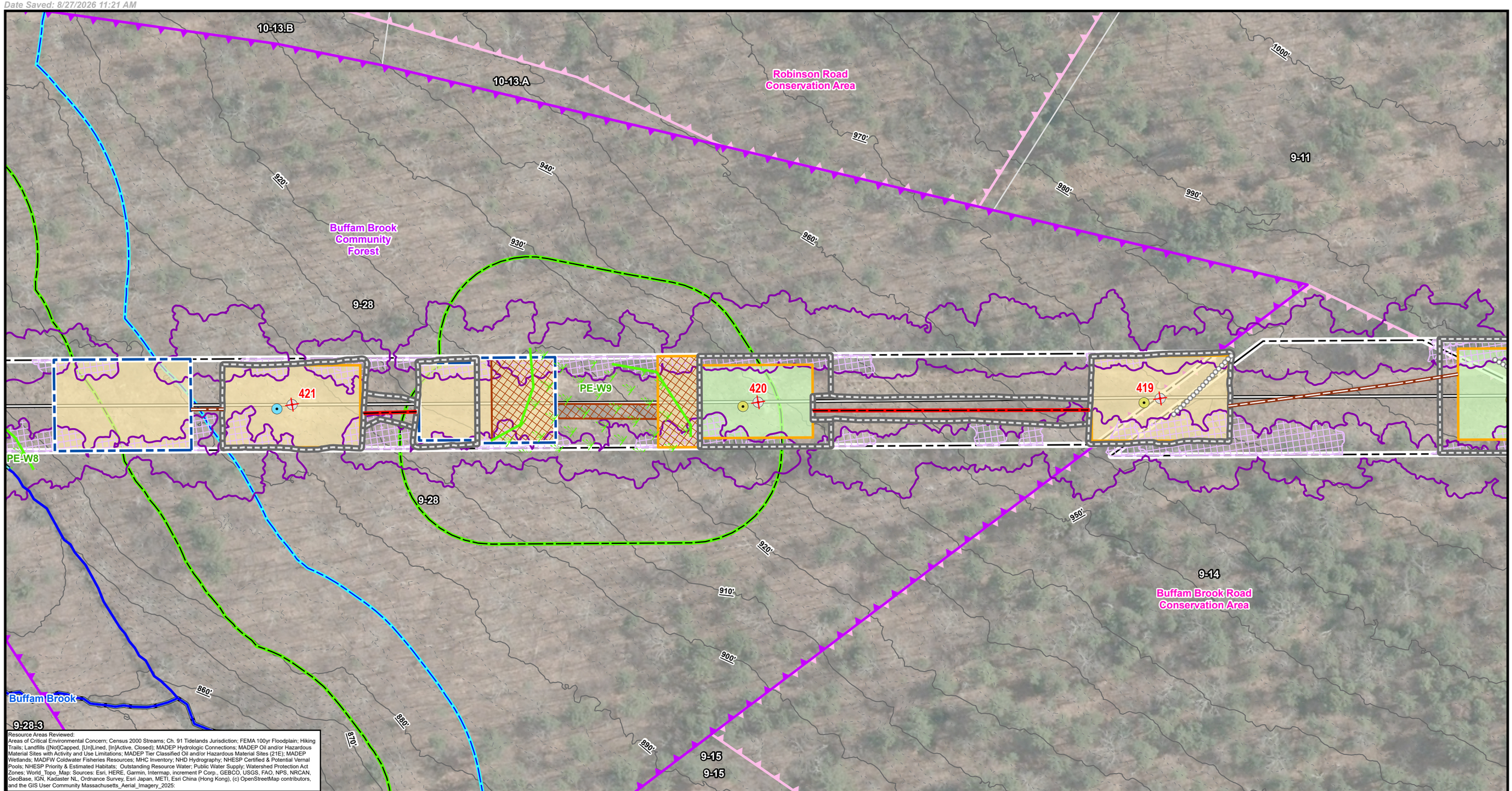
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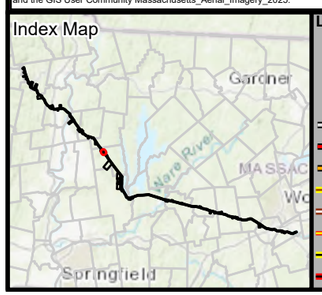
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- Land Trust
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- Non Profit
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

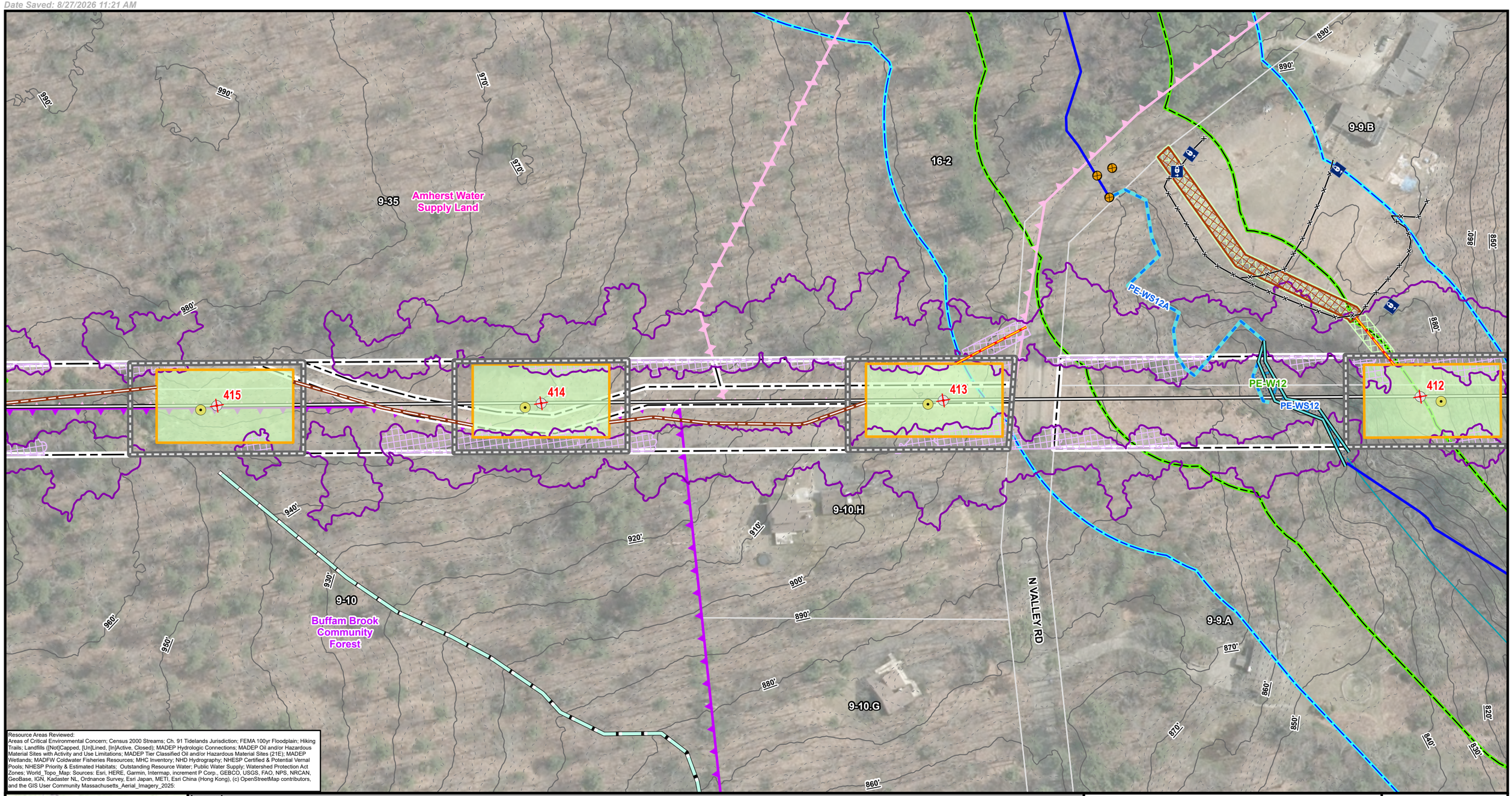
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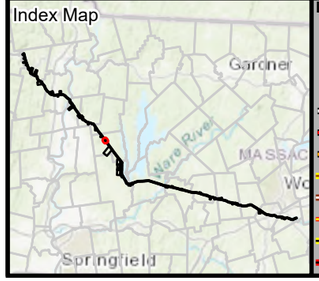
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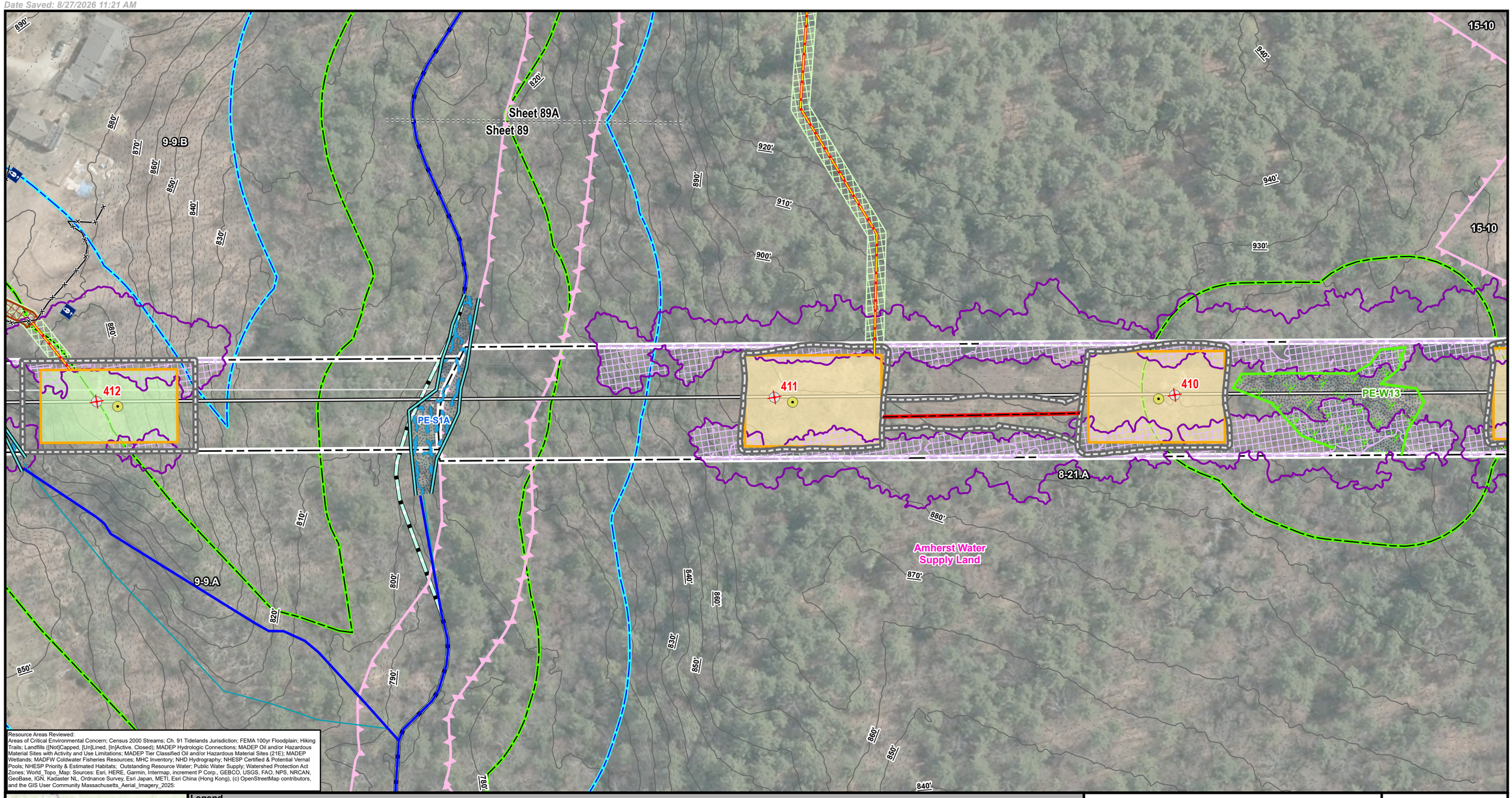
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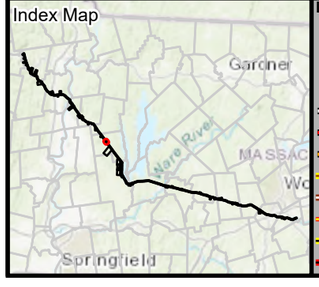
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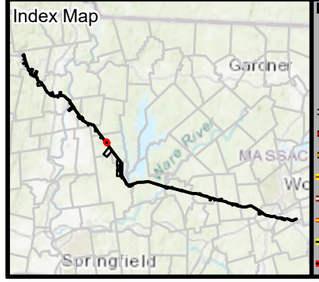
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Amherst Water Supply Land
16-2
16-1
16-1
N VALLEY RD
NEW ENGLAND TRAIL
BREWER RD
970'
960'
950'
15-10
8-21.A
940'
930'
920'
910'
900'
890'
880'
870'
860'
850'
840'
830'
820'
810'
9-9.B
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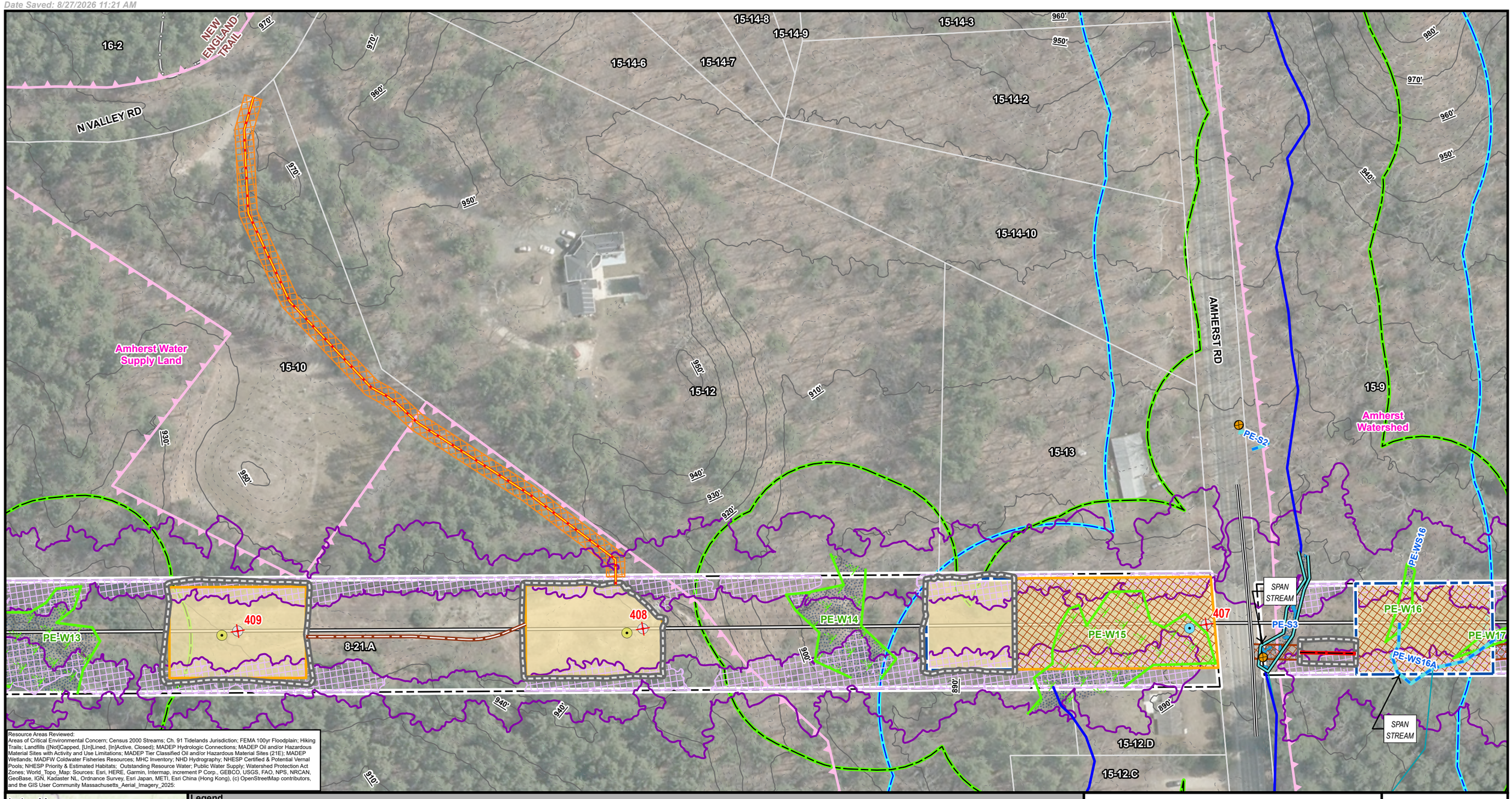
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Pelham, MA
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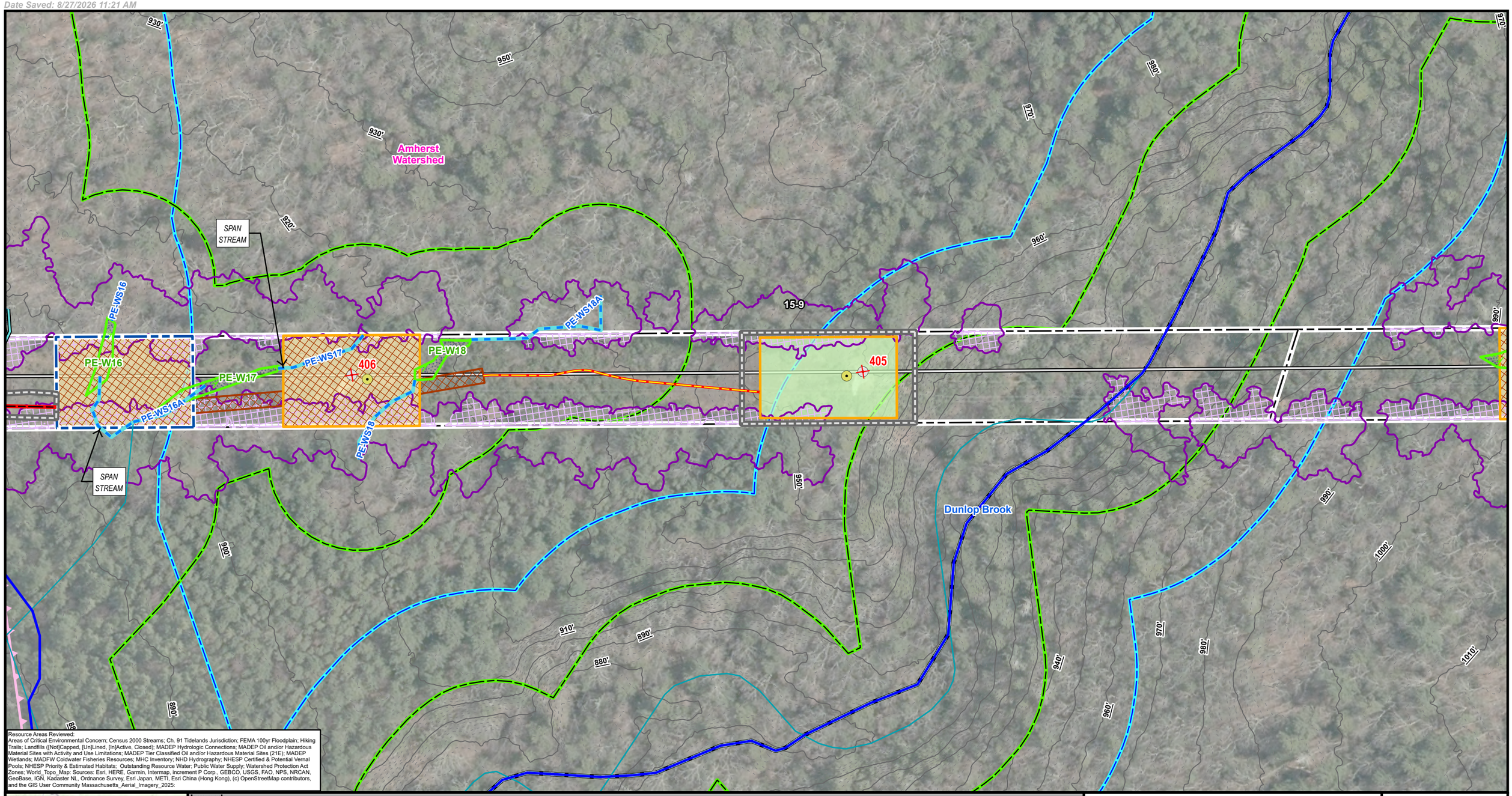
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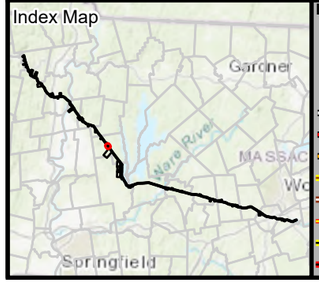
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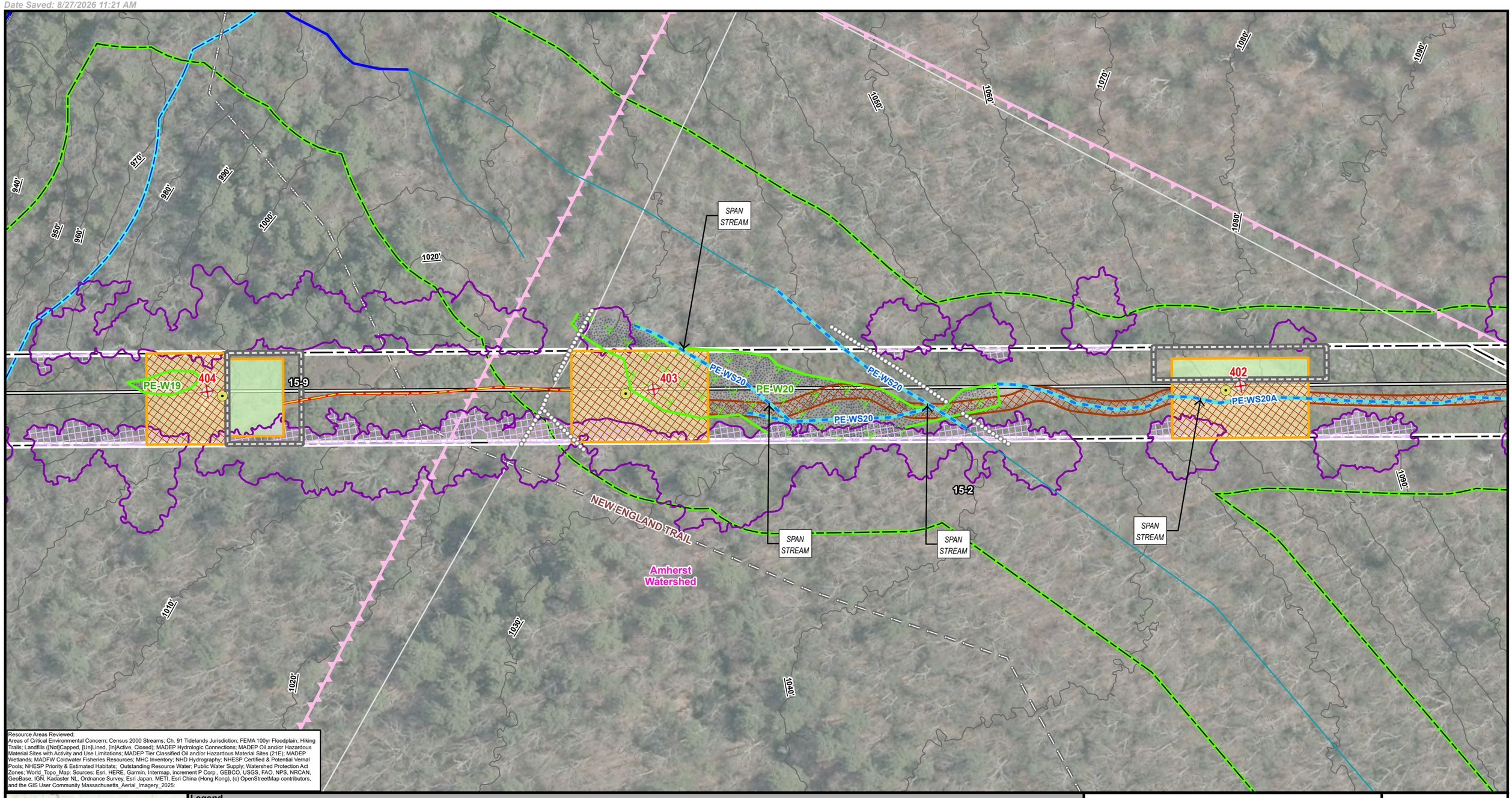
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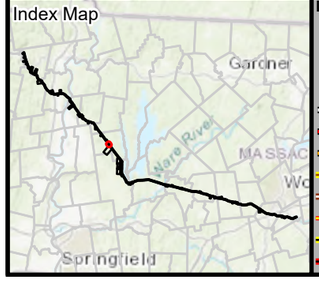
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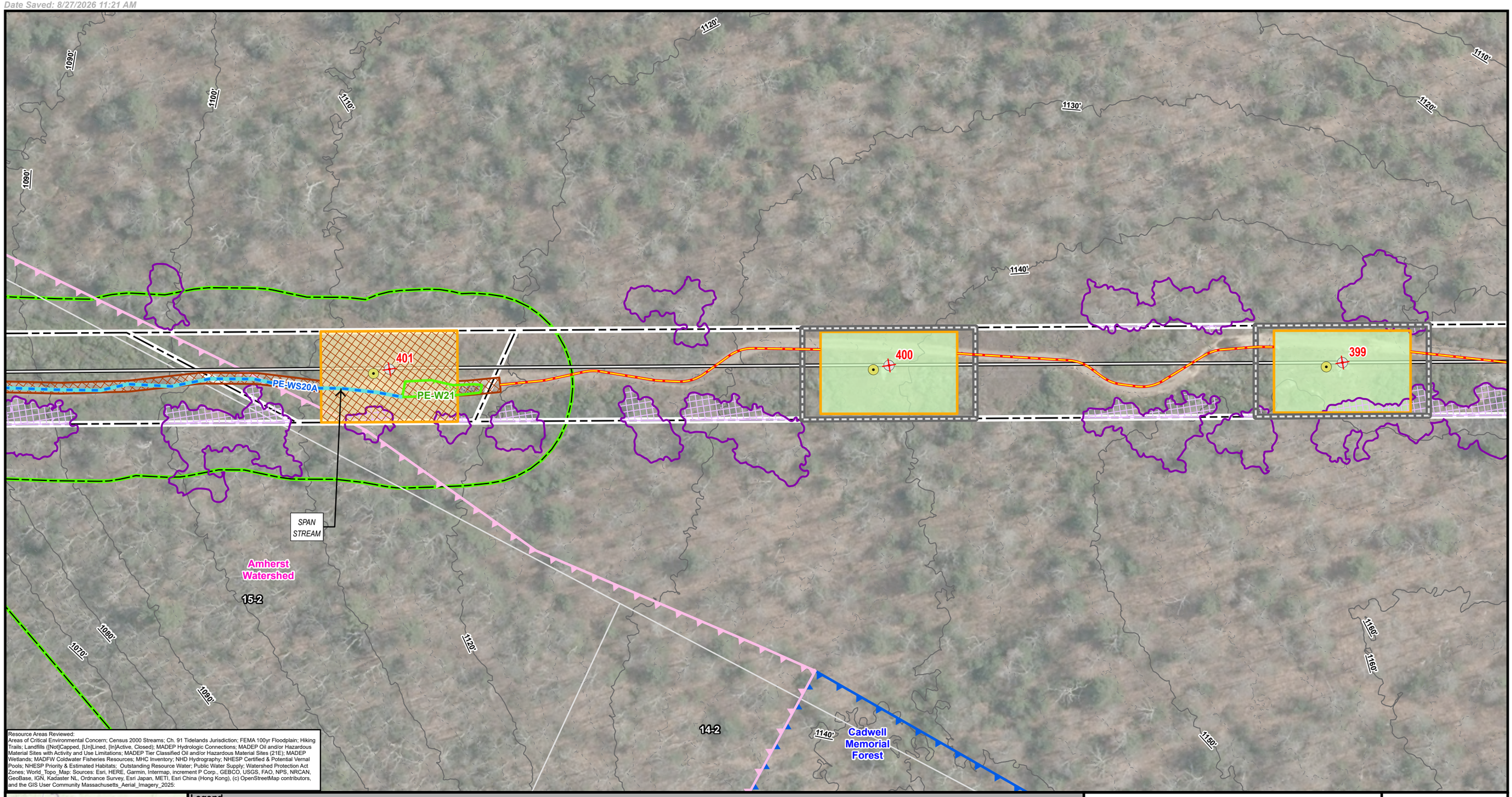
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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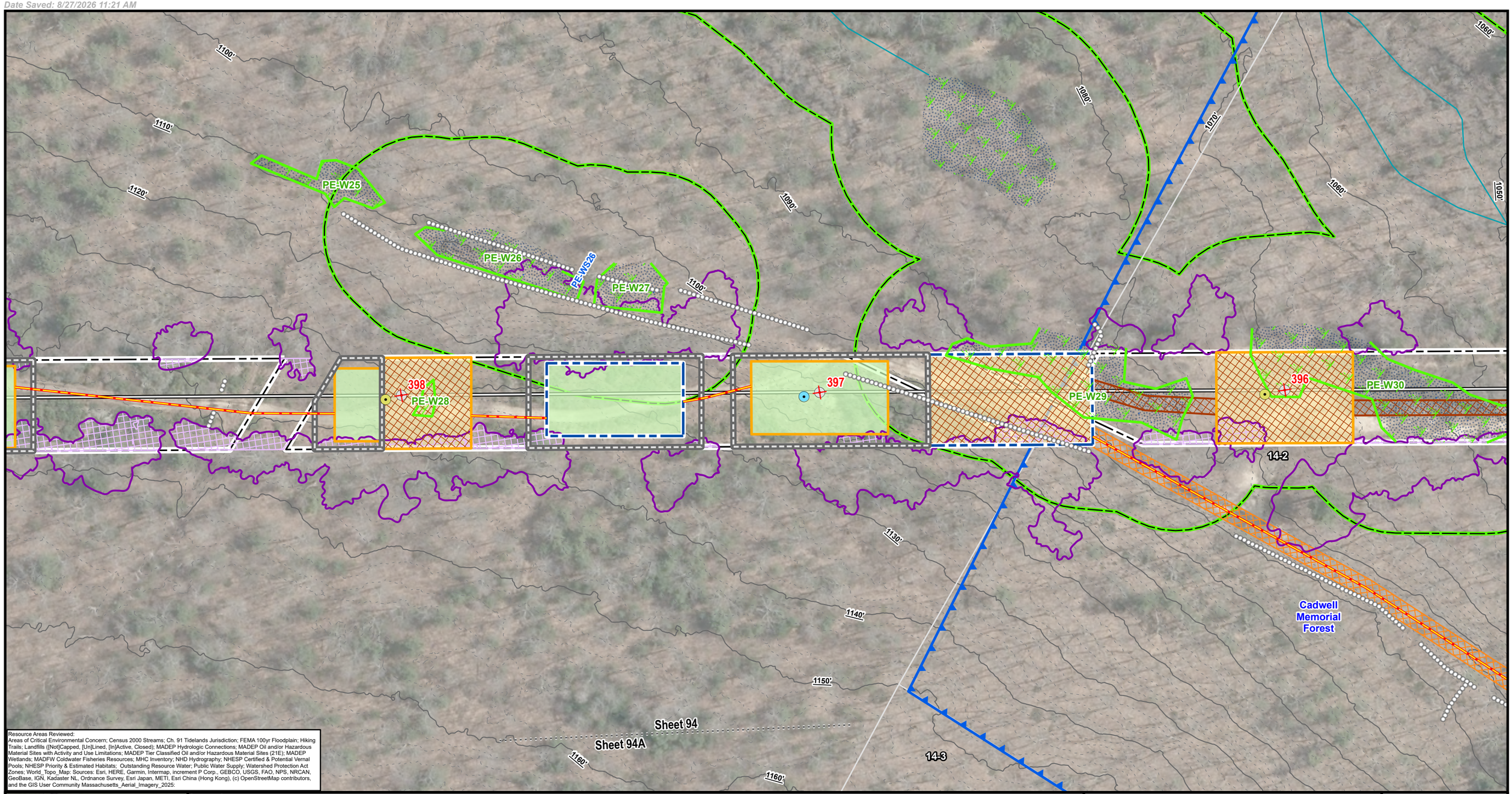
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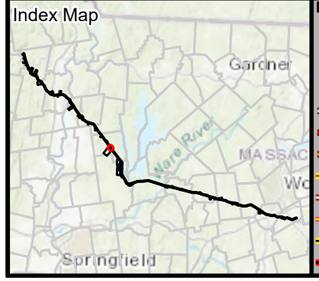
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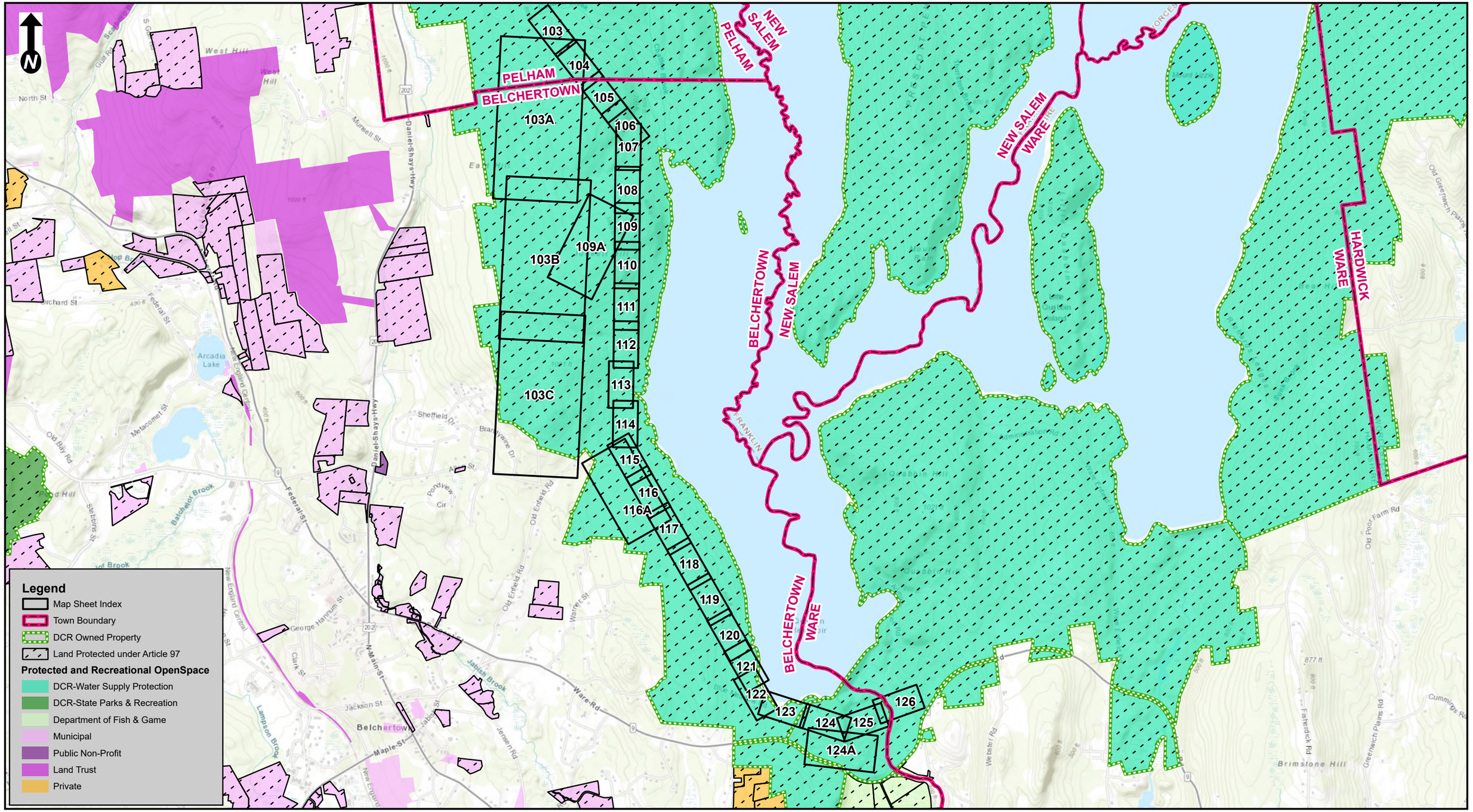
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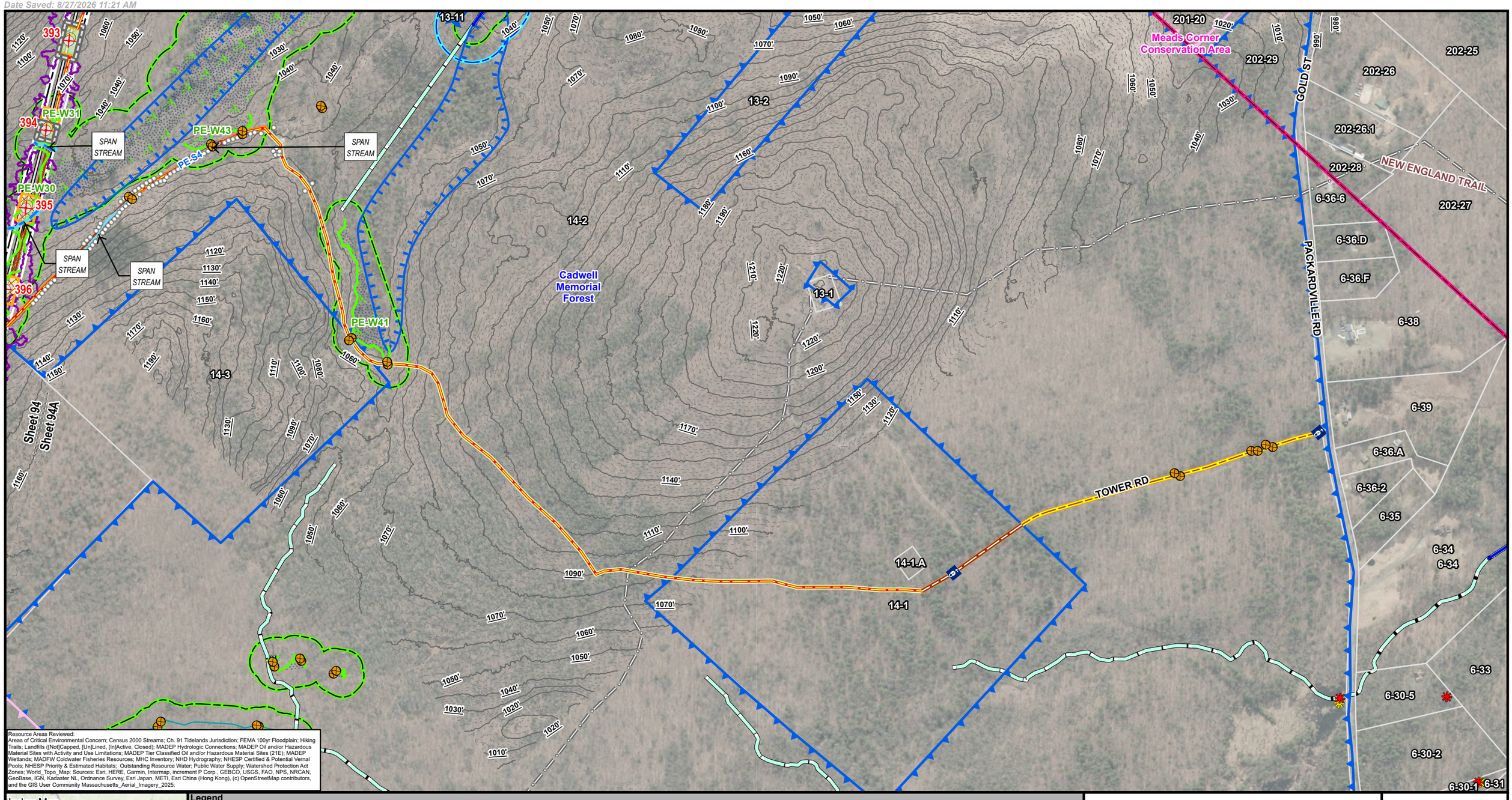
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Belchertown, MA

Source: 2013 National Geographic Society, i-cubed

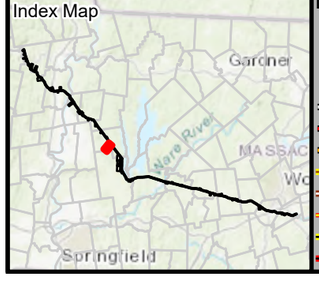
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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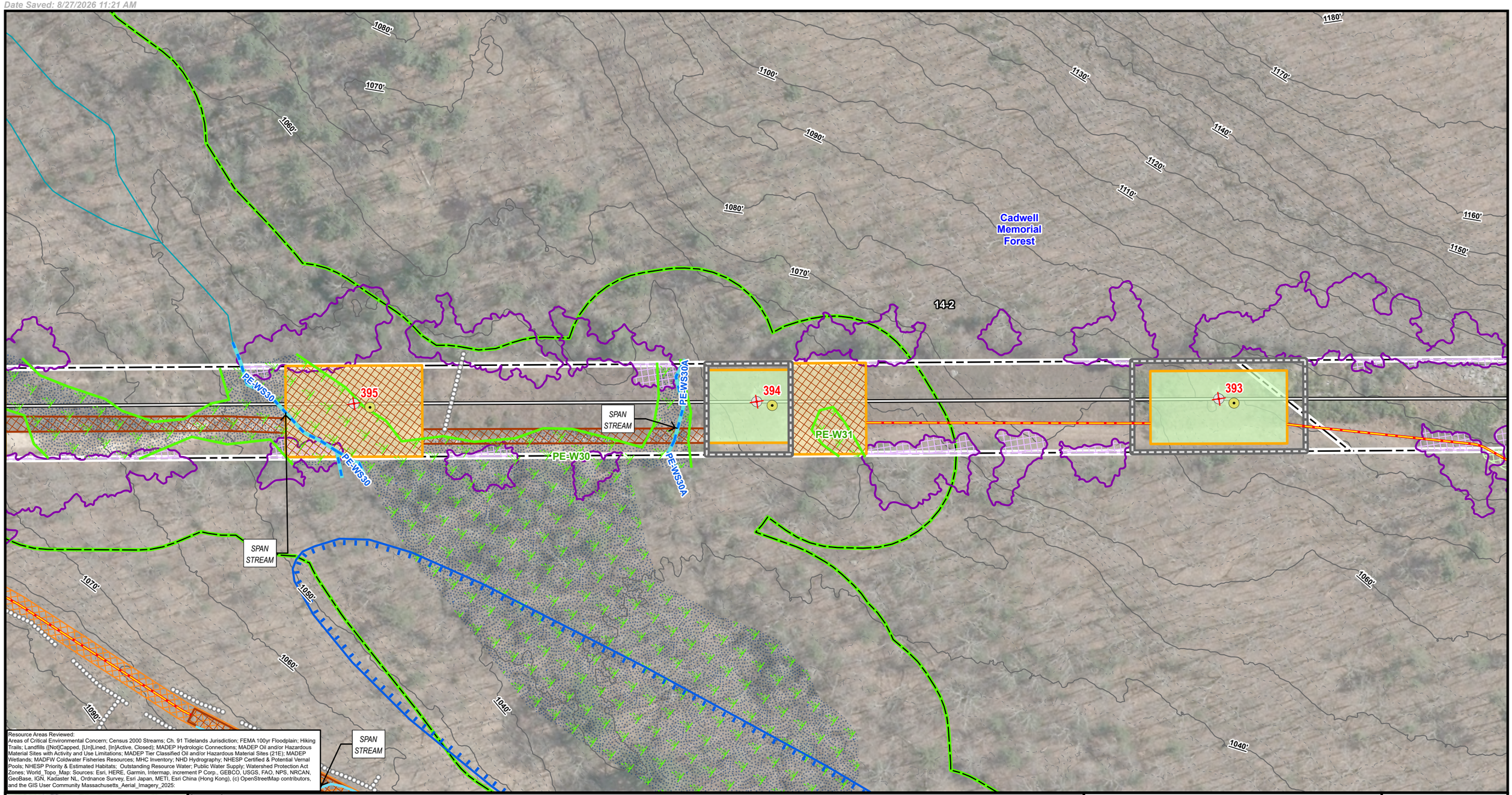
Belchertown & Pelham, MA
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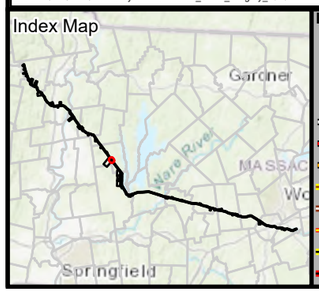
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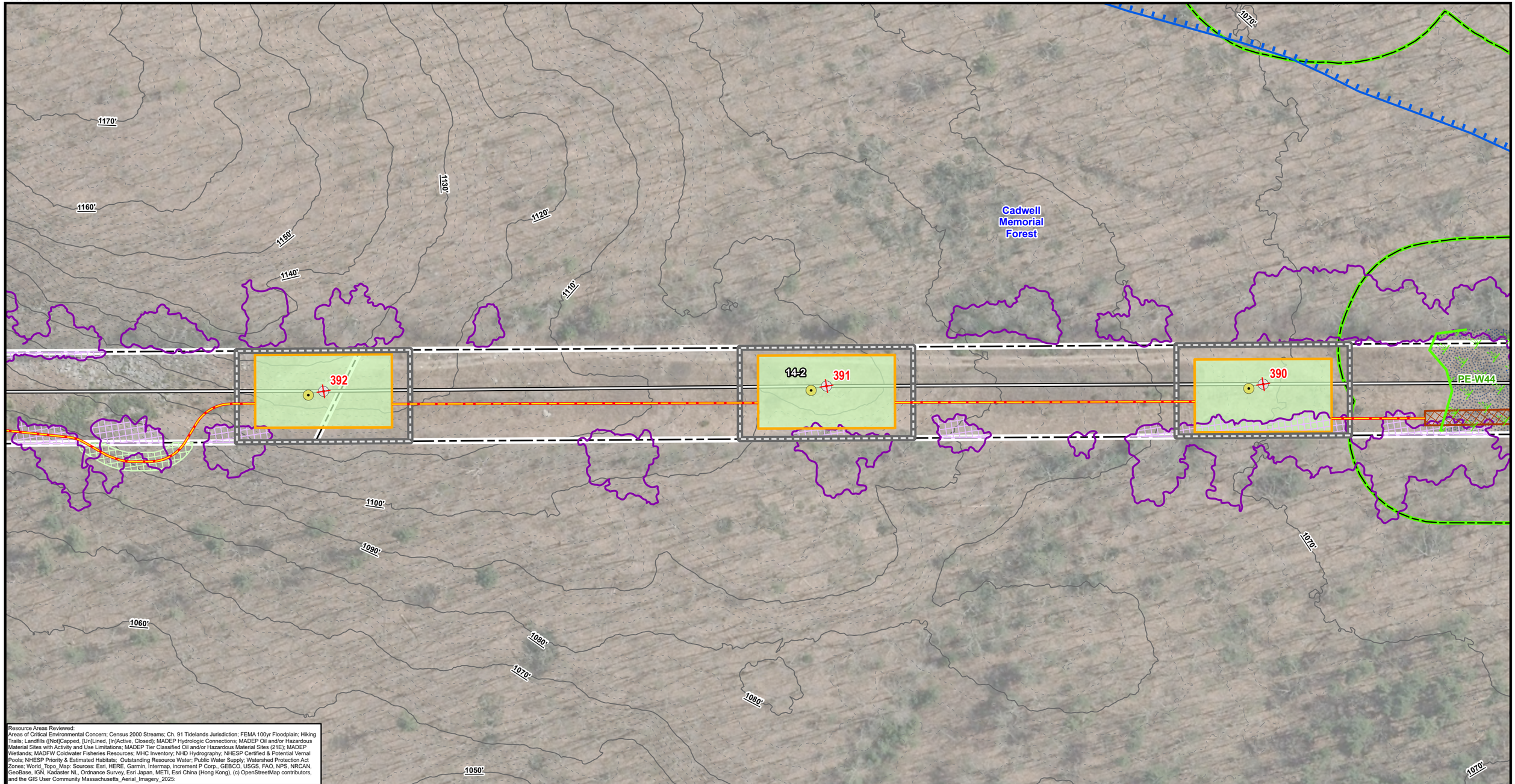
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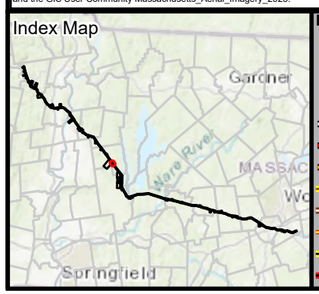
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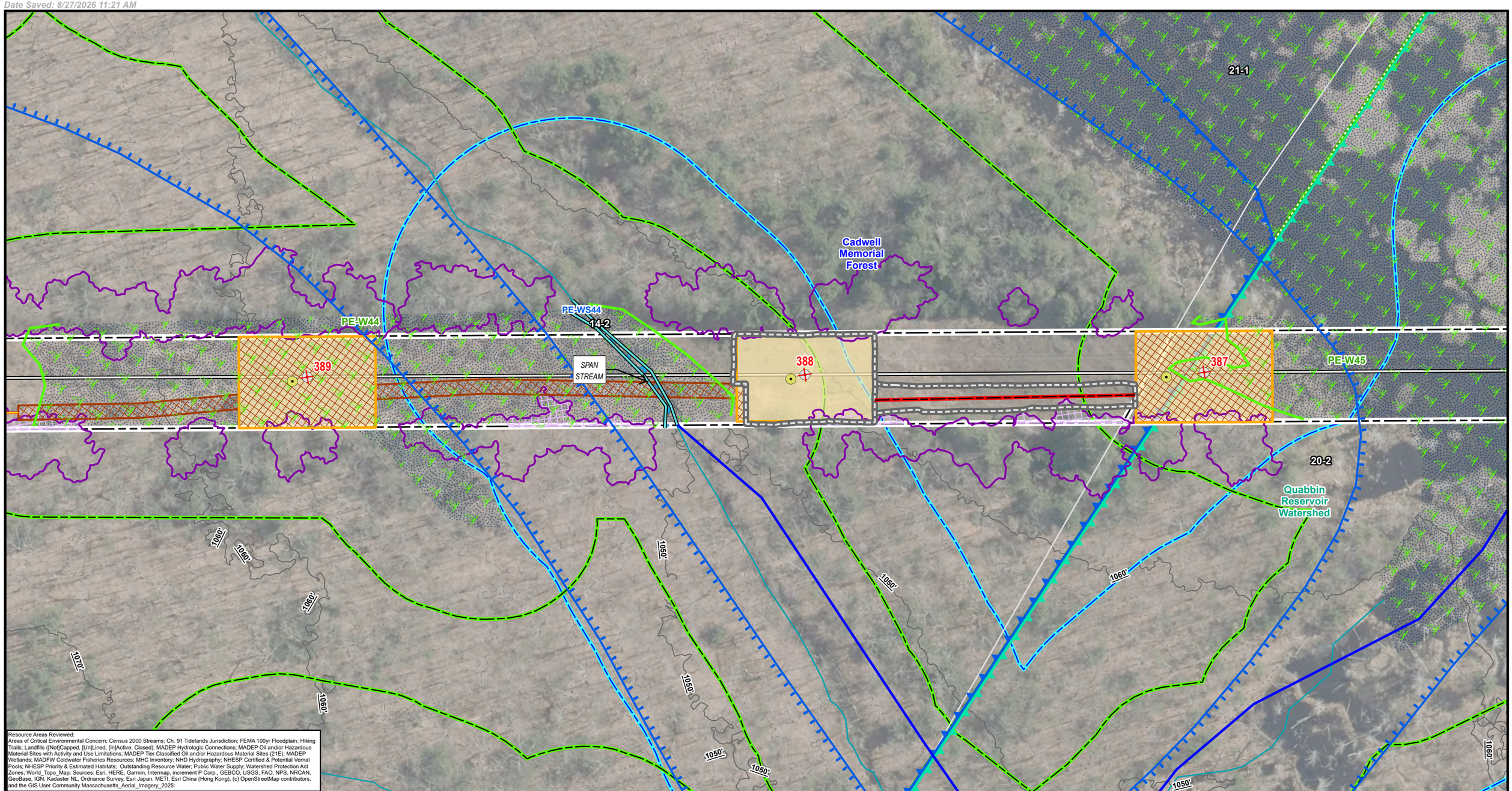
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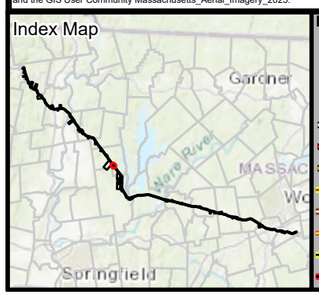
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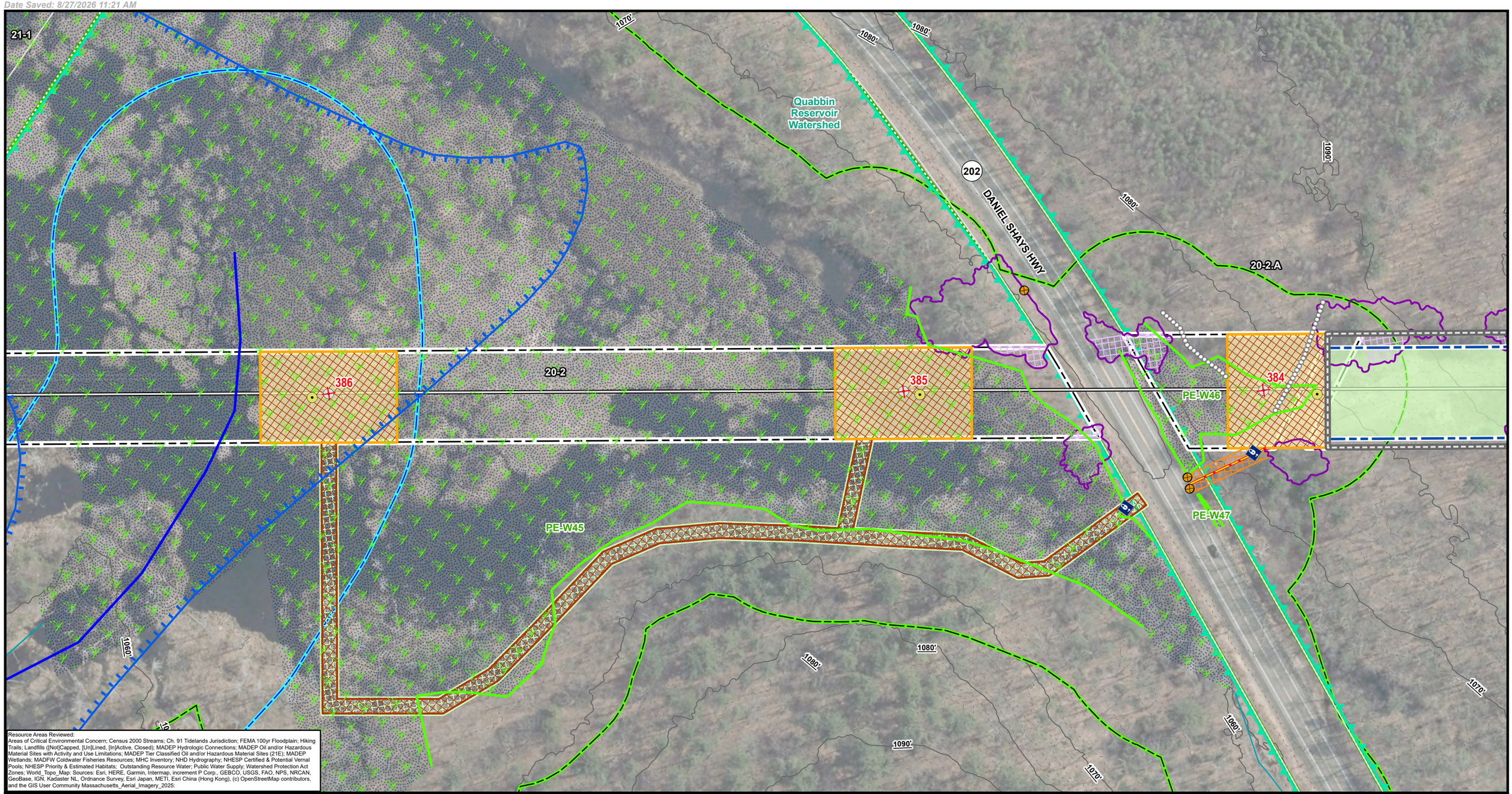
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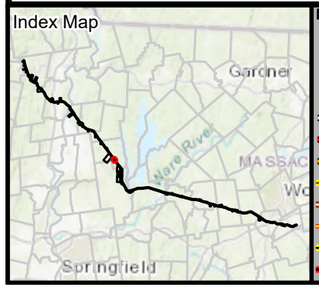
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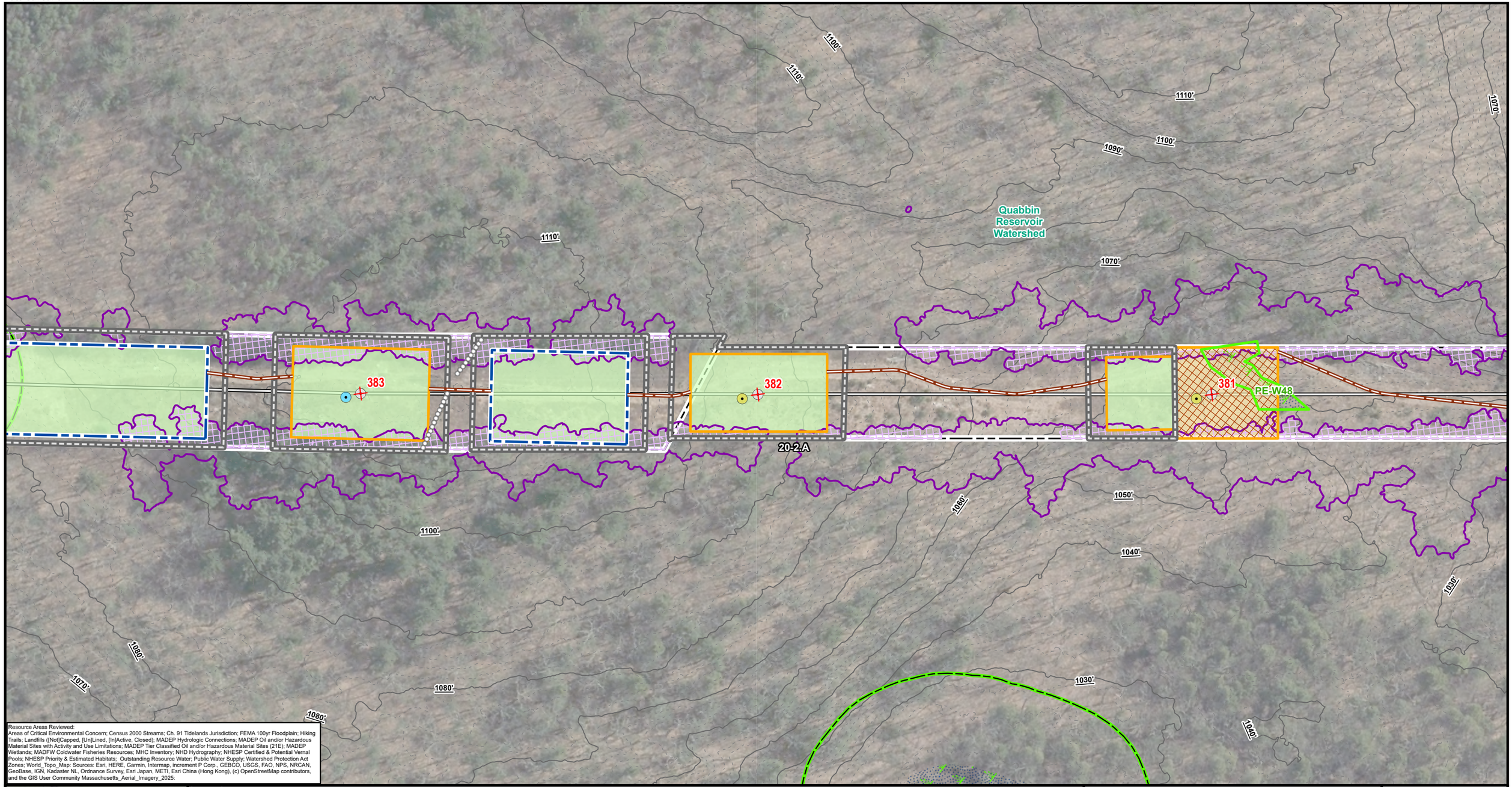
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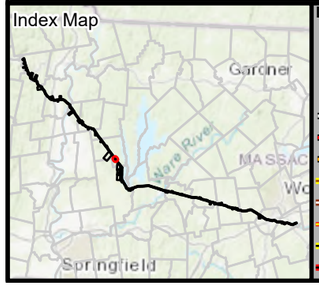
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Environmental Resources Map

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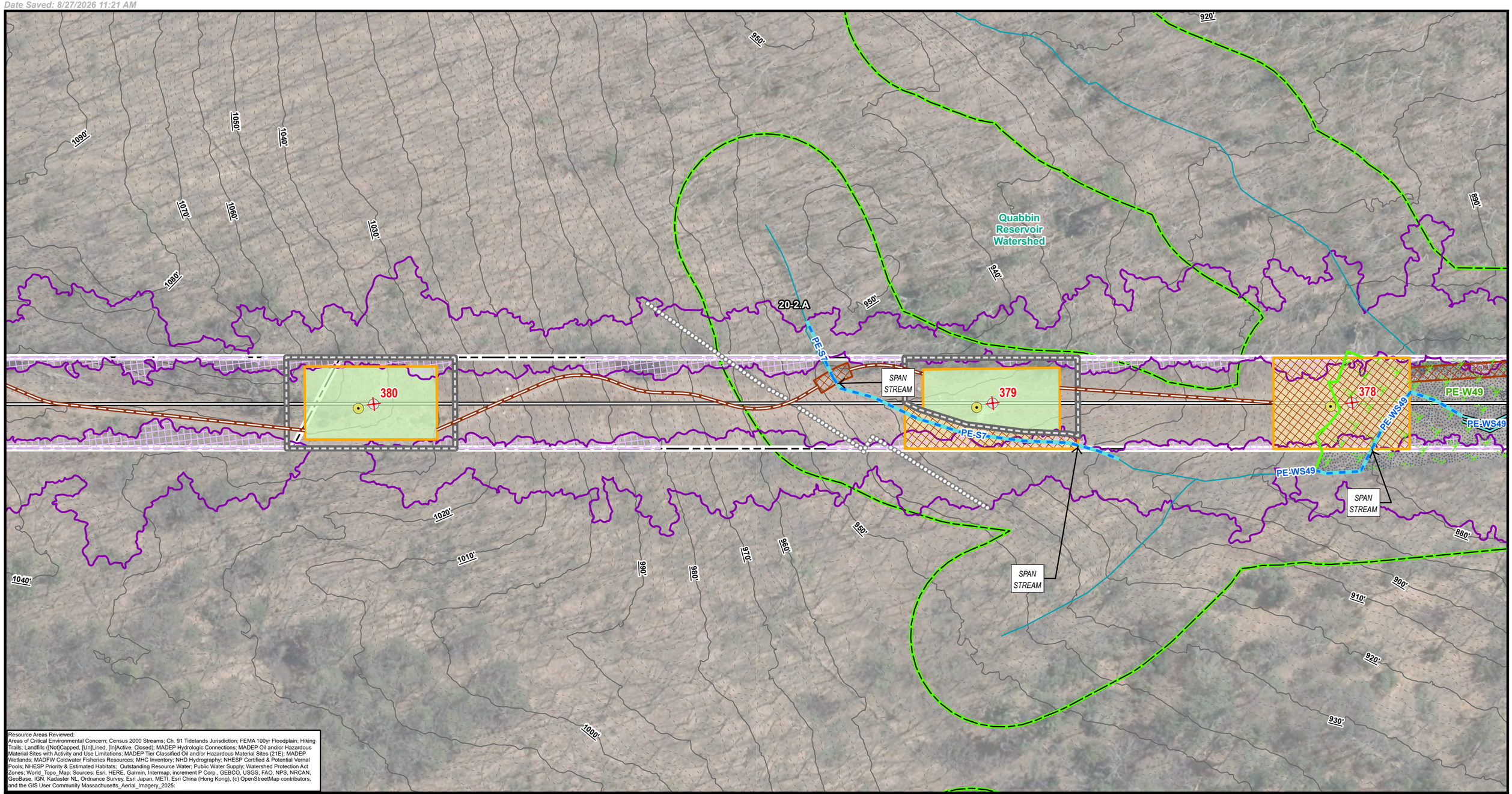
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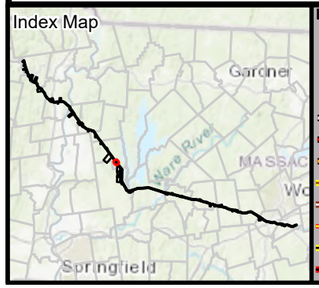
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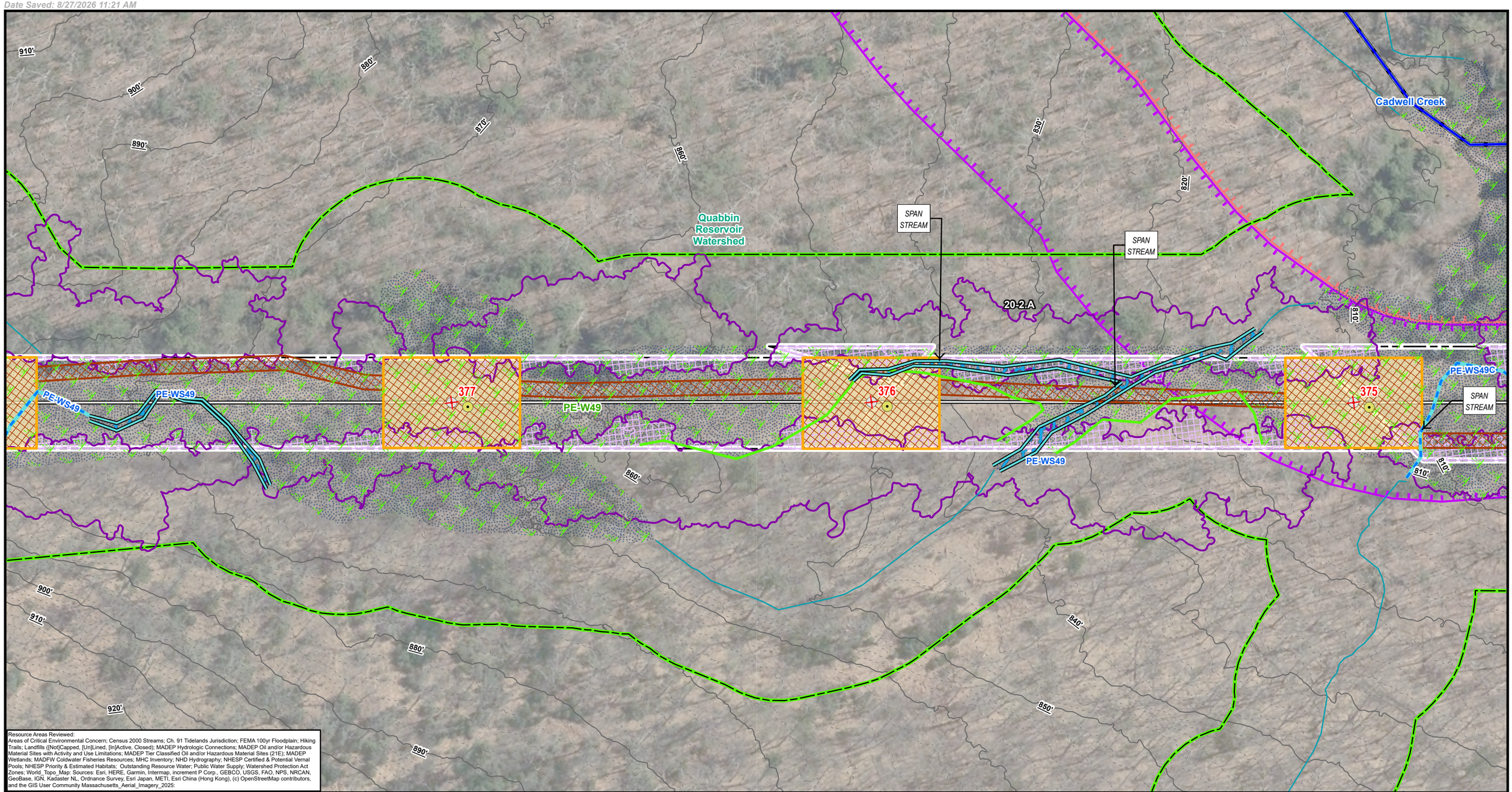
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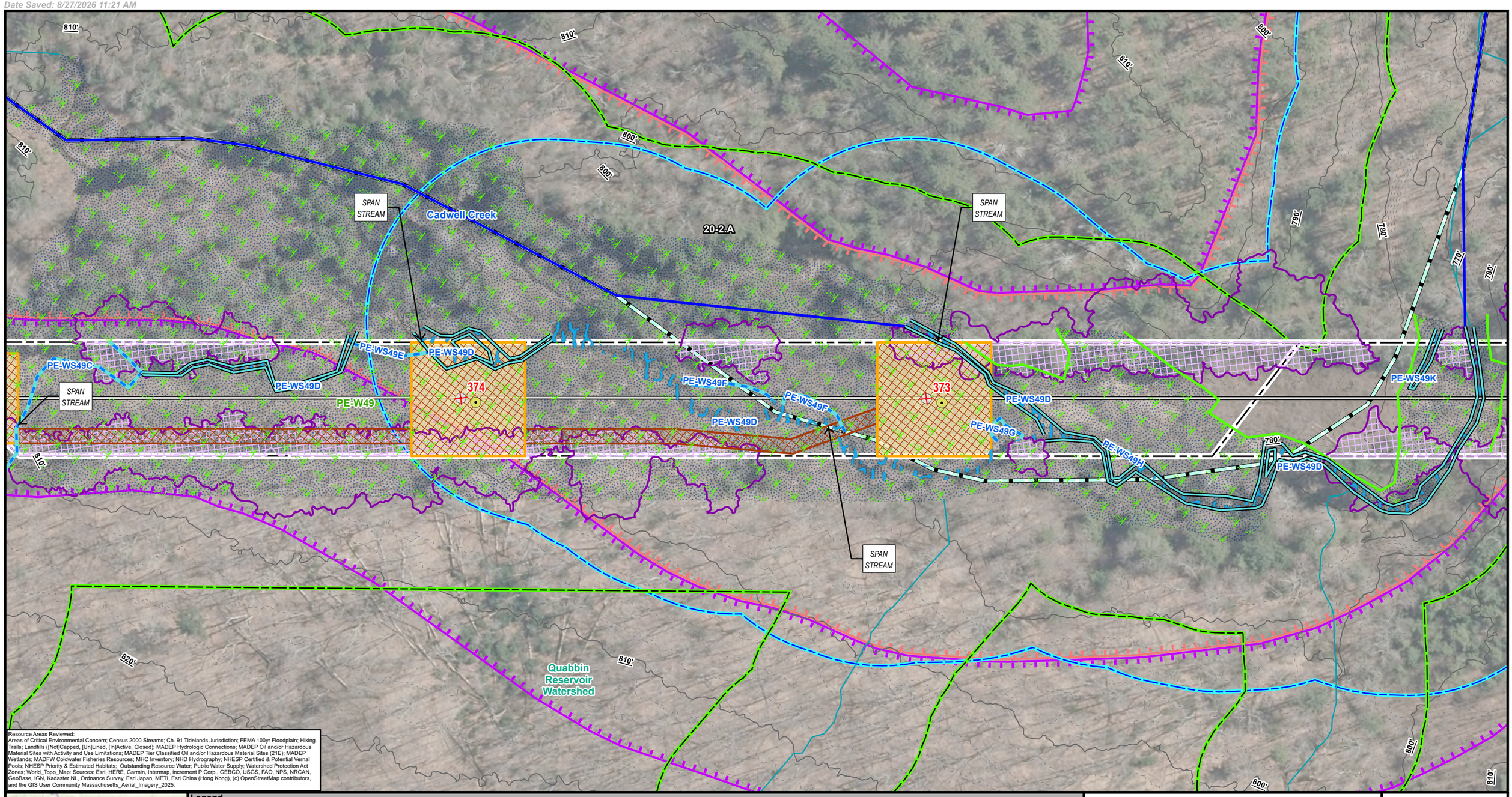
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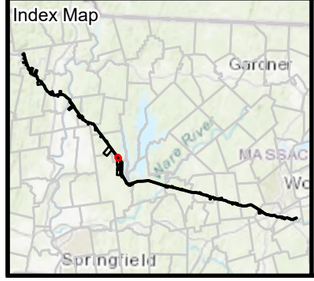
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Pelham, MA
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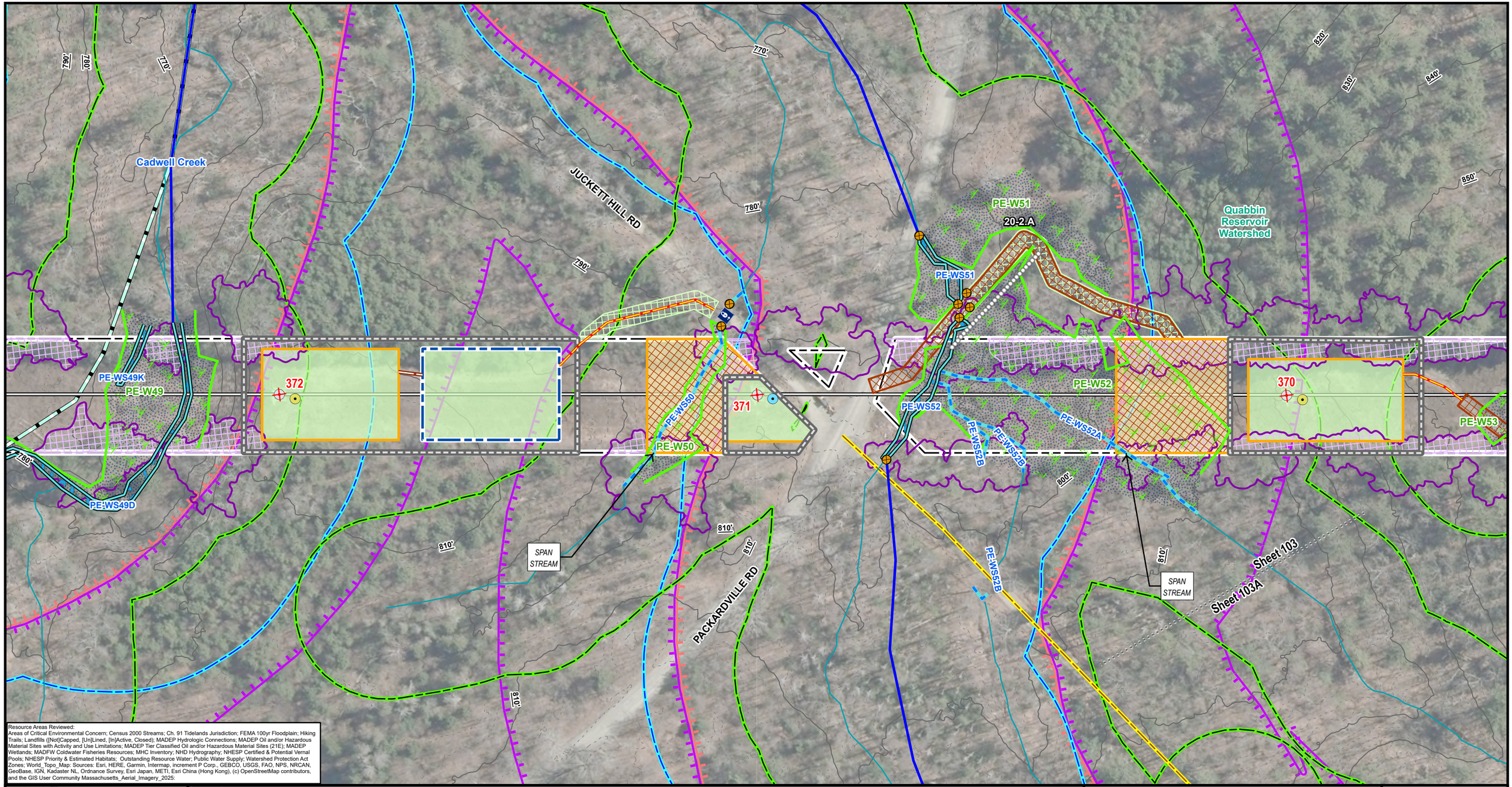
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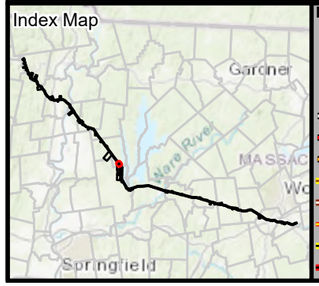
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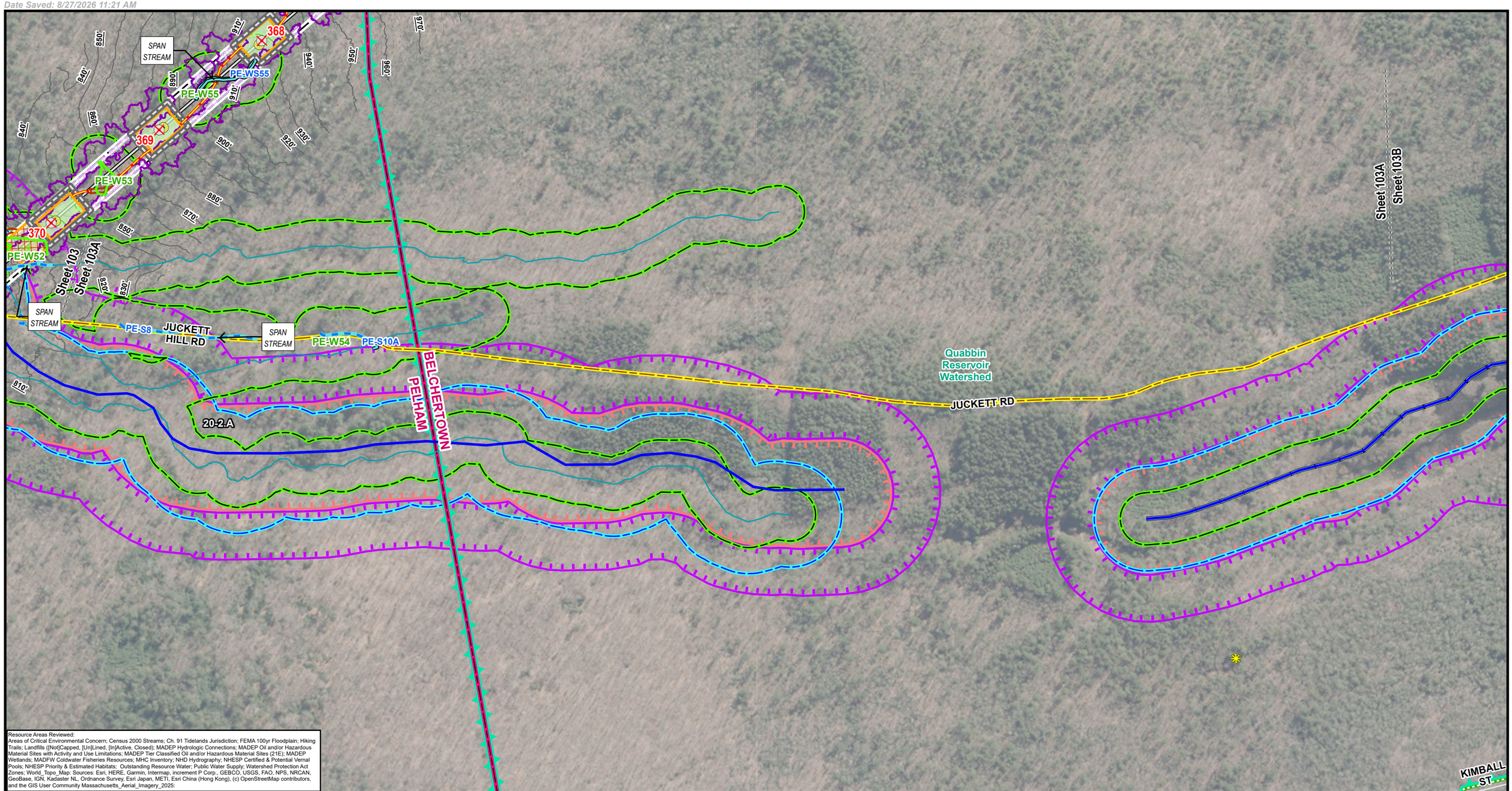
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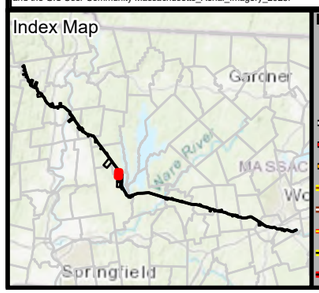
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Environmental Resources Map

Pelham & Belchertown, MA
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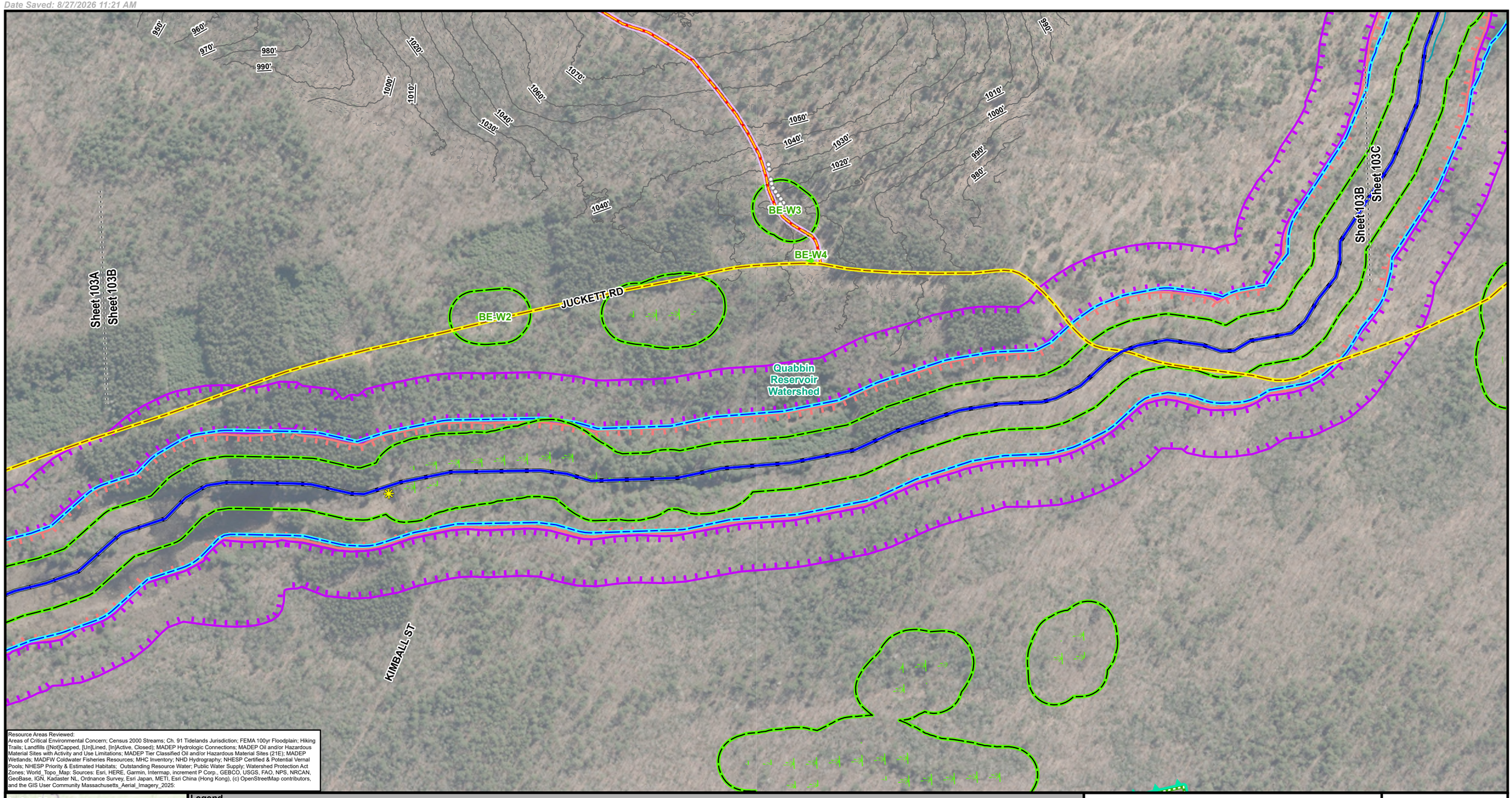
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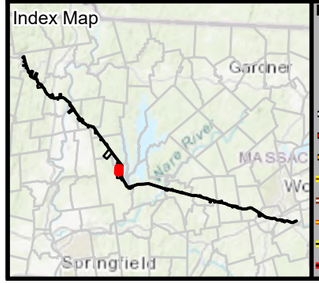
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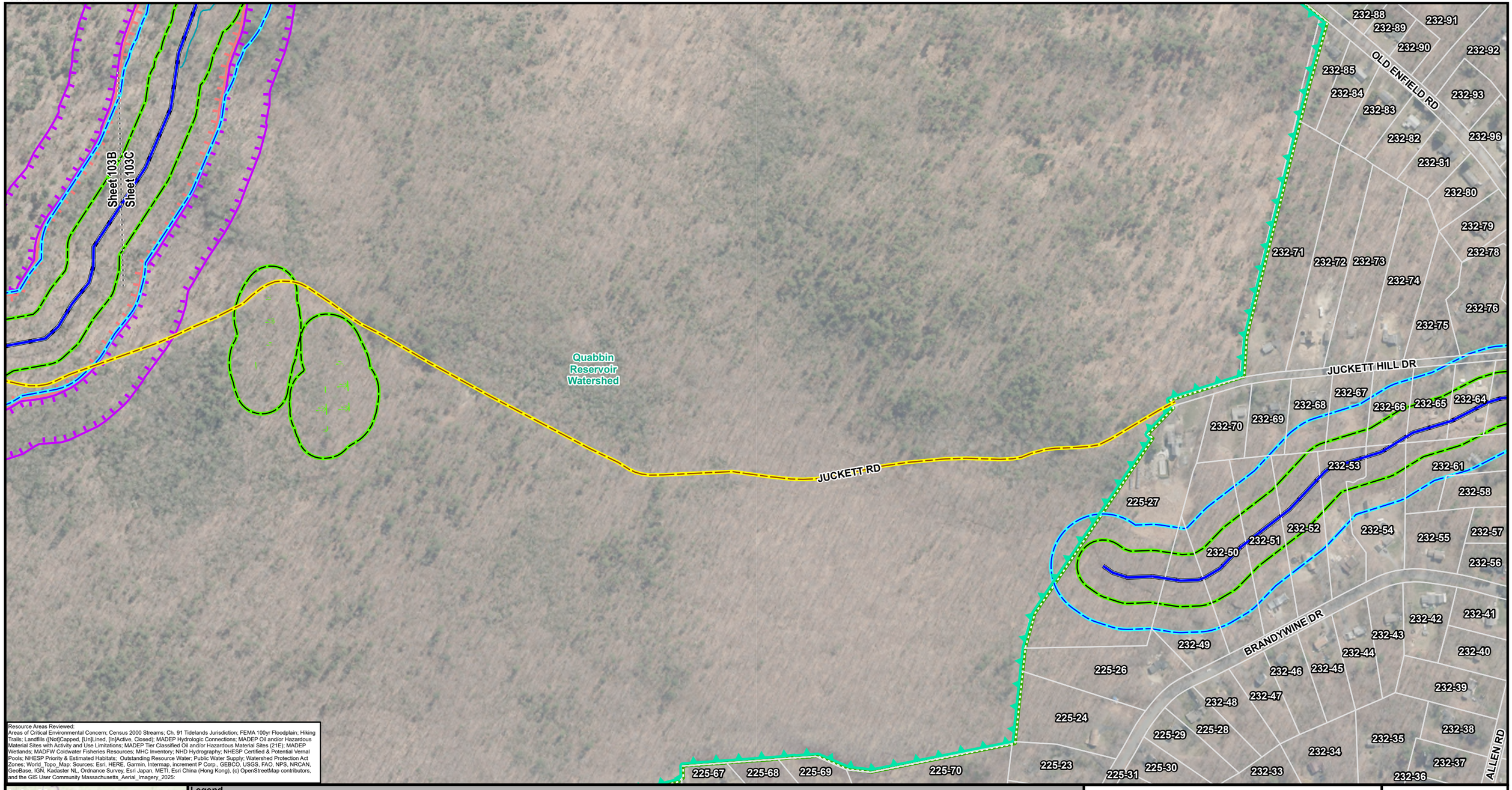
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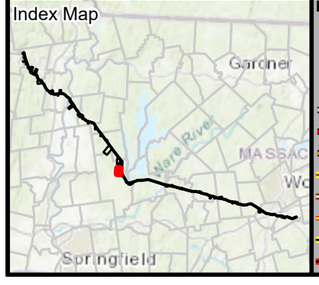
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Belchertown, MA
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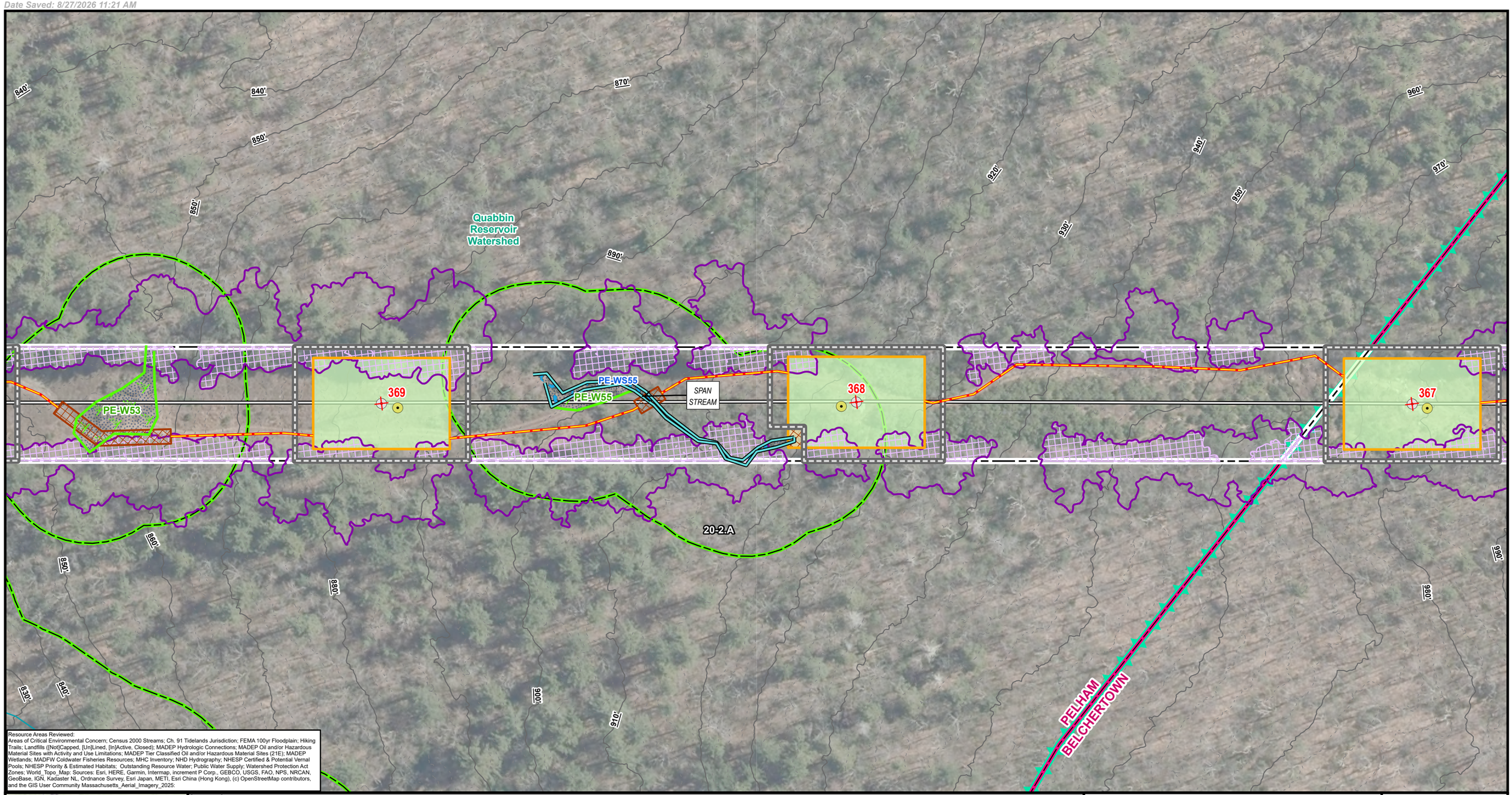
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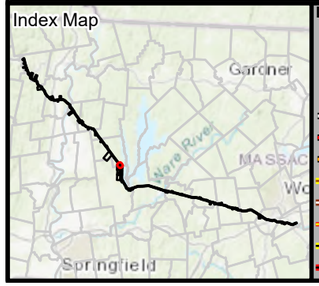
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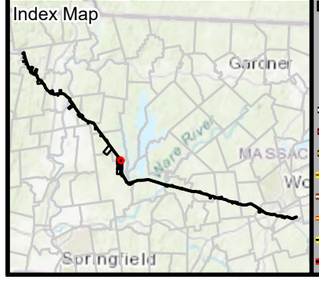
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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Pelham & Belchertown, MA

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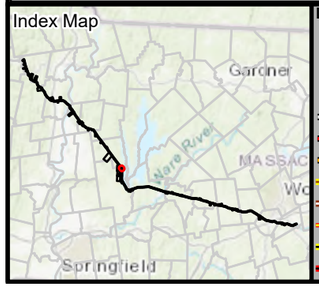
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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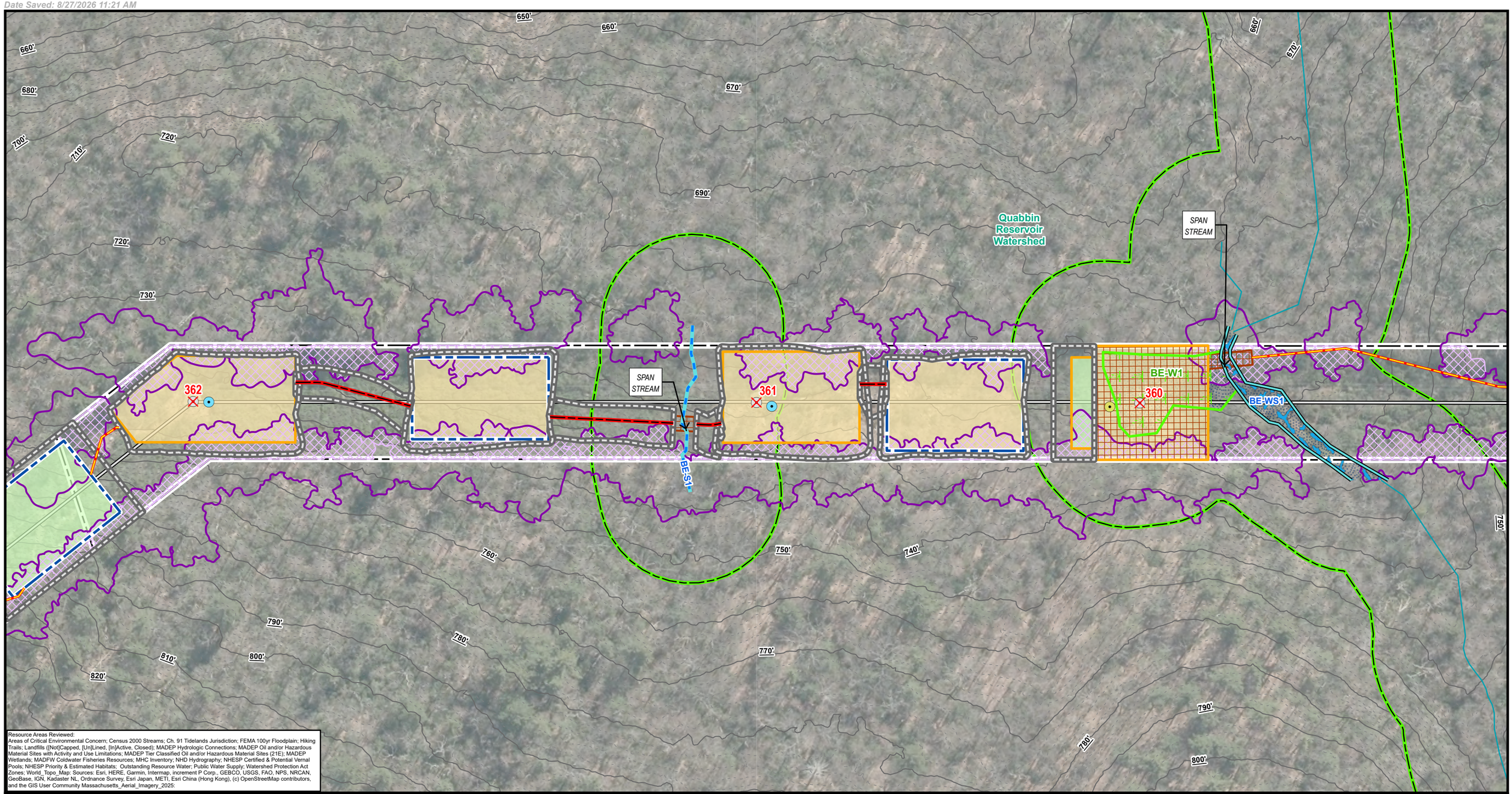
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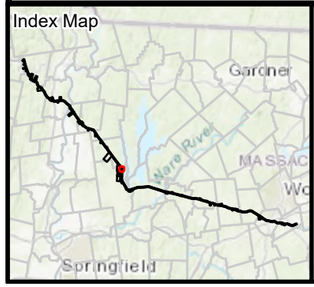
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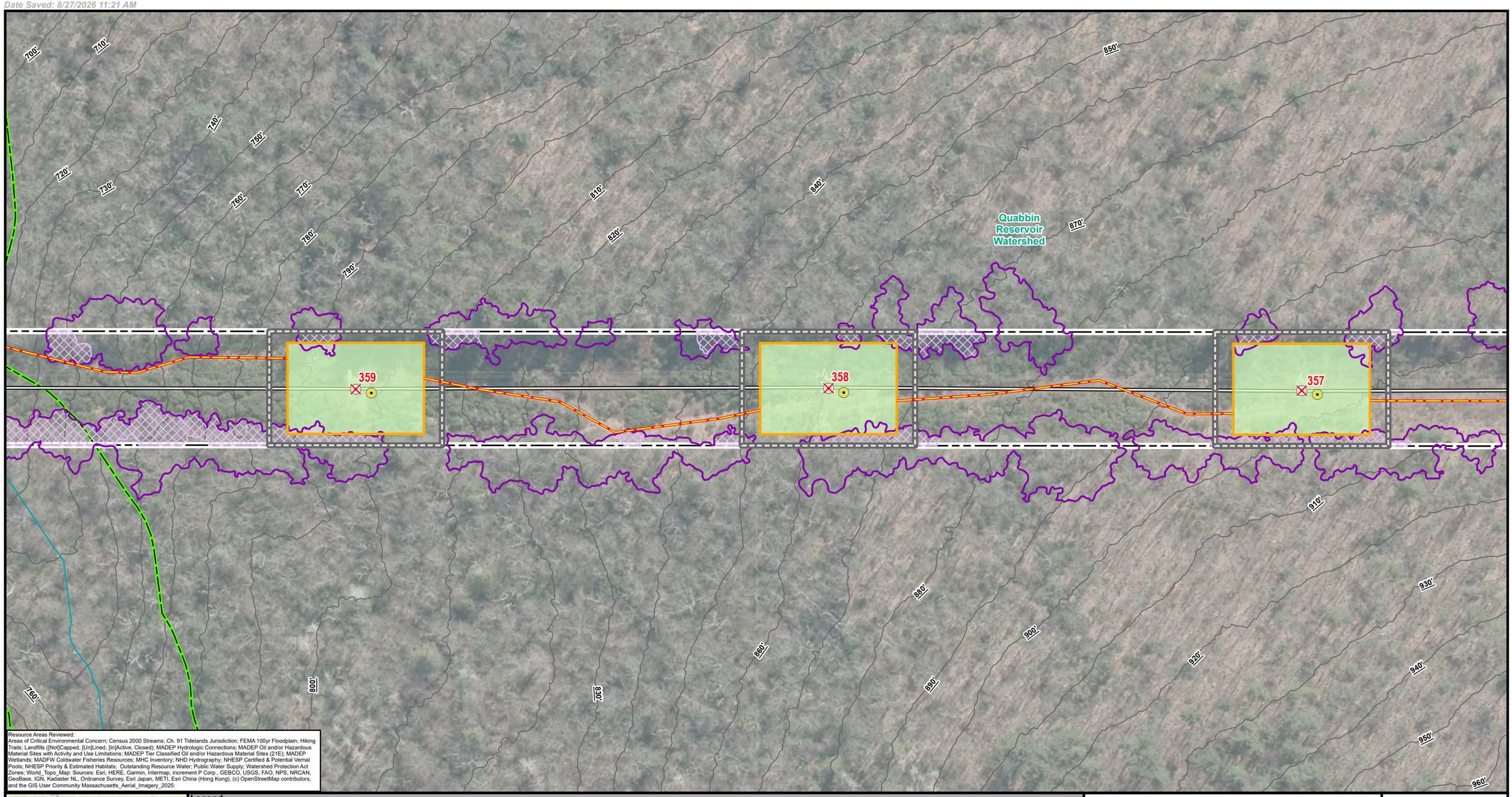
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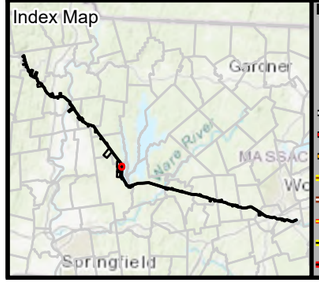
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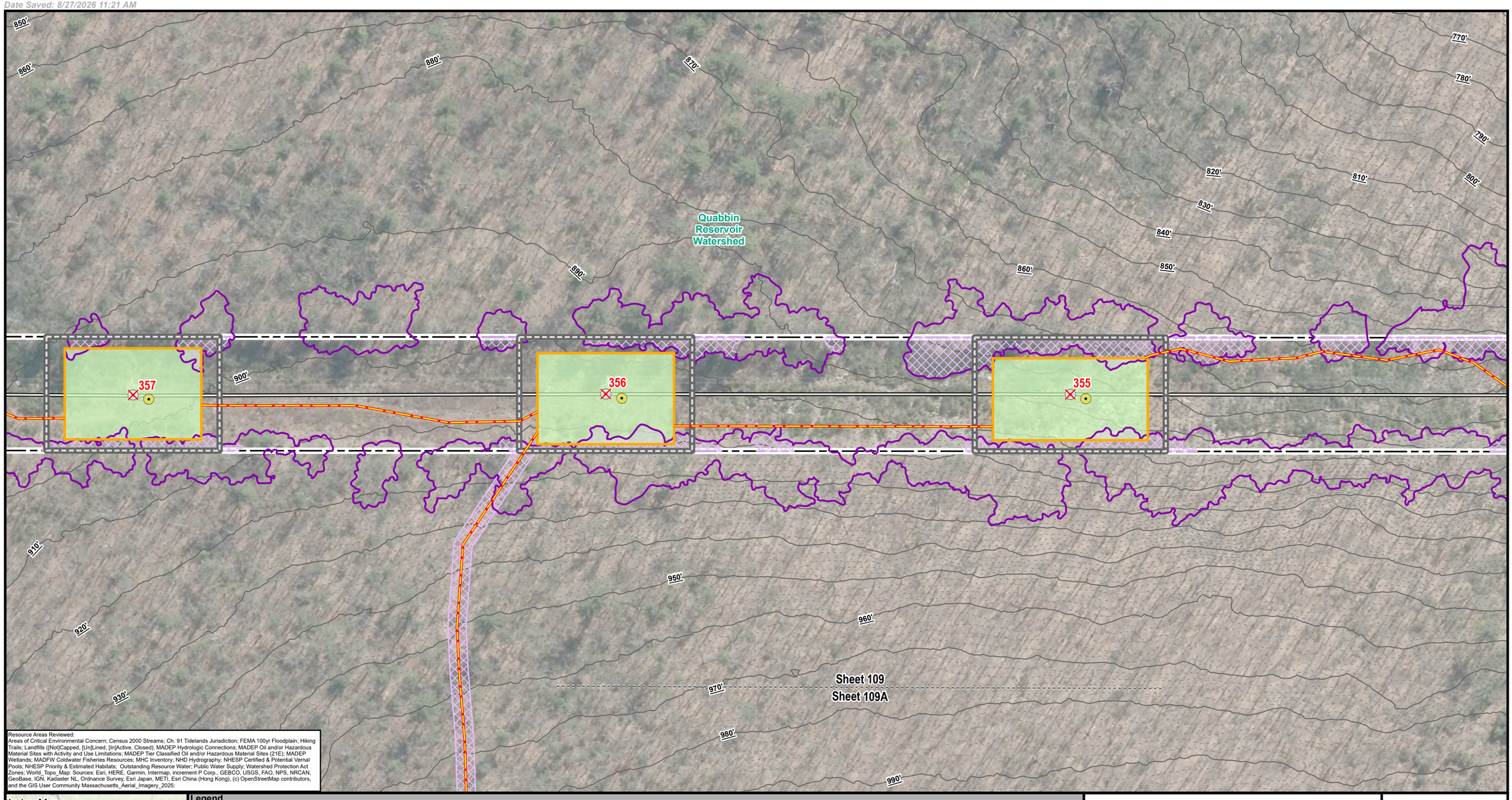
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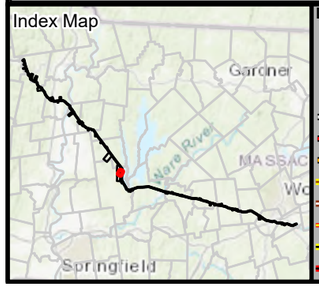
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Belchertown, MA
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1 inch = 200 feet

0 100 200

Feet

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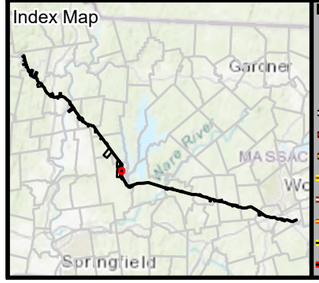
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Belchertown, MA
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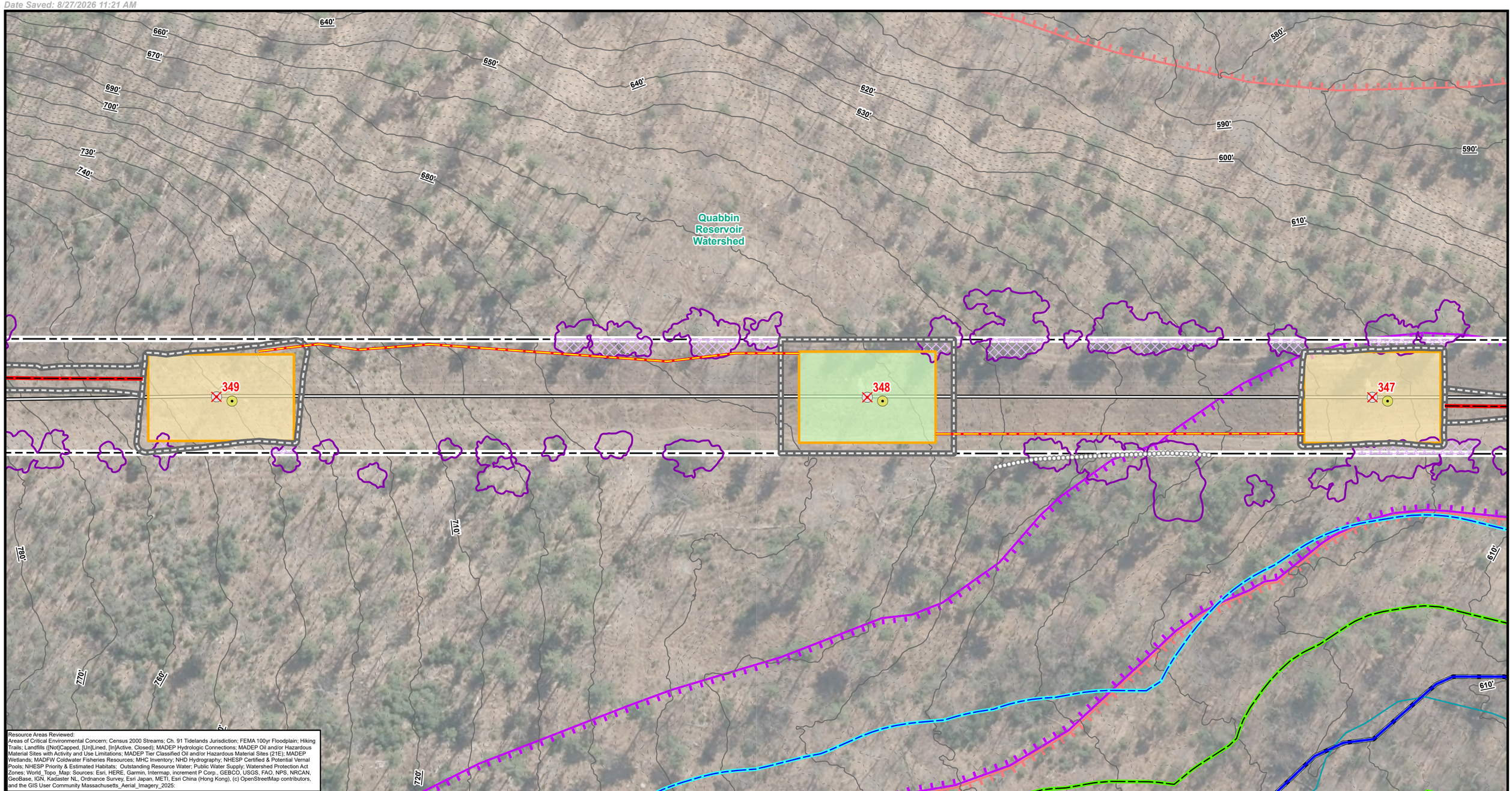
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Belchertown, MA
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0 50 100

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PH 1253
EH 907
347
346
345
SPAN STREAM
SPAN STREAM
SPAN STREAM
SPAN STREAM
BE-S2
BE-S3
BE-S3
BE-S4
BE-W7
BE-W7
BE-W7
BE-W6
Quabbin Reservoir Watershed
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570'
600'
610'
530'
540'
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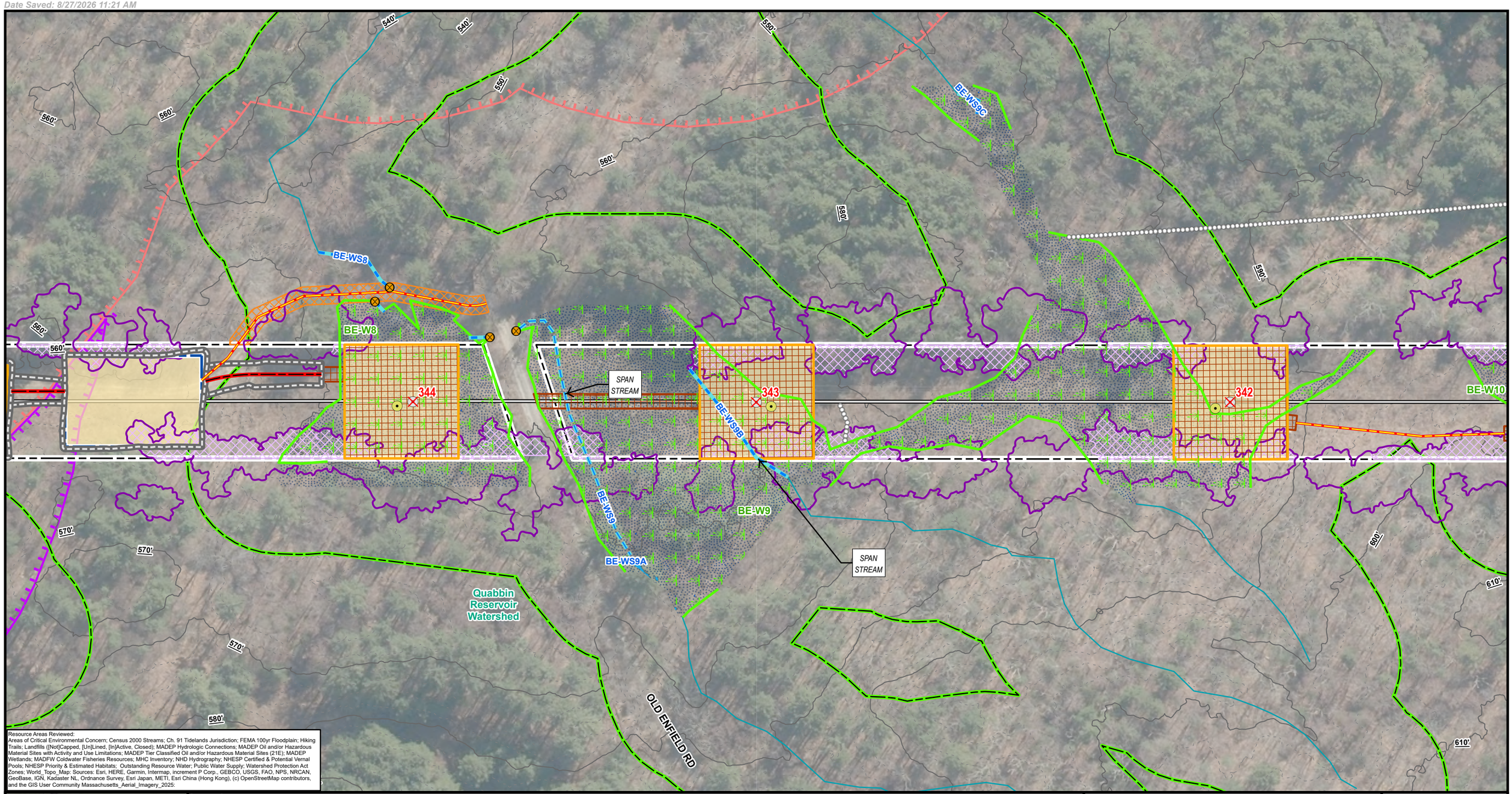
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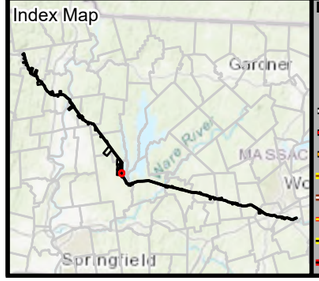
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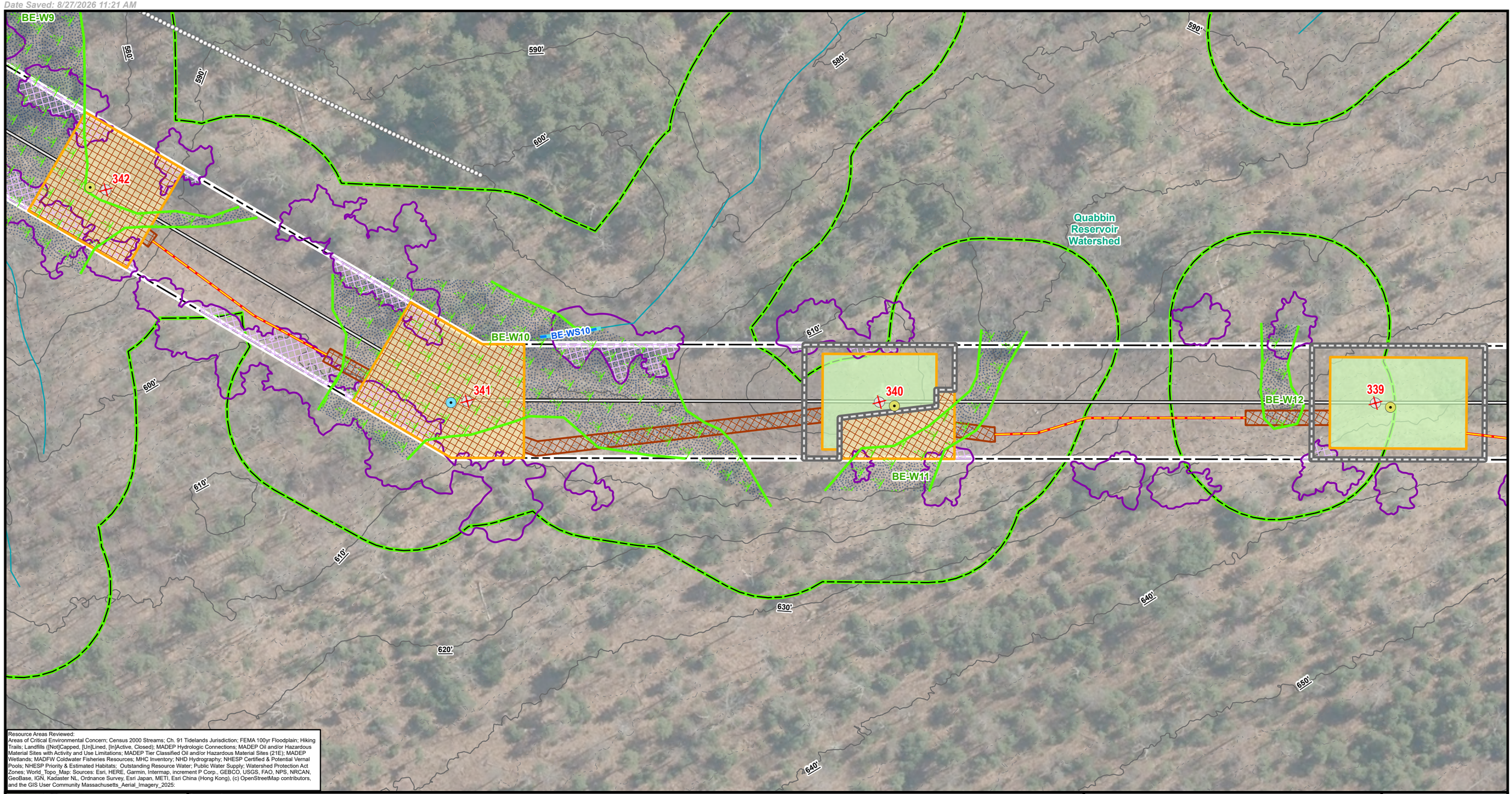
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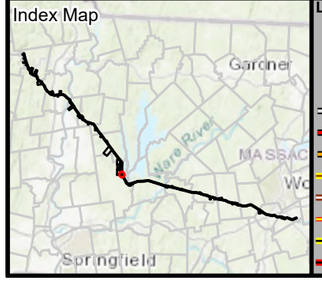
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Belchertown, MA
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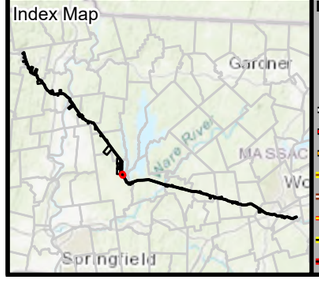
Quabbin Reservoir Watershed

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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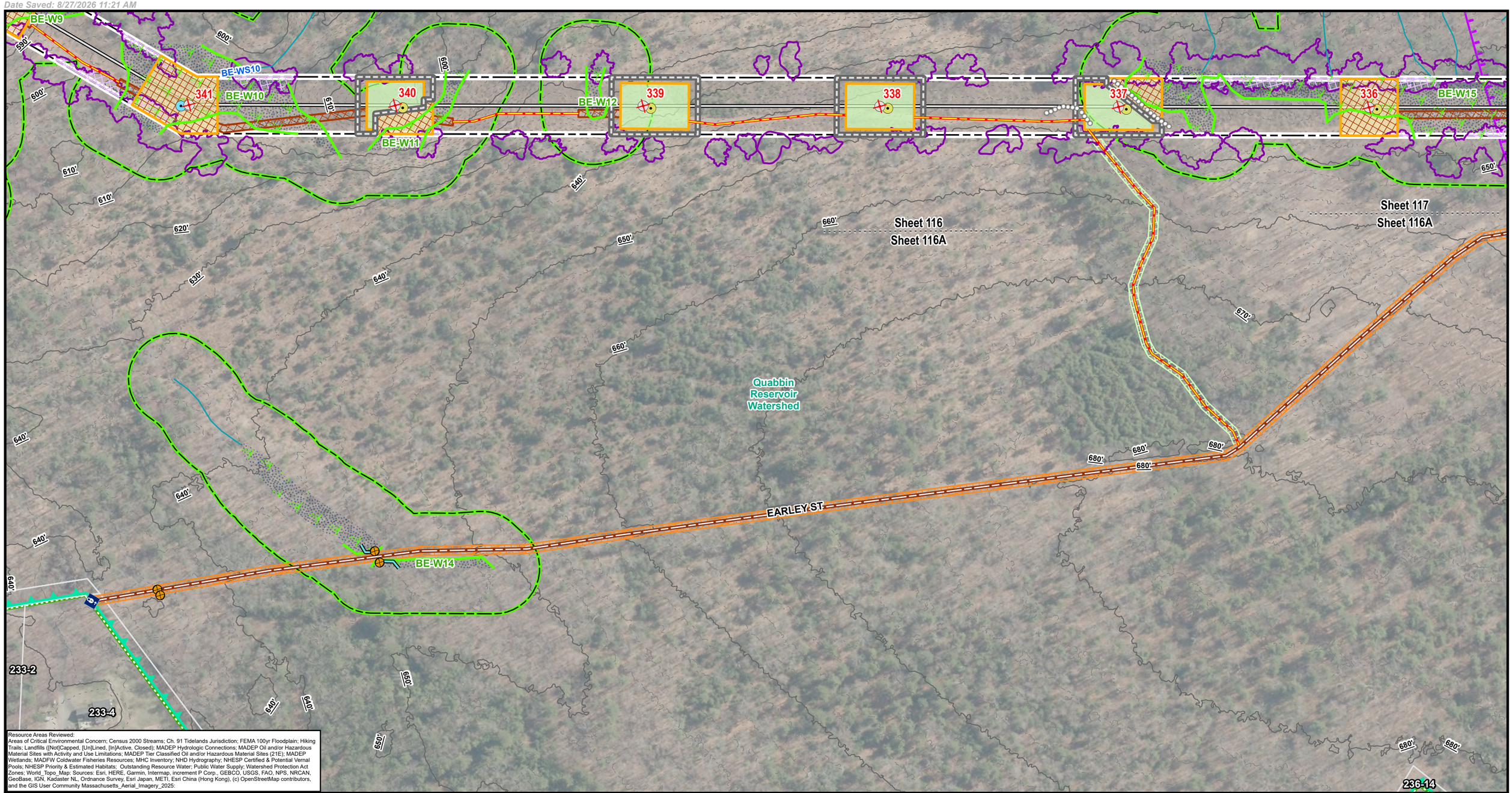
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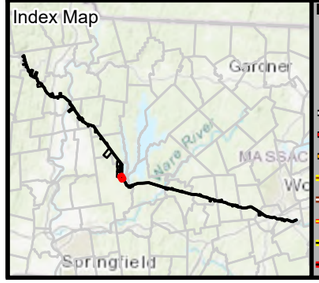
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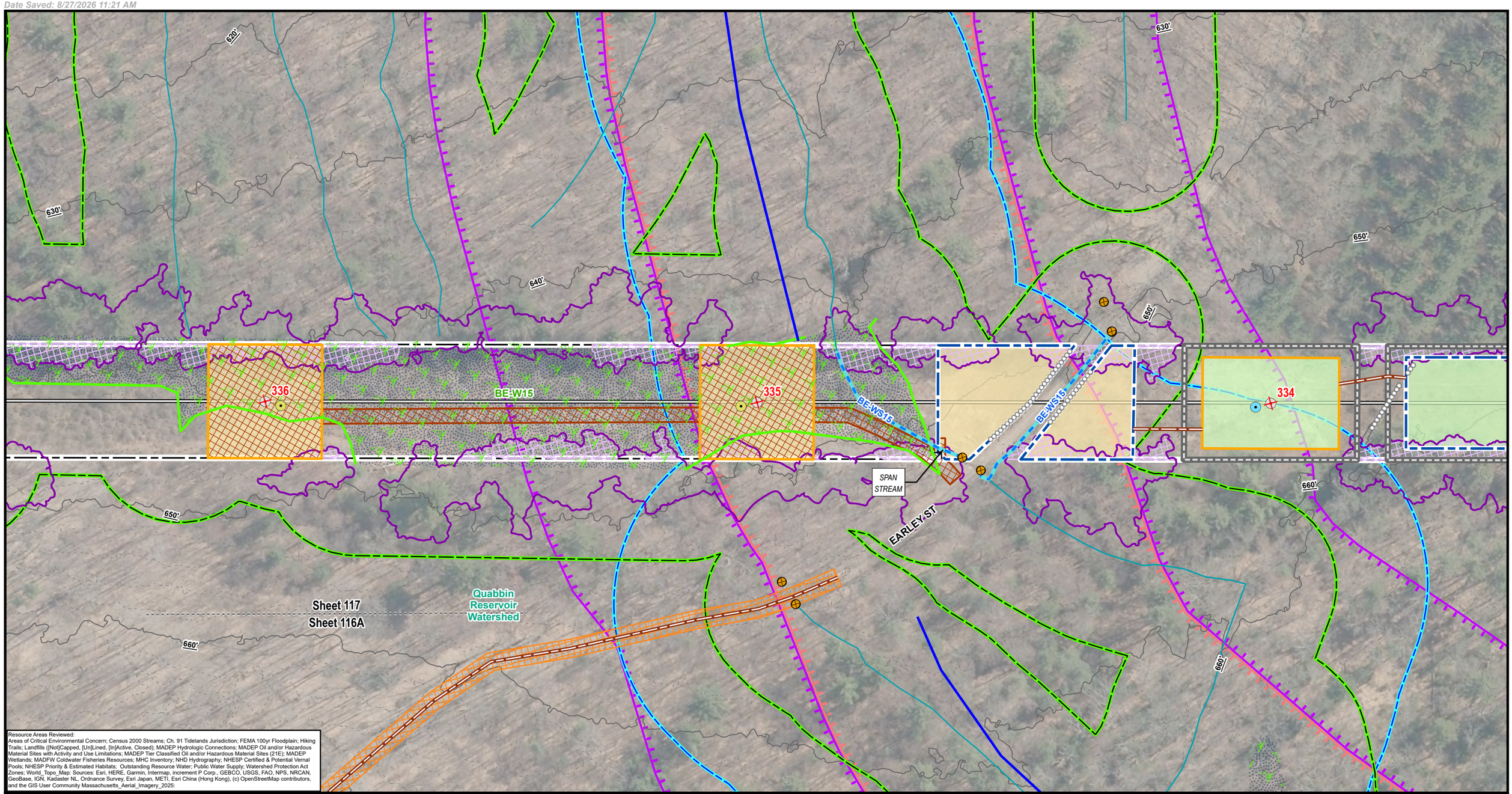
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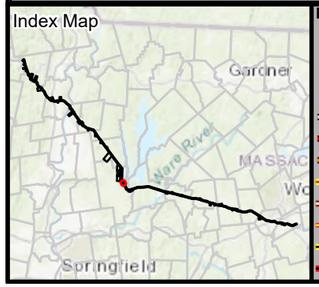
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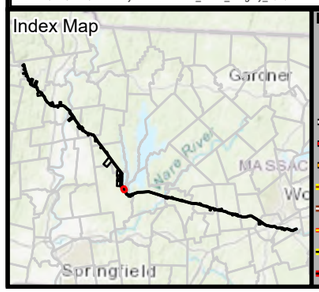
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640'
650'
Quabbin Reservoir Watershed
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660'
333
332
331
670'
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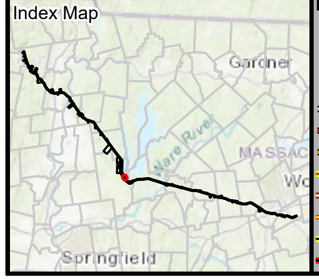
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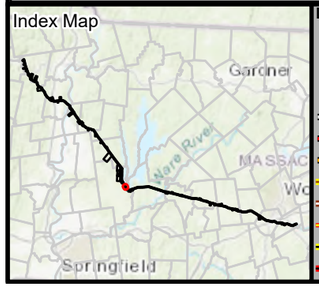
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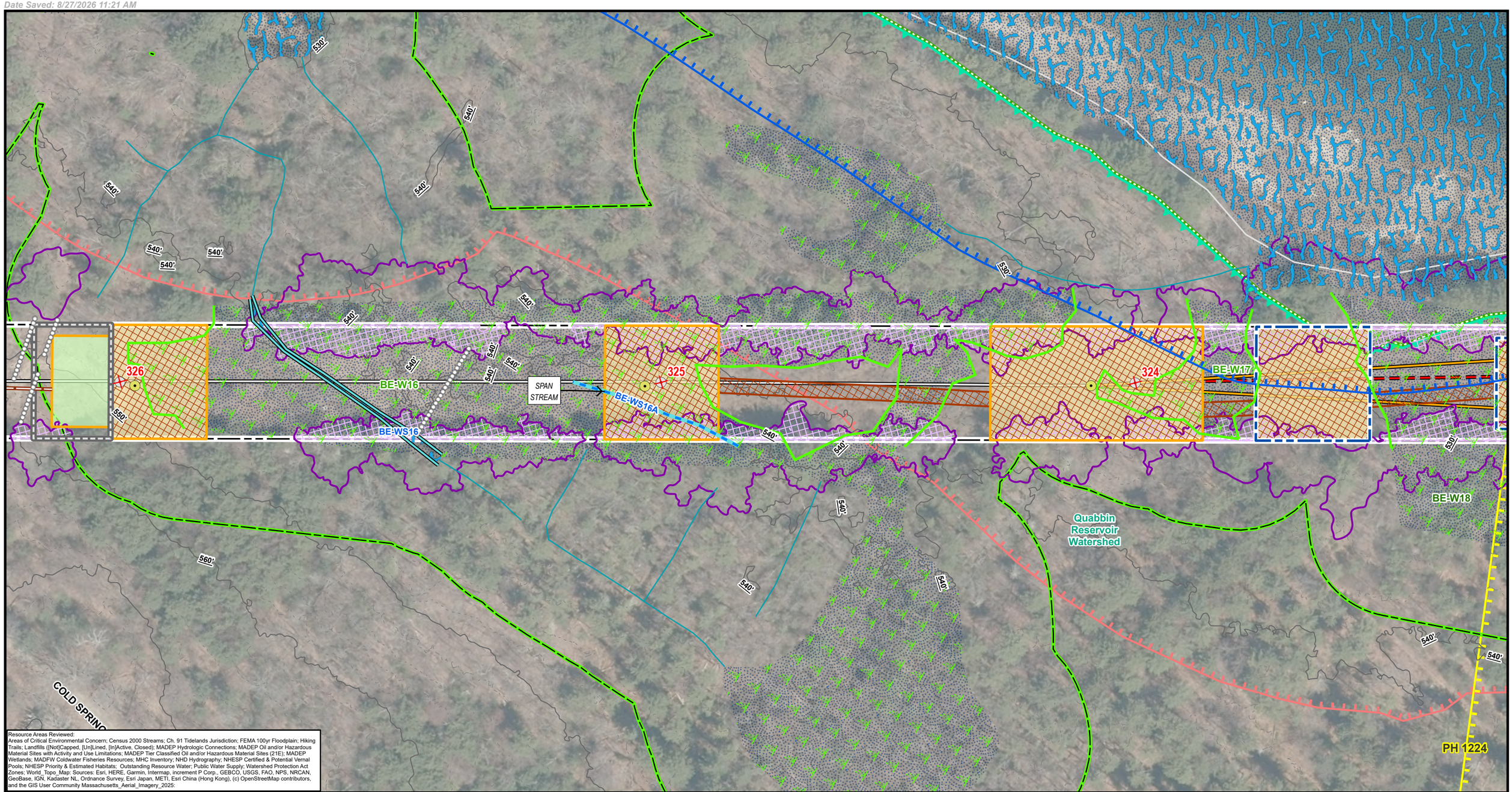
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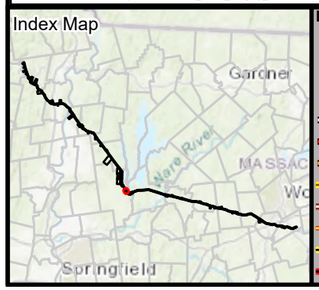
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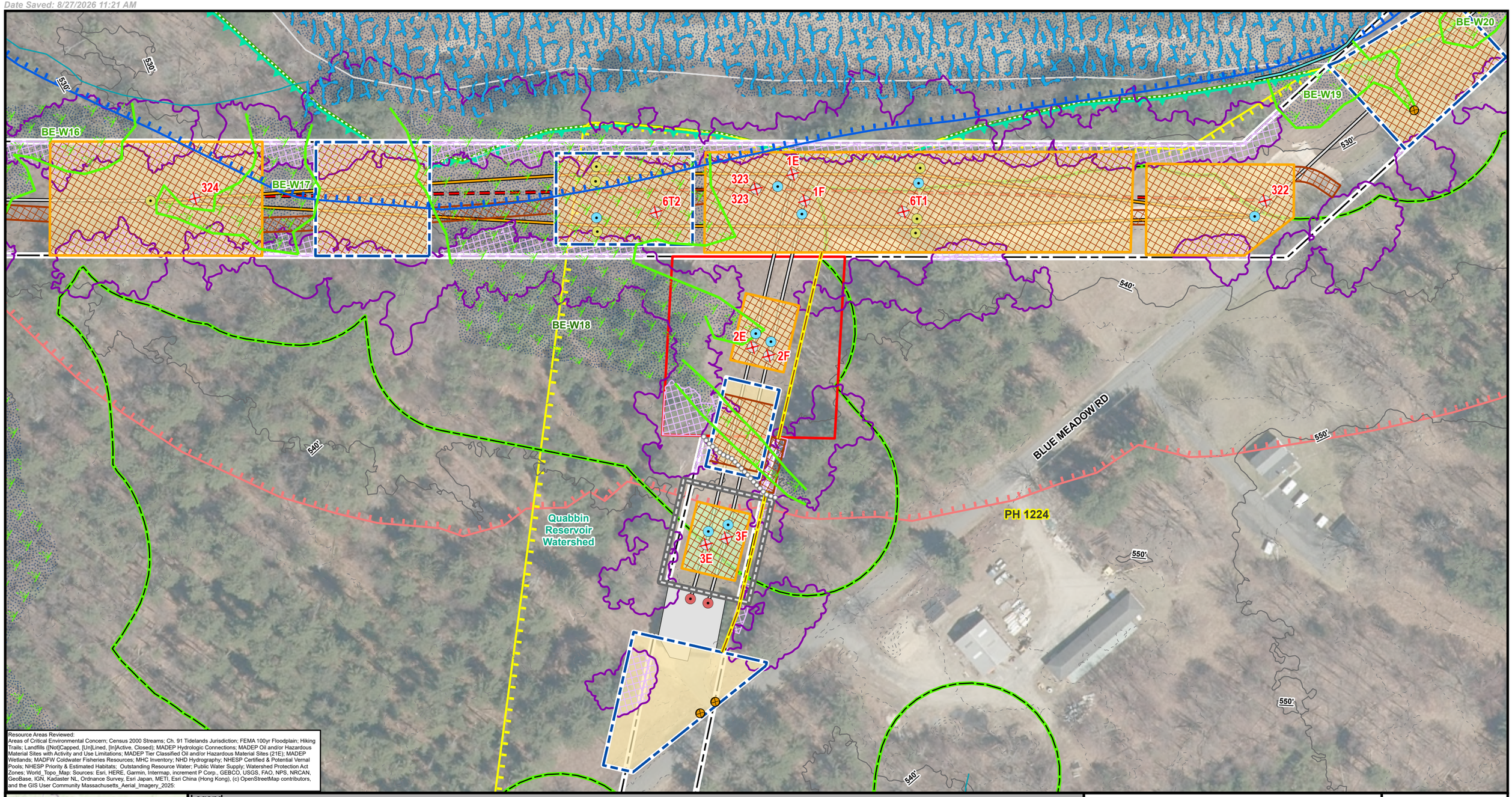
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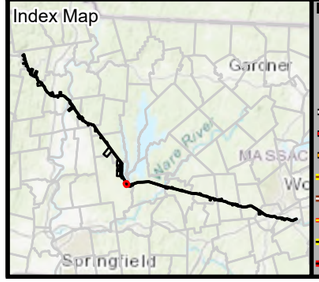
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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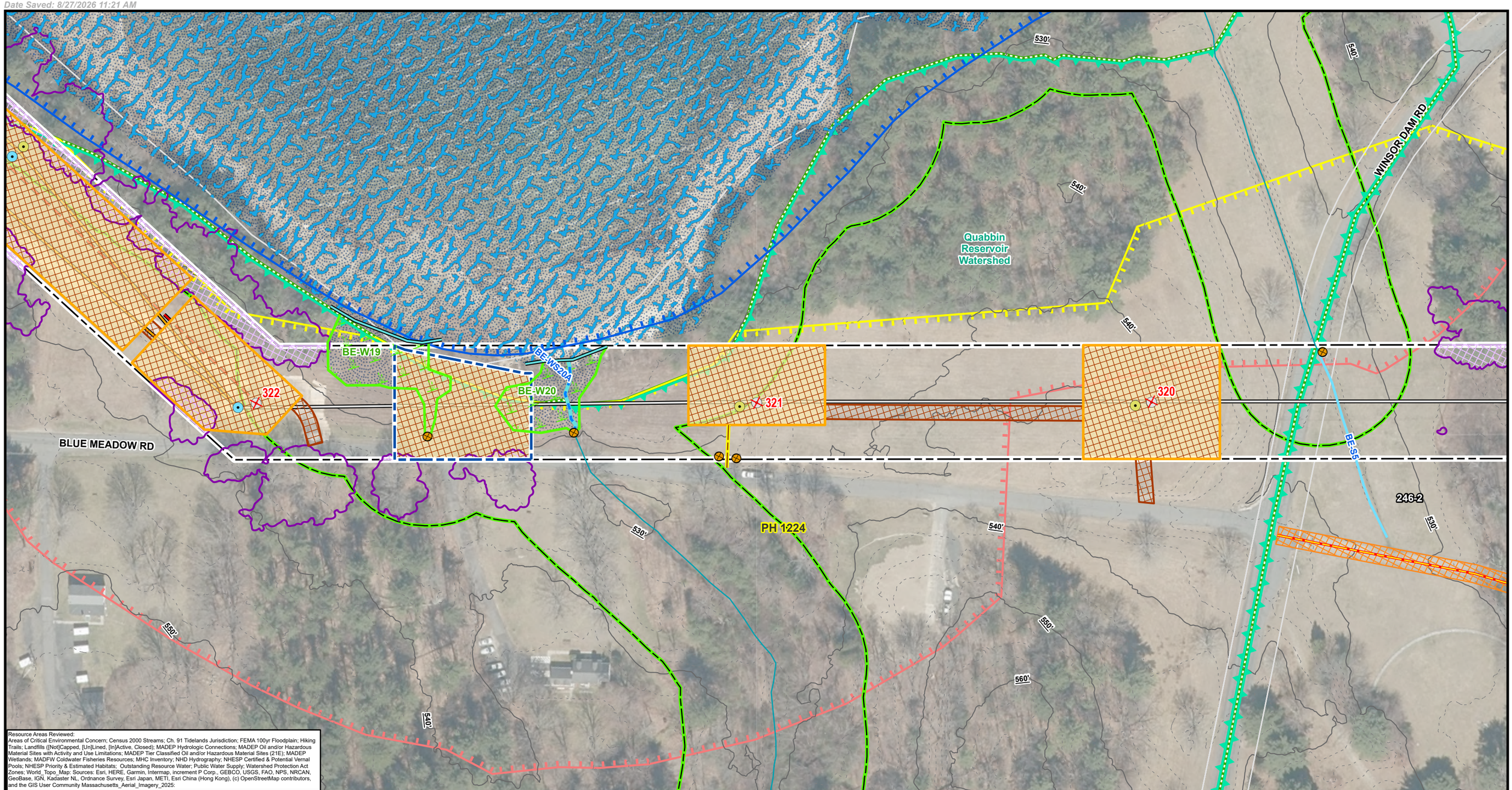
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Environmental Resources Map

Belchertown, MA
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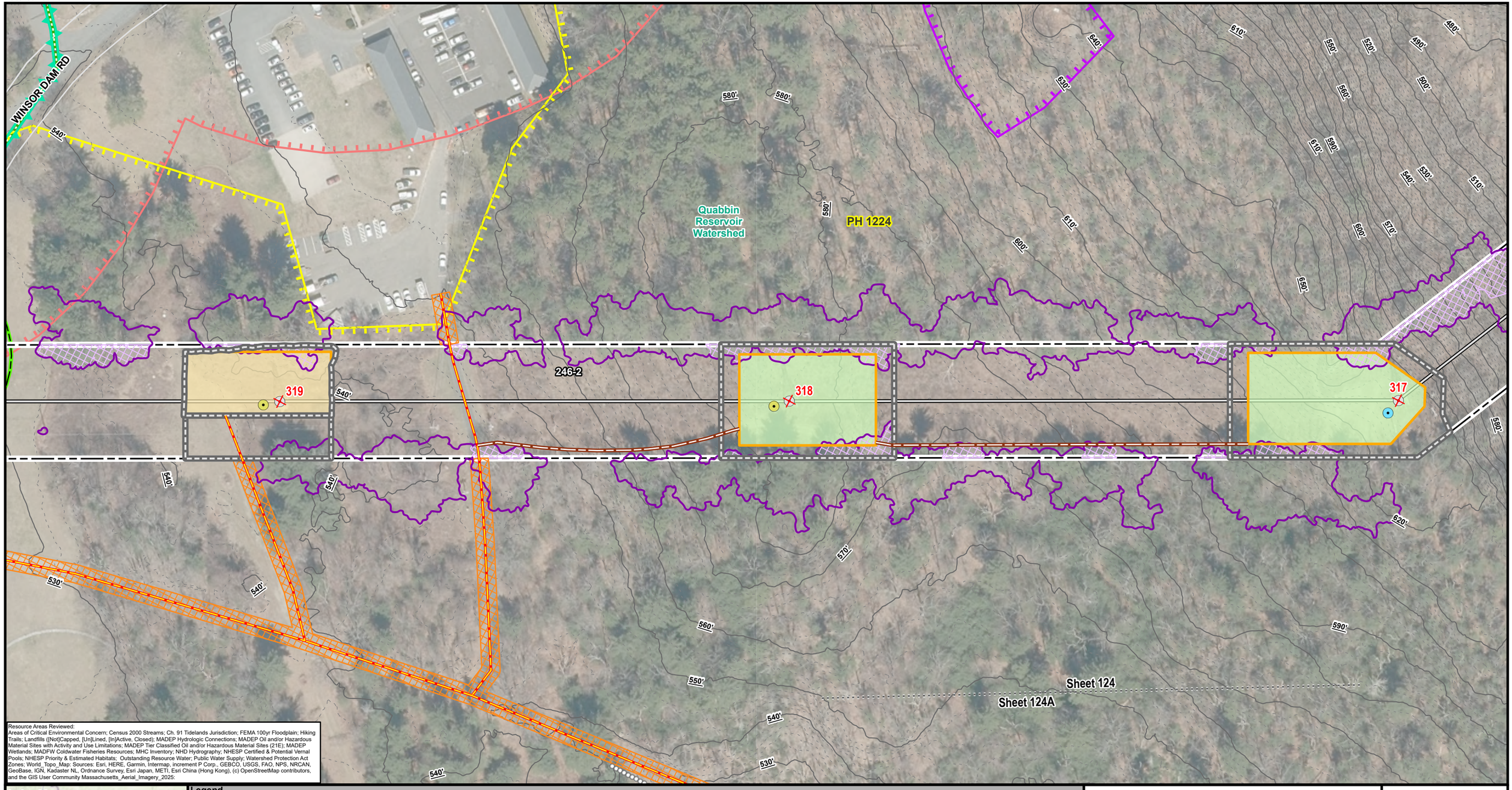
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Environmental Resources Map

Belchertown, MA
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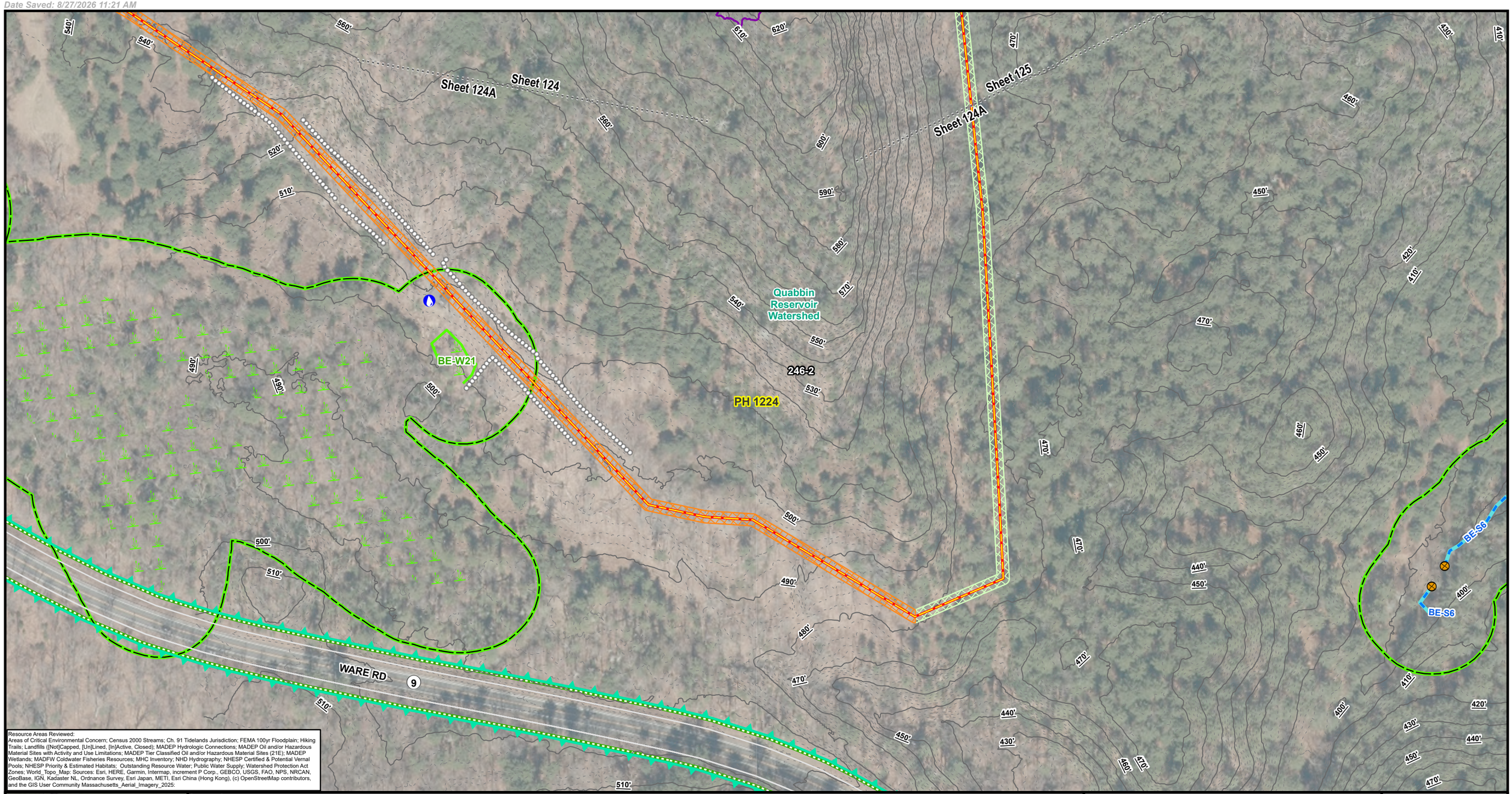
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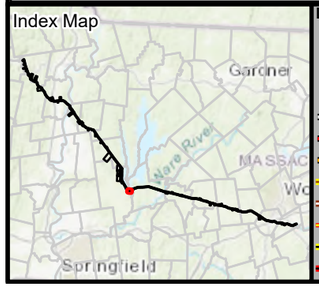
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Belchertown, MA
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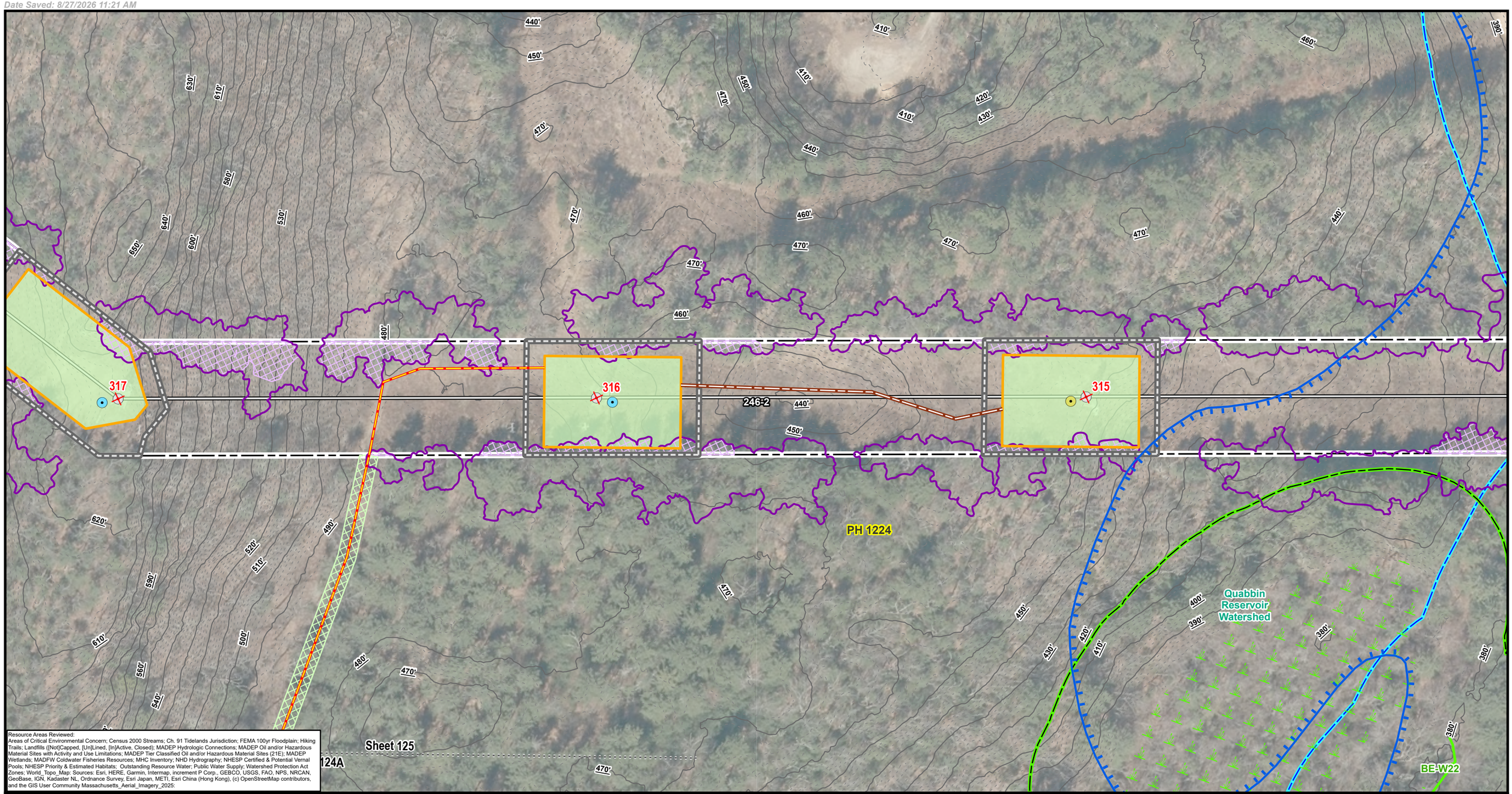
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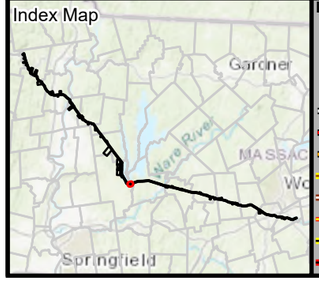
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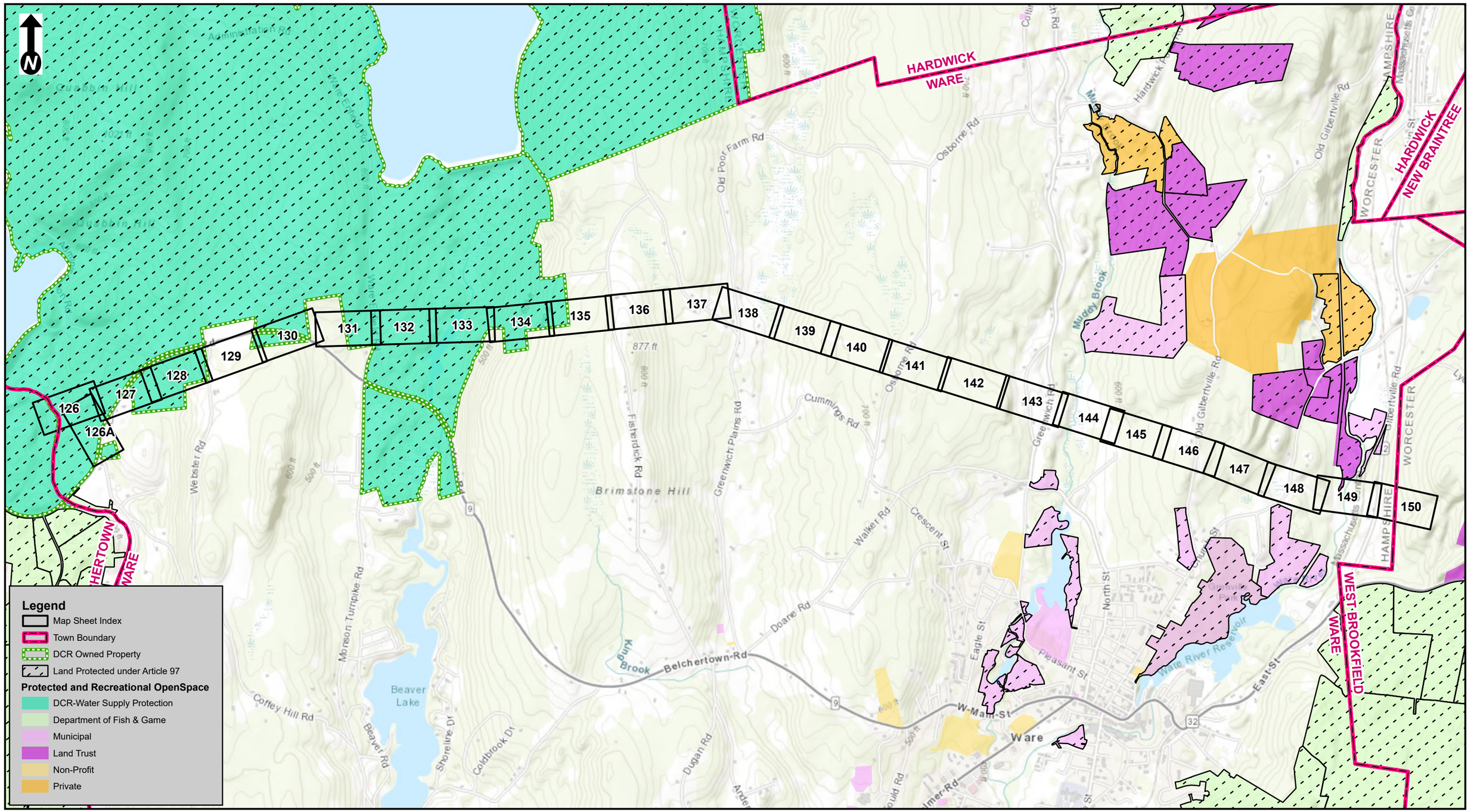
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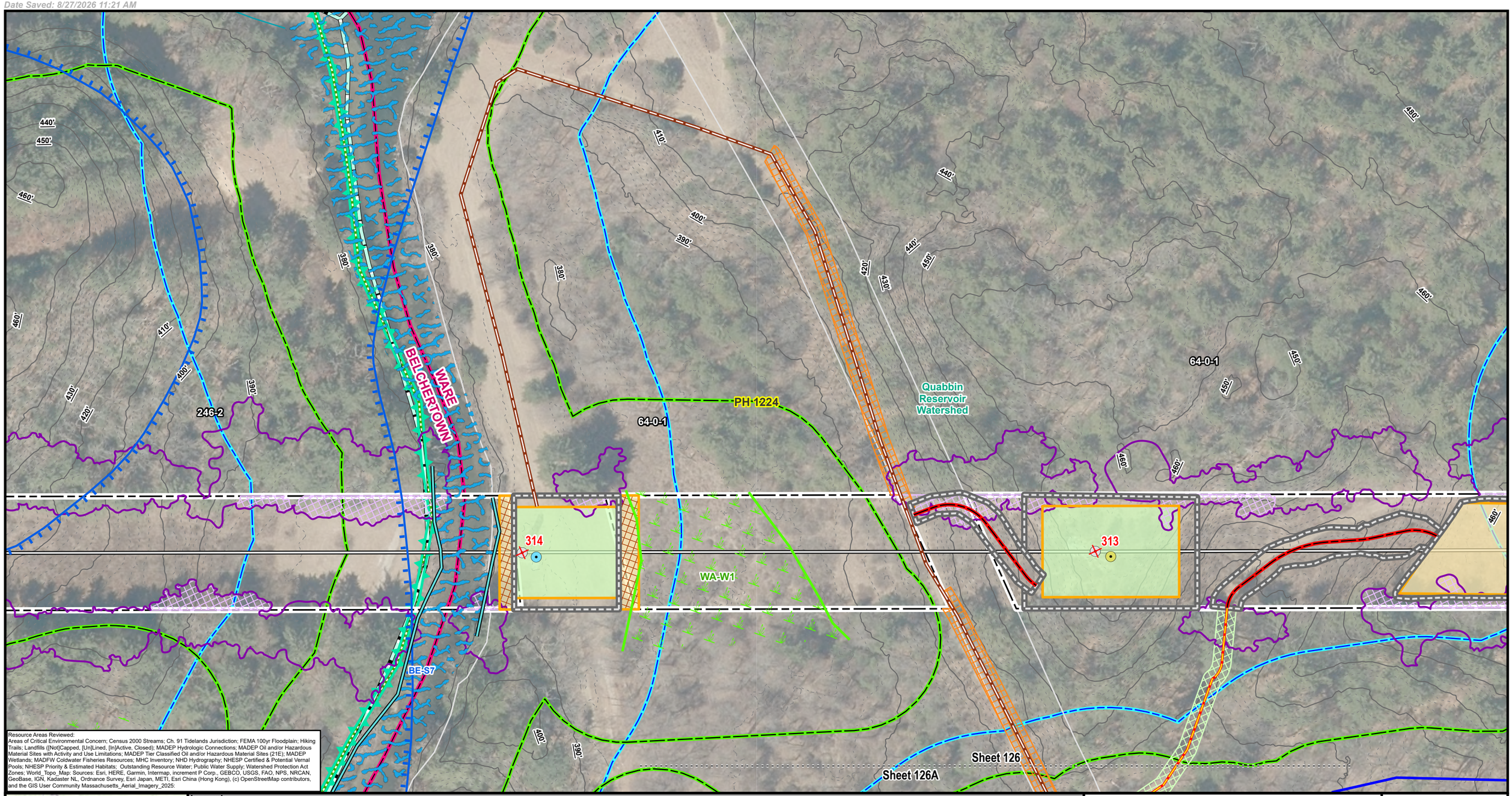
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Ware, MA

Source: 2013 National Geographic Society, i-cubed

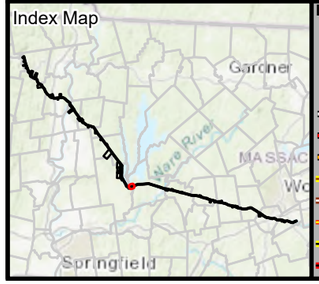
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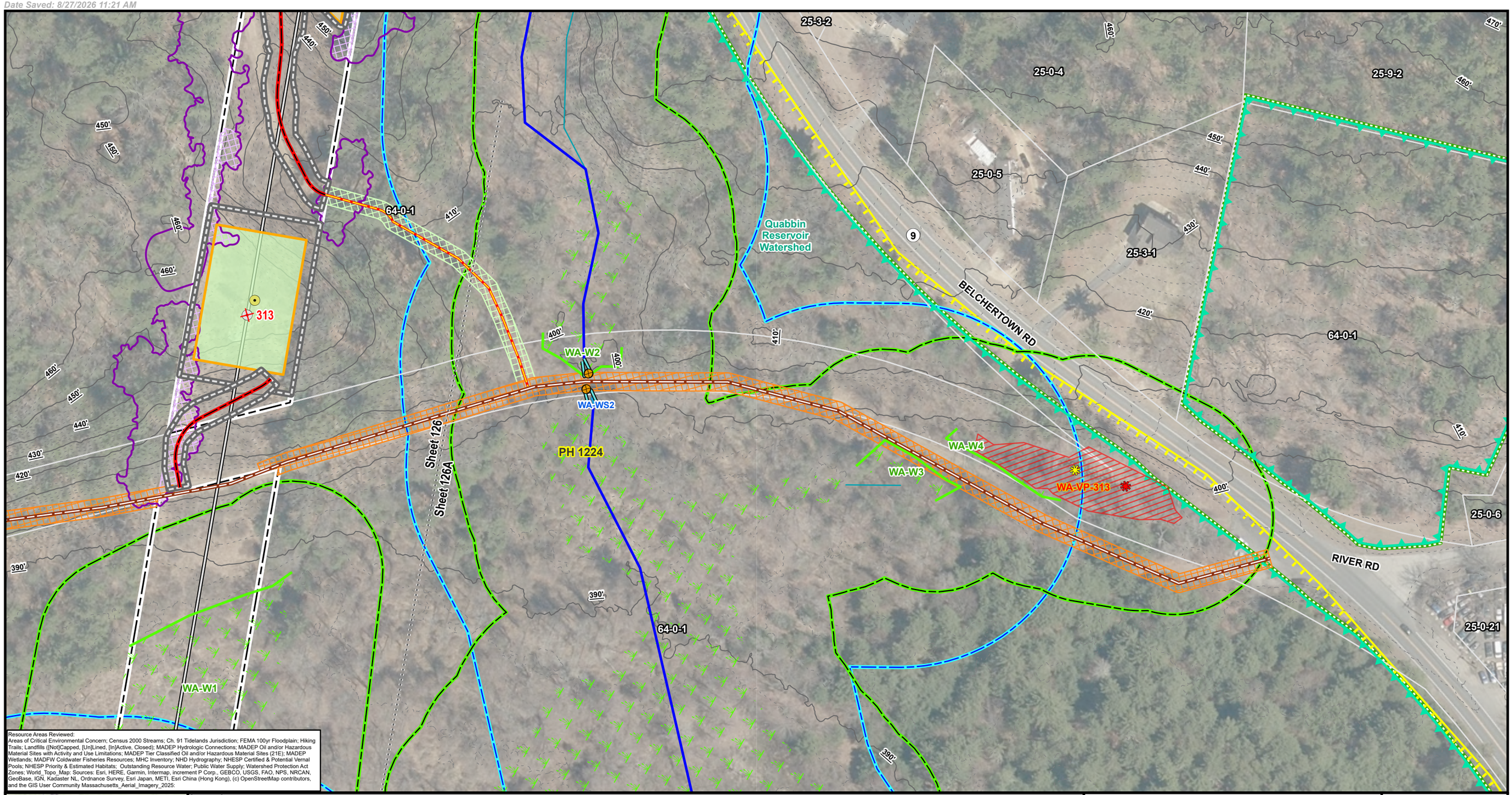
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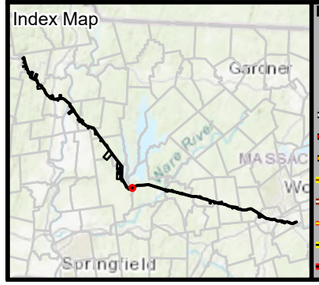
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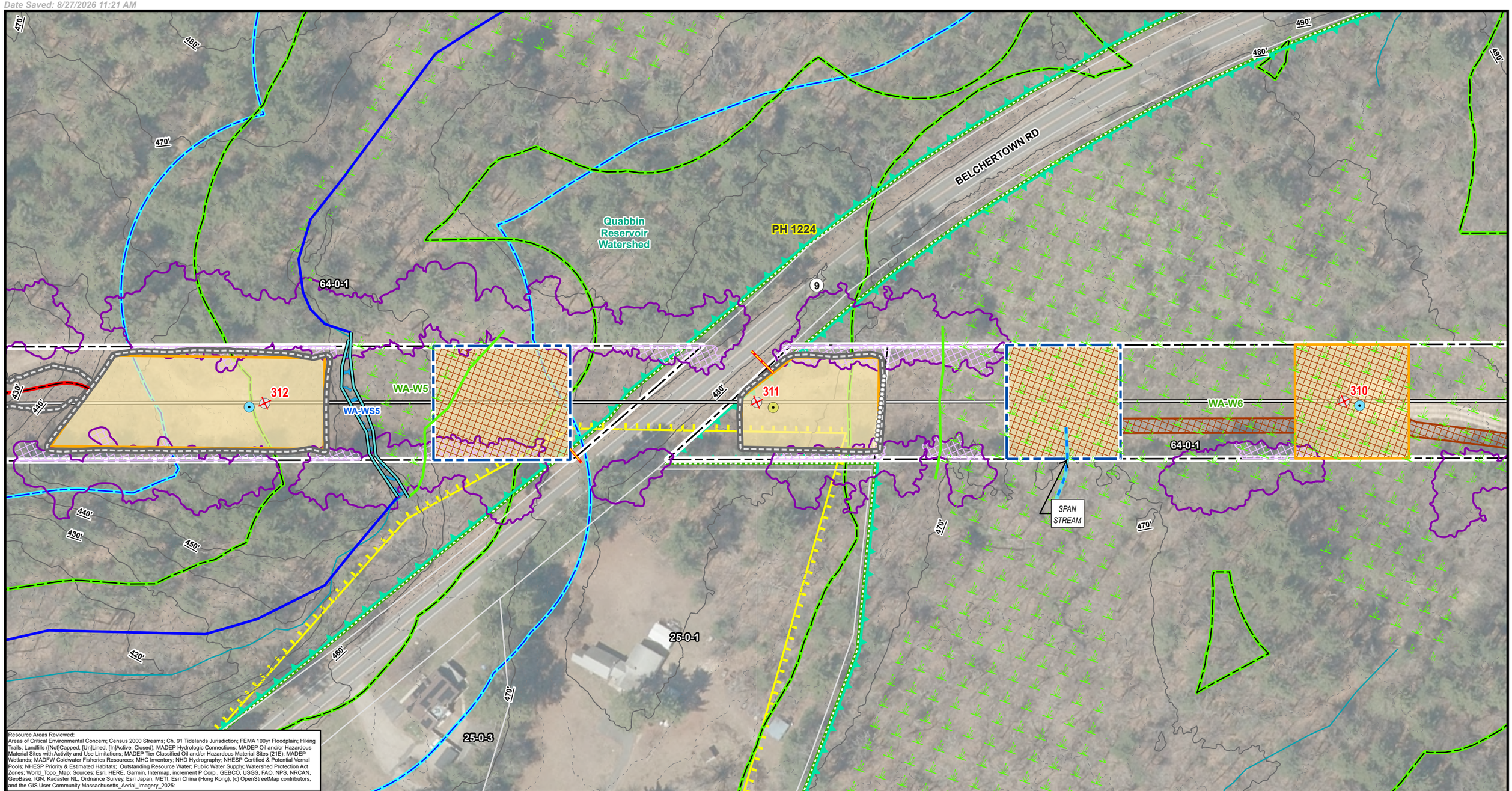
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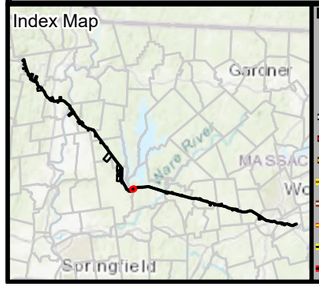
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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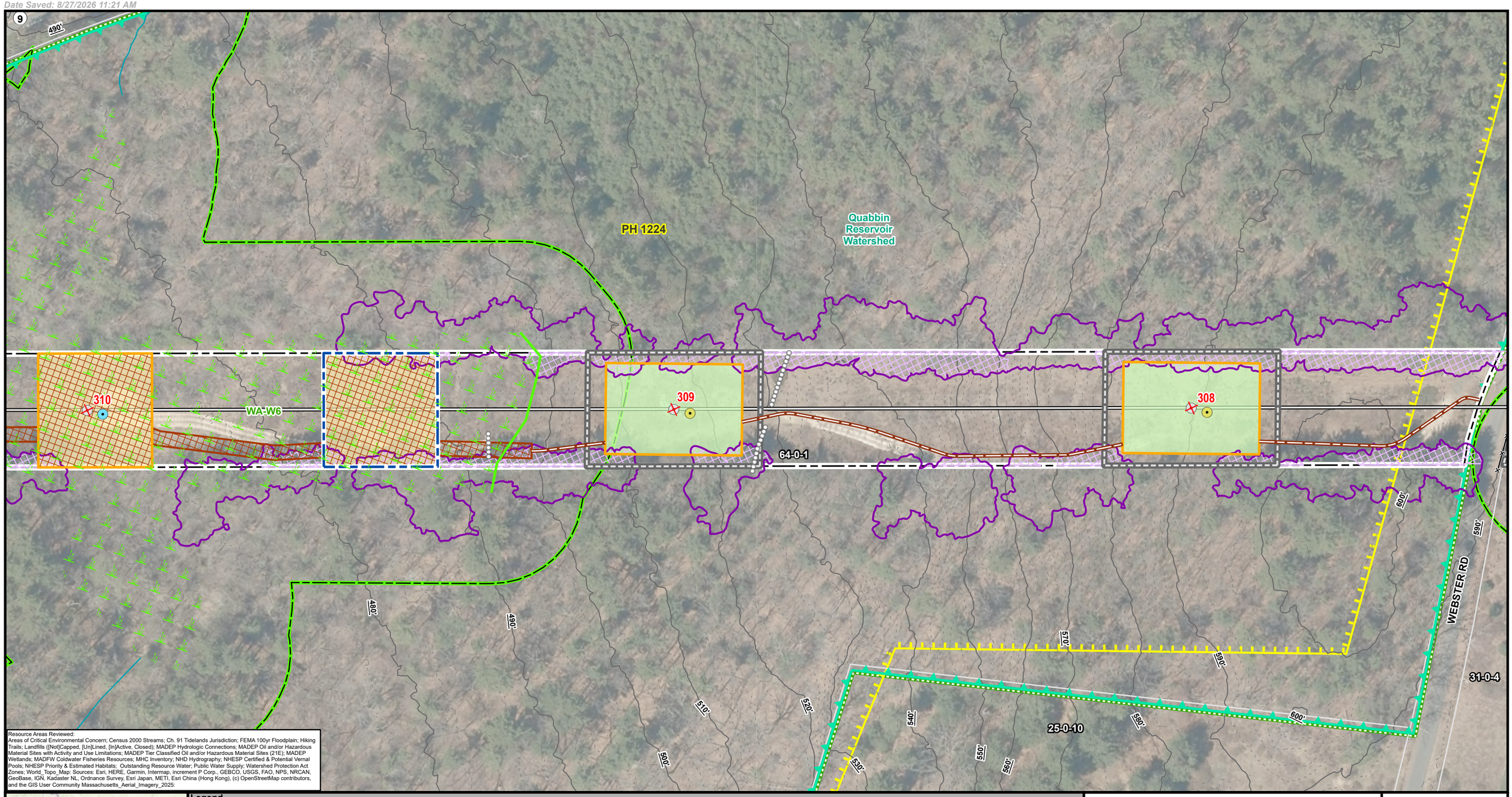
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Ware, MA
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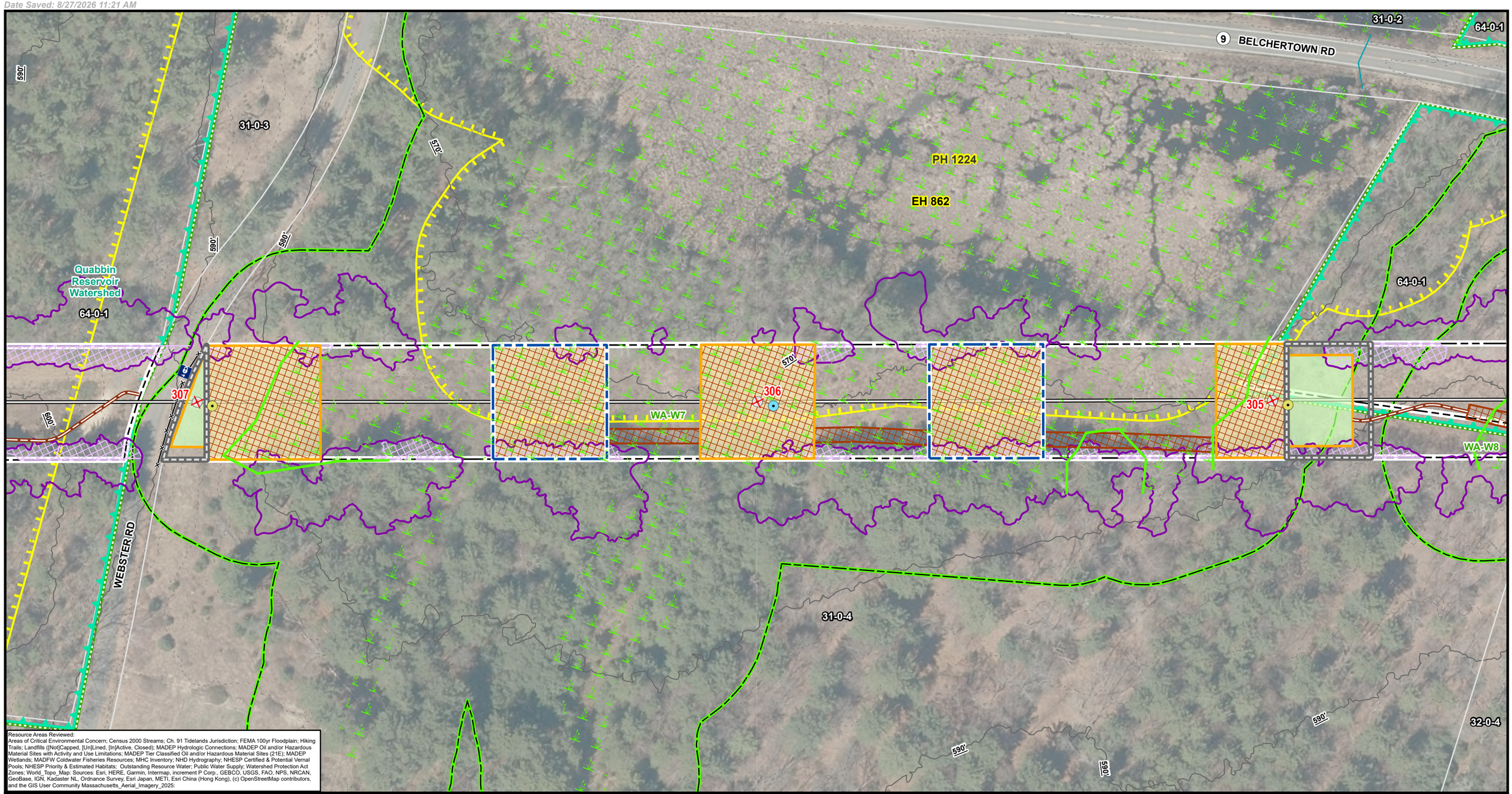
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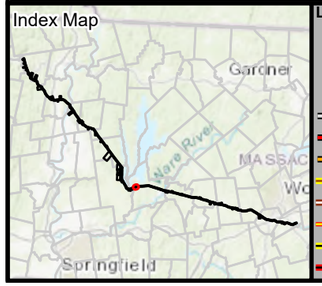
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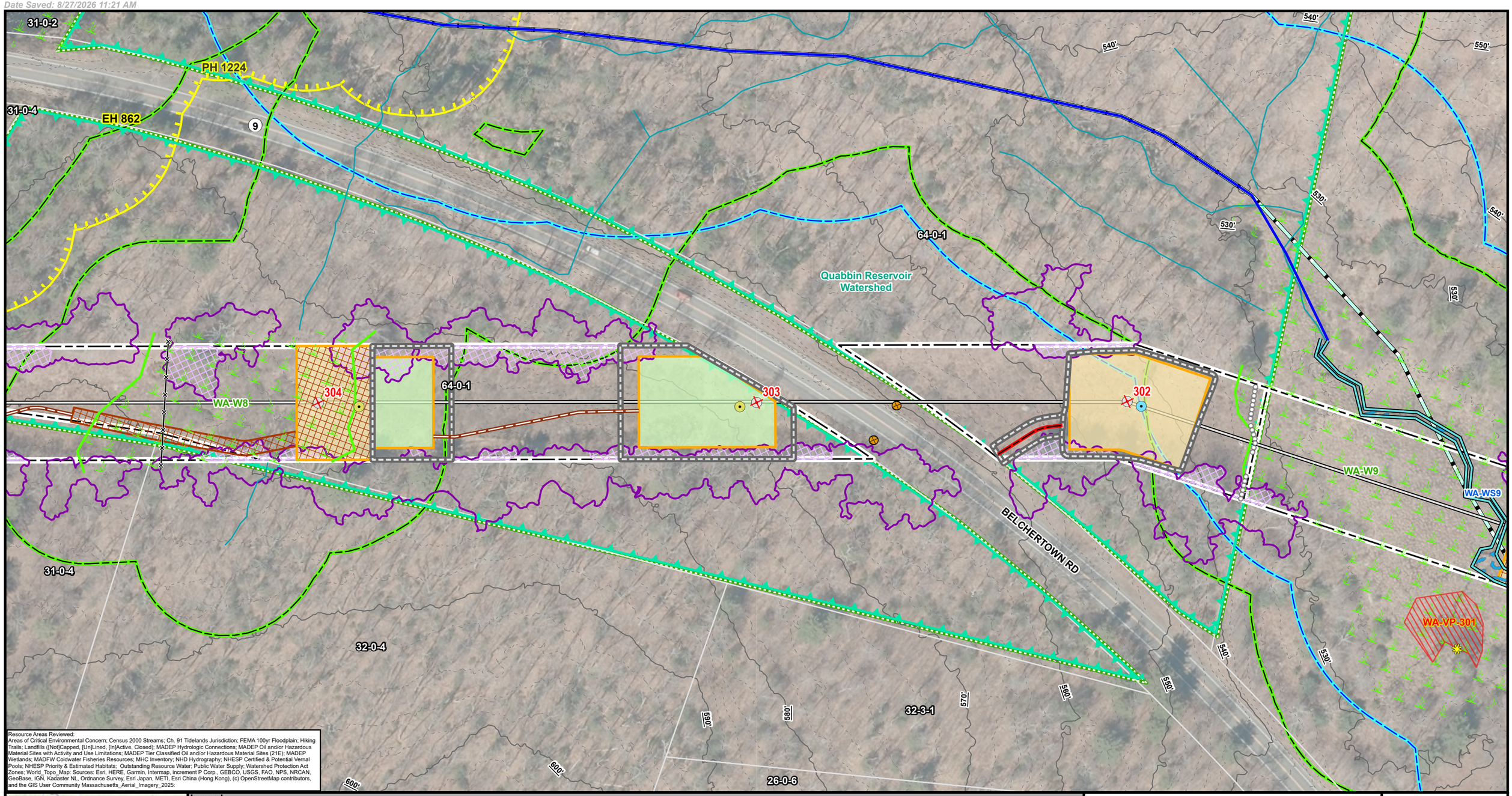
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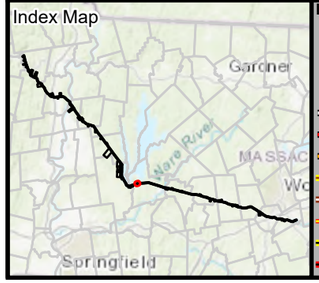
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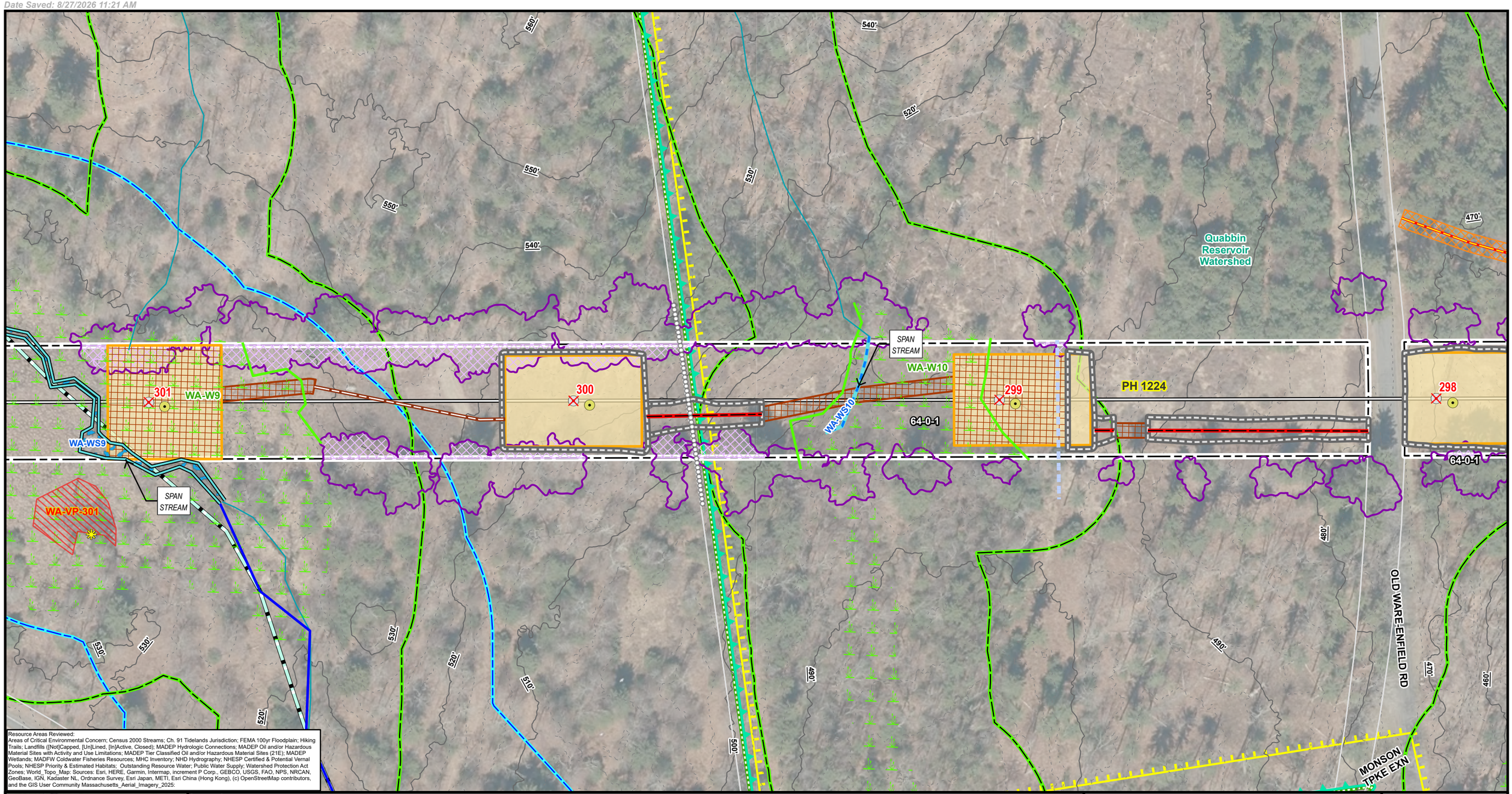
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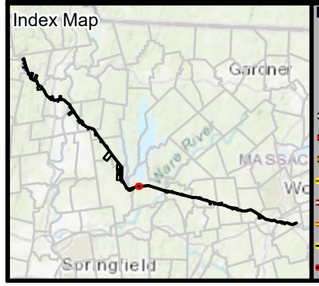
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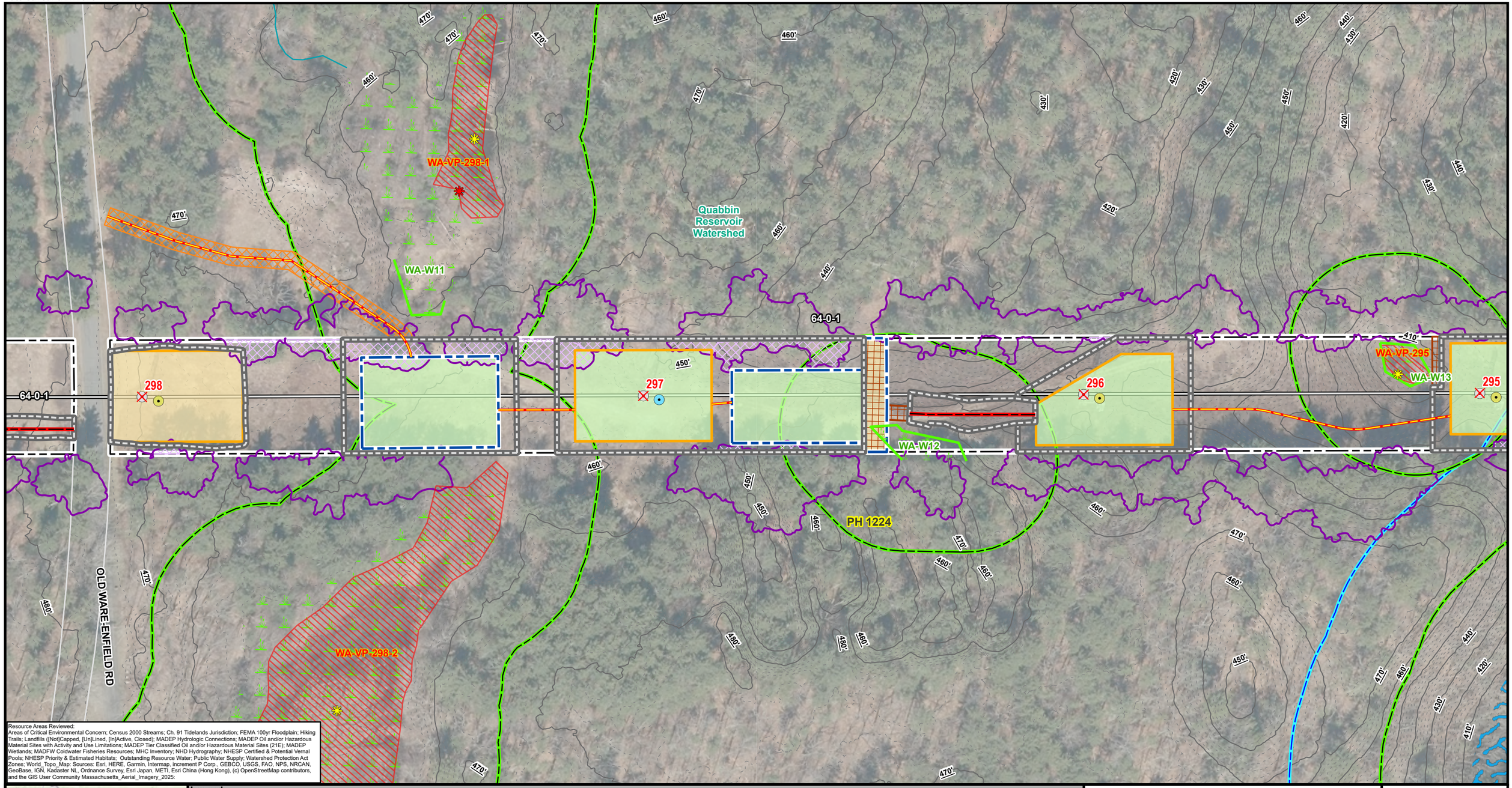
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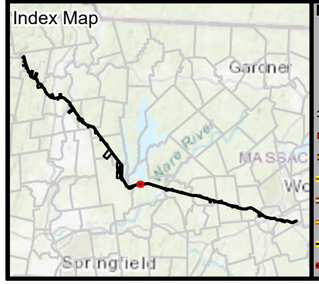
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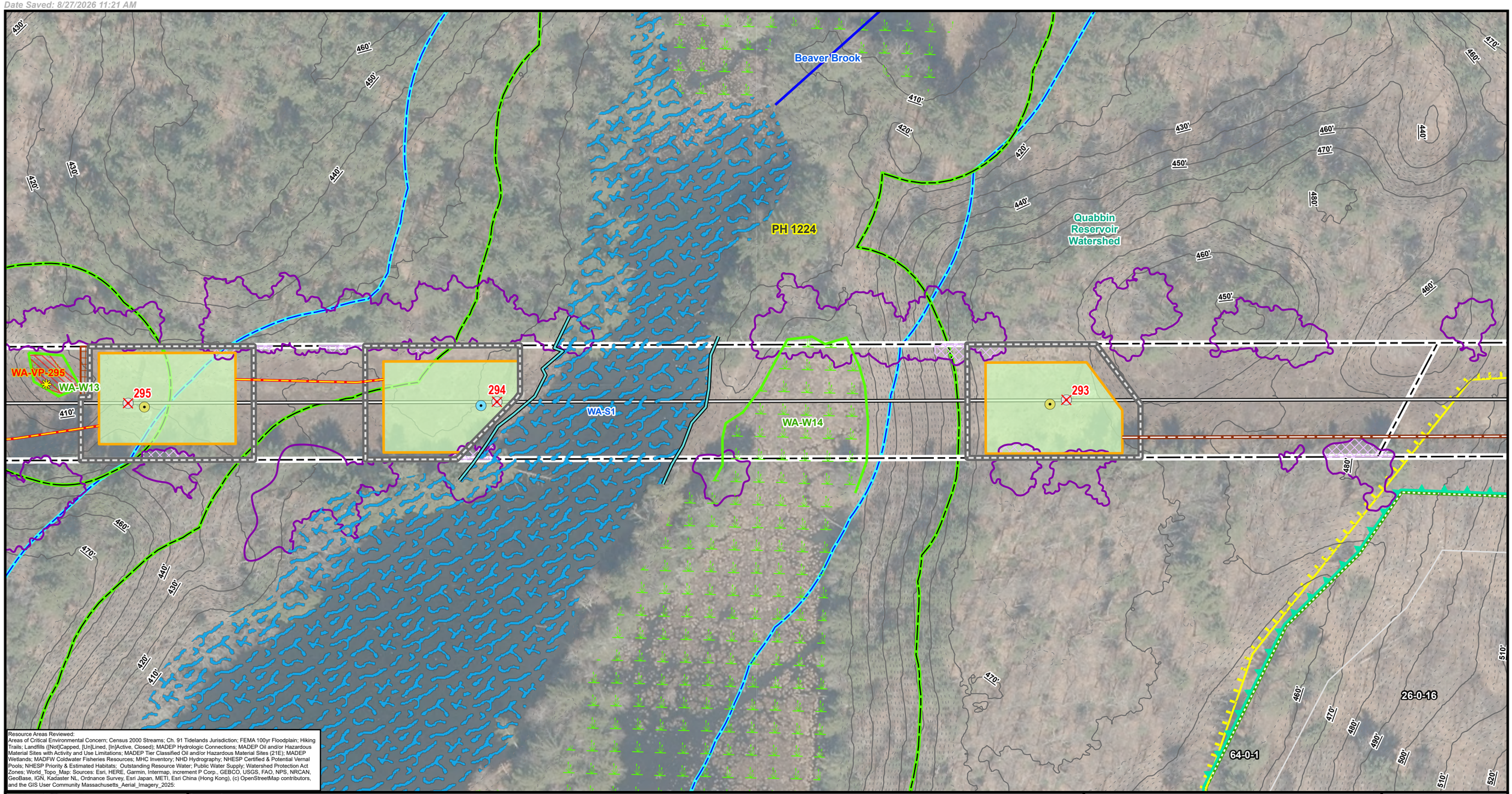
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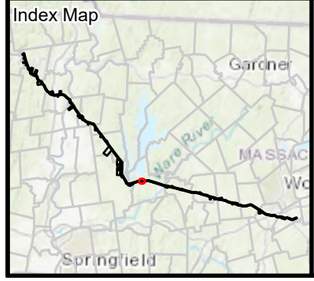
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1 inch = 100 feet

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Feet

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PH 1224

Quabbin Reservoir Watershed

292

291

290

WA-S3

SPAN STREAM

WA-W16

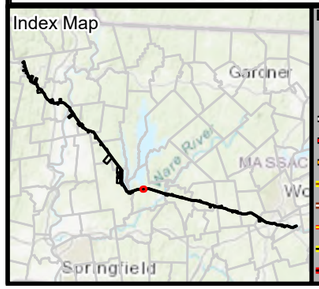
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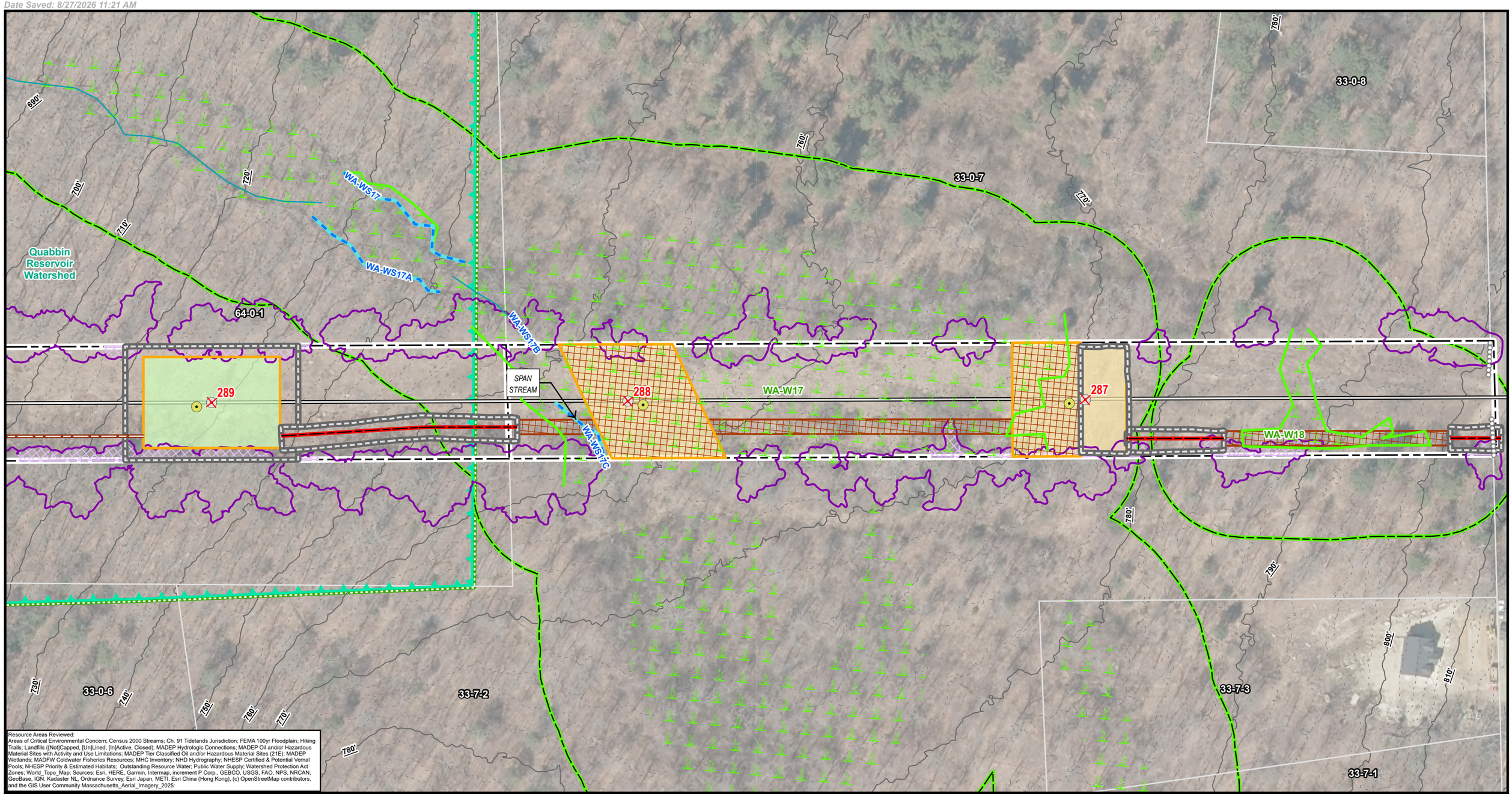
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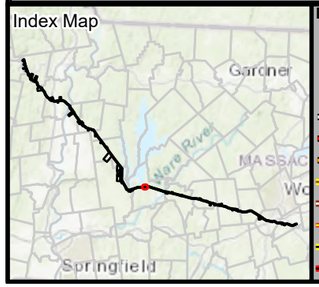
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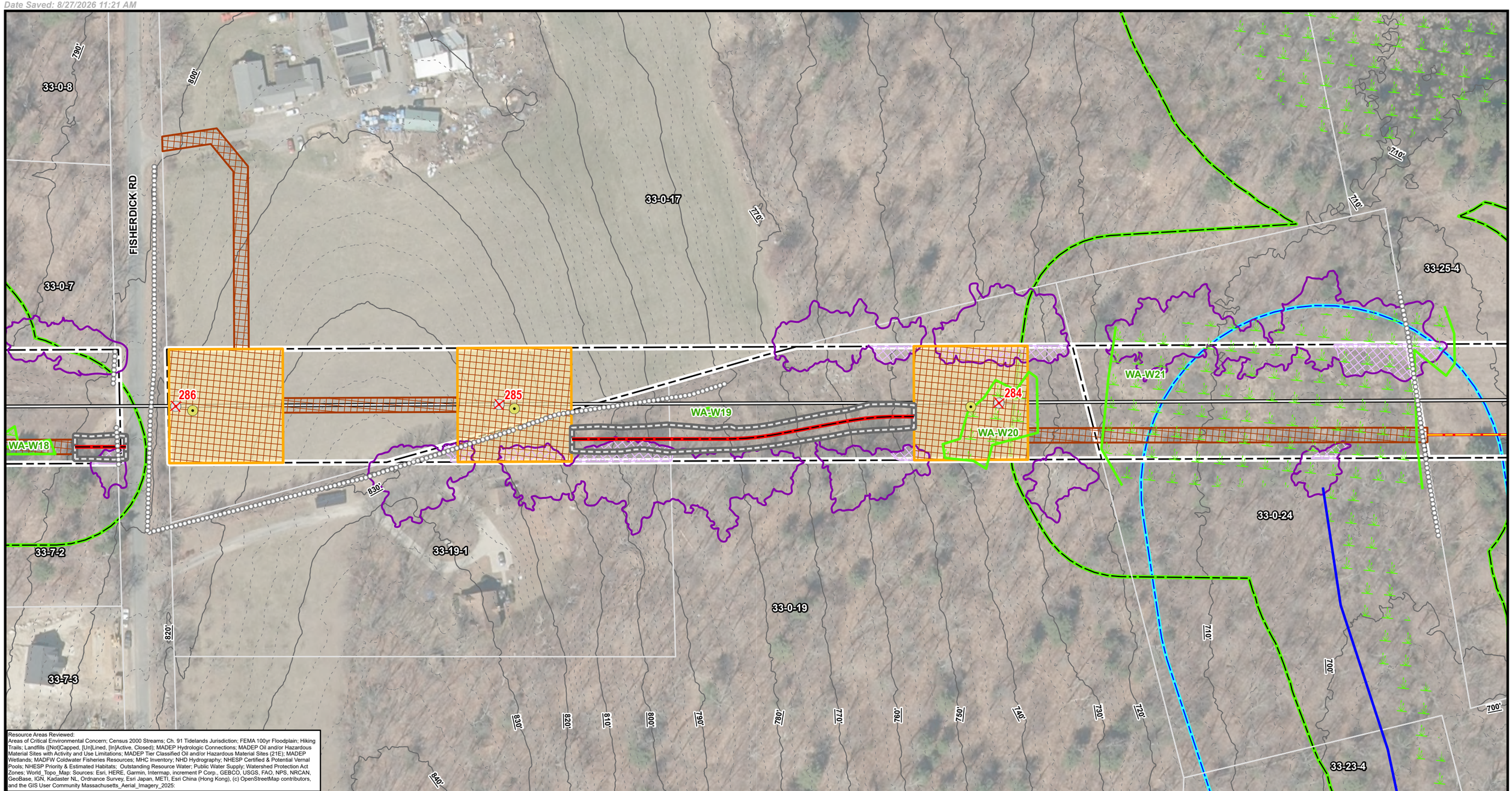
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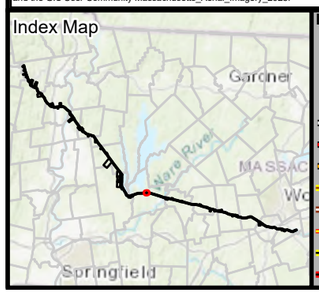
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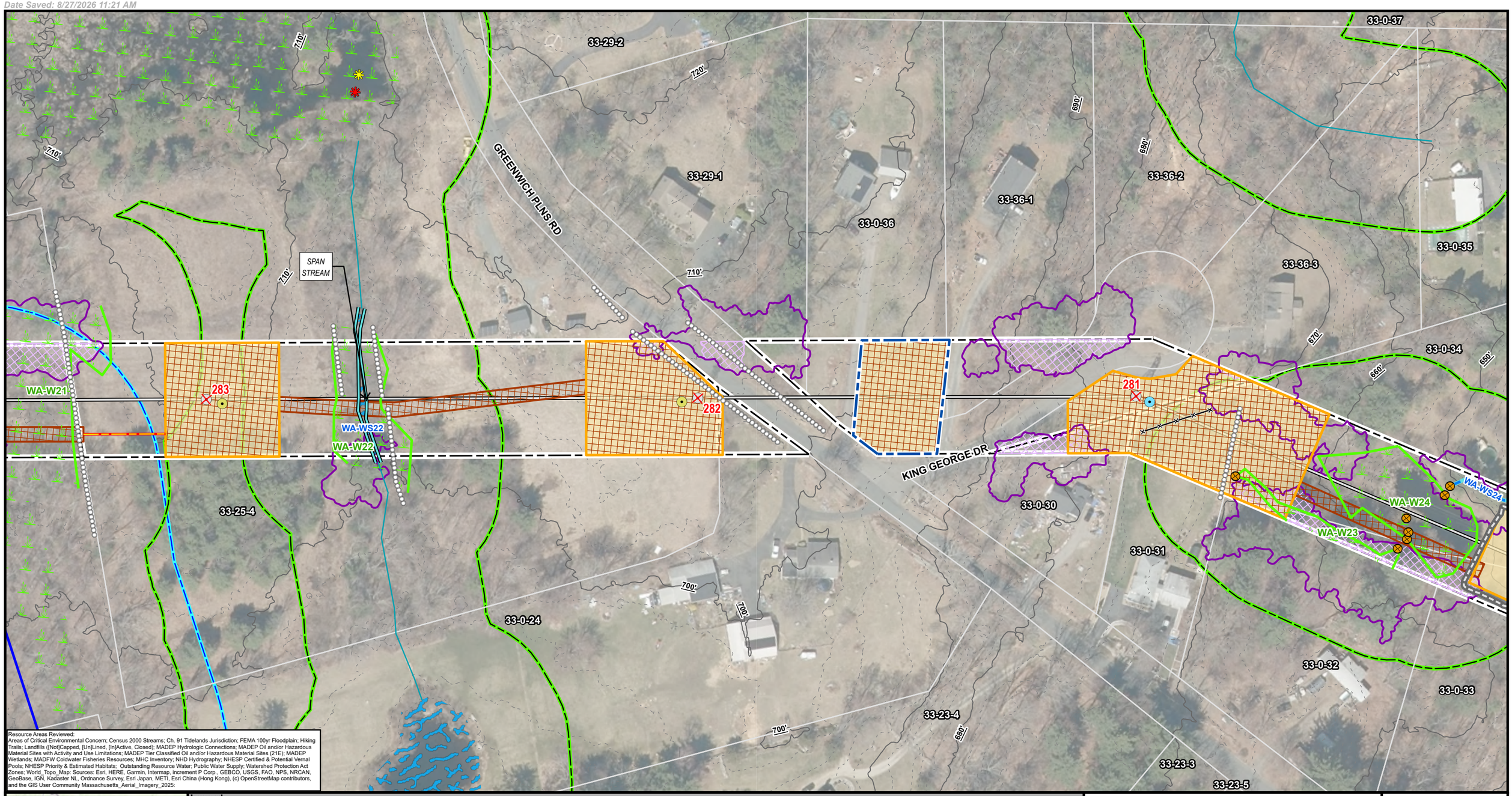
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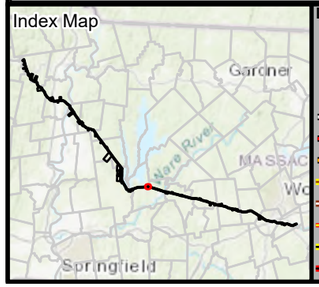
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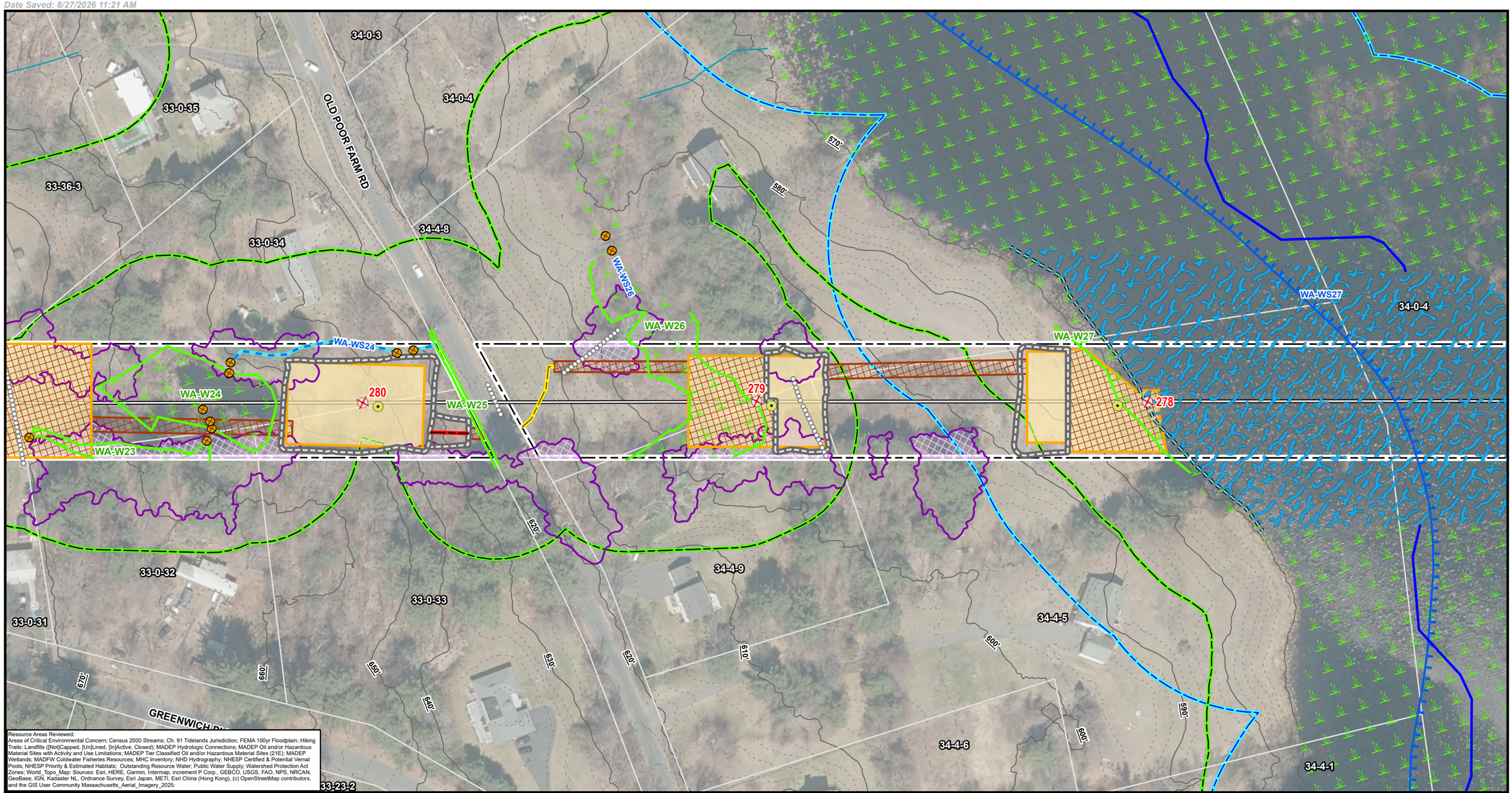
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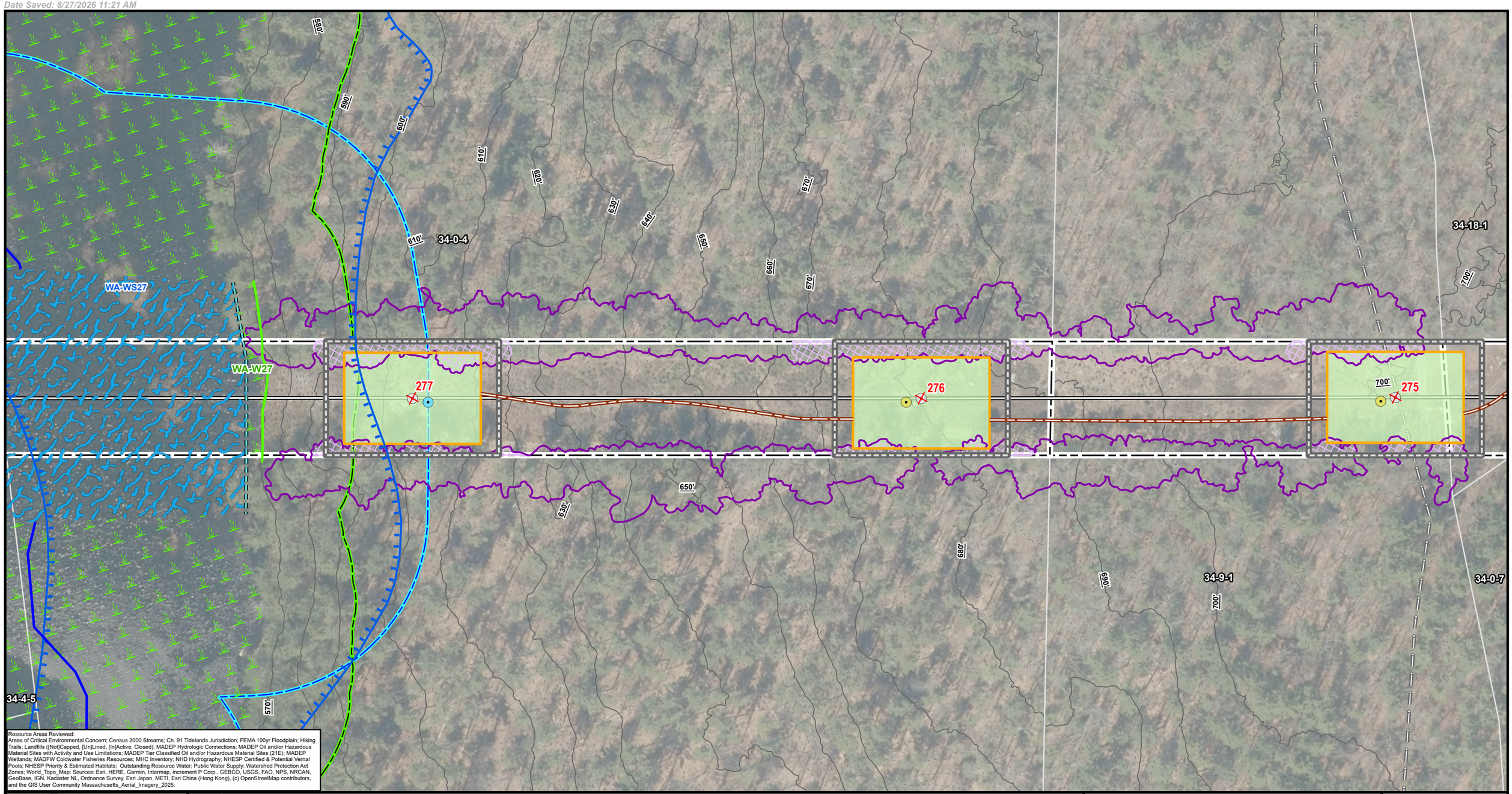
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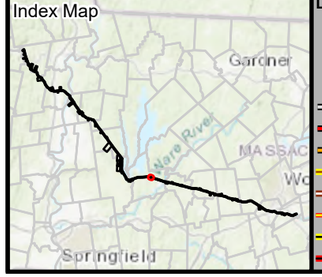
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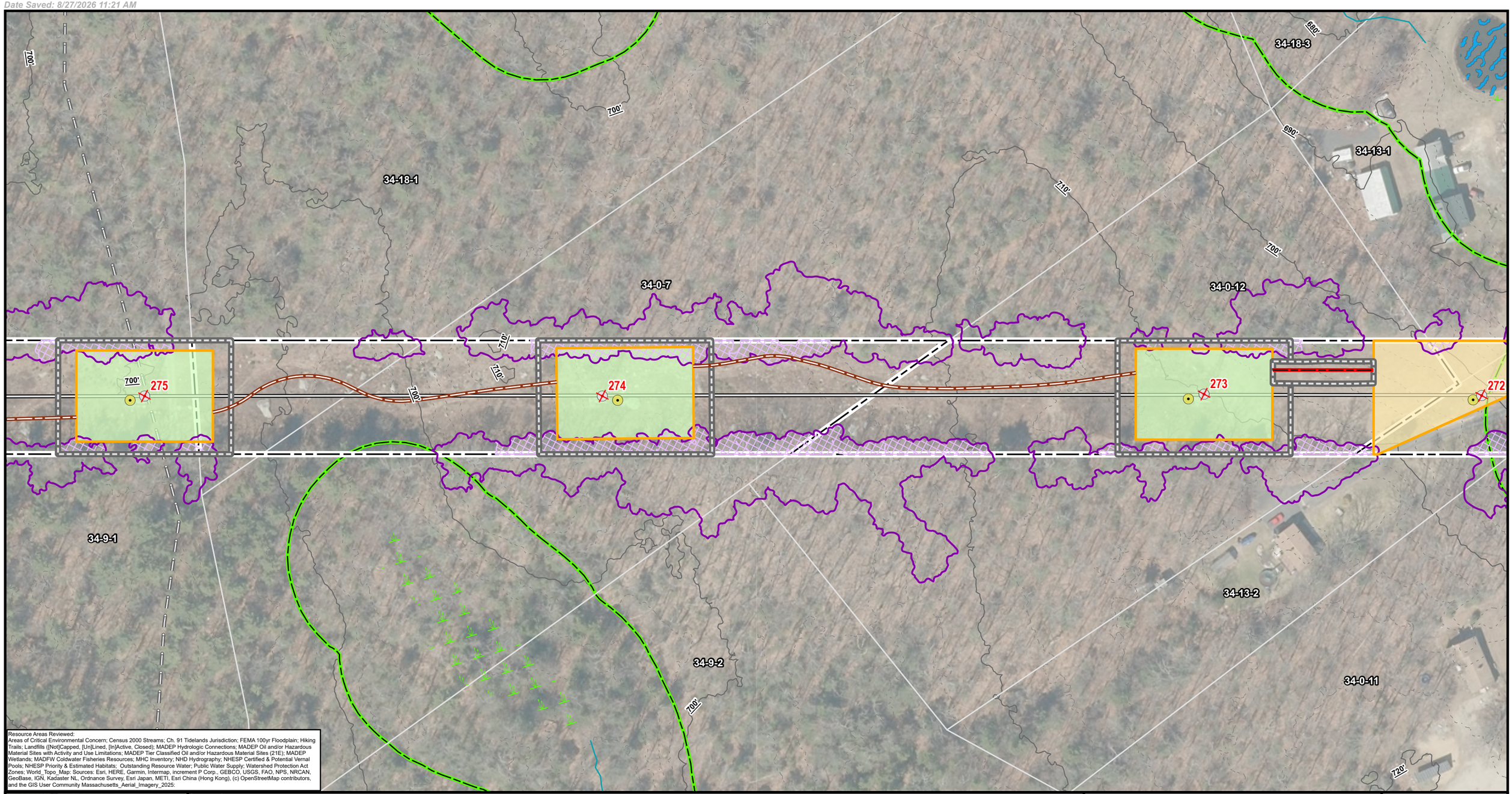
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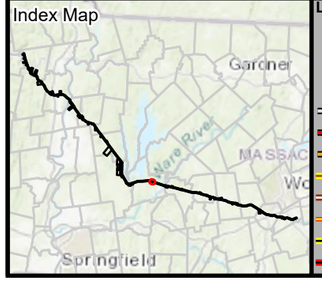
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Ware, MA
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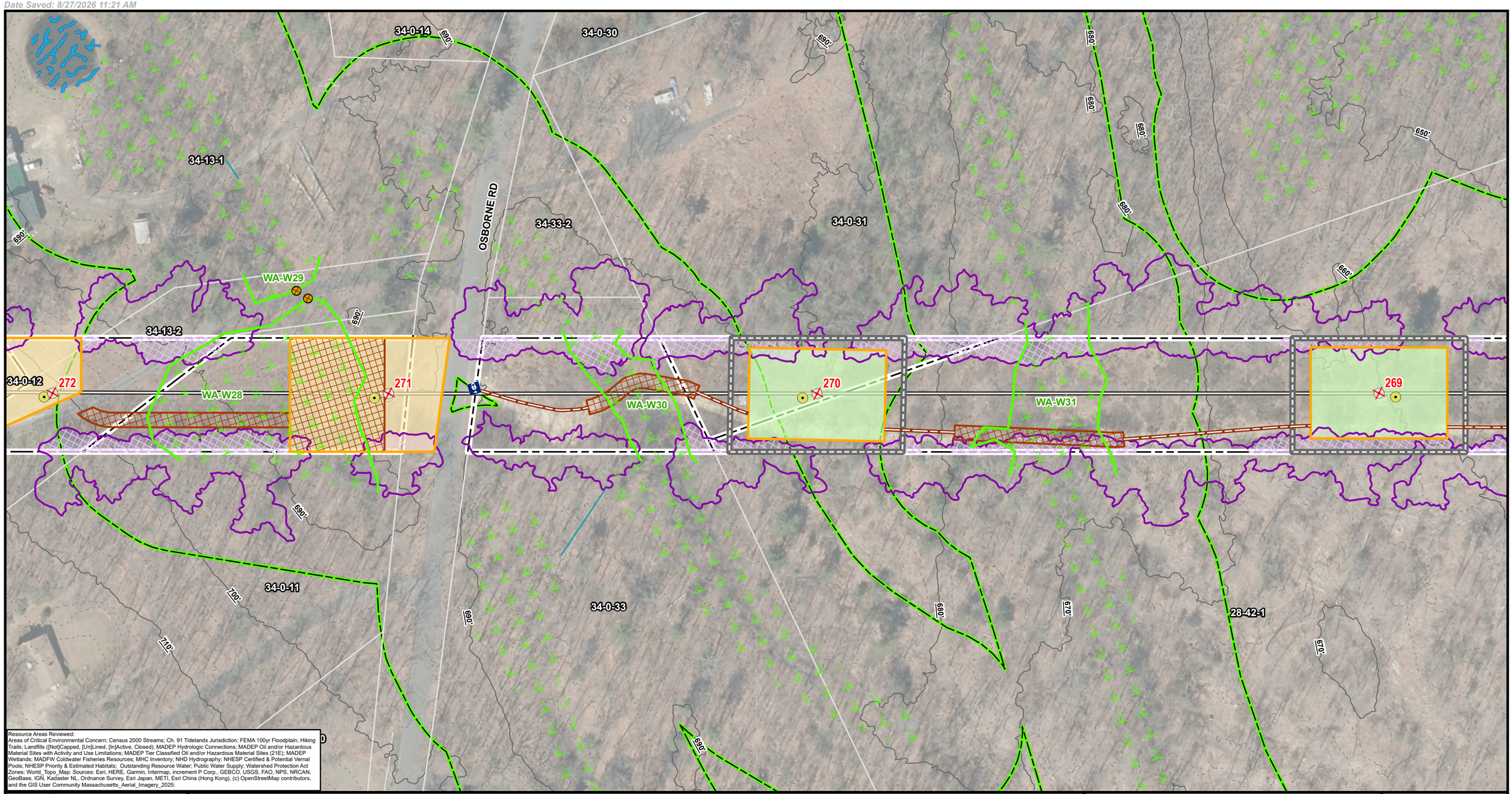
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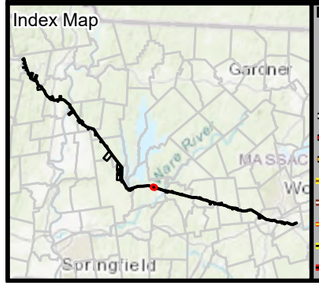
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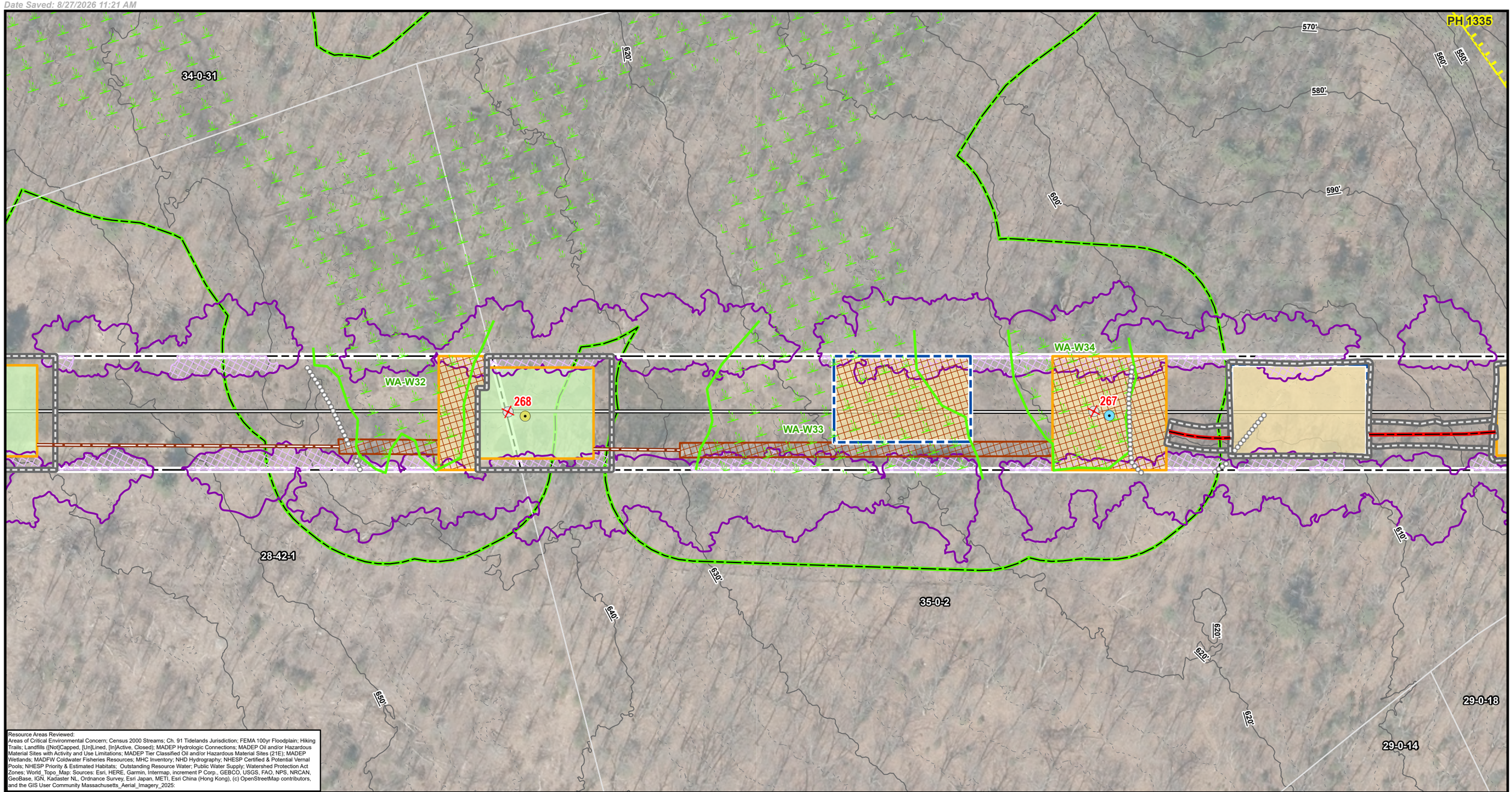
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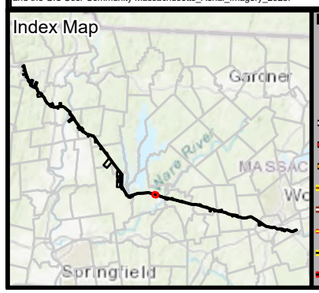
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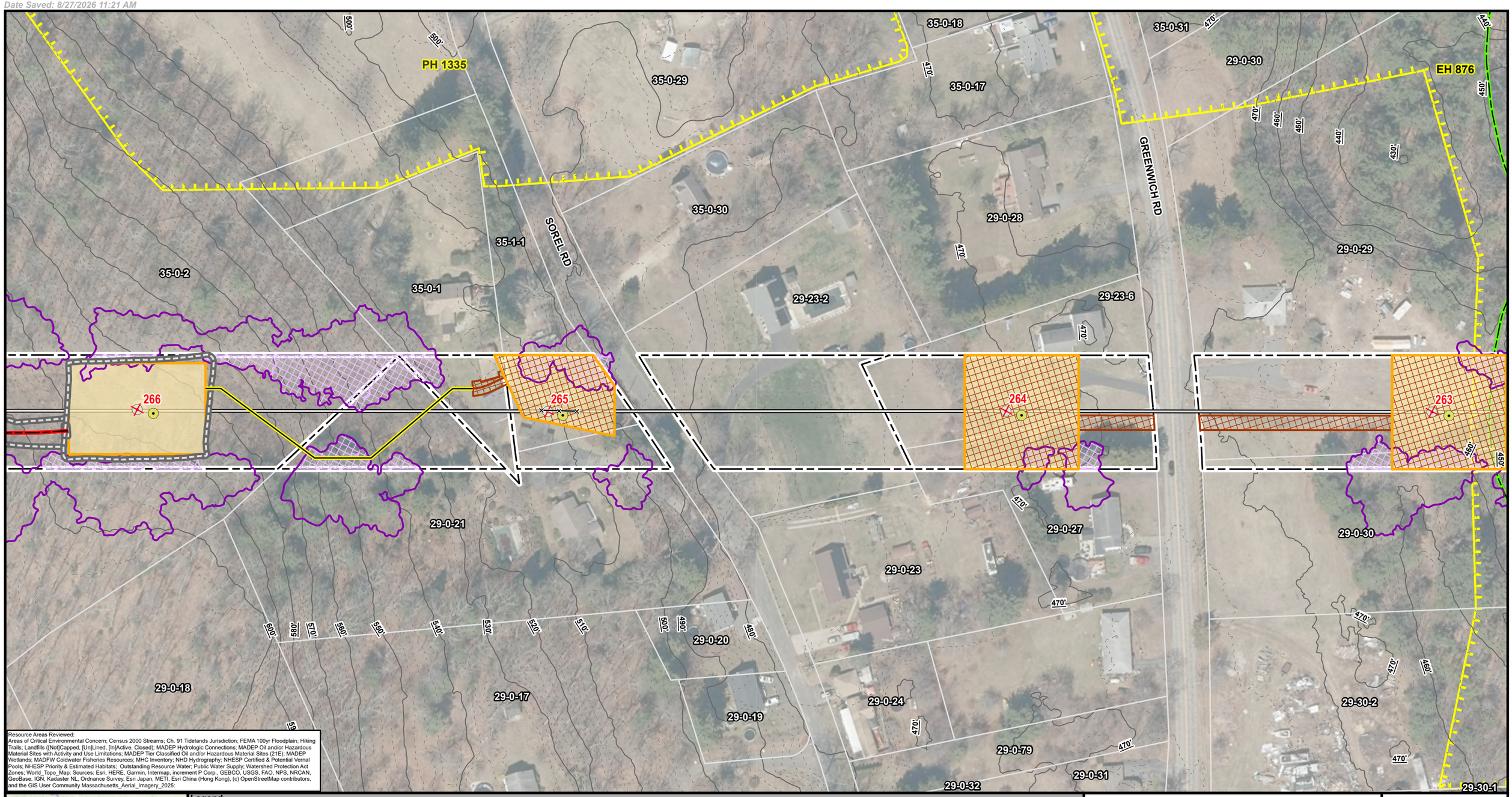
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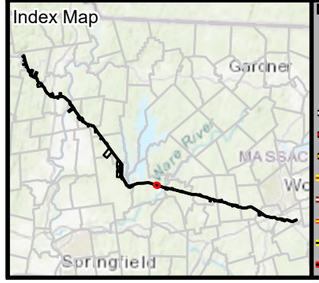
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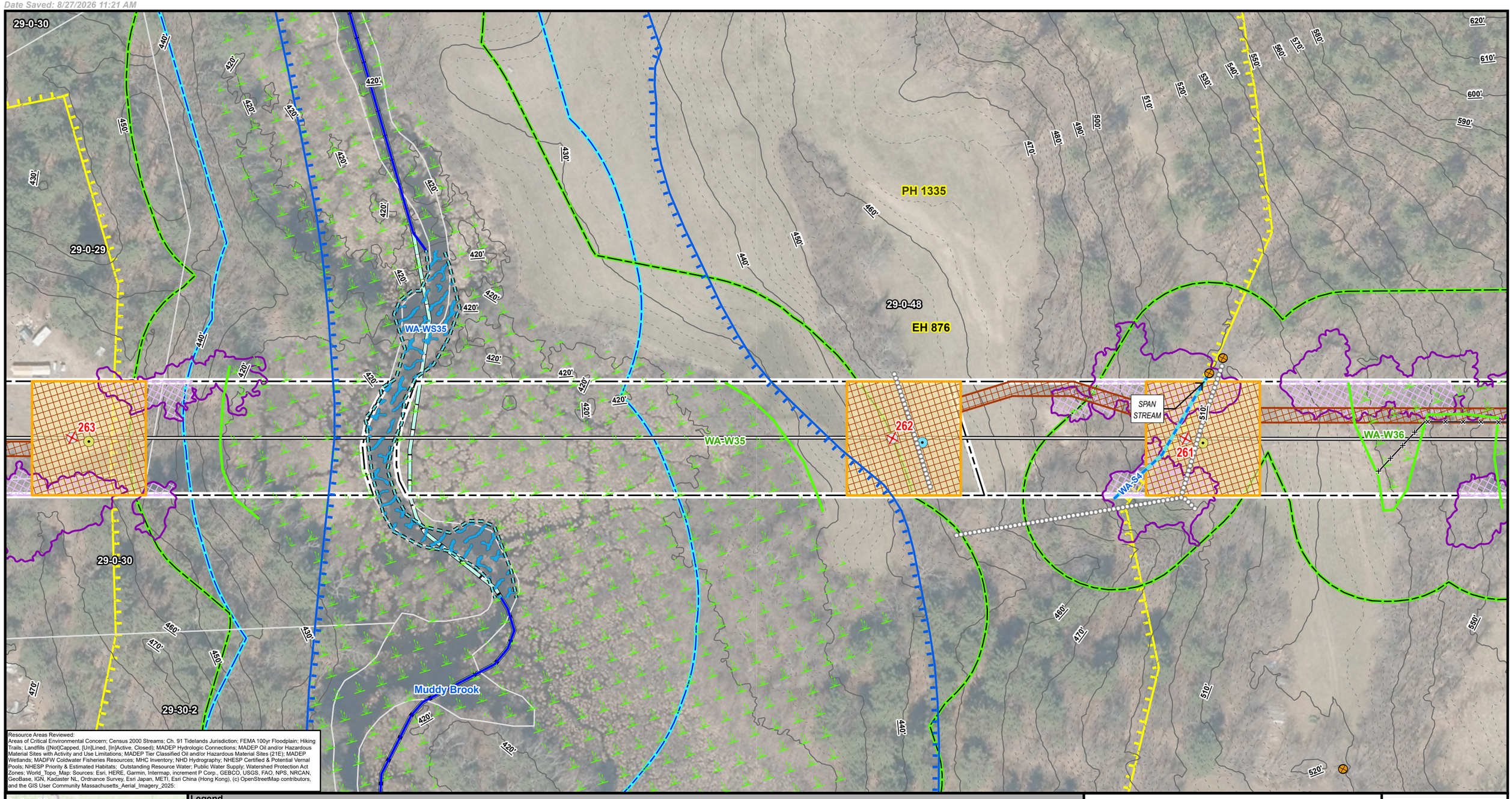
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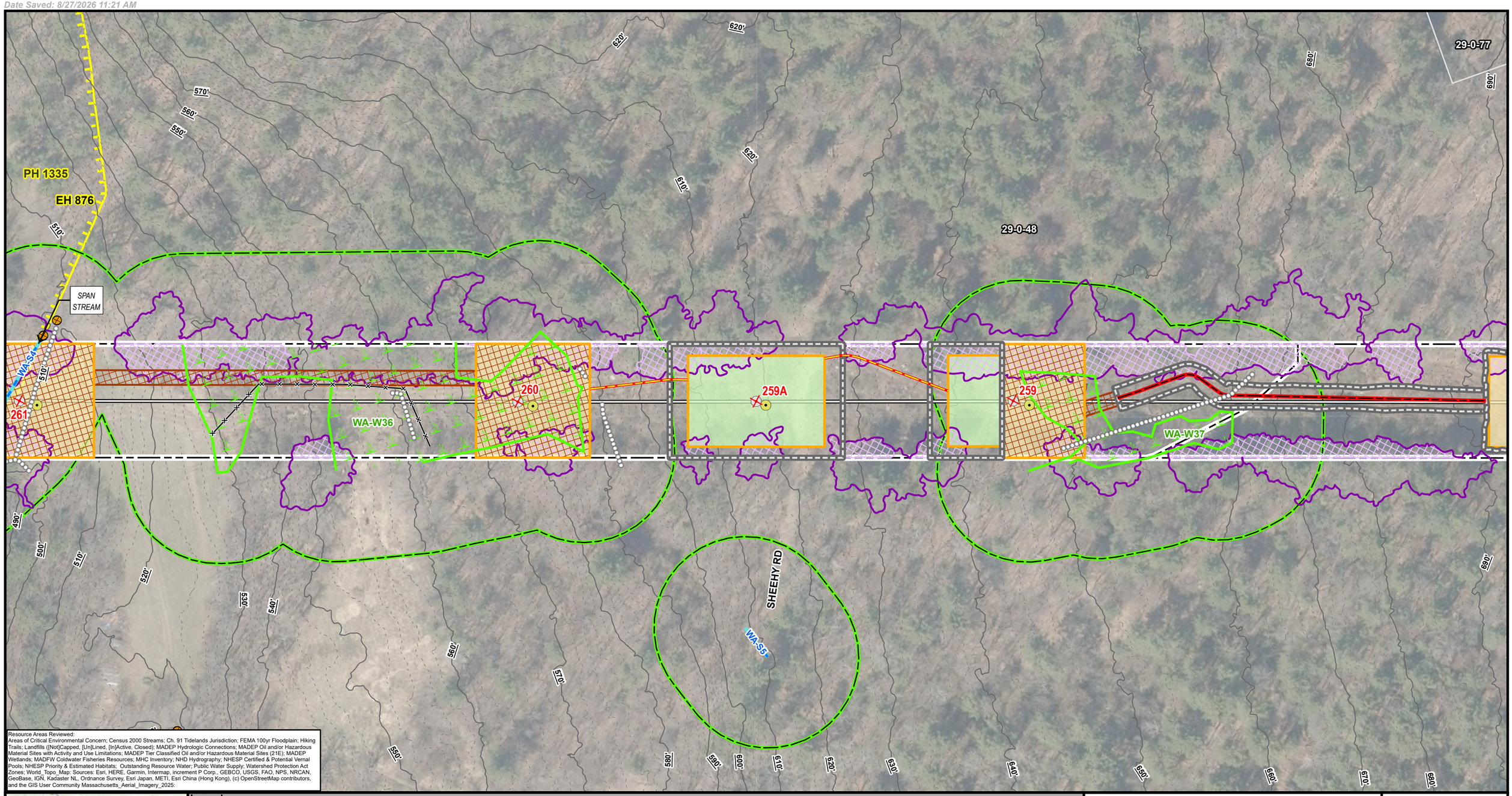
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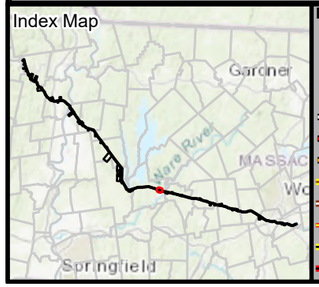
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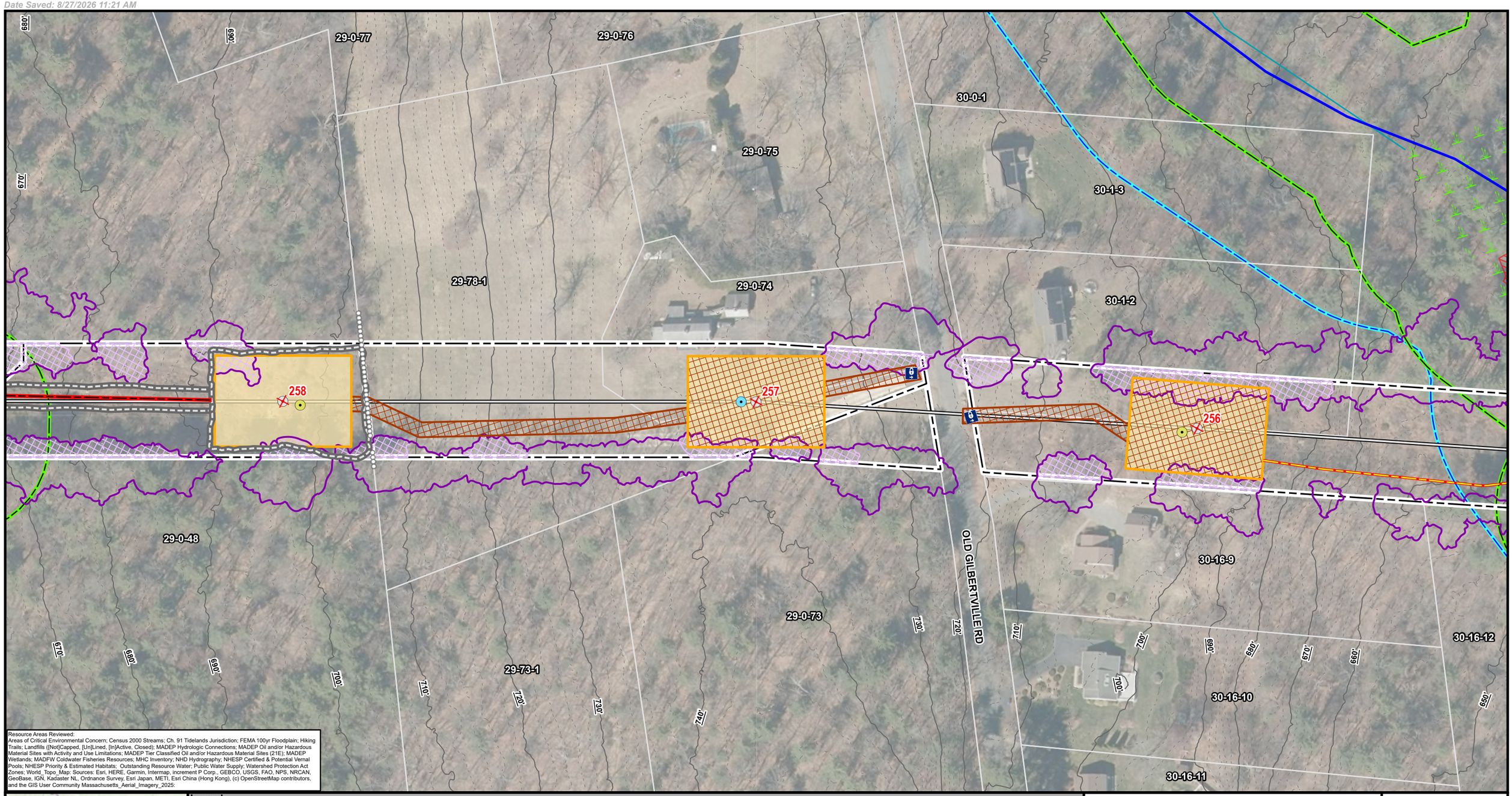
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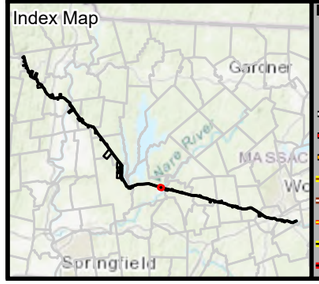
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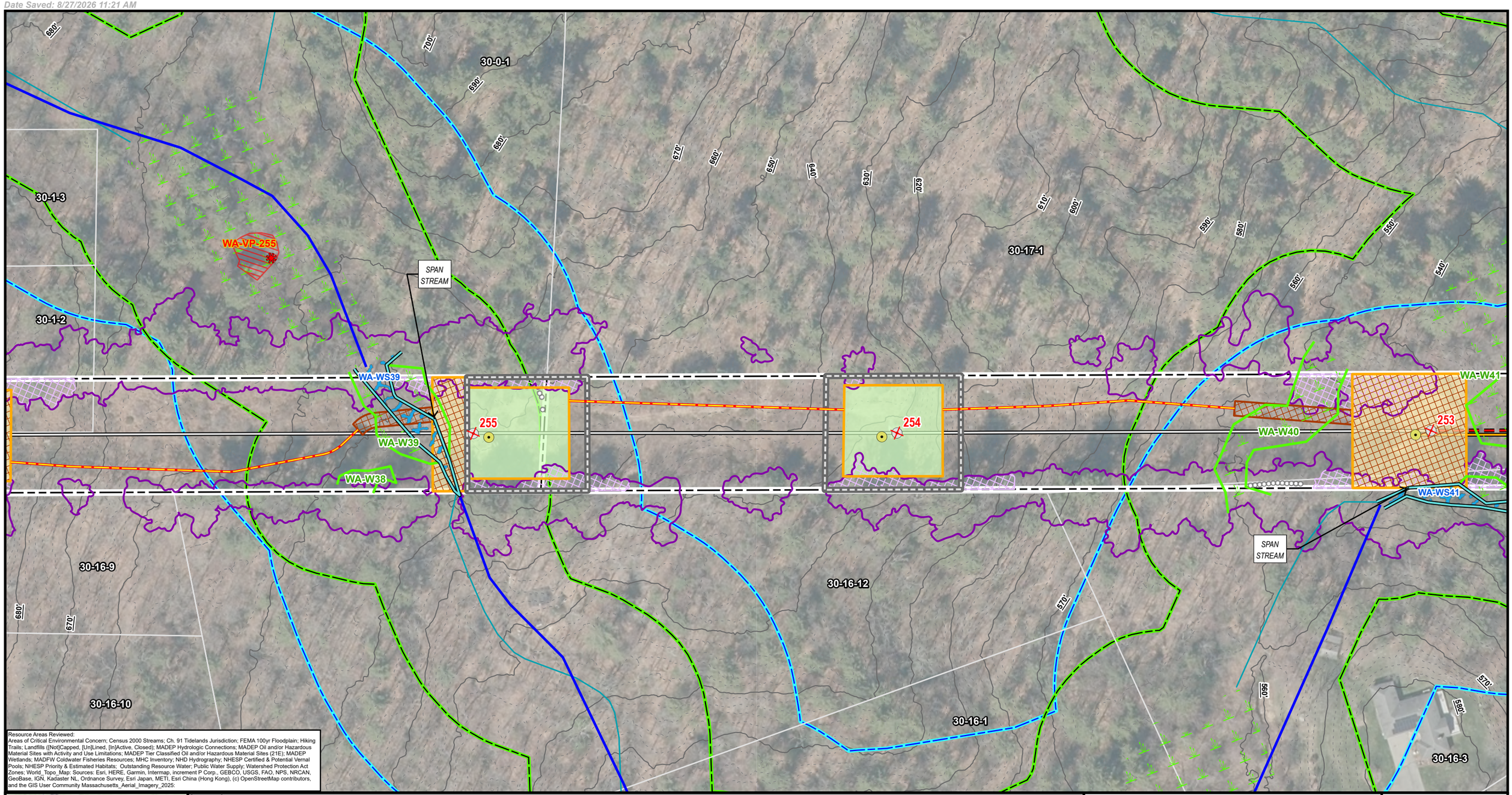
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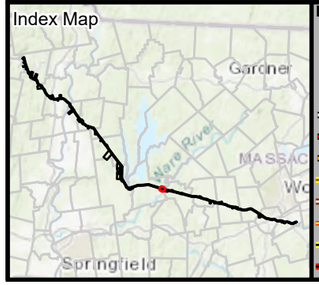
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Ware, MA
Page 147 of 240

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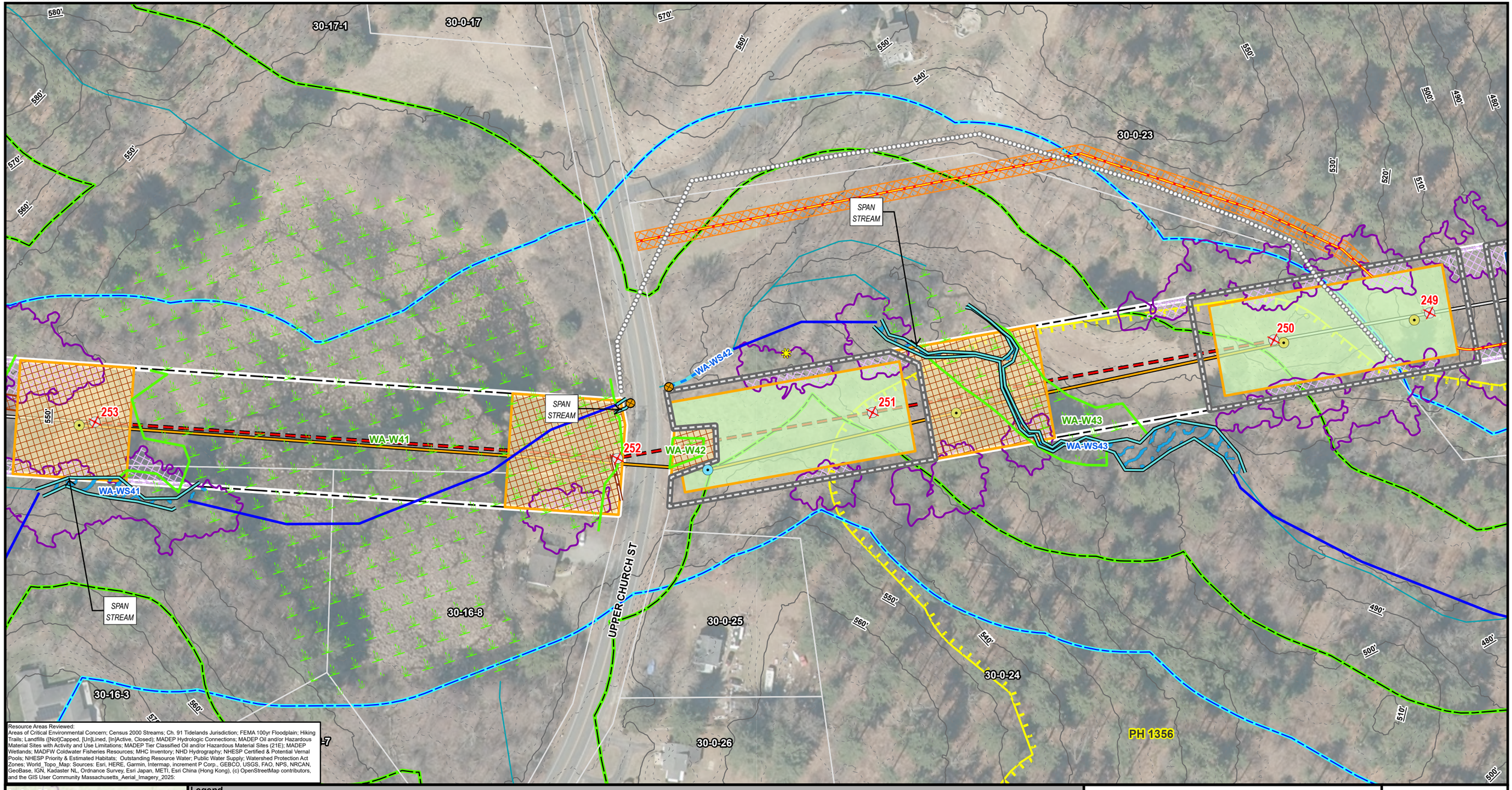
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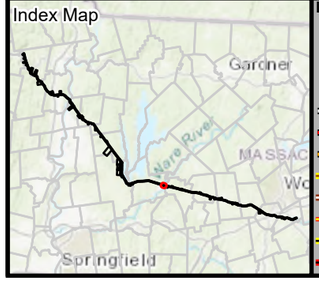
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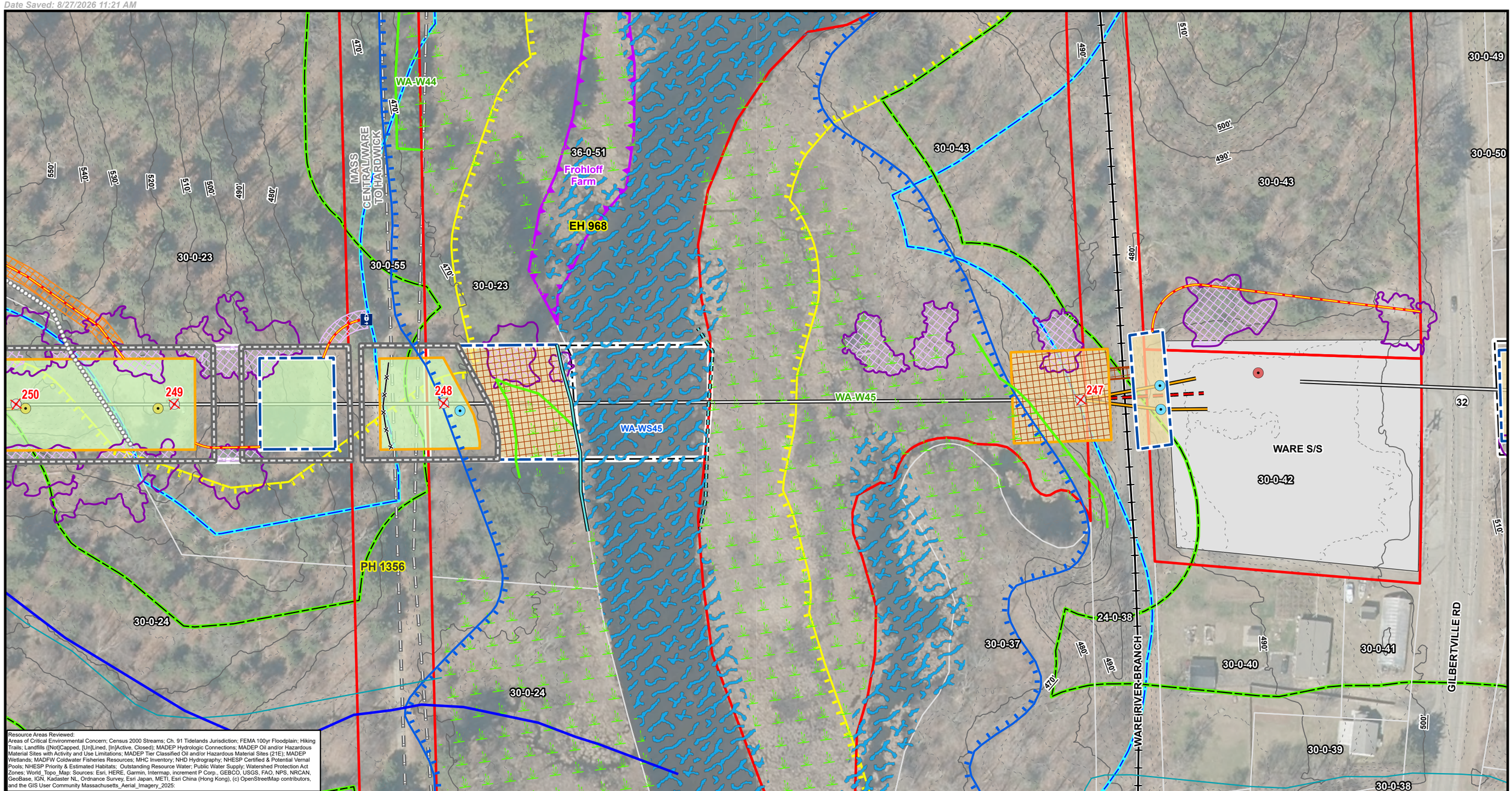
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Ware, MA
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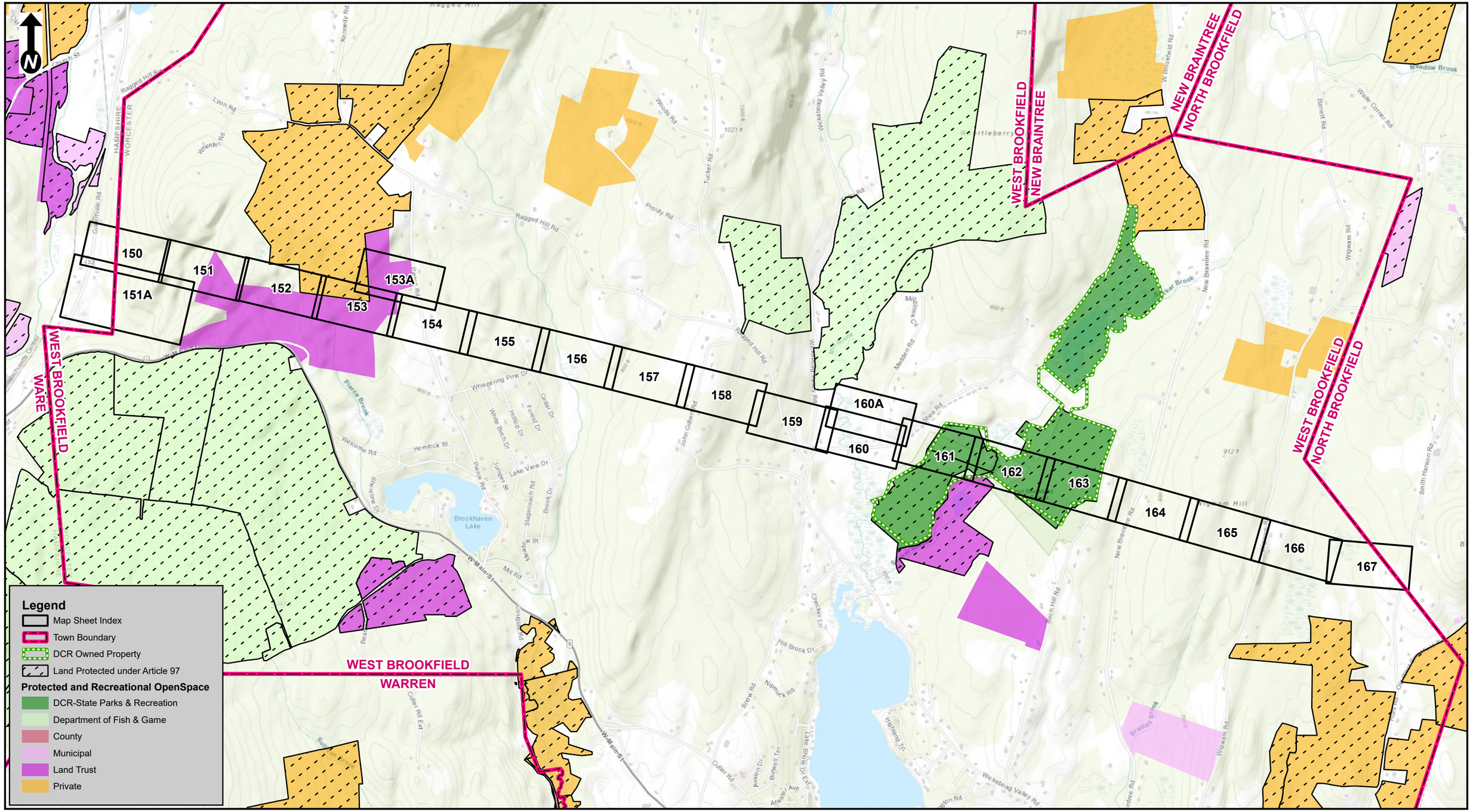
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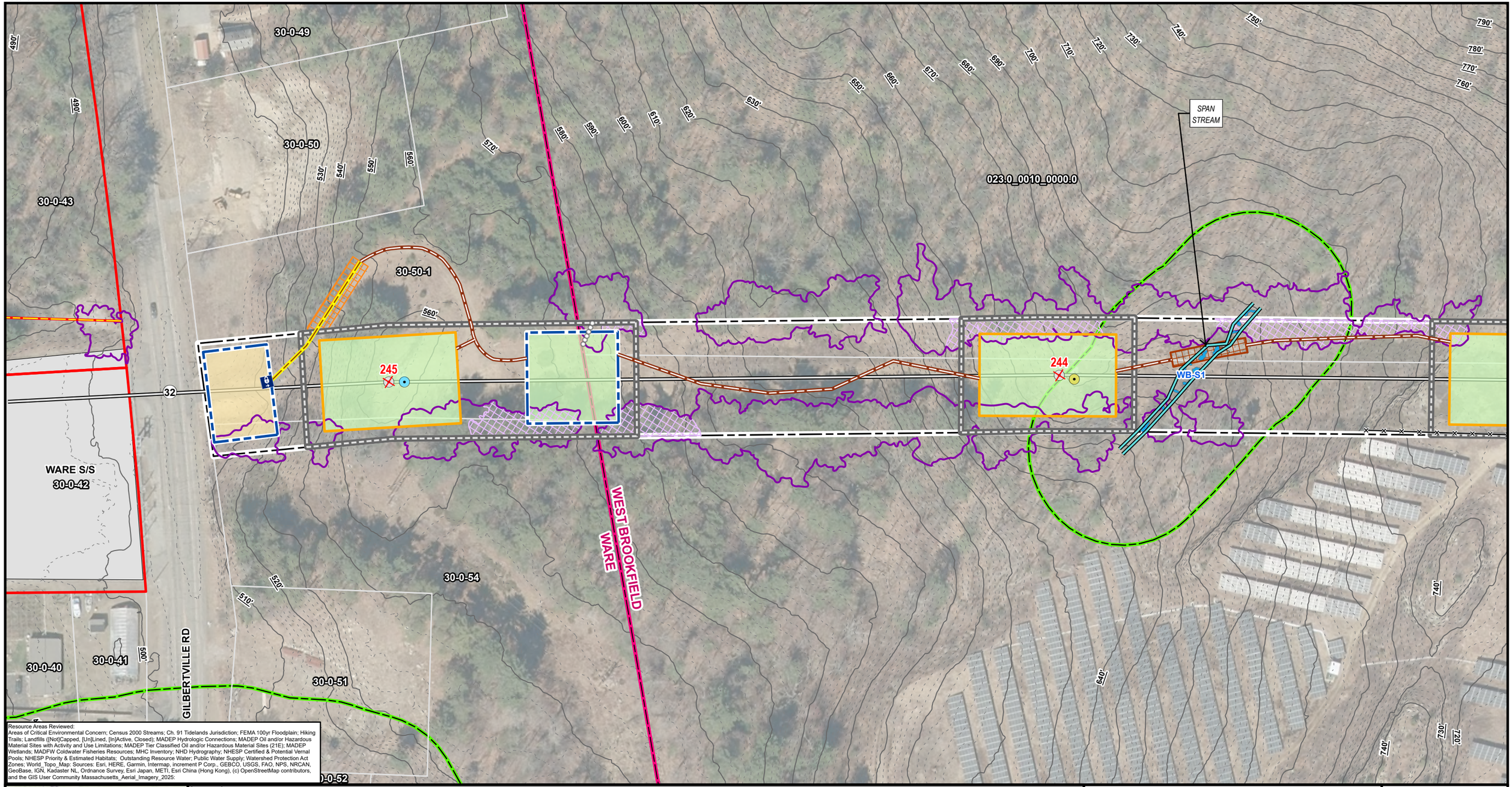
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
West Brookfield, MA

Source: 2013 National Geographic Society, i-cubed

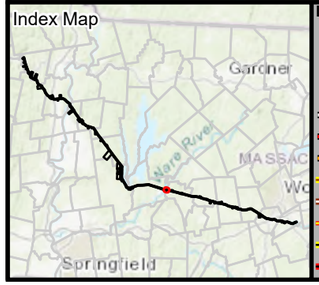
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Ware & West Brookfield, MA
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1 inch = 100 feet

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Feet

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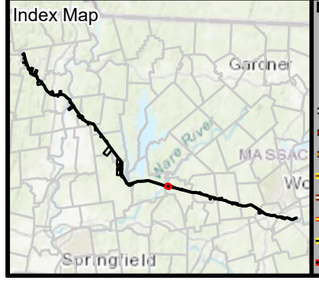
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Environmental Resources Map

West Brookfield, MA
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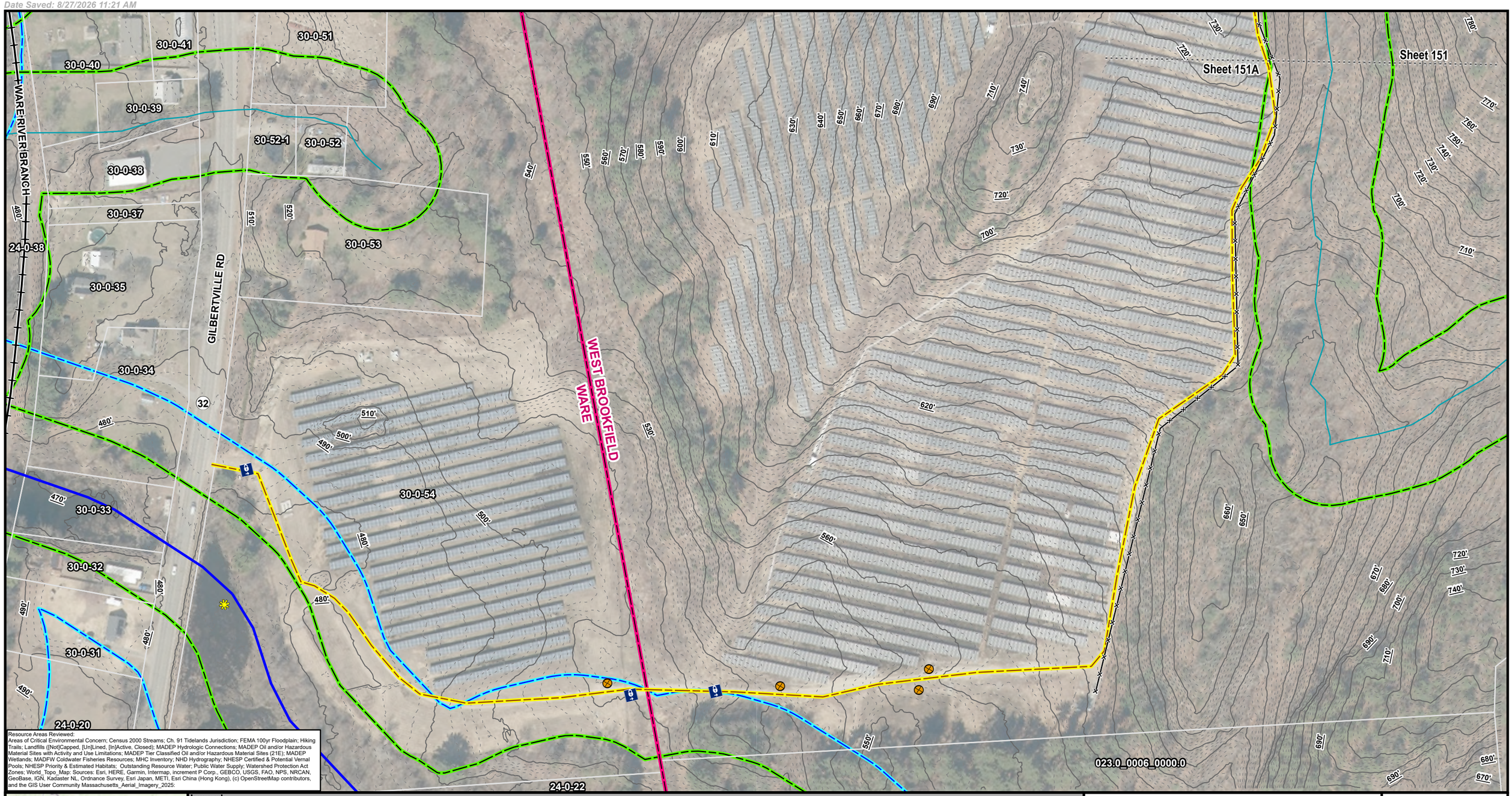
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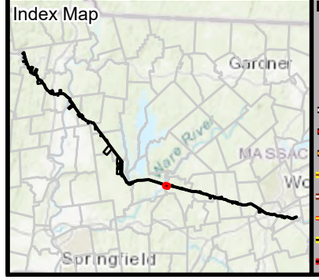
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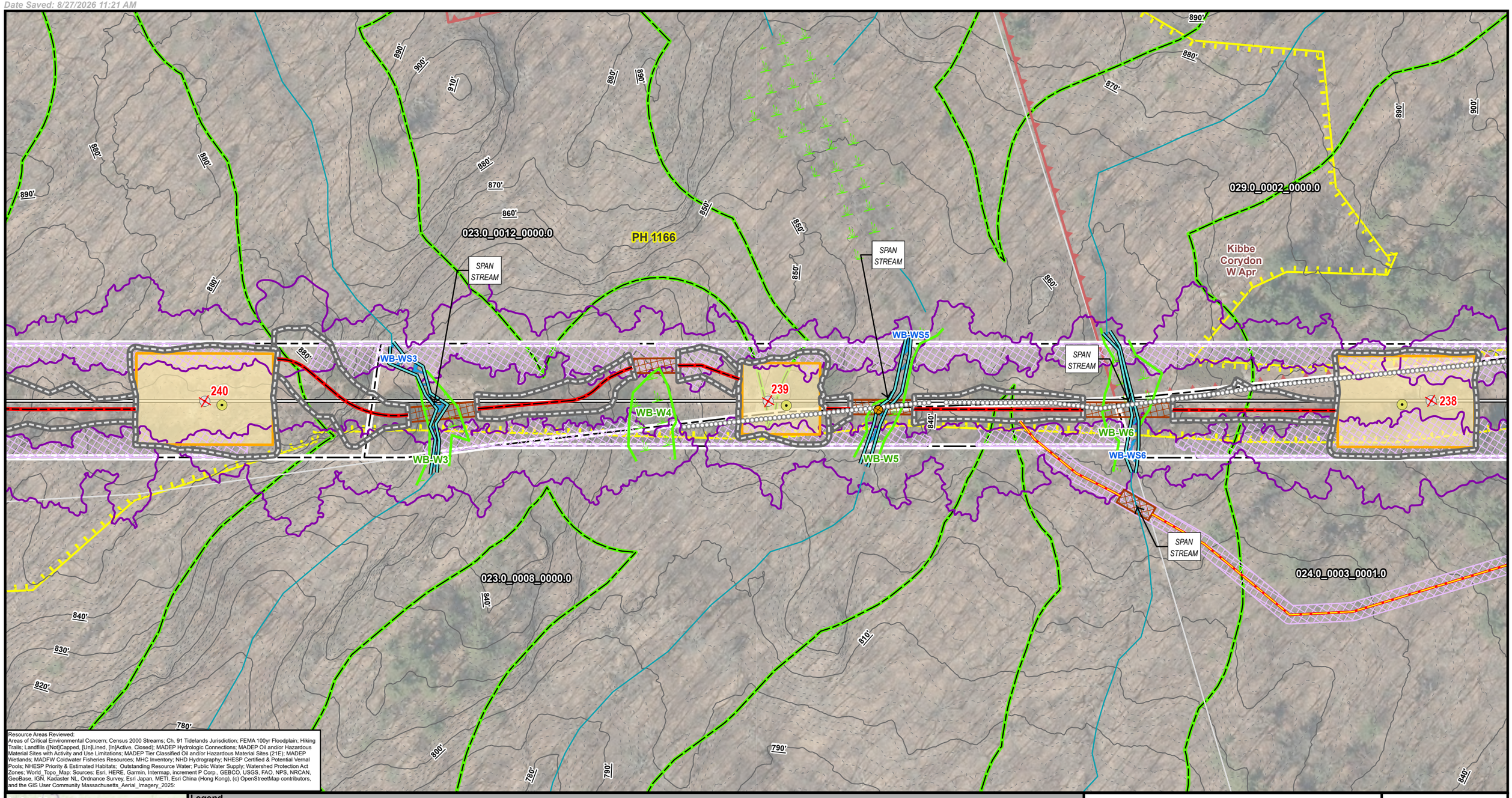
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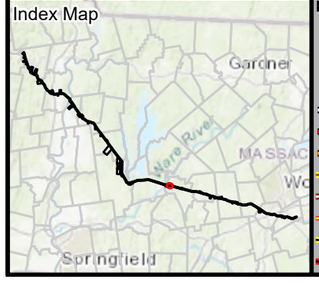
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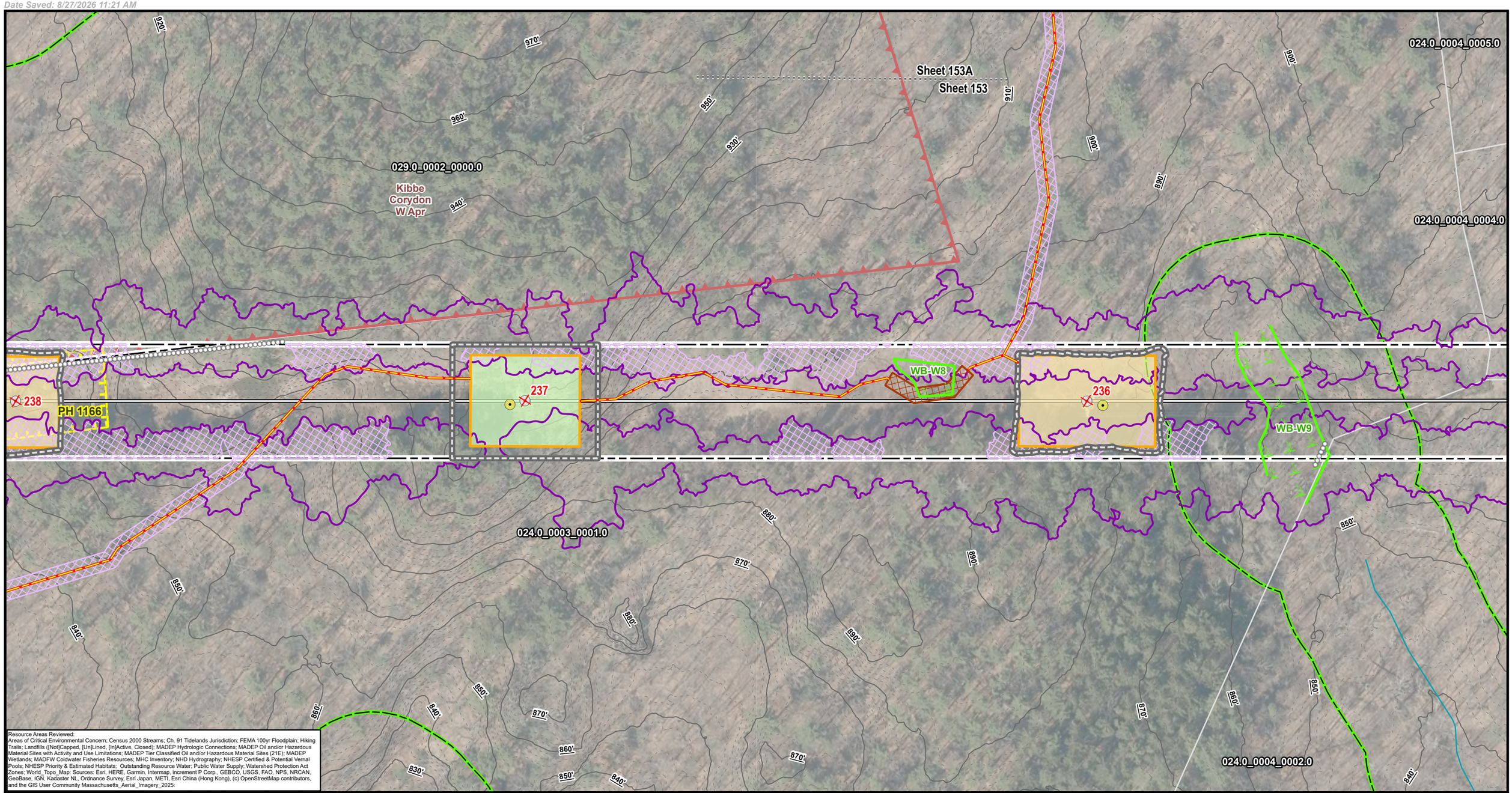
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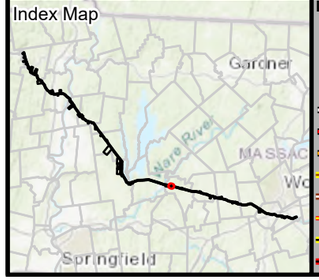
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

West Brookfield, MA
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Created by: BSC GROUP

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1 inch = 100 feet

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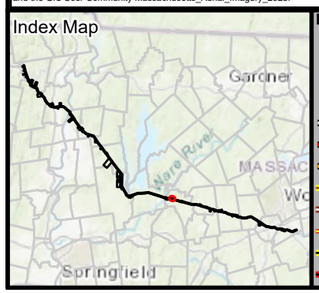
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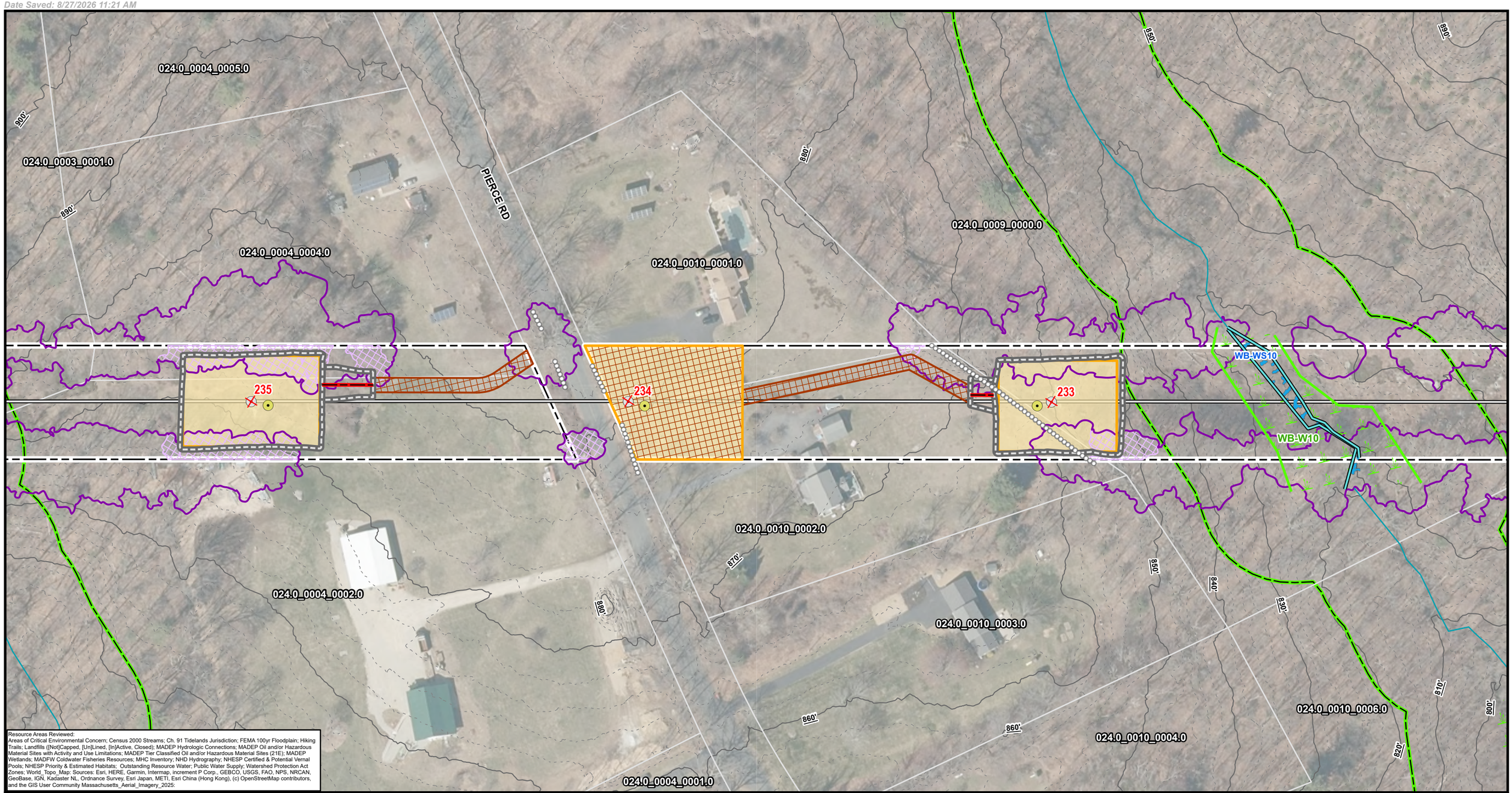
West Brookfield, MA
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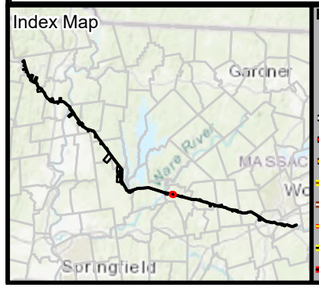
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Environmental Resources Map

West Brookfield, MA
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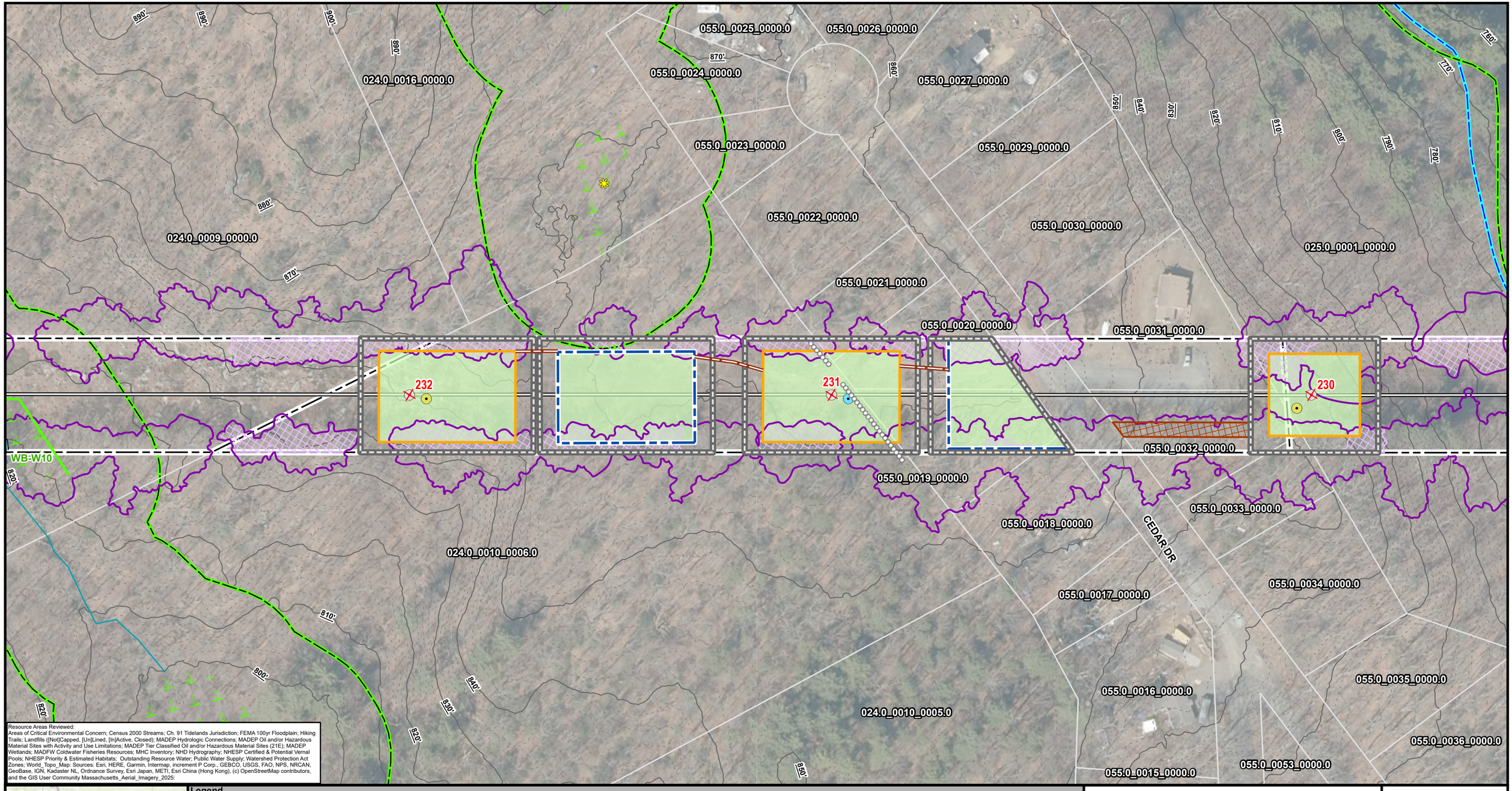
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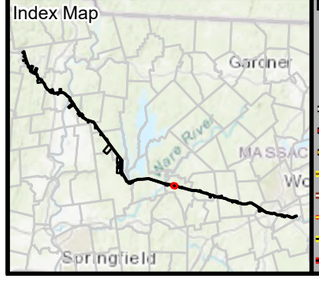
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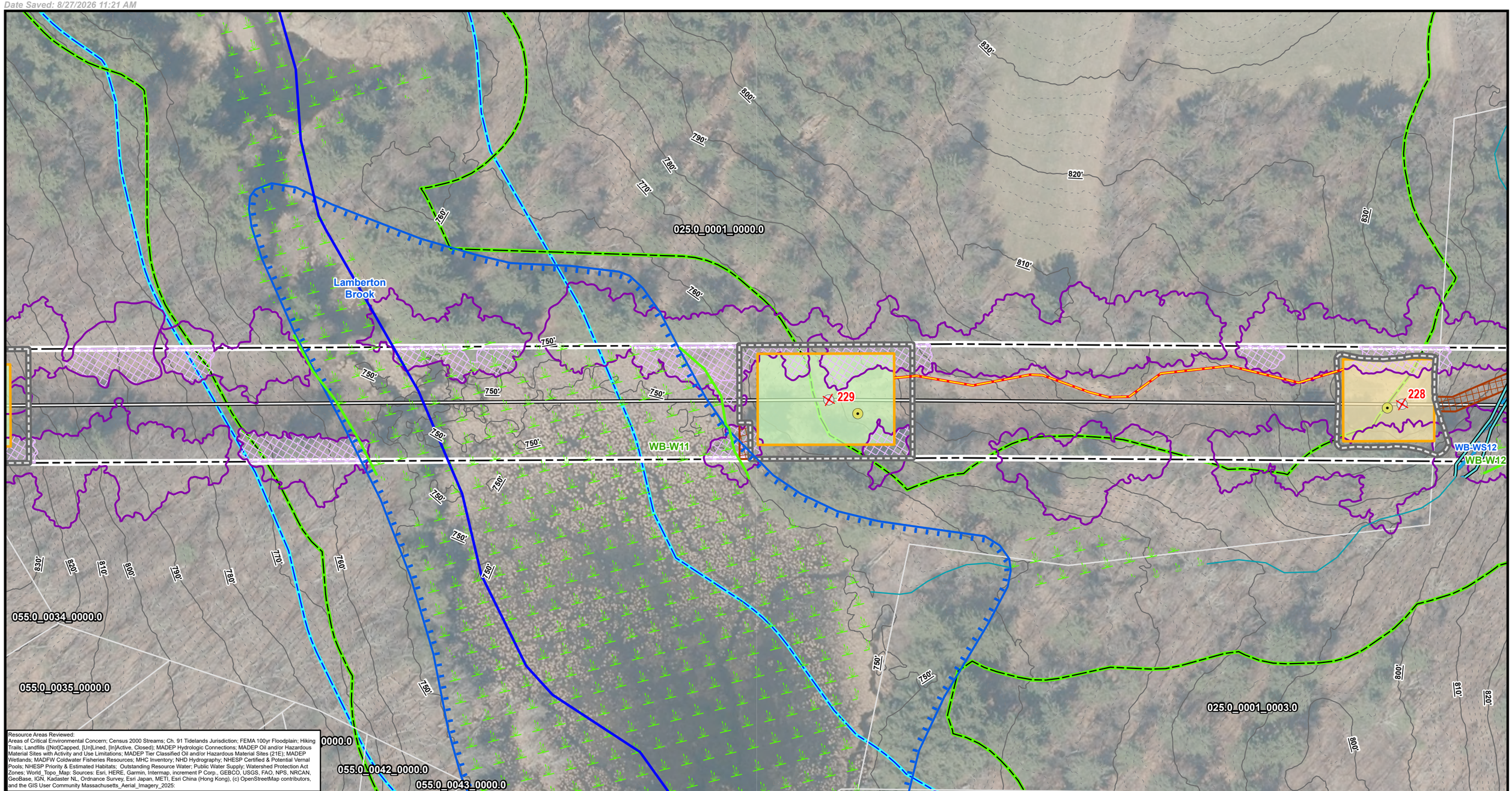
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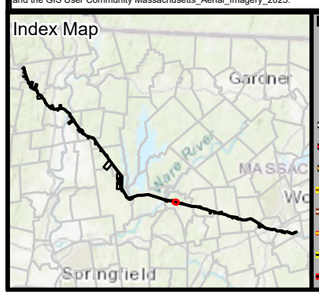
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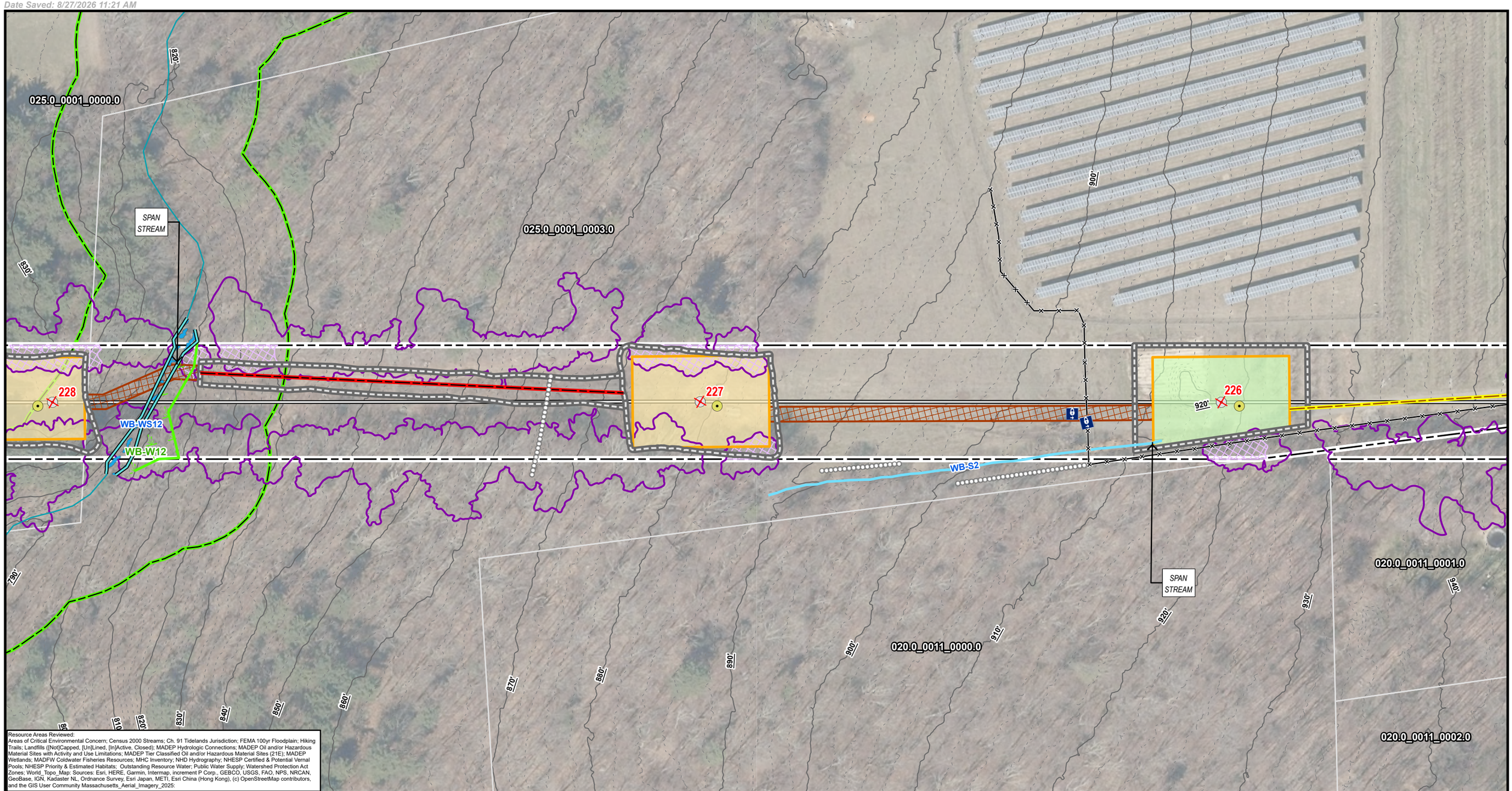
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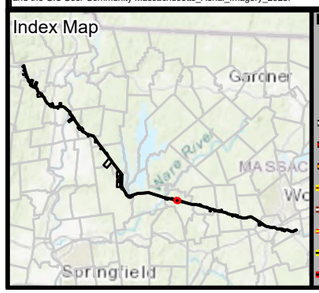
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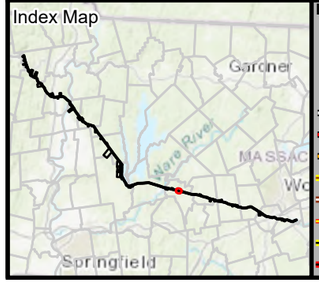
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

West Brookfield, MA
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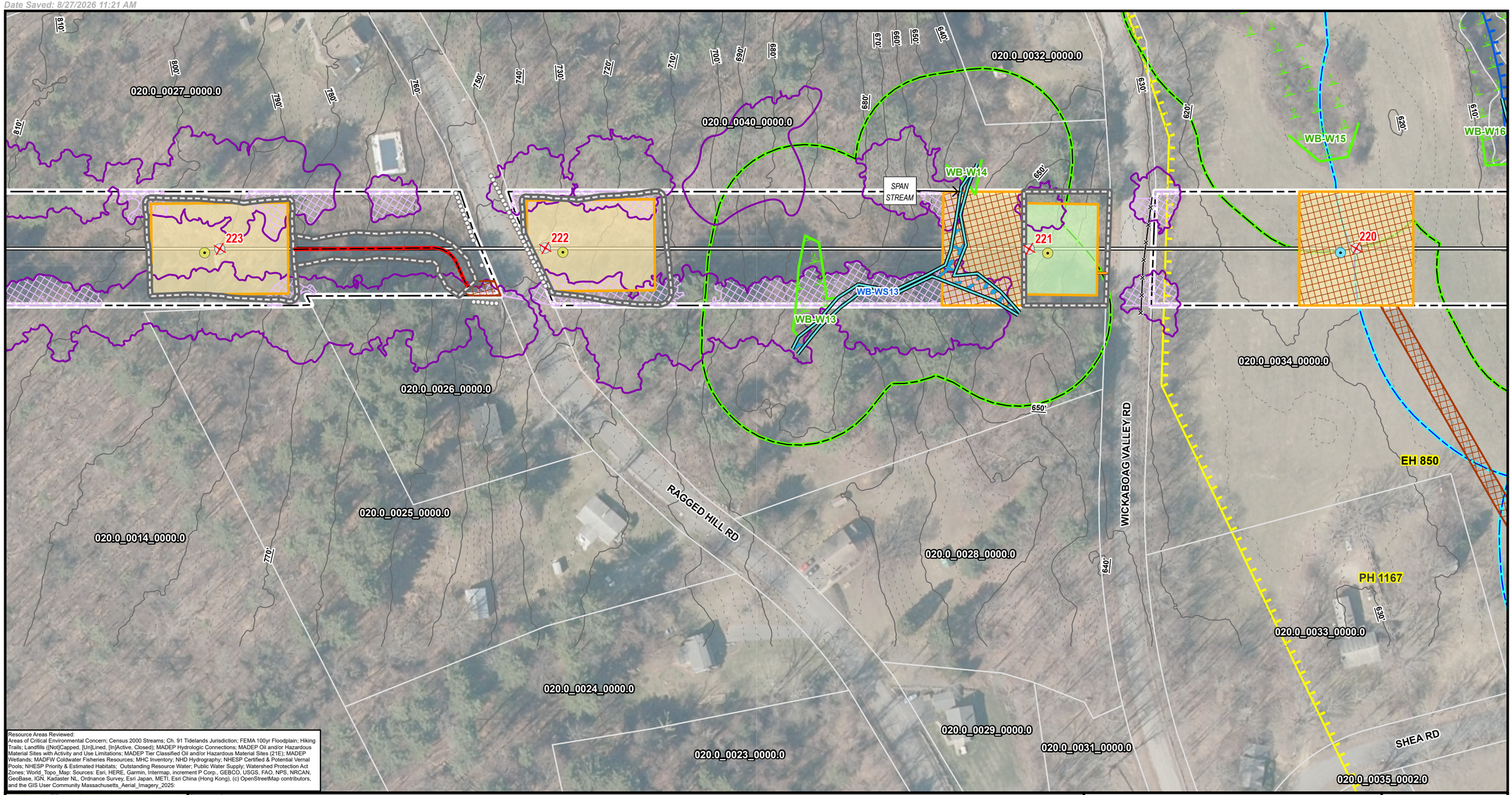
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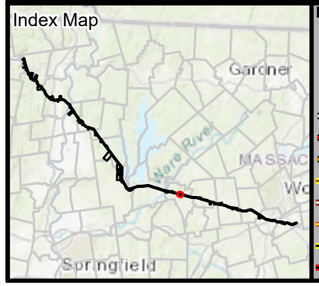
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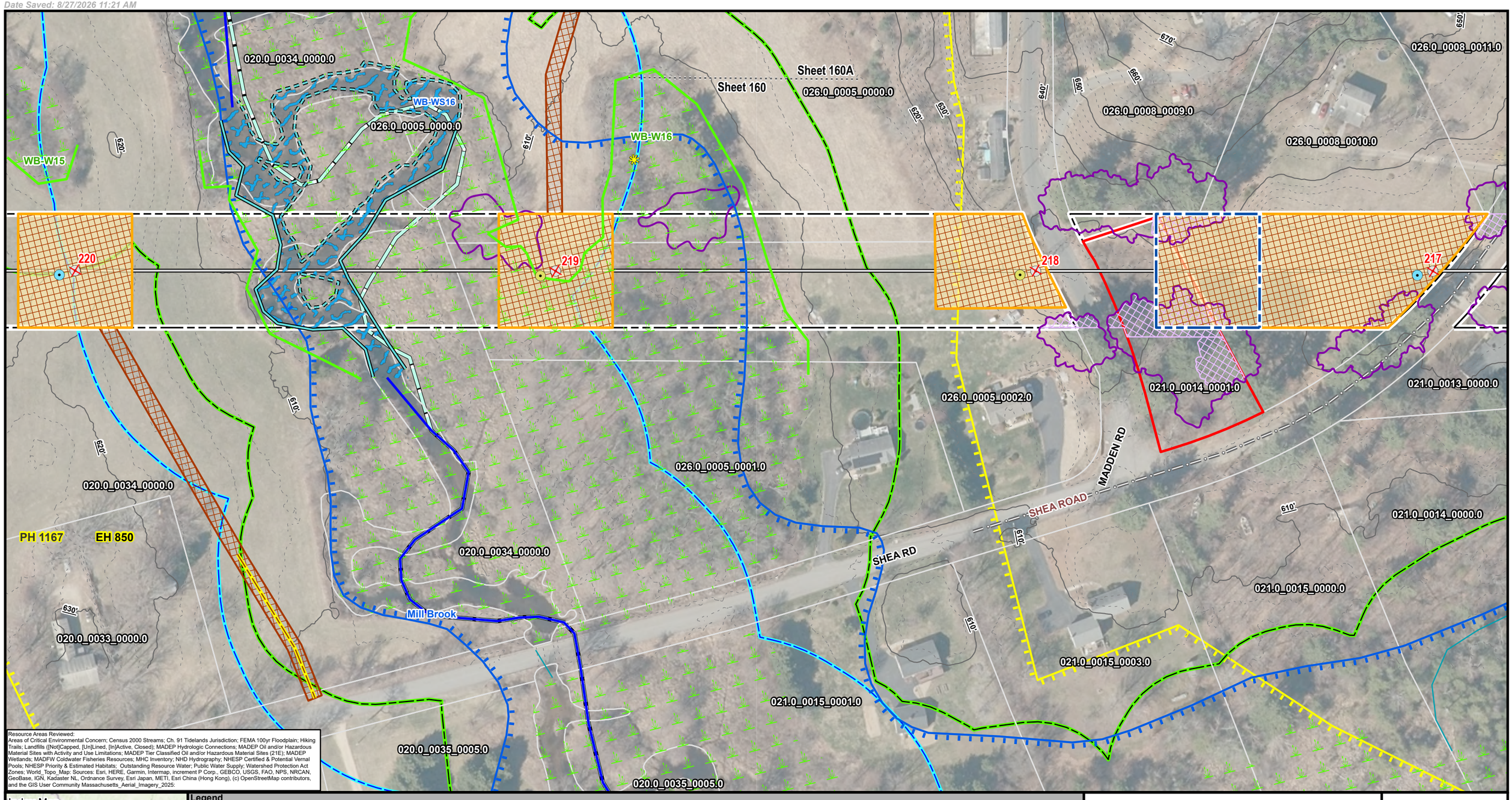
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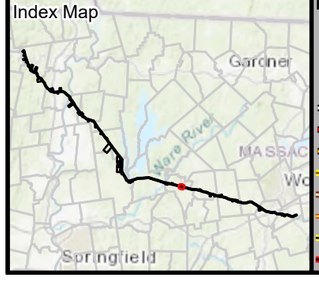
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PH 1167
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Mill Brook
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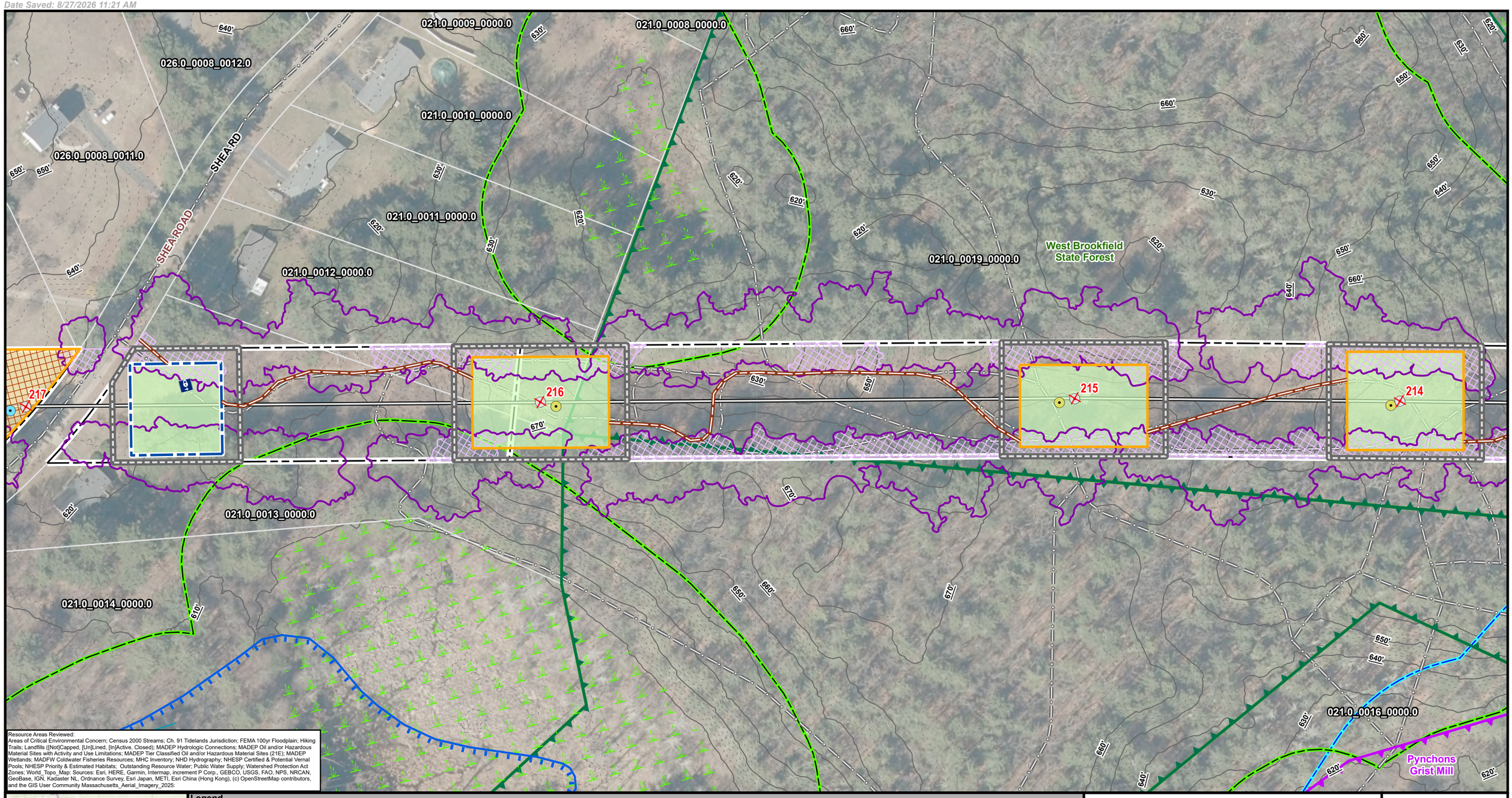
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Environmental Resources Map

West Brookfield, MA

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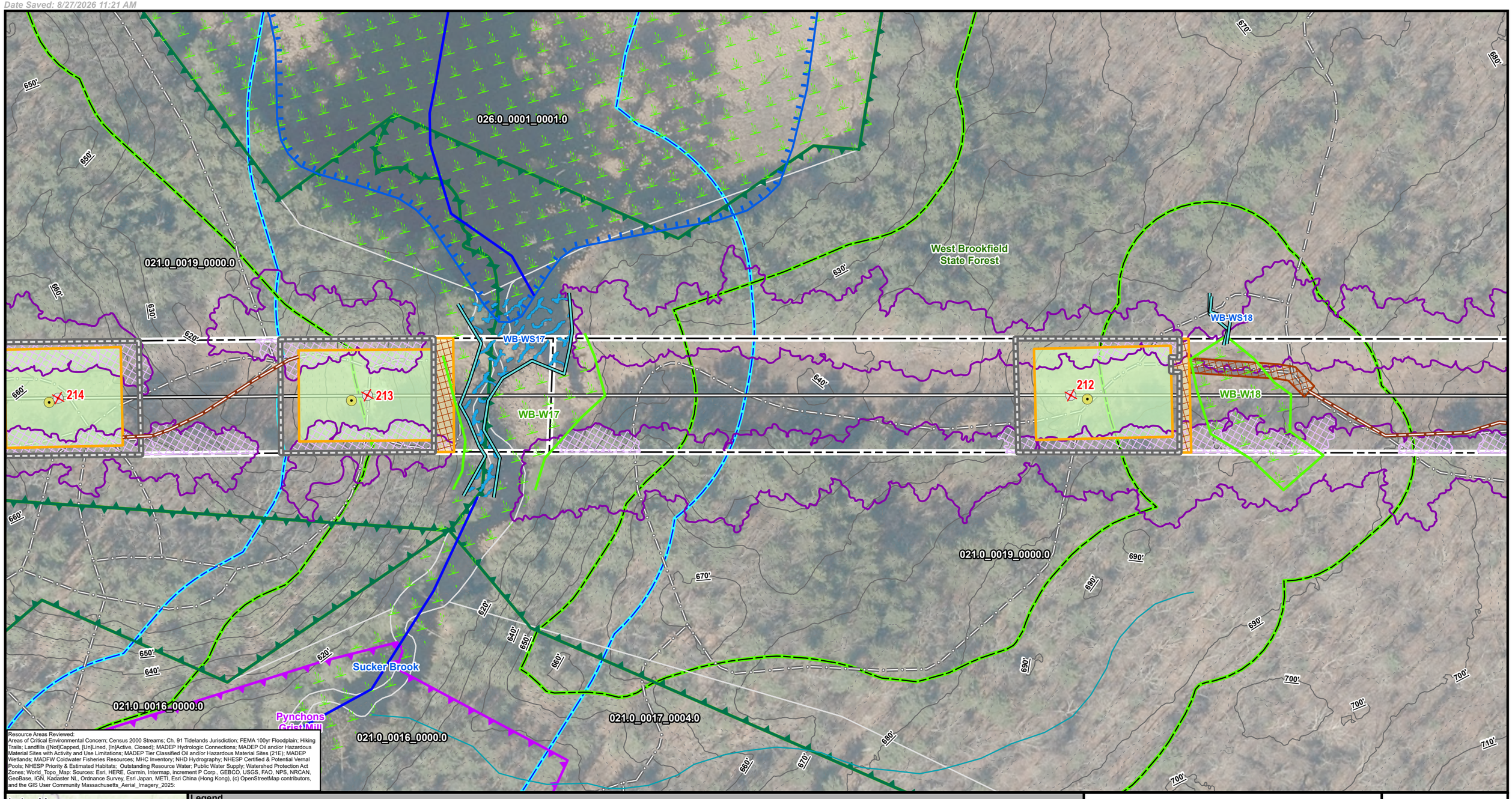
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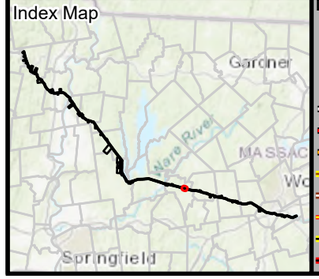
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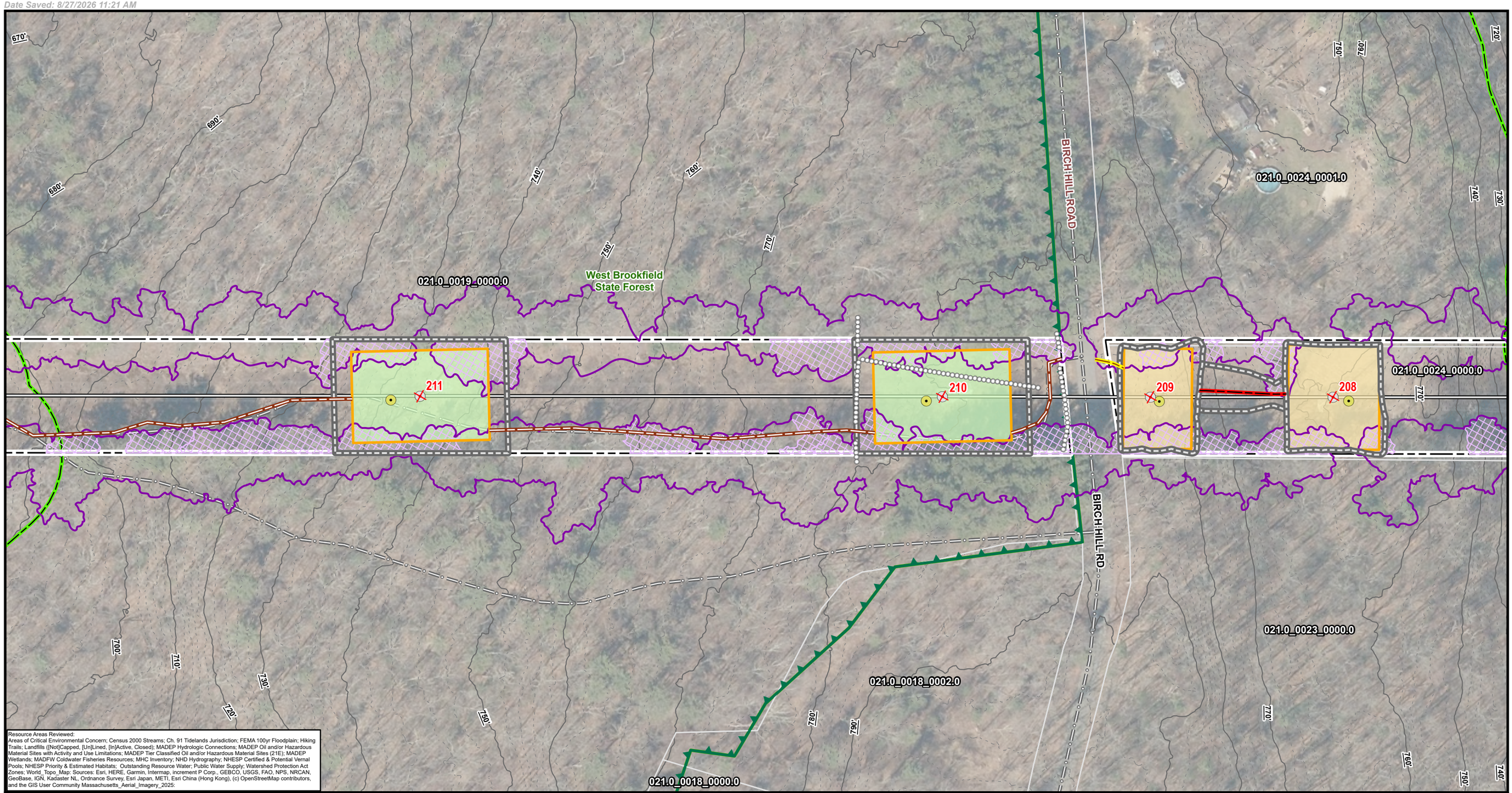
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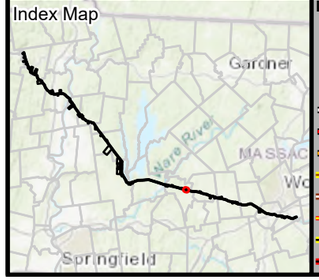
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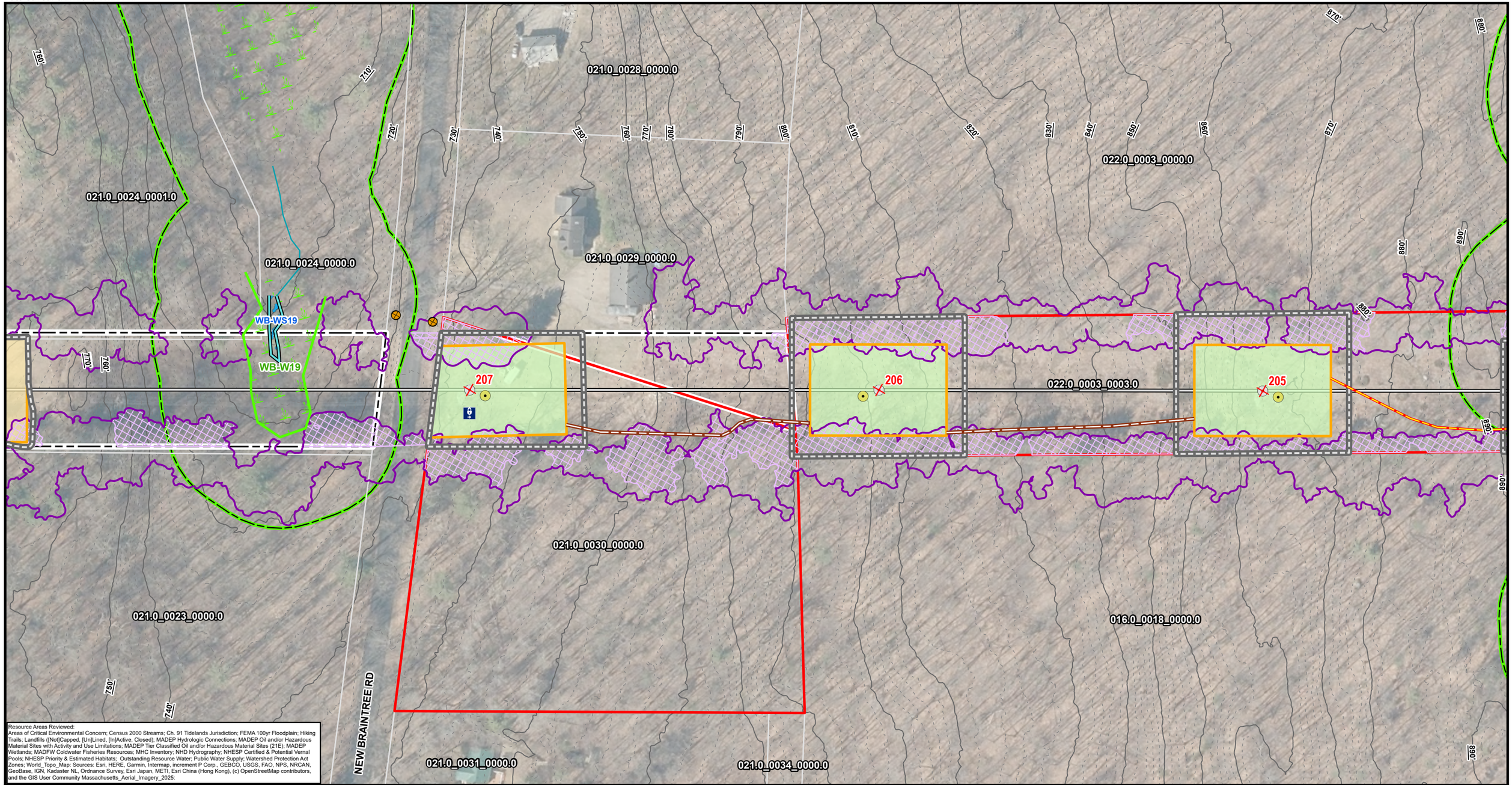
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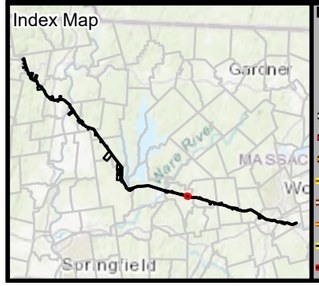
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

West Brookfield, MA
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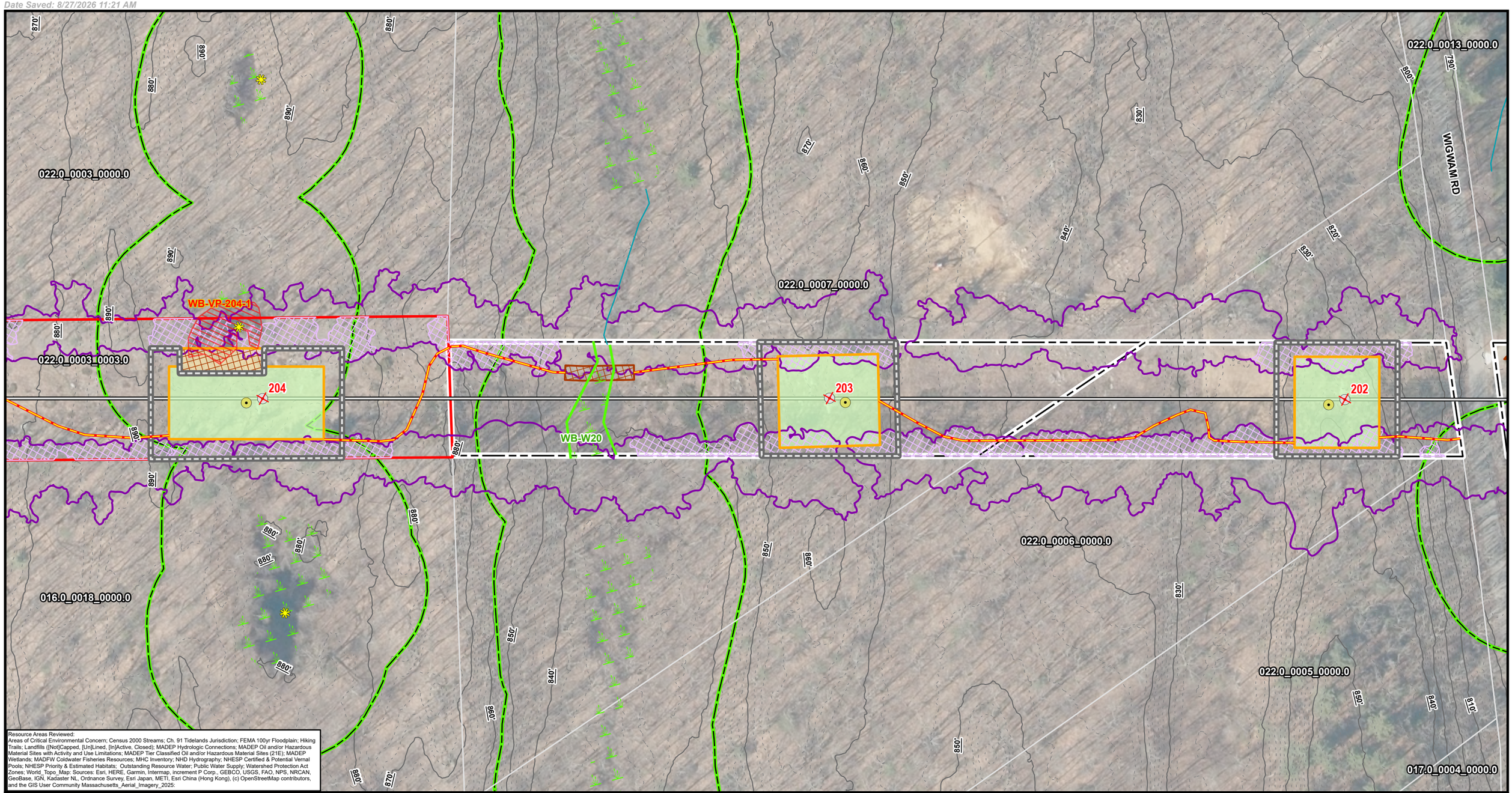
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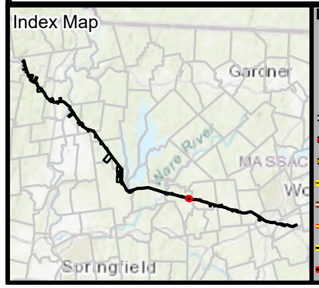
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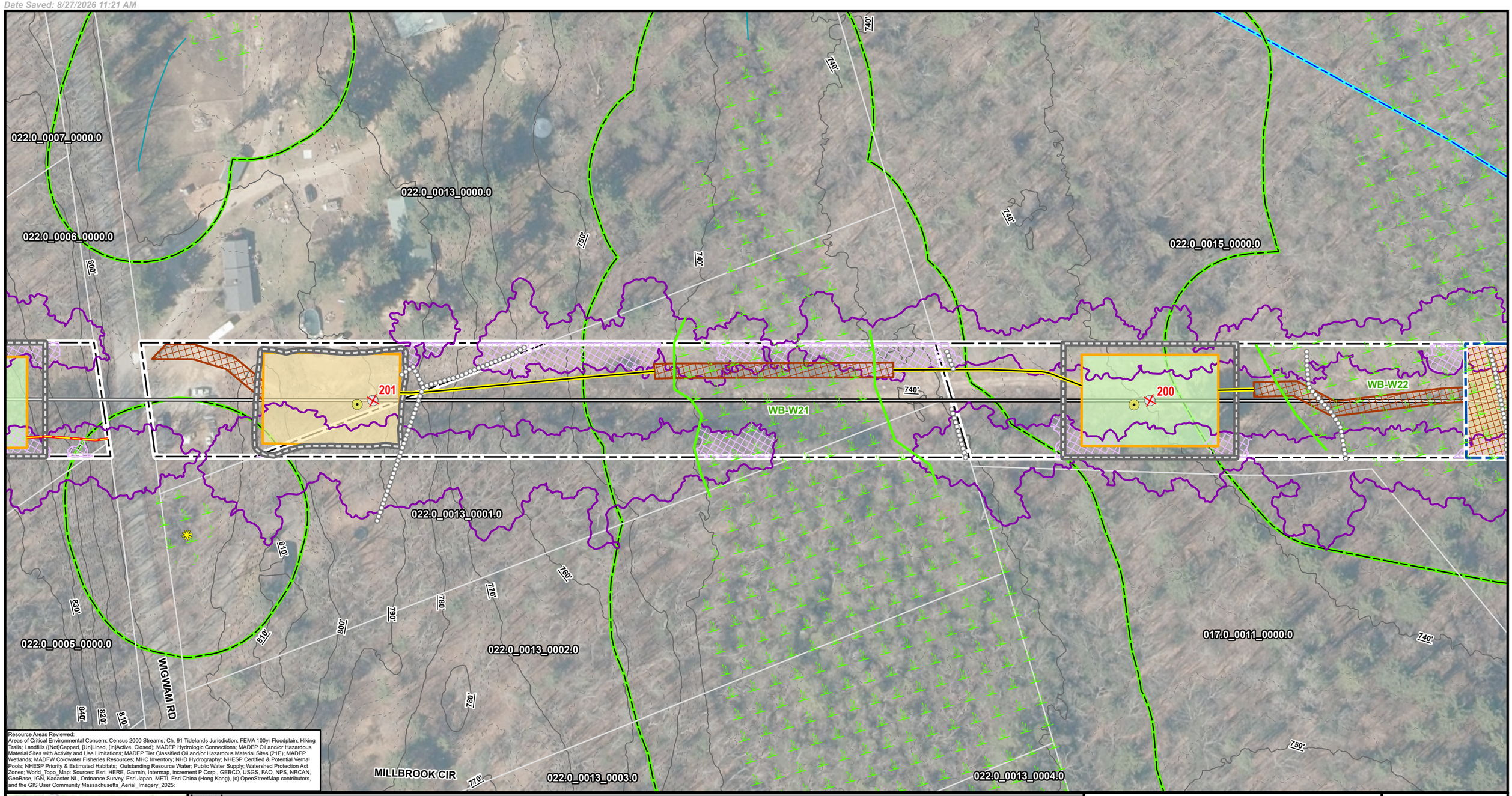
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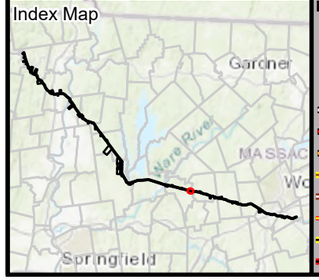
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Environmental Resources Map

West Brookfield, MA
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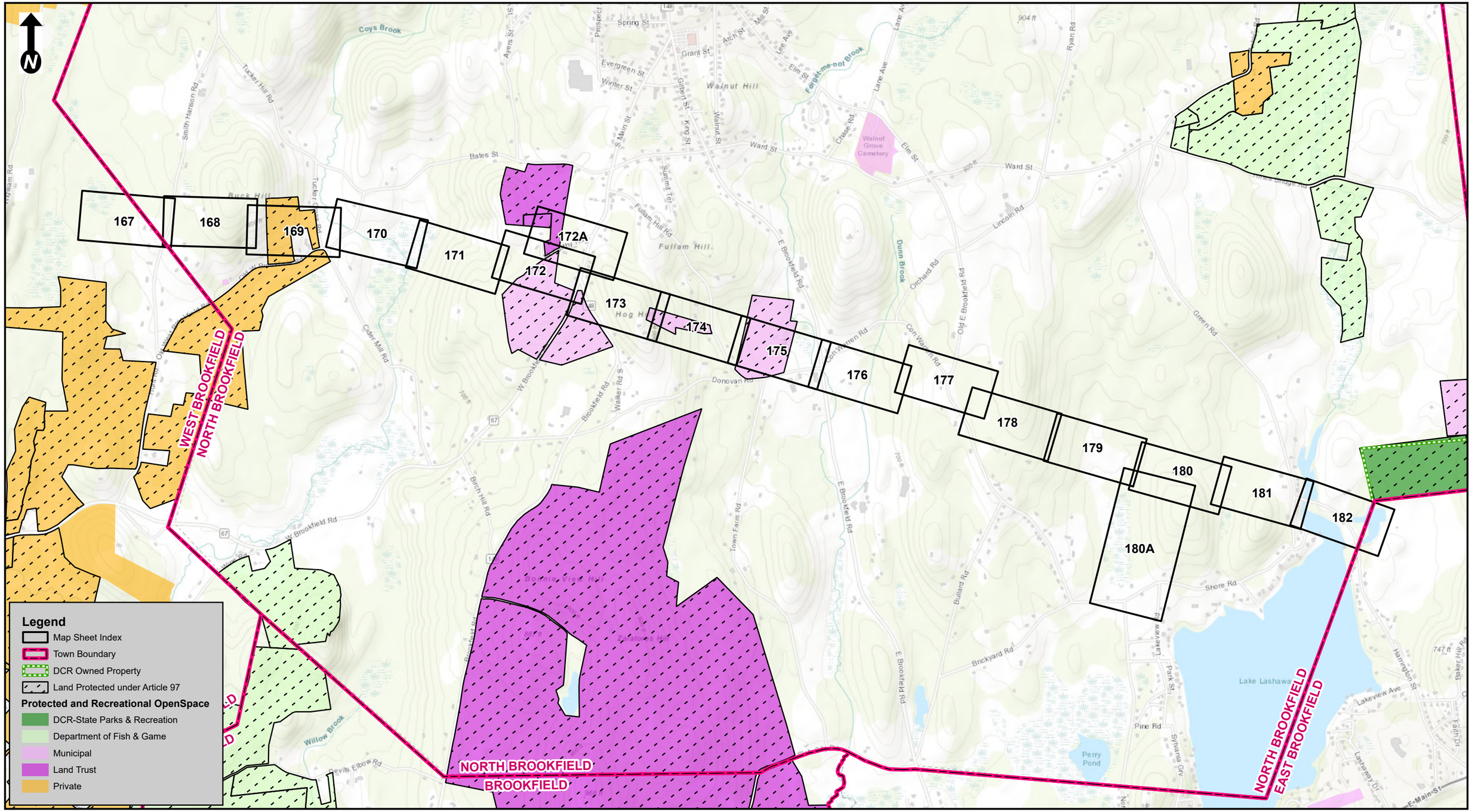
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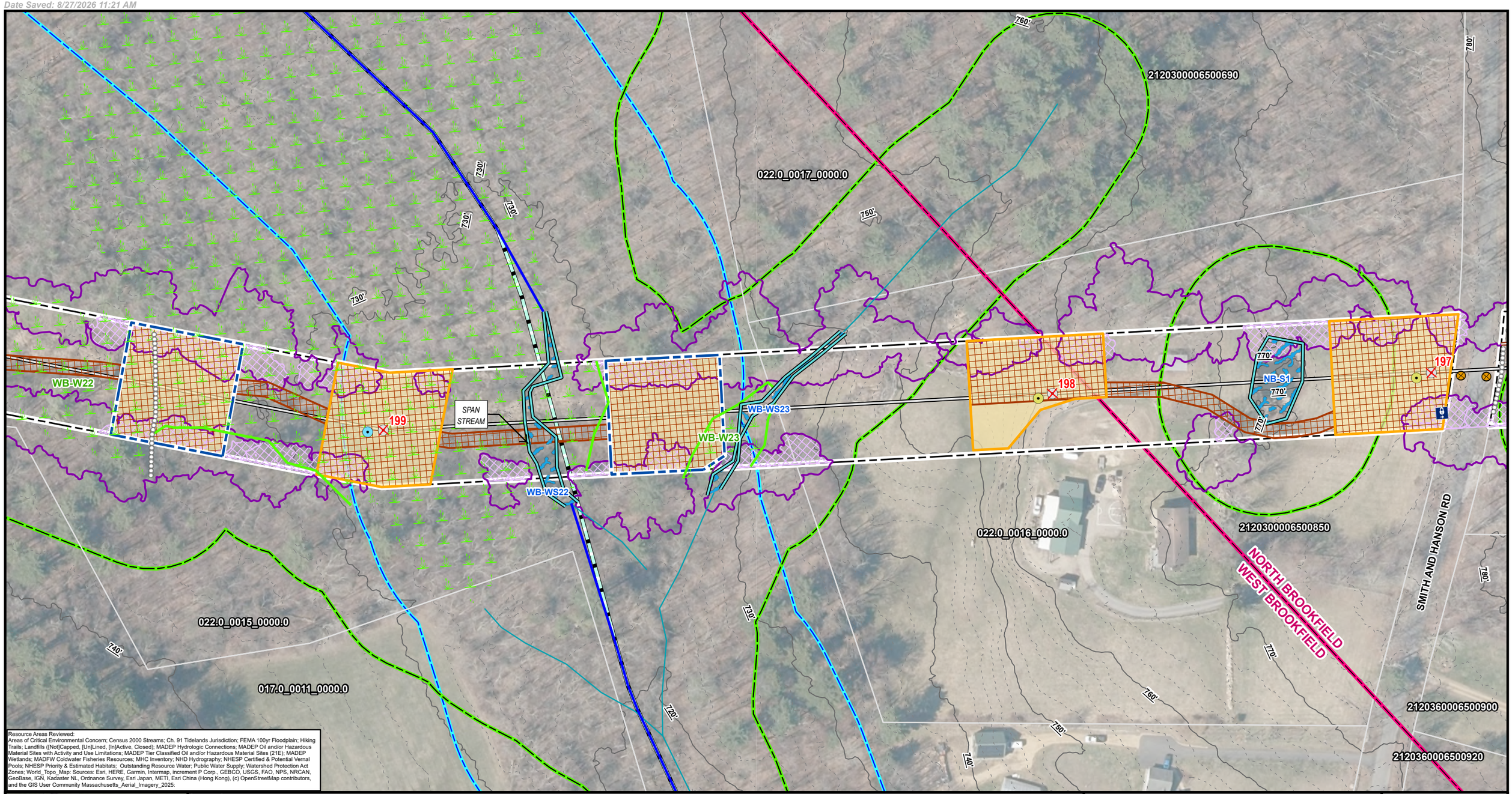
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
North Brookfield, MA

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

West Brookfield & North Brookfield, MA

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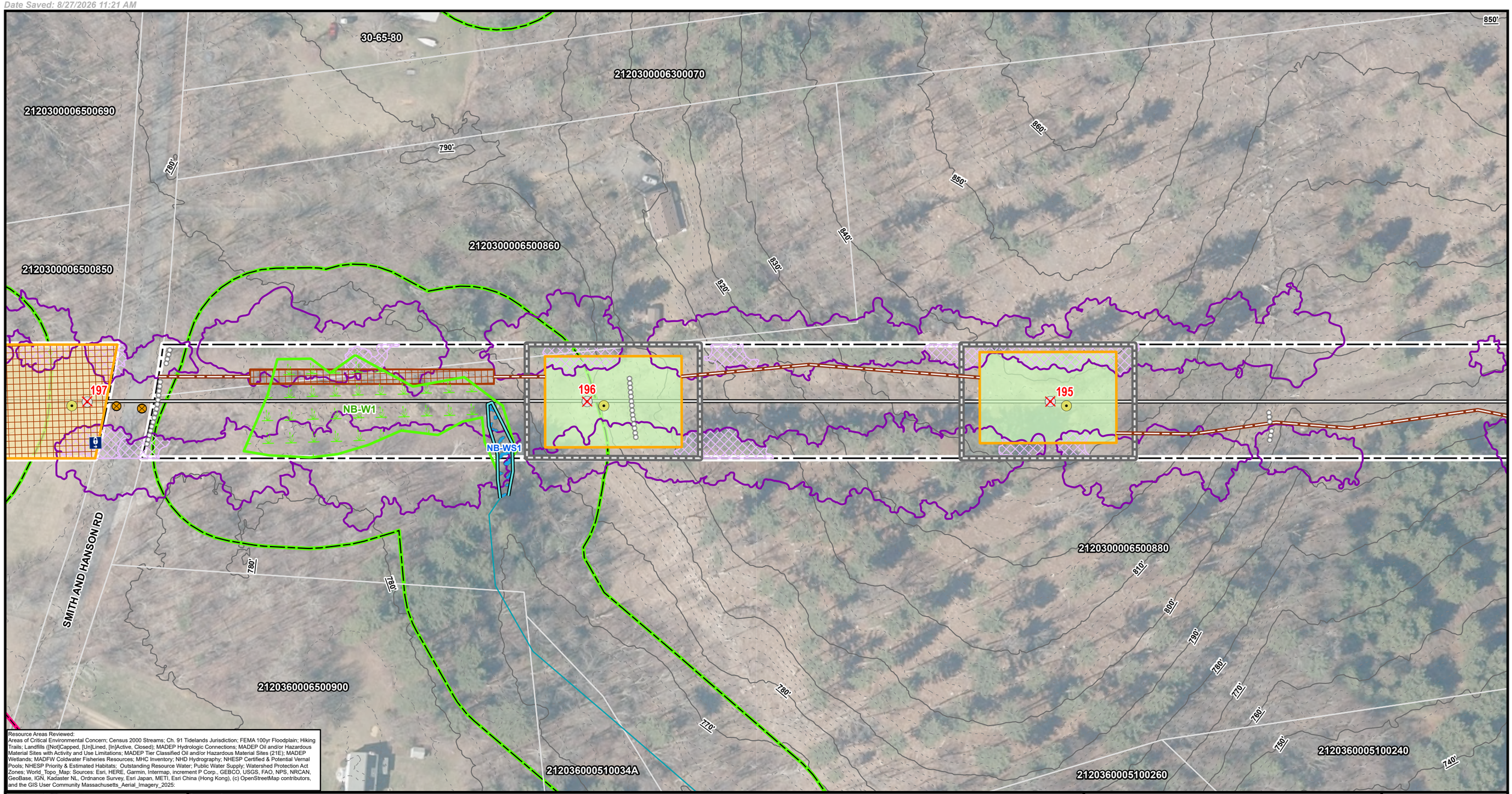
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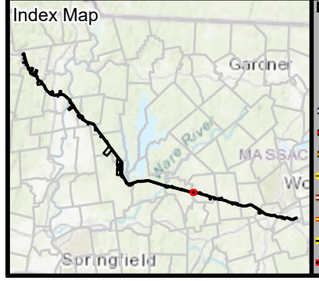
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

North Brookfield, MA
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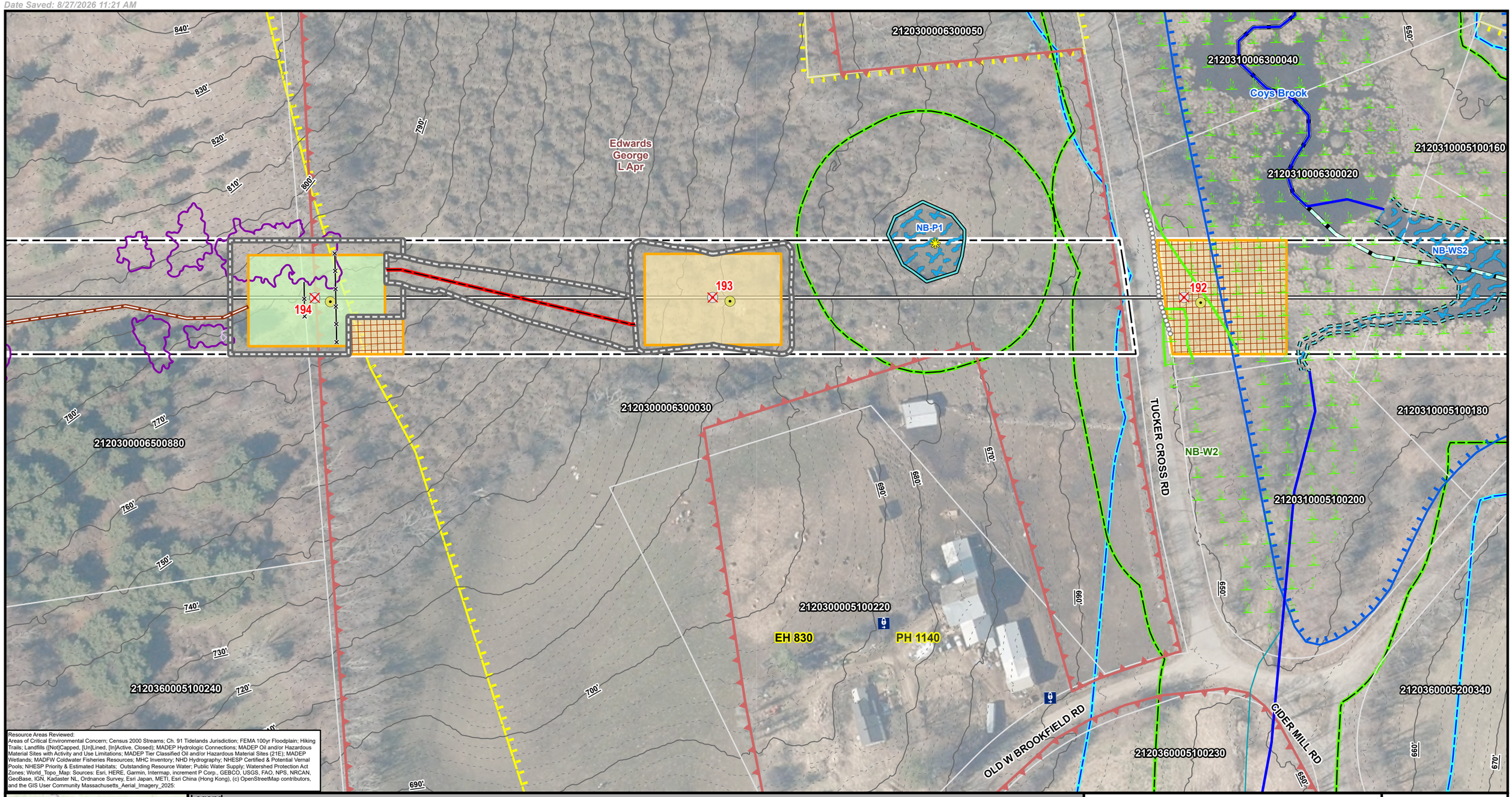
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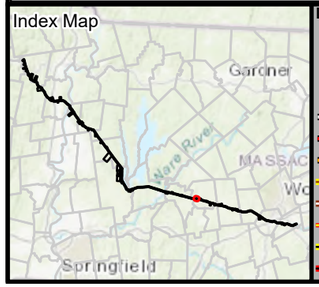
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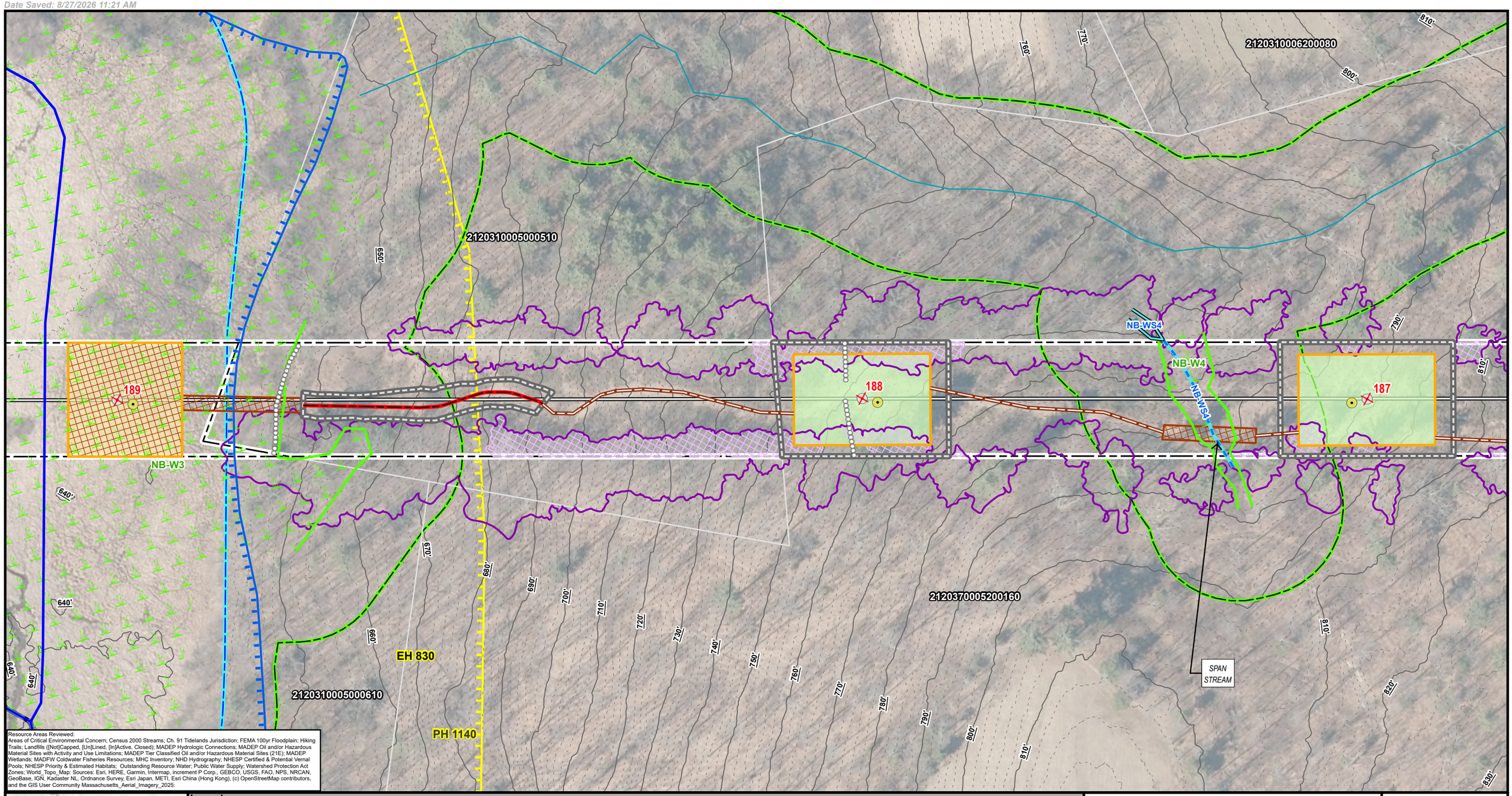
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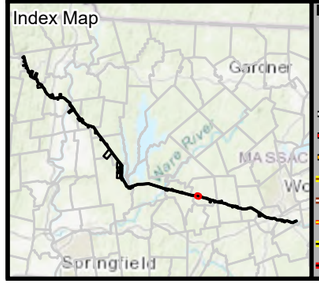
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

North Brookfield, MA
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Created by: BSC GROUP

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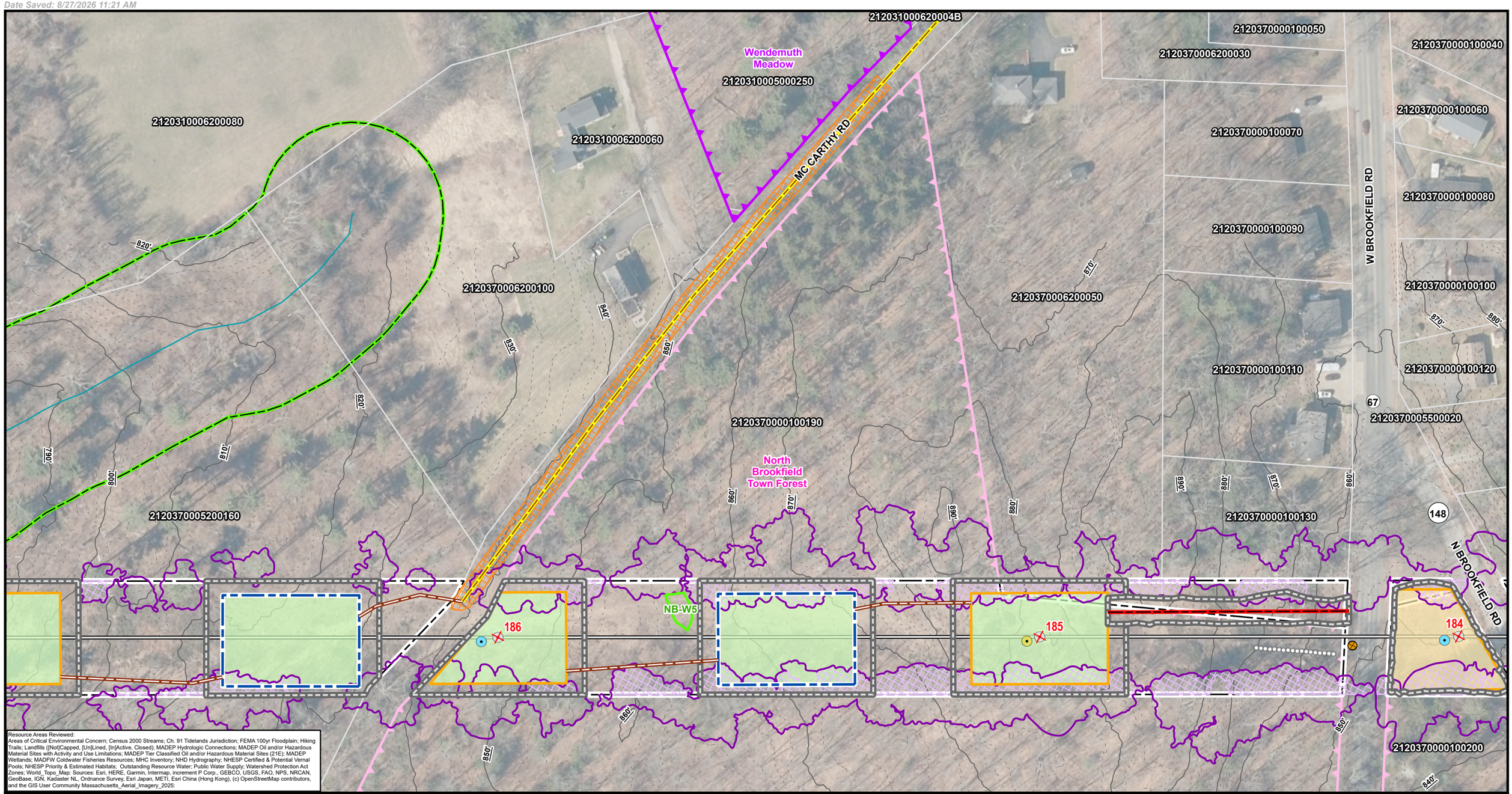
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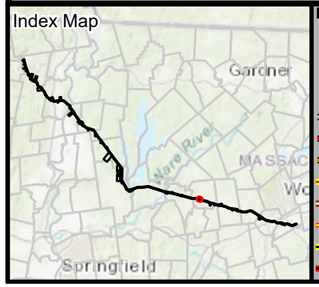
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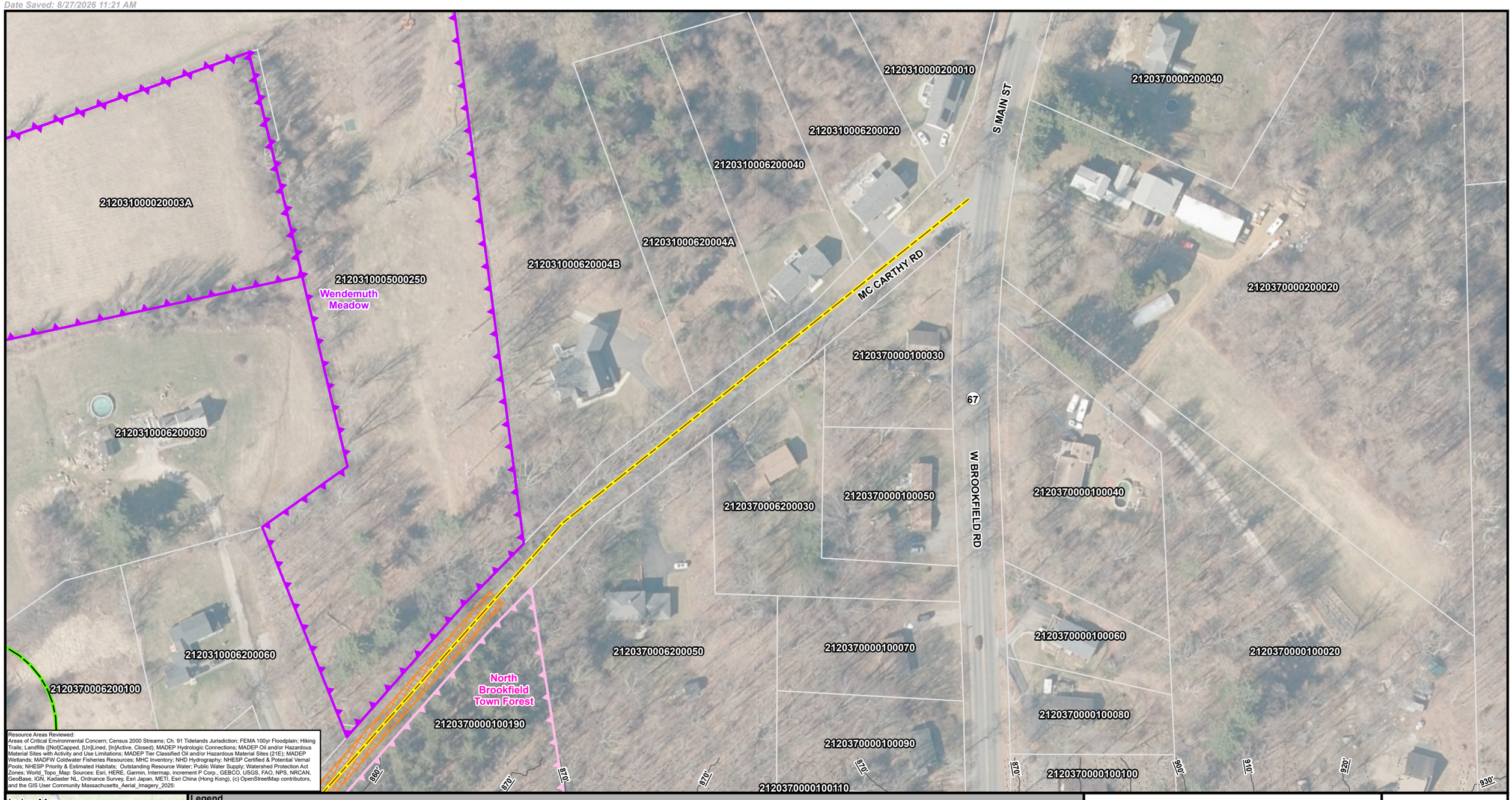
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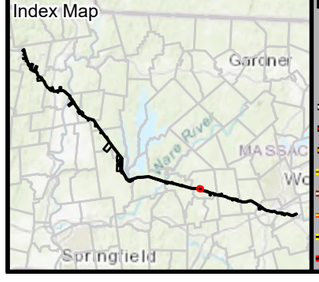
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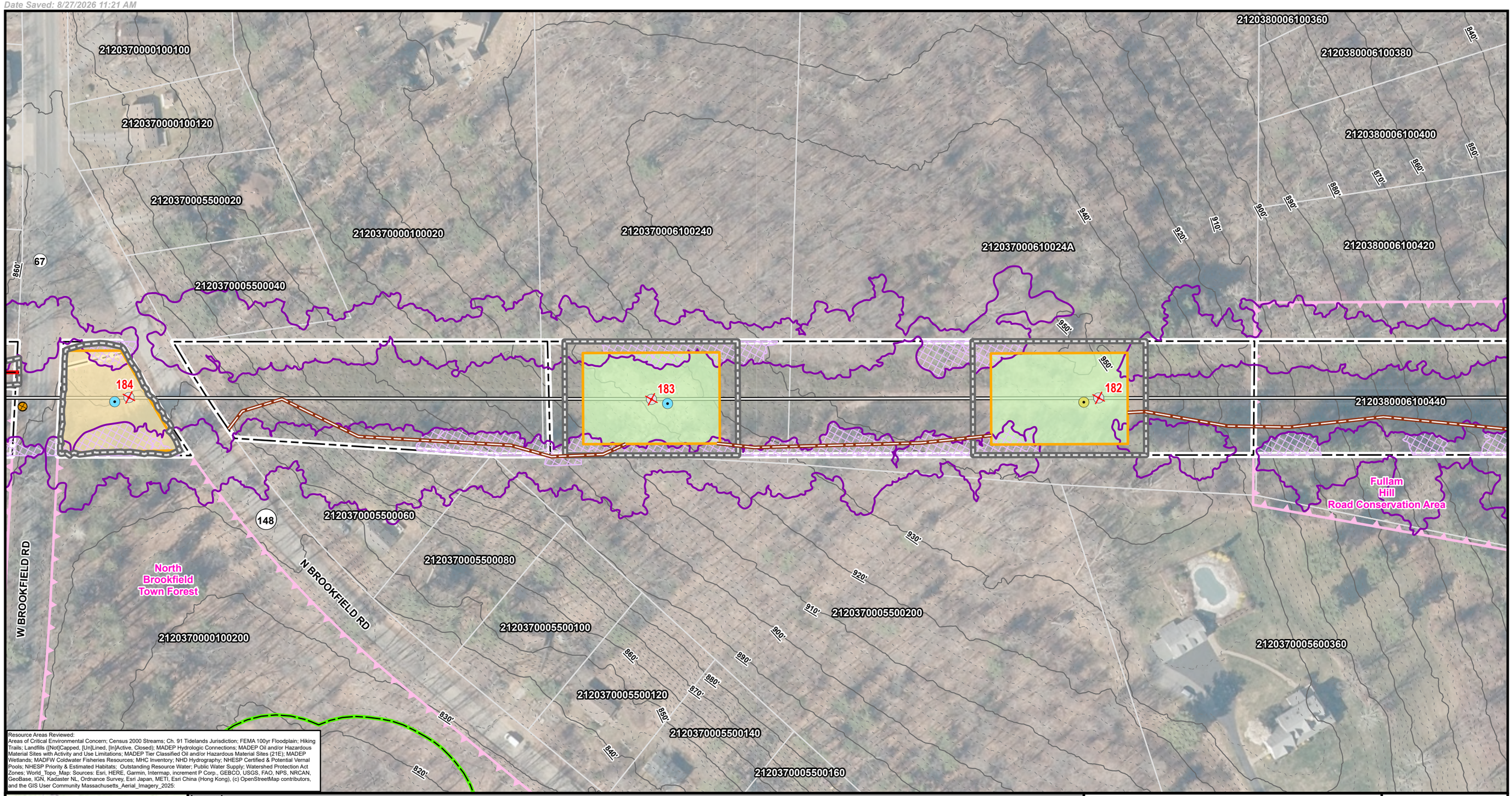
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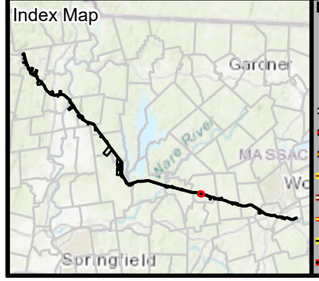
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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North Brookfield, MA
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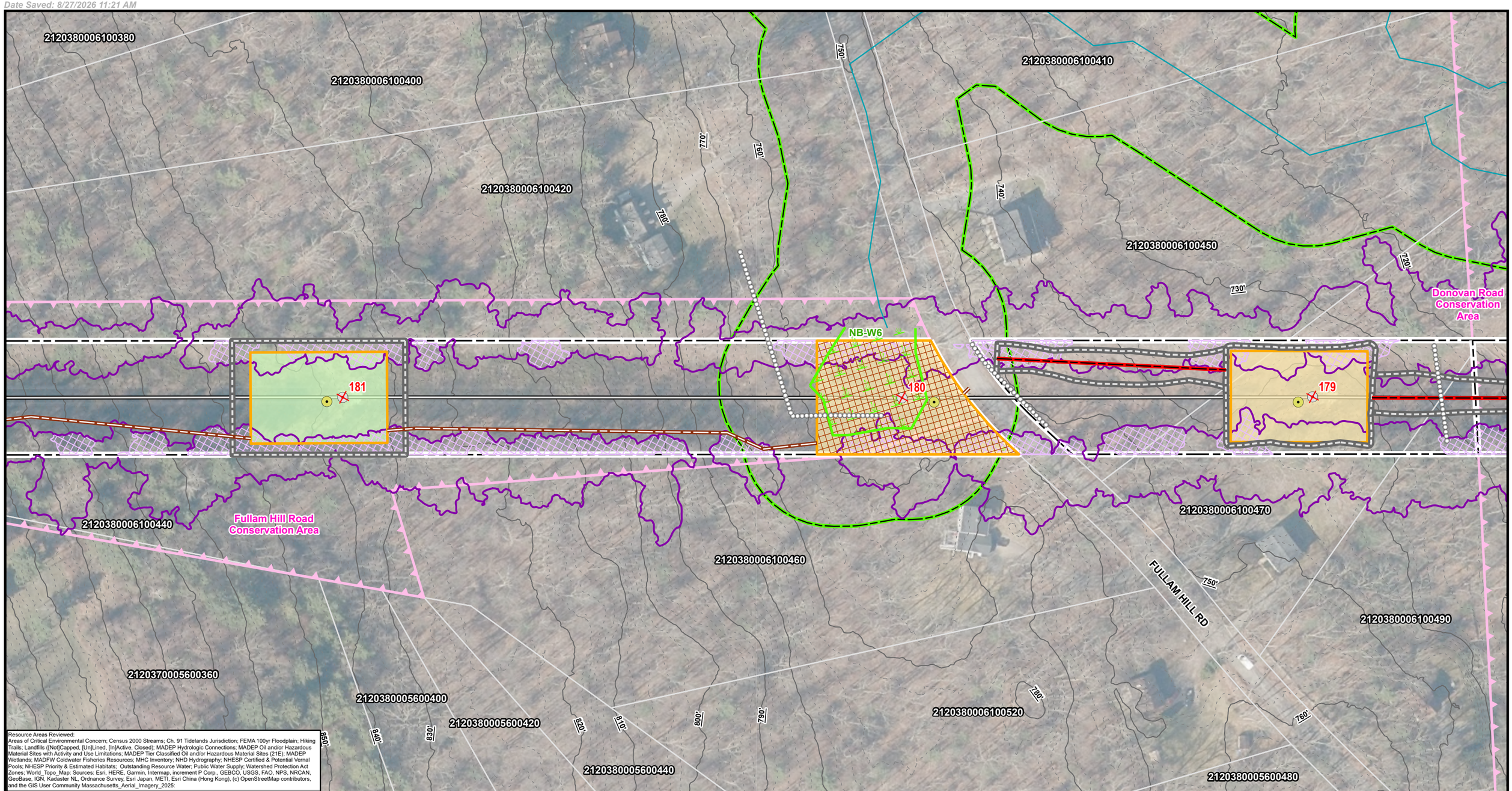
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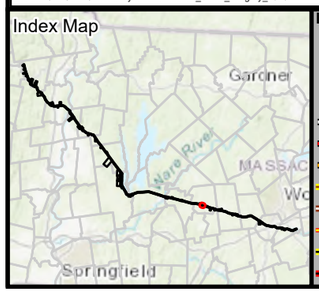
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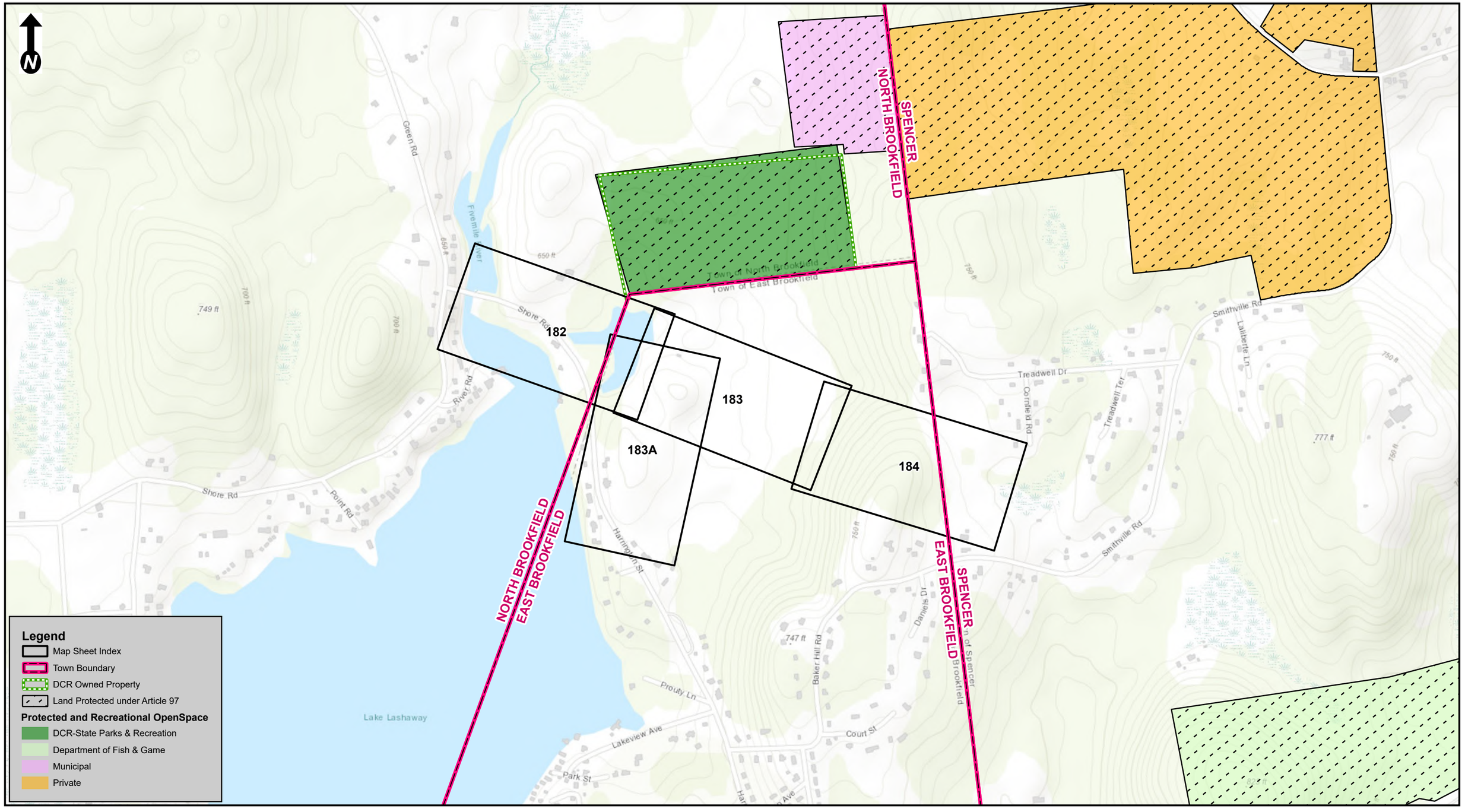
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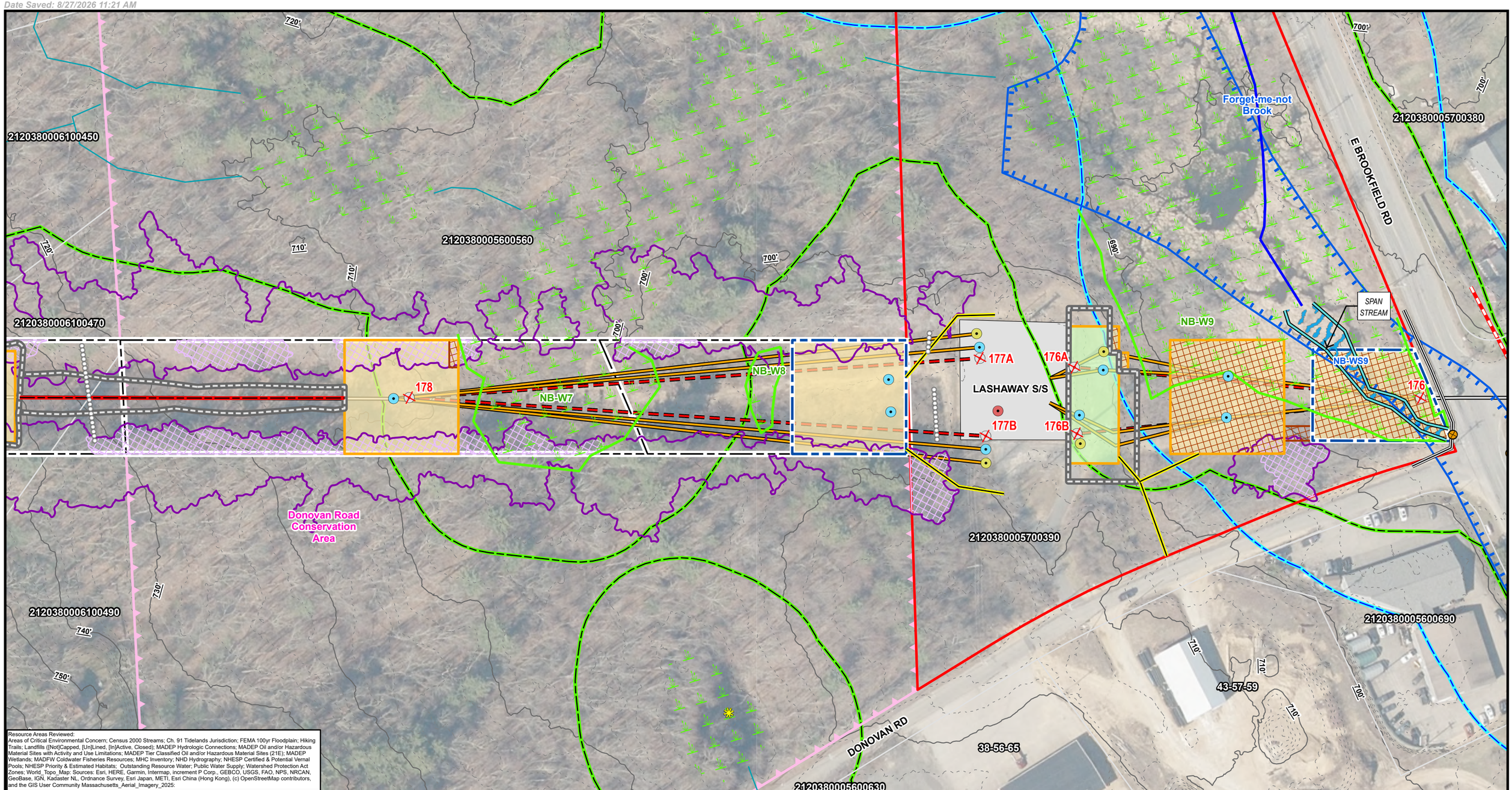
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
East Brookfield, MA

Source: 2013 National Geographic Society, i-cubed

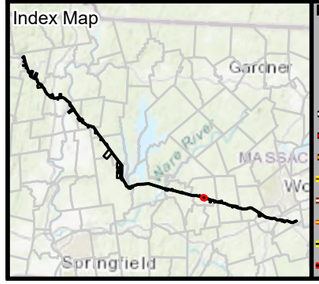
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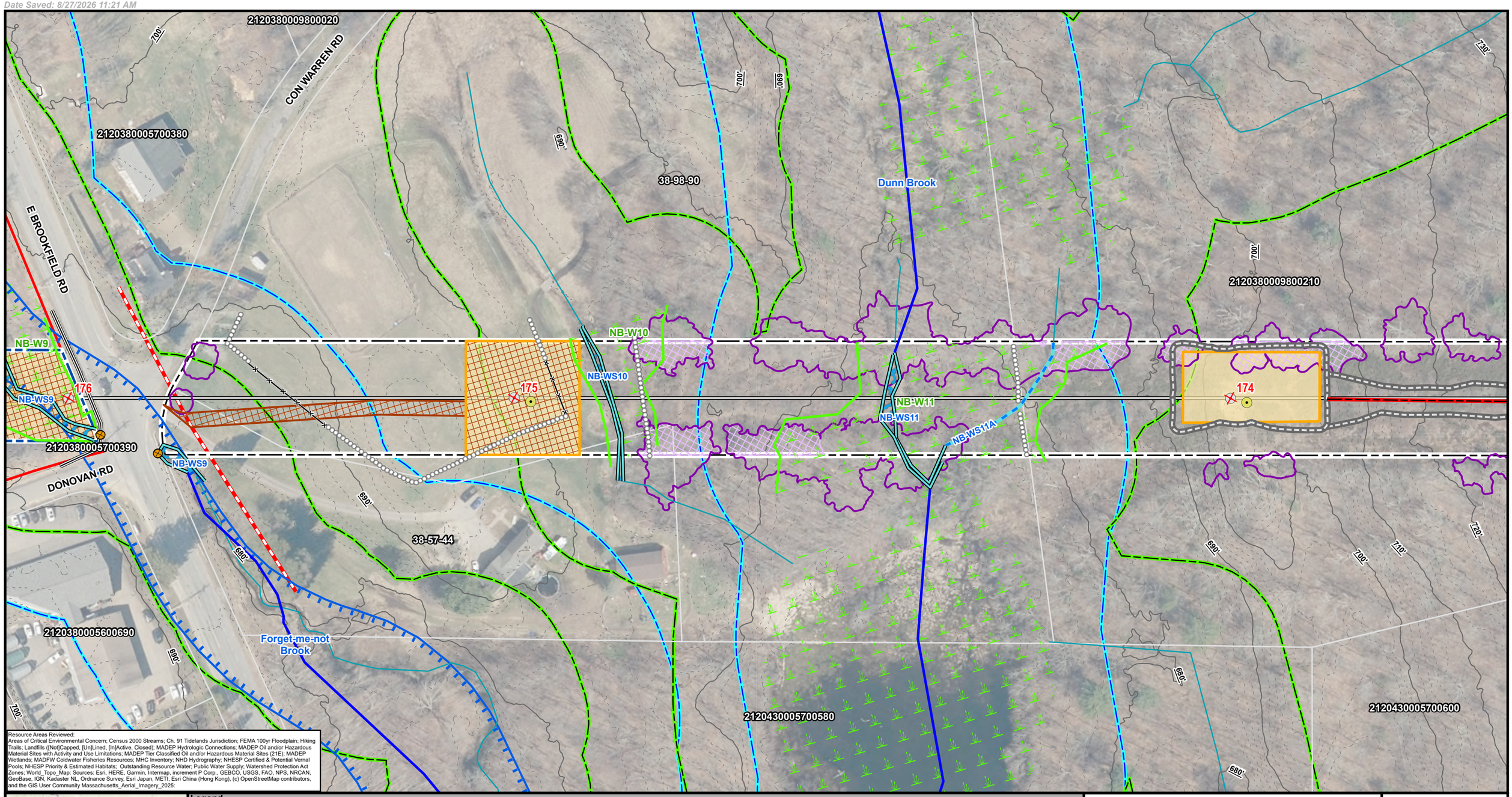
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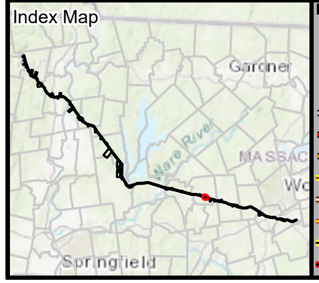
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

North Brookfield, MA
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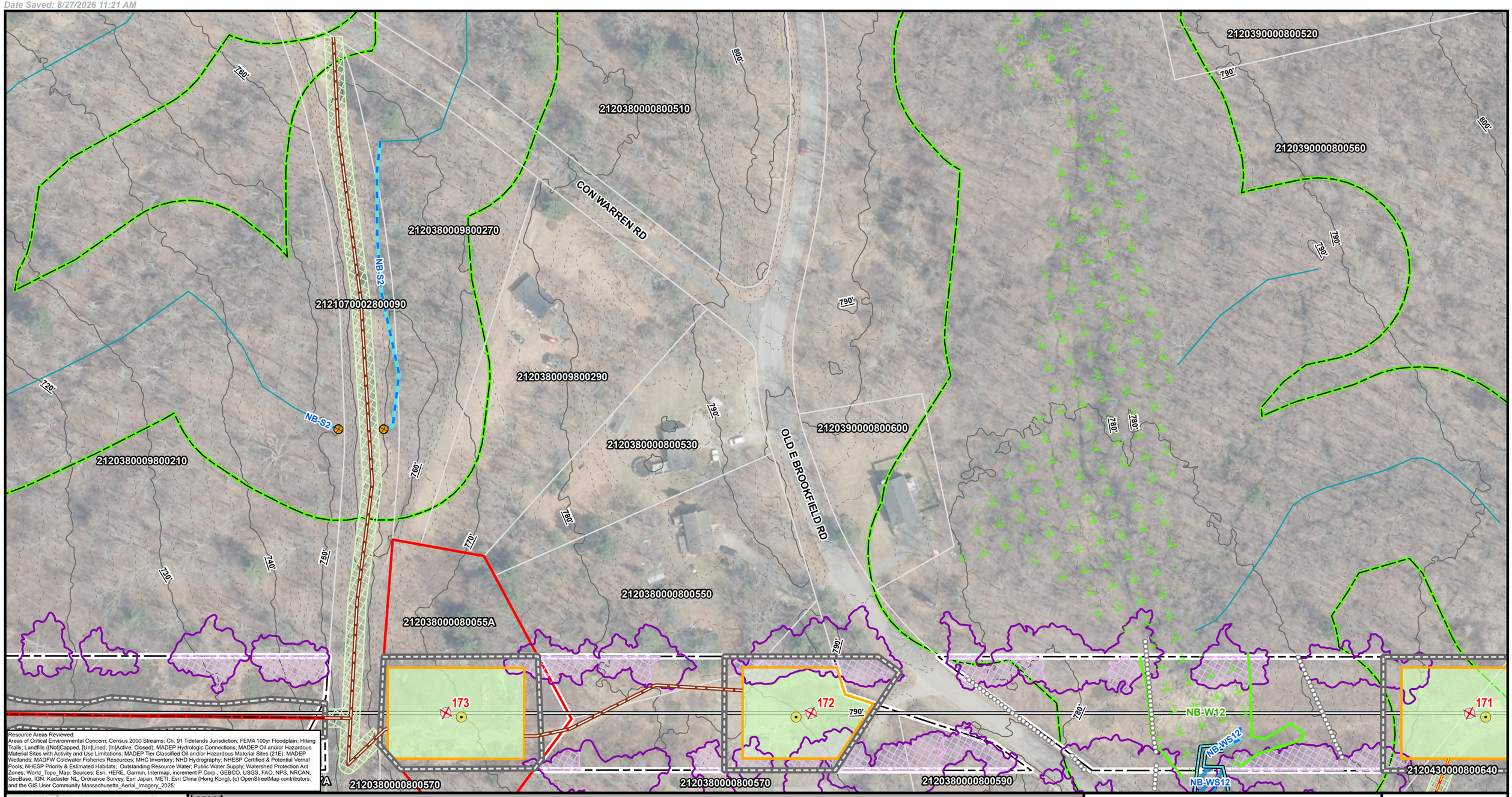
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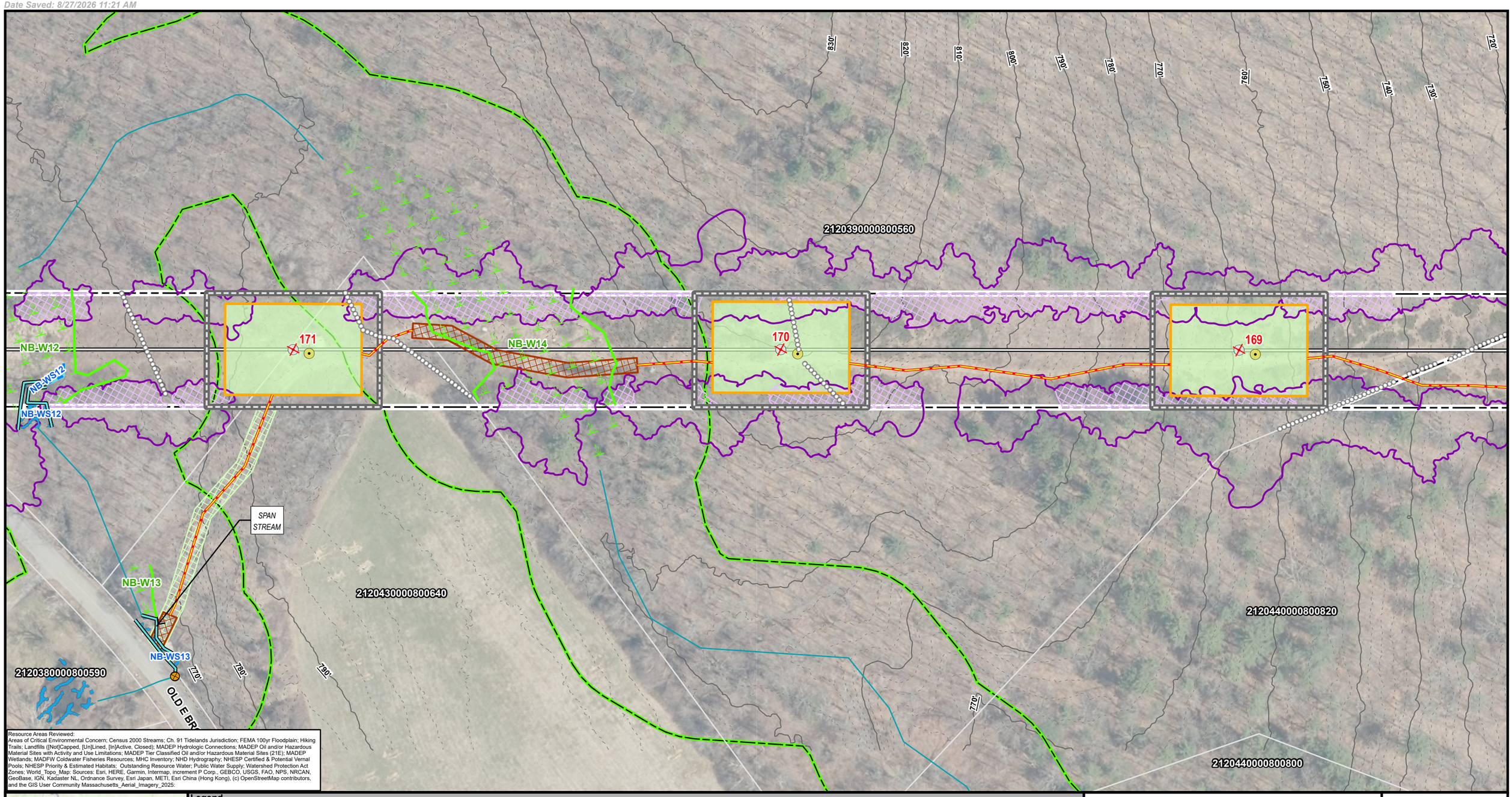
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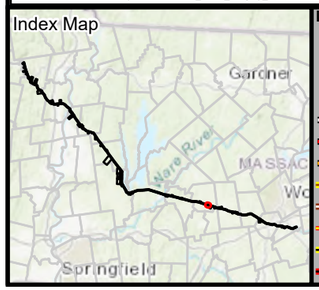
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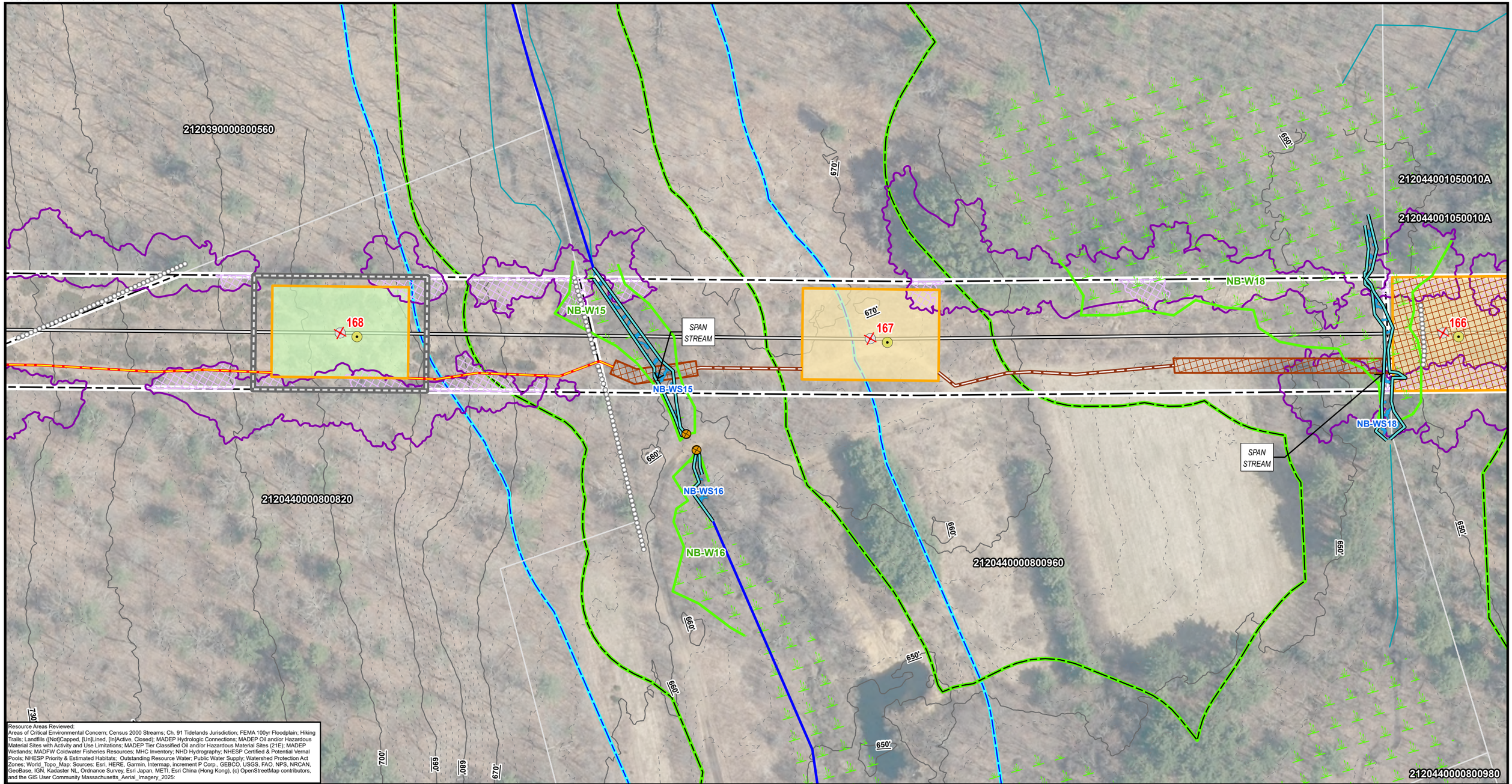
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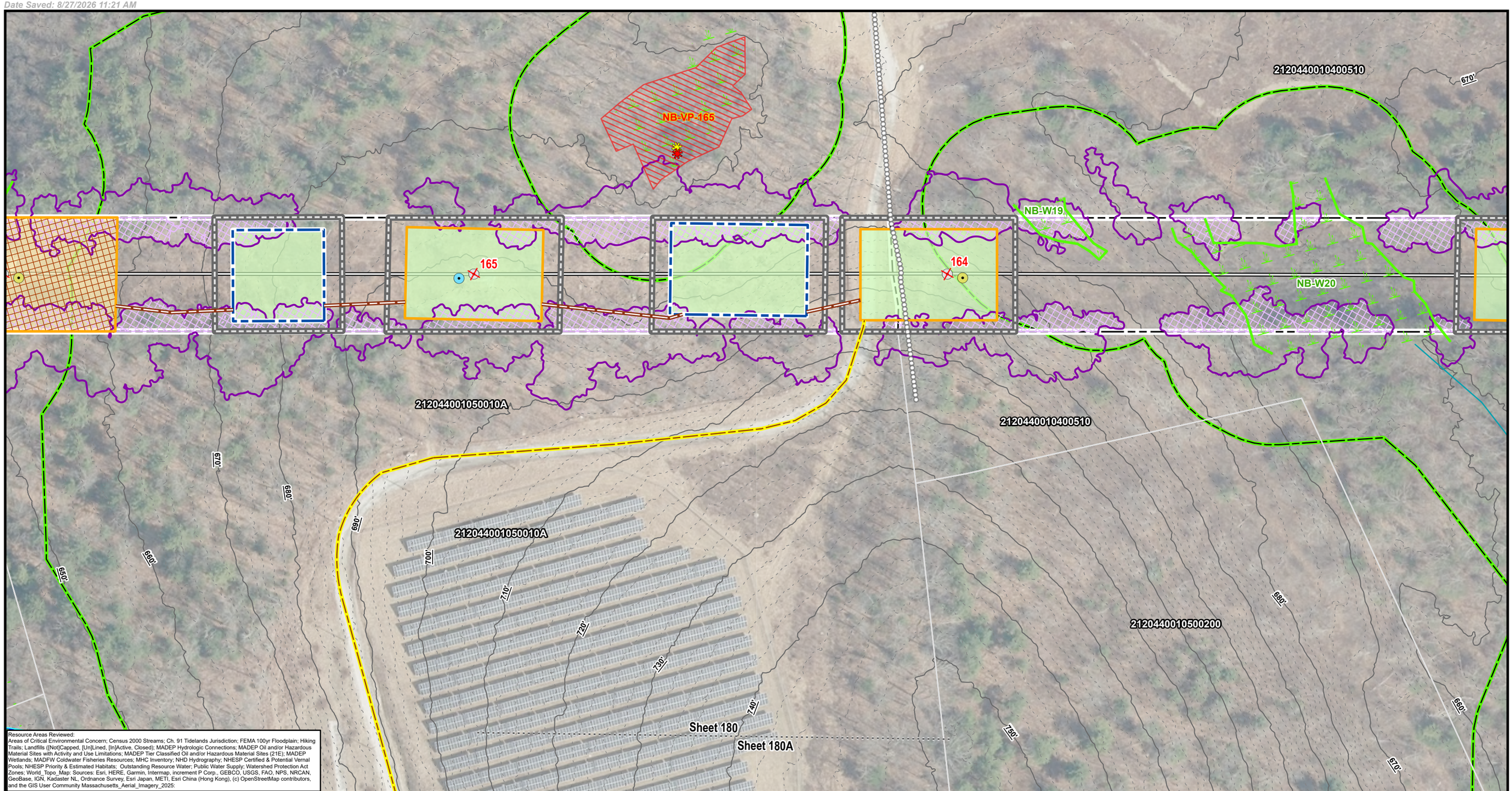
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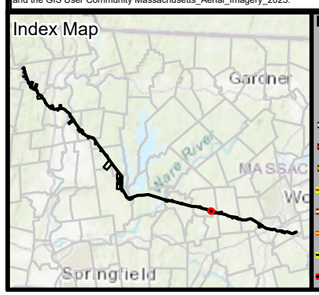
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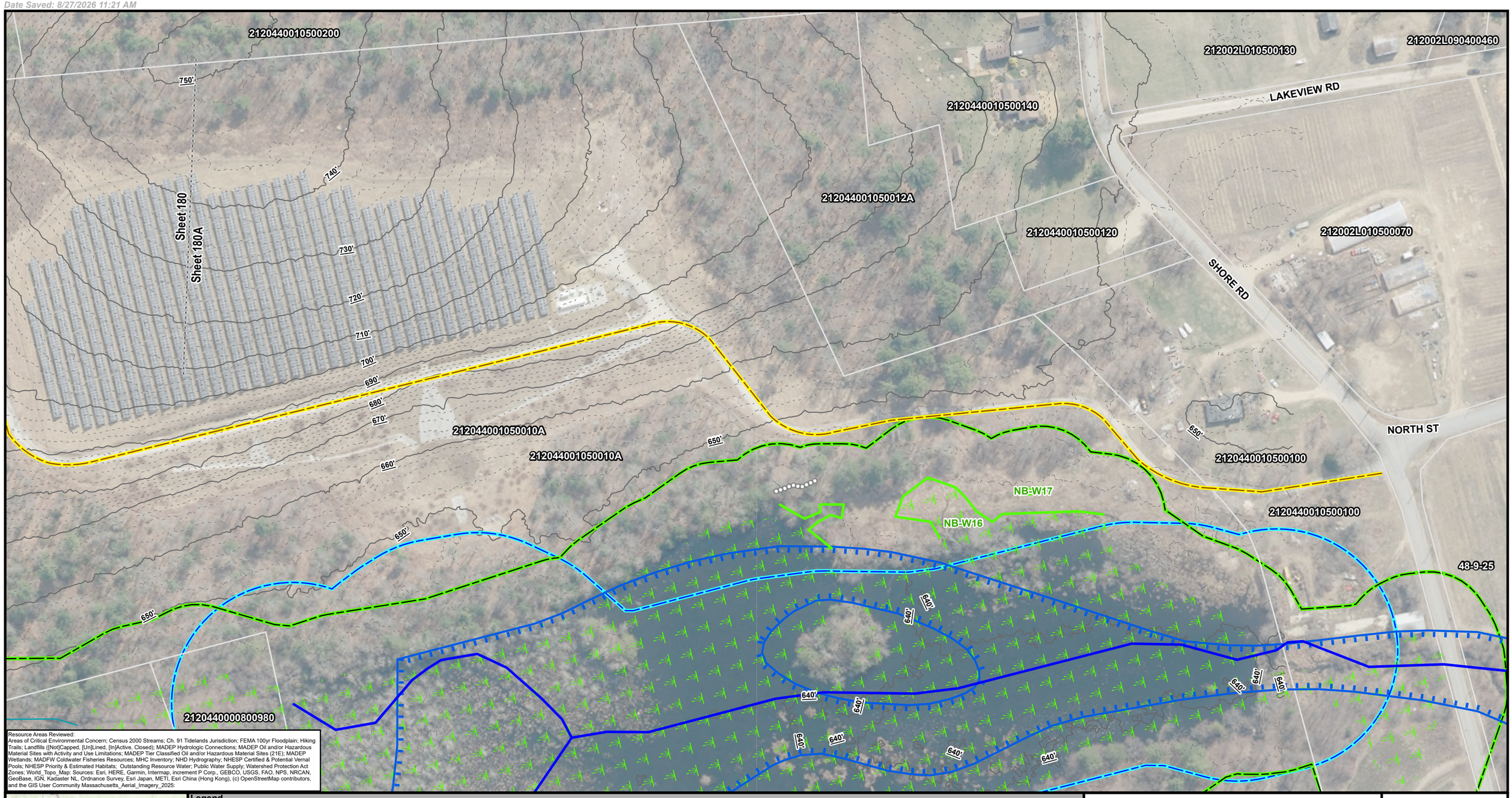
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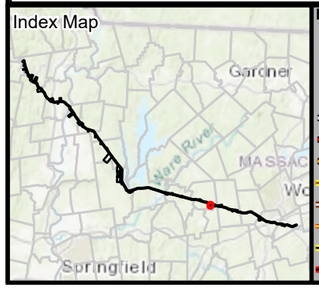
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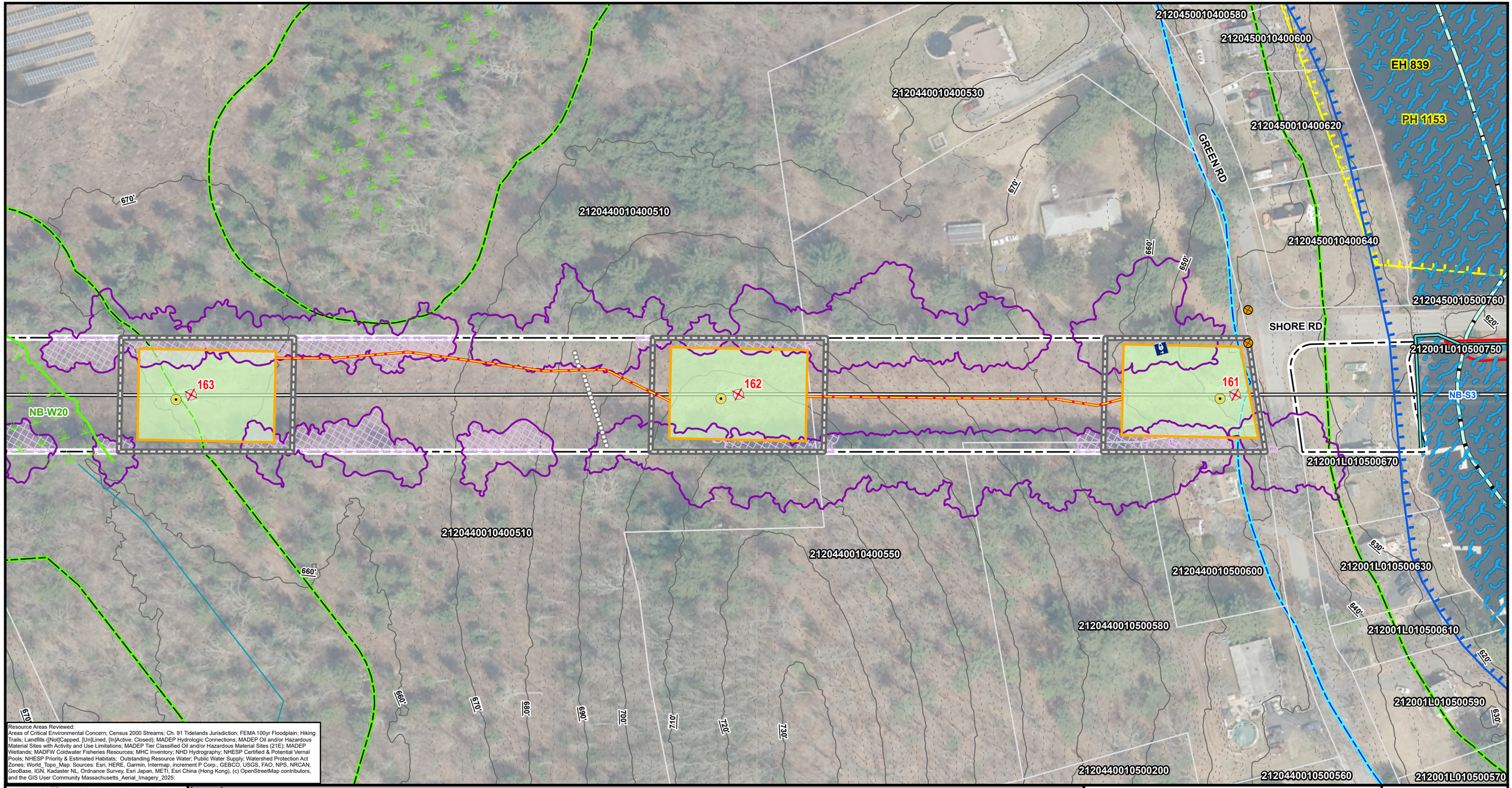
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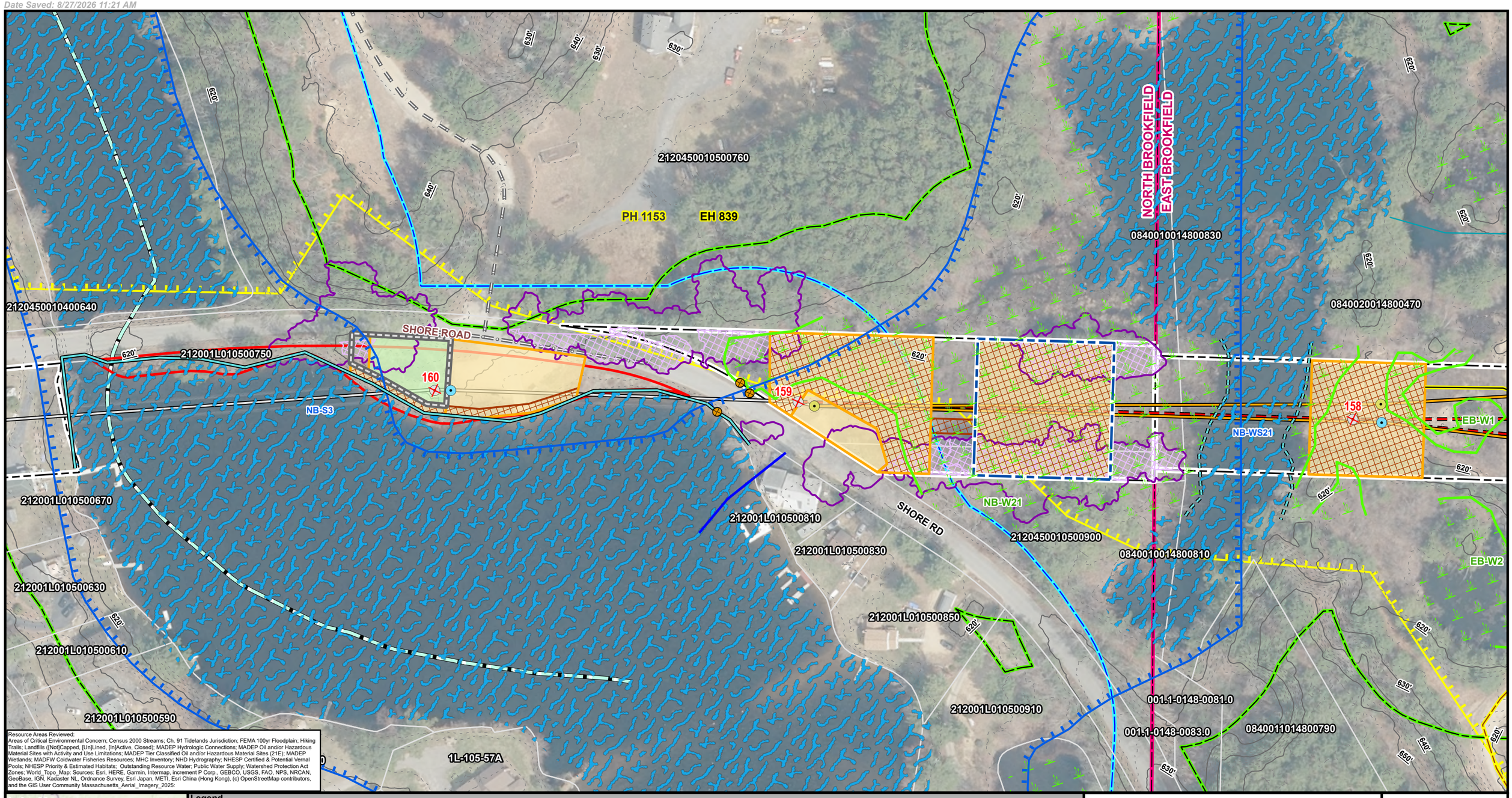
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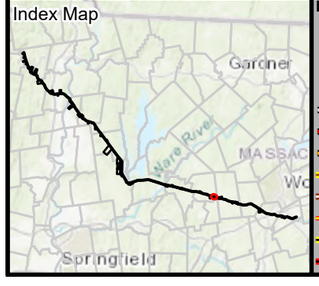
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

North Brookfield & East Brookfield, MA
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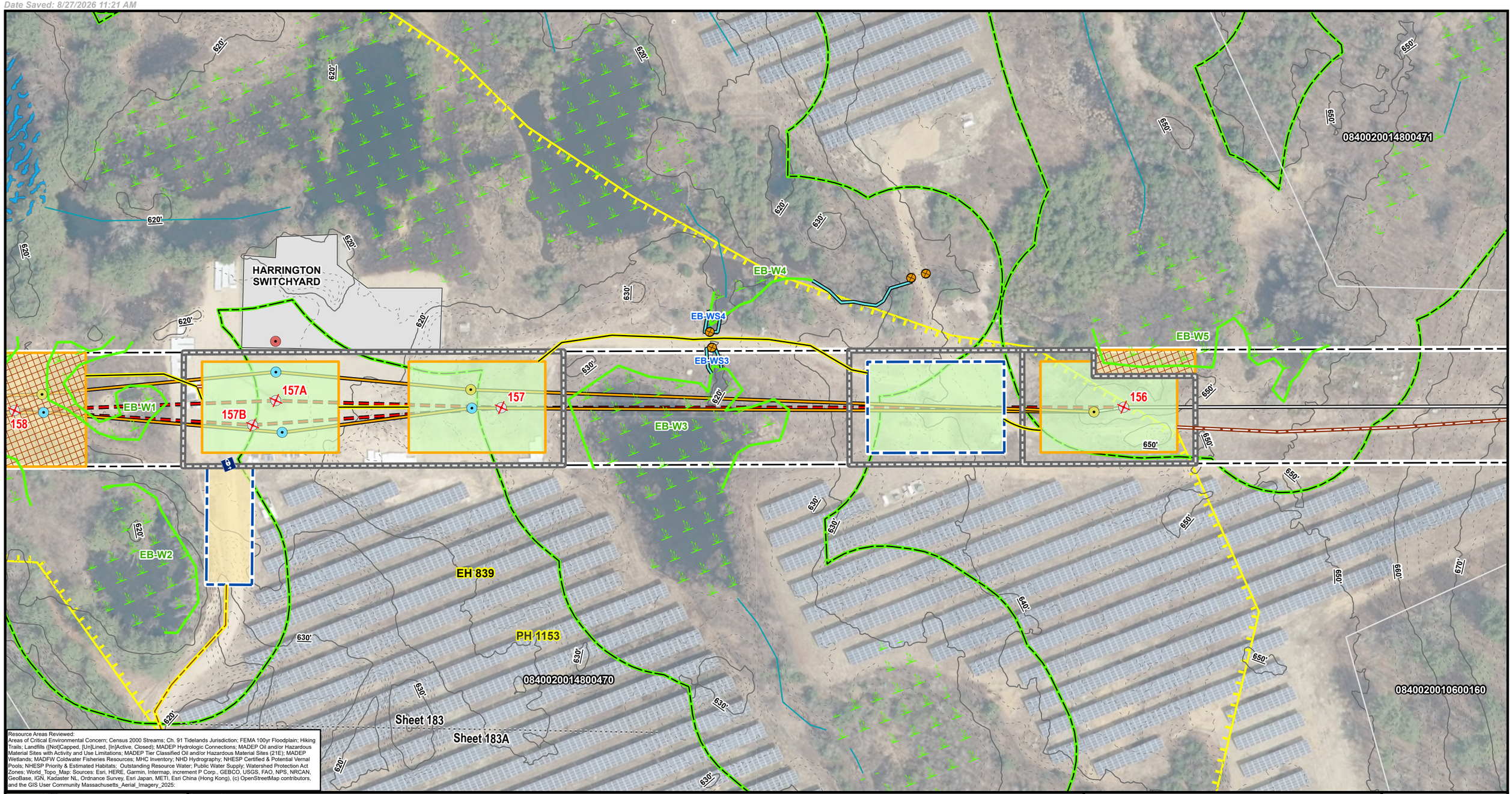
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

East Brookfield, MA
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Created by: BSC GROUP

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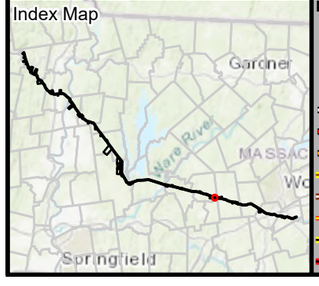
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

East Brookfield, MA
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Created by: BSC GROUP

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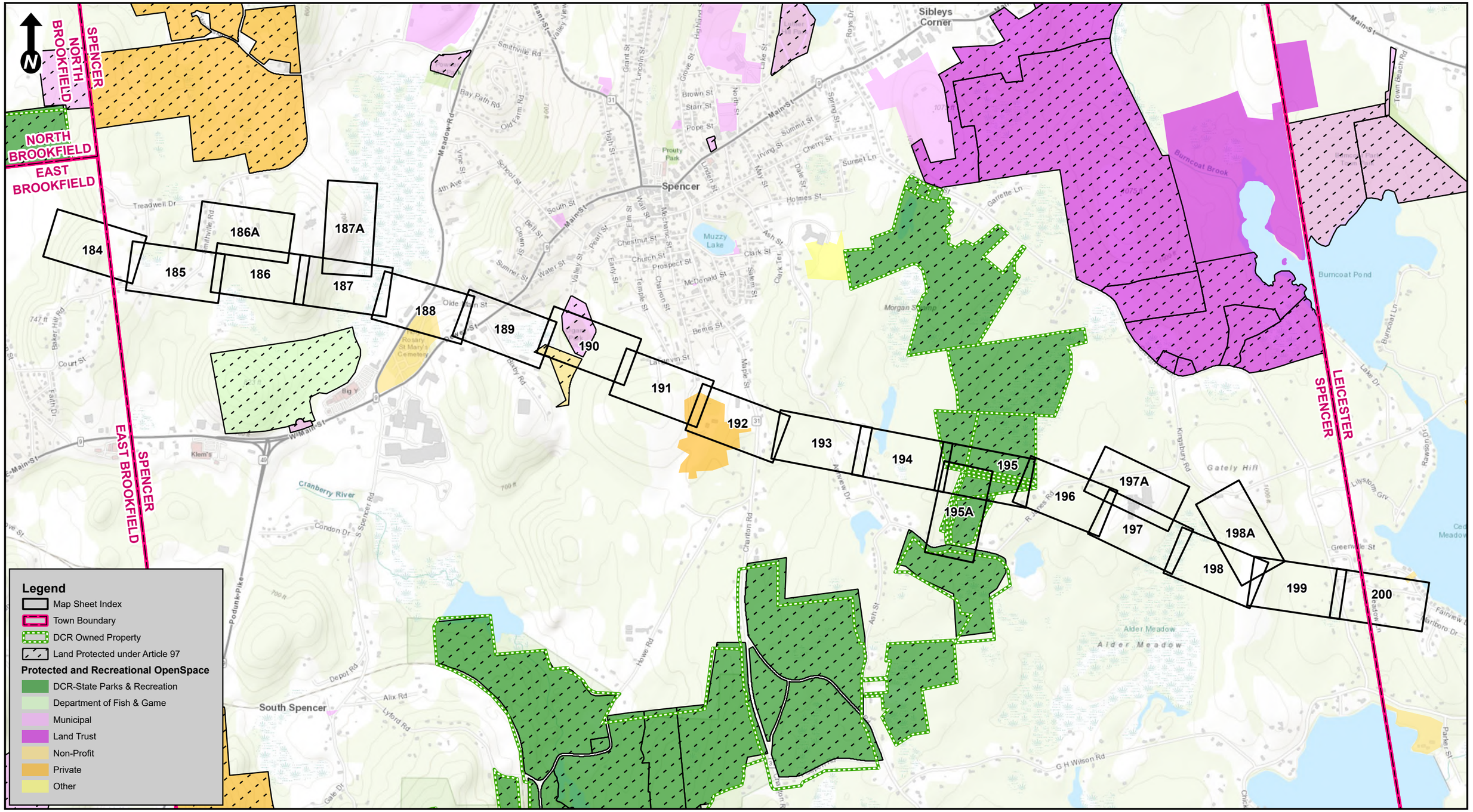
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Legend

- Map Sheet Index
- Town Boundary
- DCR Owned Property
- Land Protected under Article 97

Protected and Recreational OpenSpace

- DCR-State Parks & Recreation
- Department of Fish & Game
- Municipal
- Land Trust
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- Other

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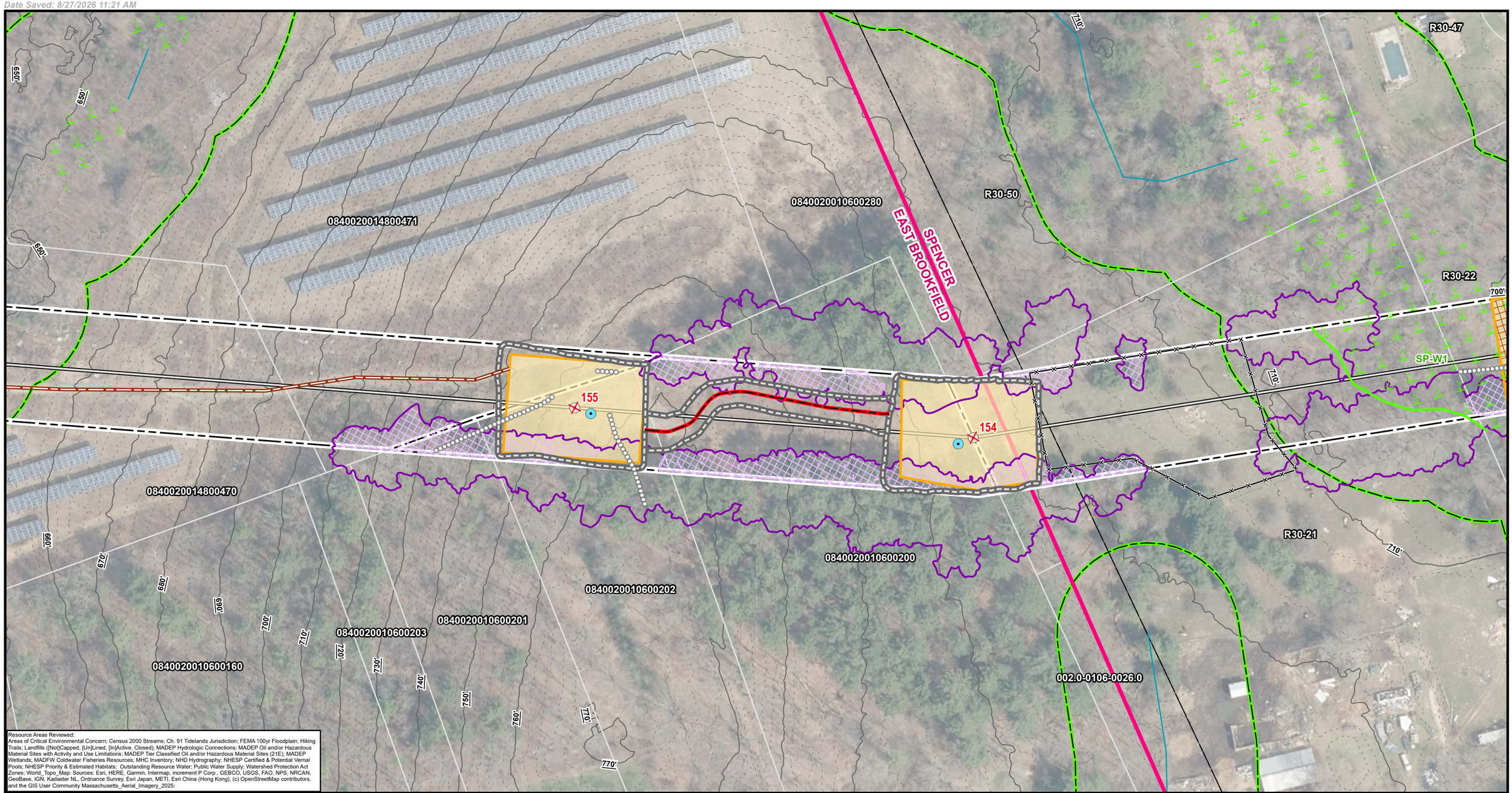
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Spencer, MA

Source: 2013 National Geographic Society, i-cubed

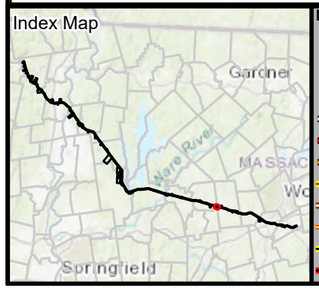
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

East Brookfield & Spencer, MA
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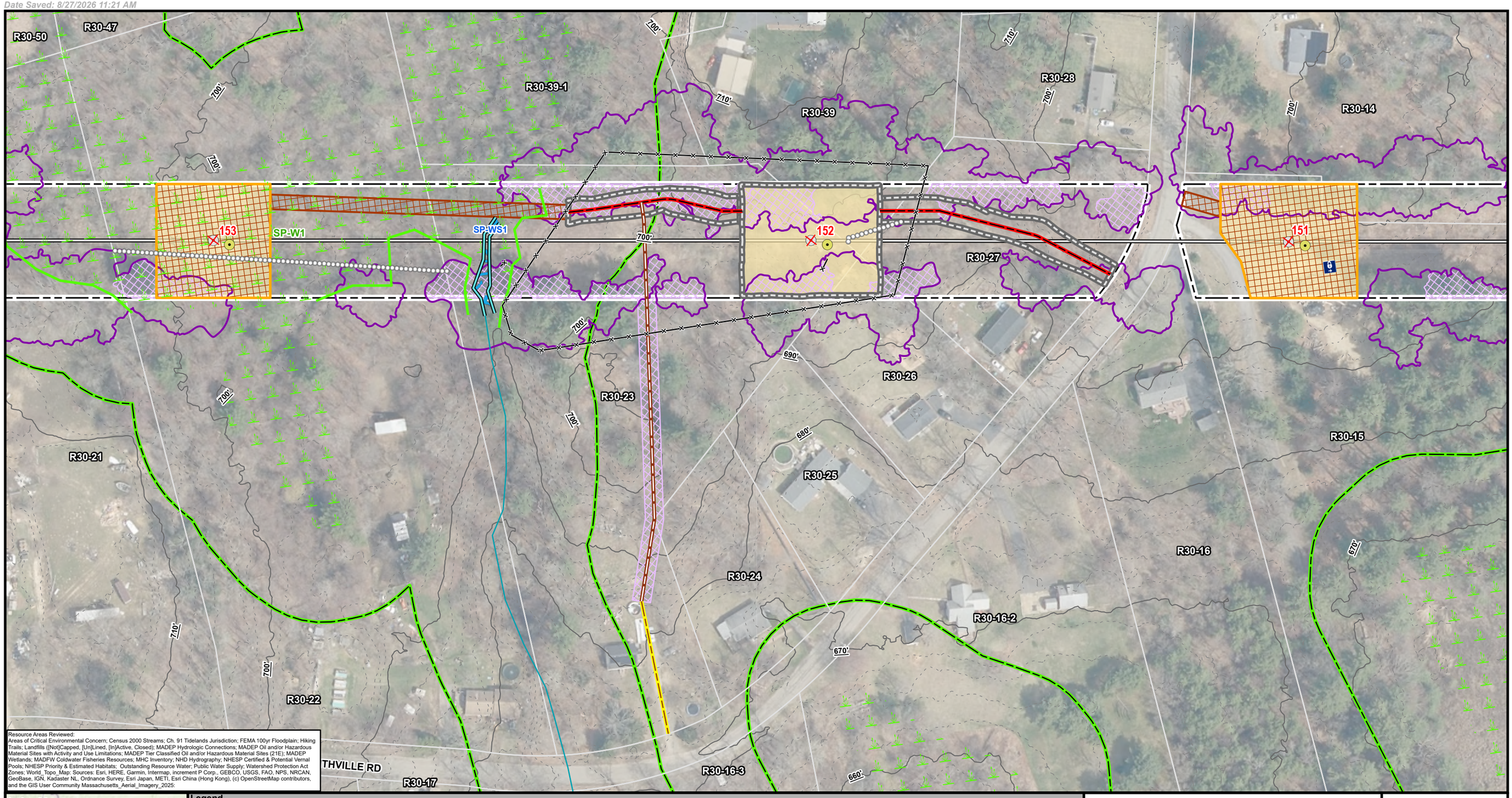
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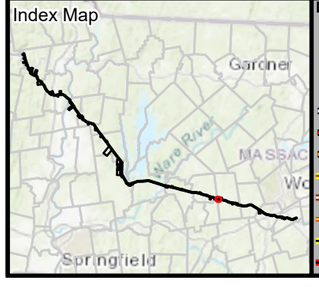
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Spencer, MA
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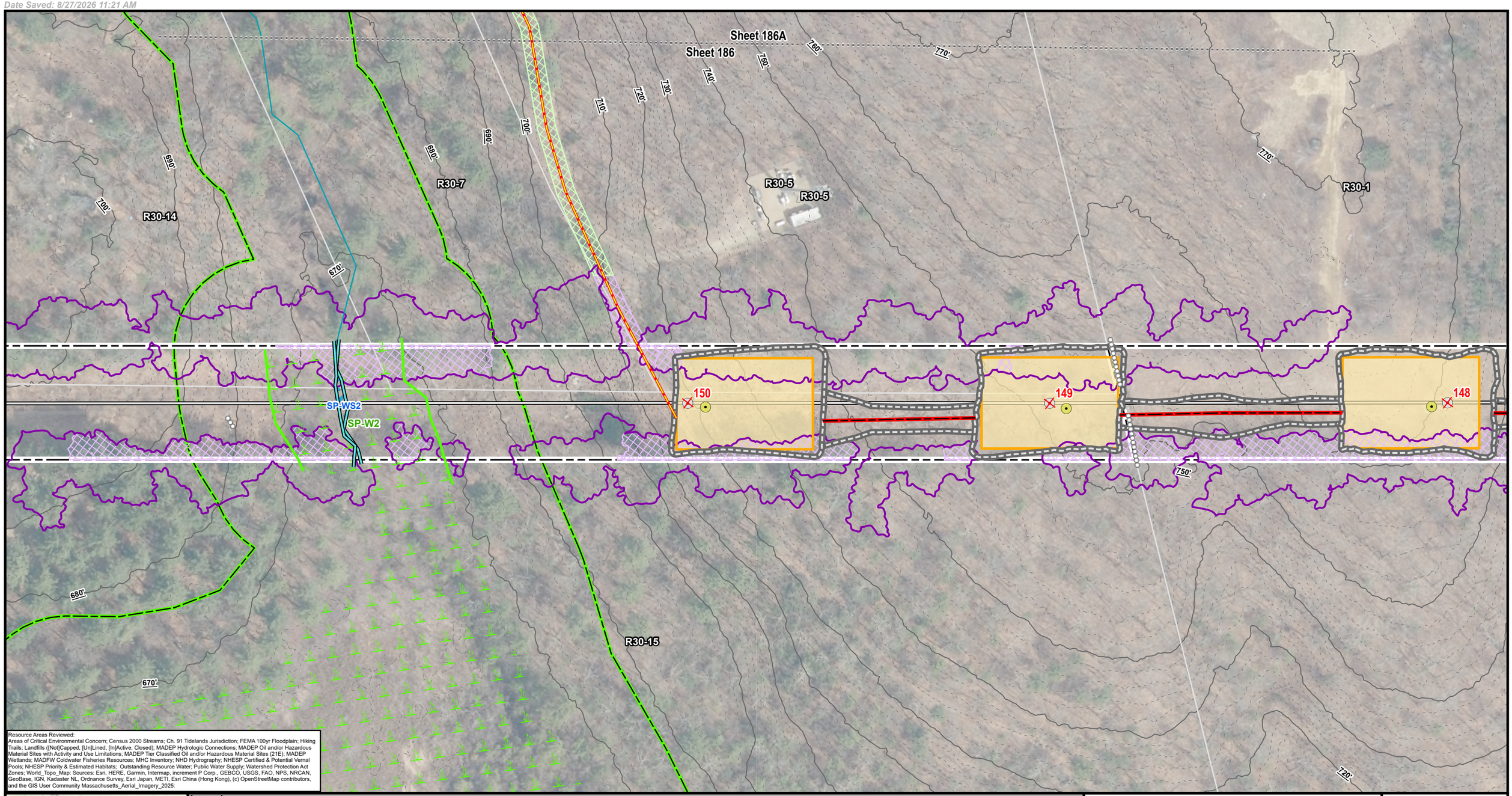
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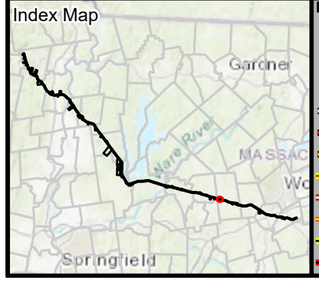
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Spencer, MA
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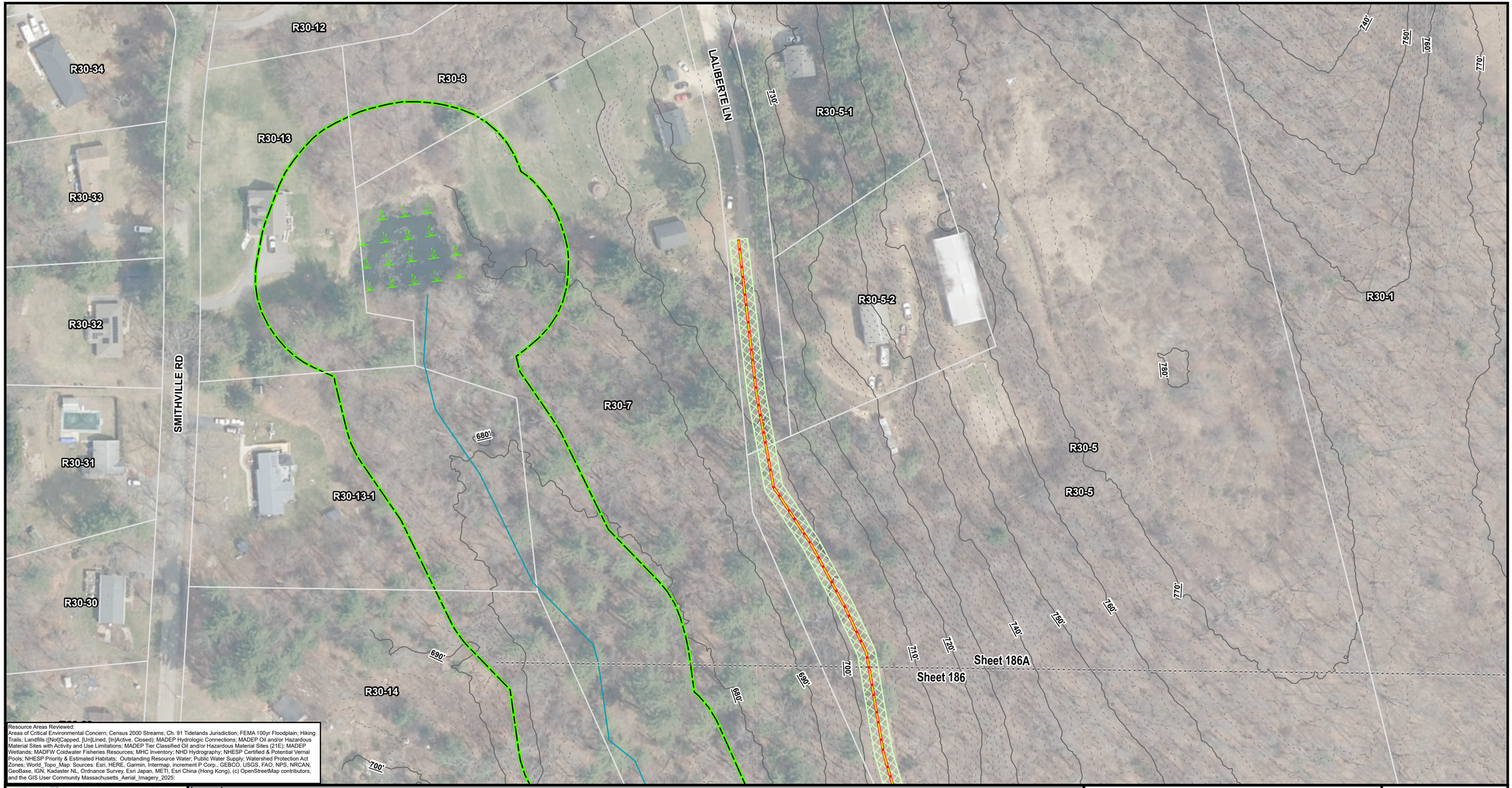
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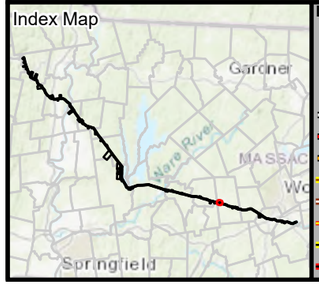
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Spencer, MA
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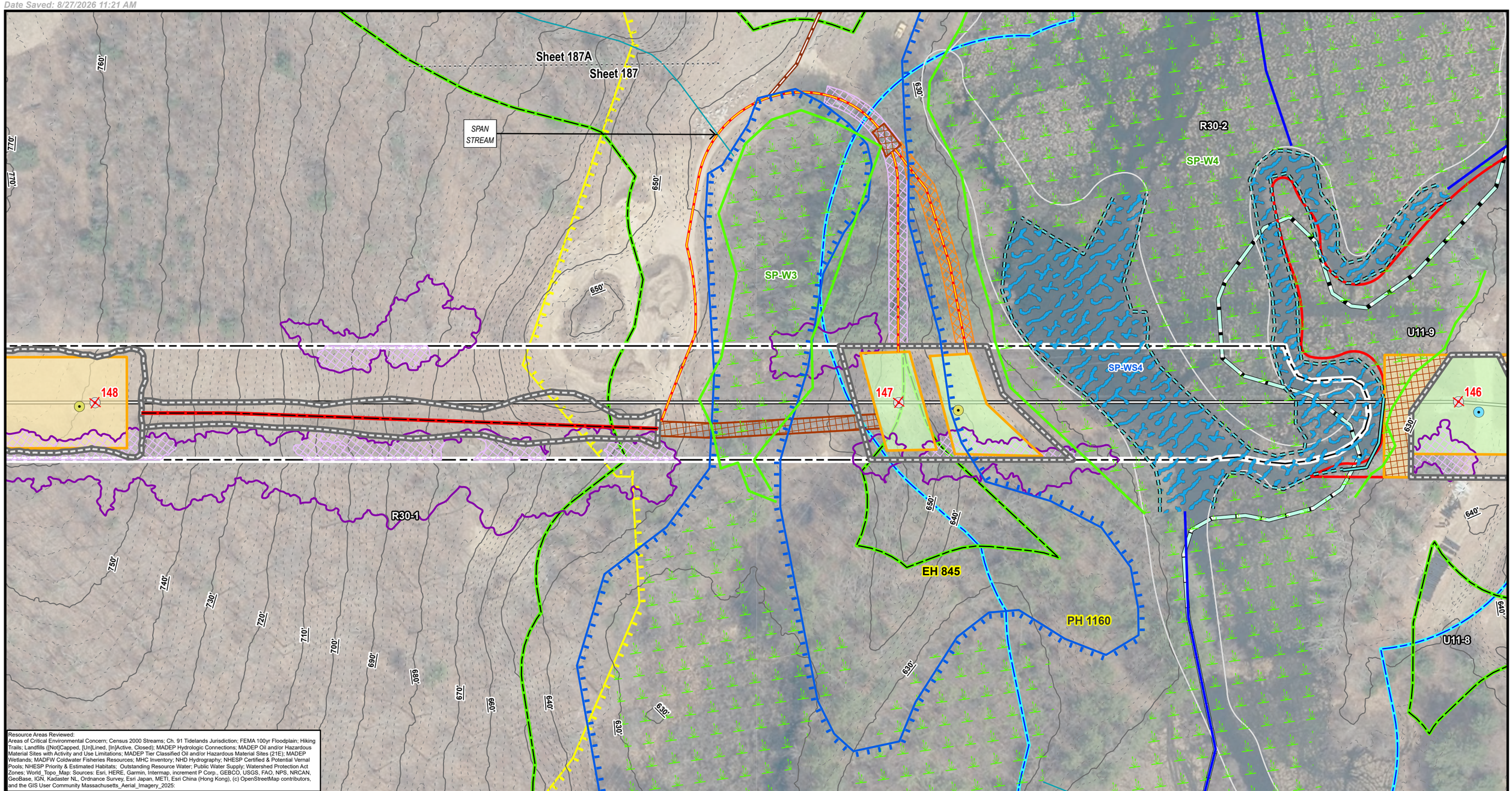
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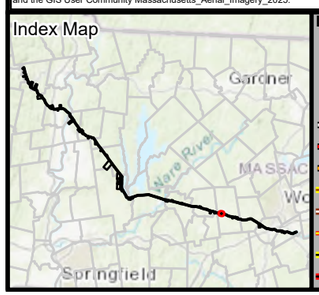
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Spencer, MA
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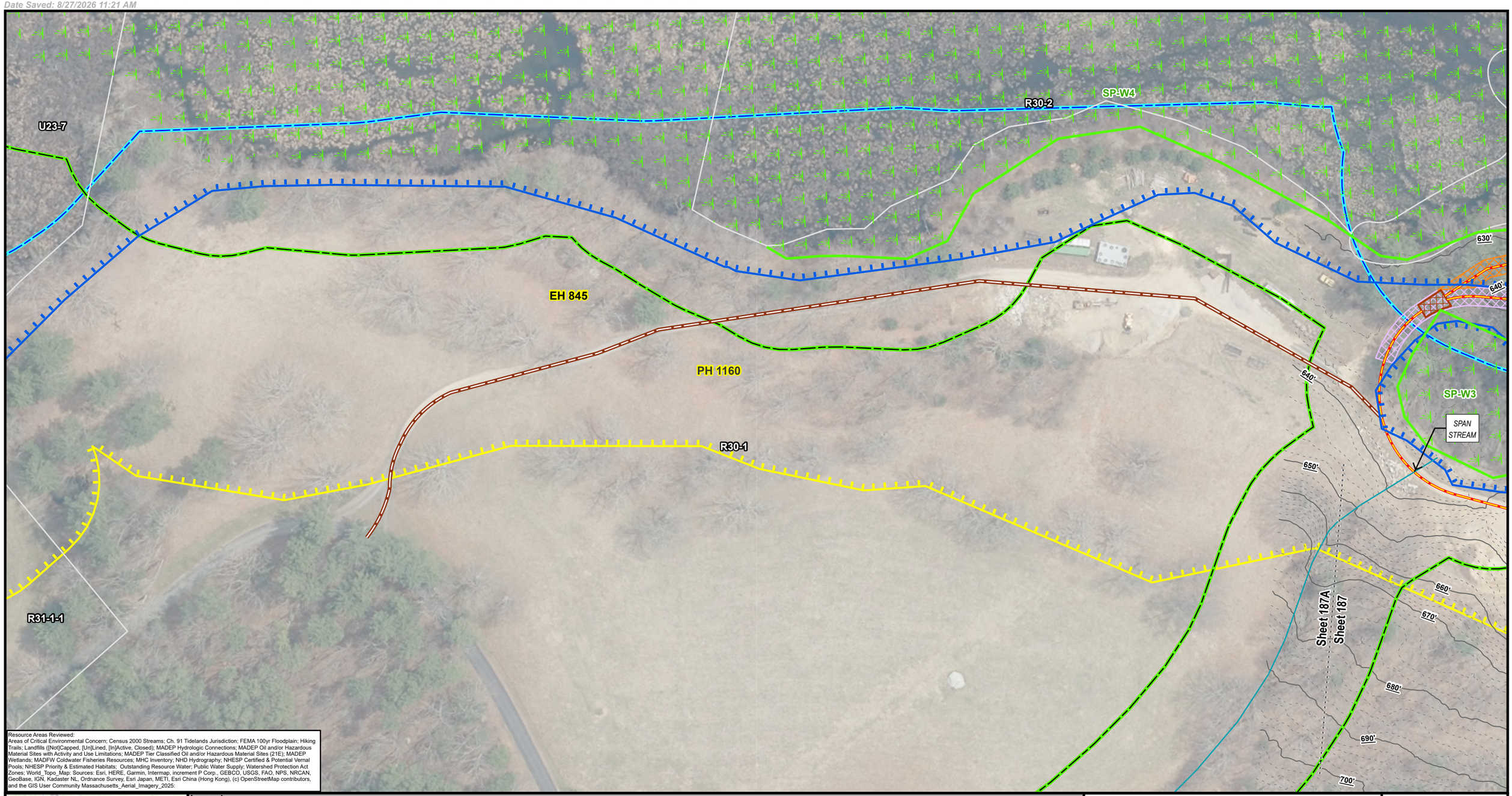
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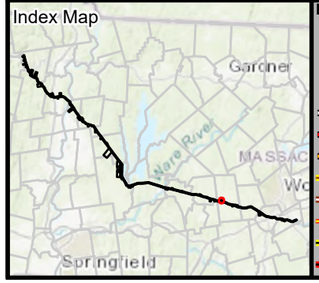
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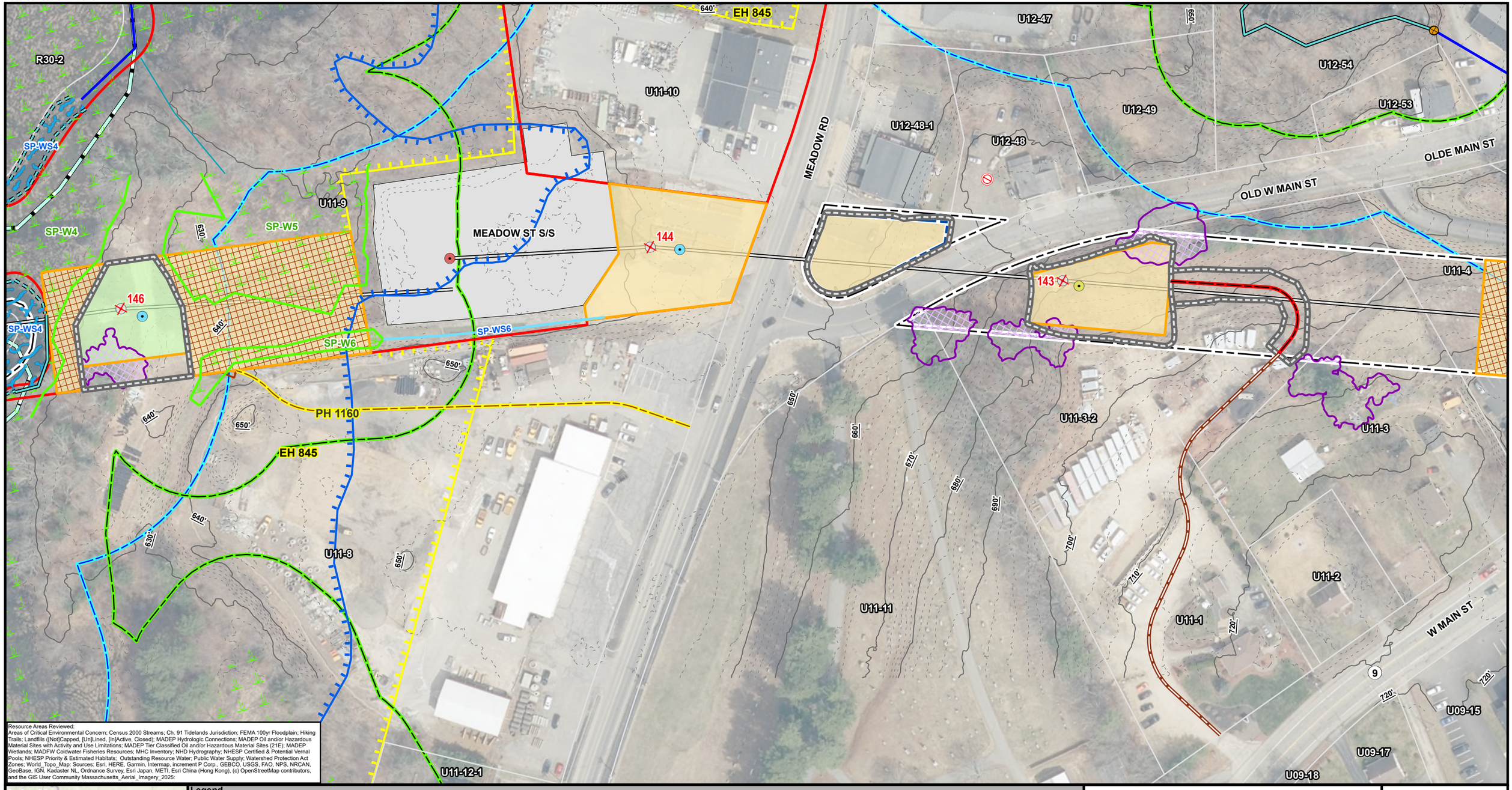
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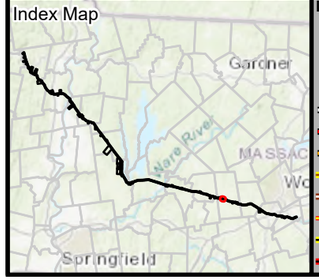
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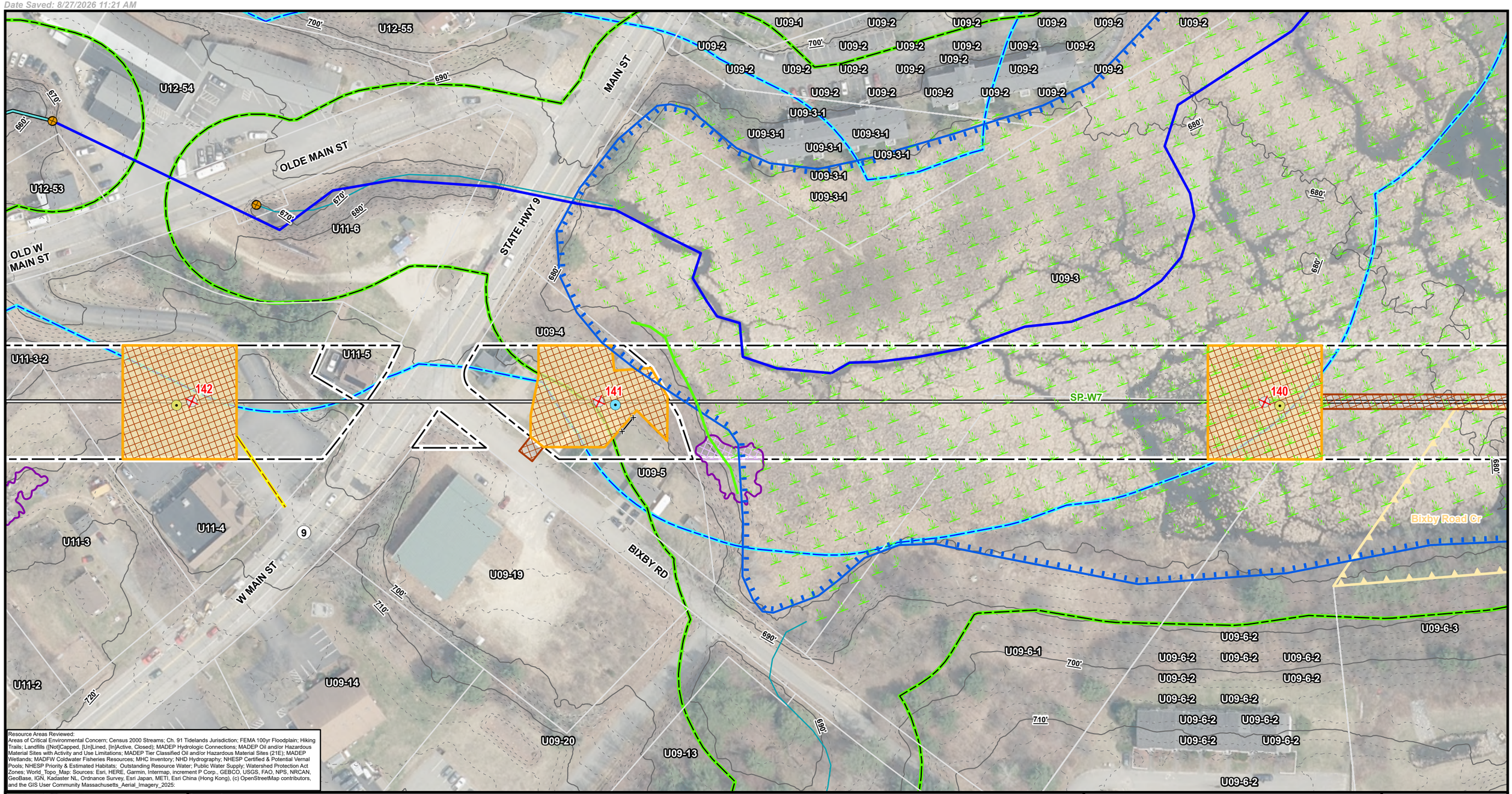
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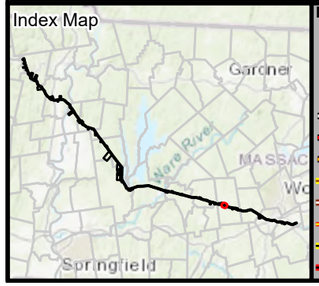
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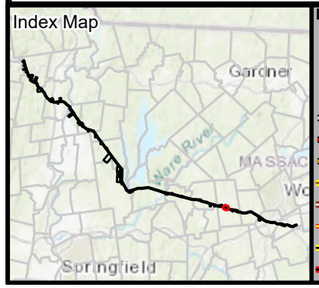
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U08-113
VALLEY ST
U08-103
SP-W9
U02-73
O'gara Park
U08-104
U02-66
U08-94
U09-3
U02-58
U01-2
SP-W7
U09-6-2
U09-6-2
U09-6-2
U09-6-2
139
138
137
136
SP-W8
SP-WS8
U09-6-3
Bixby Road Cr

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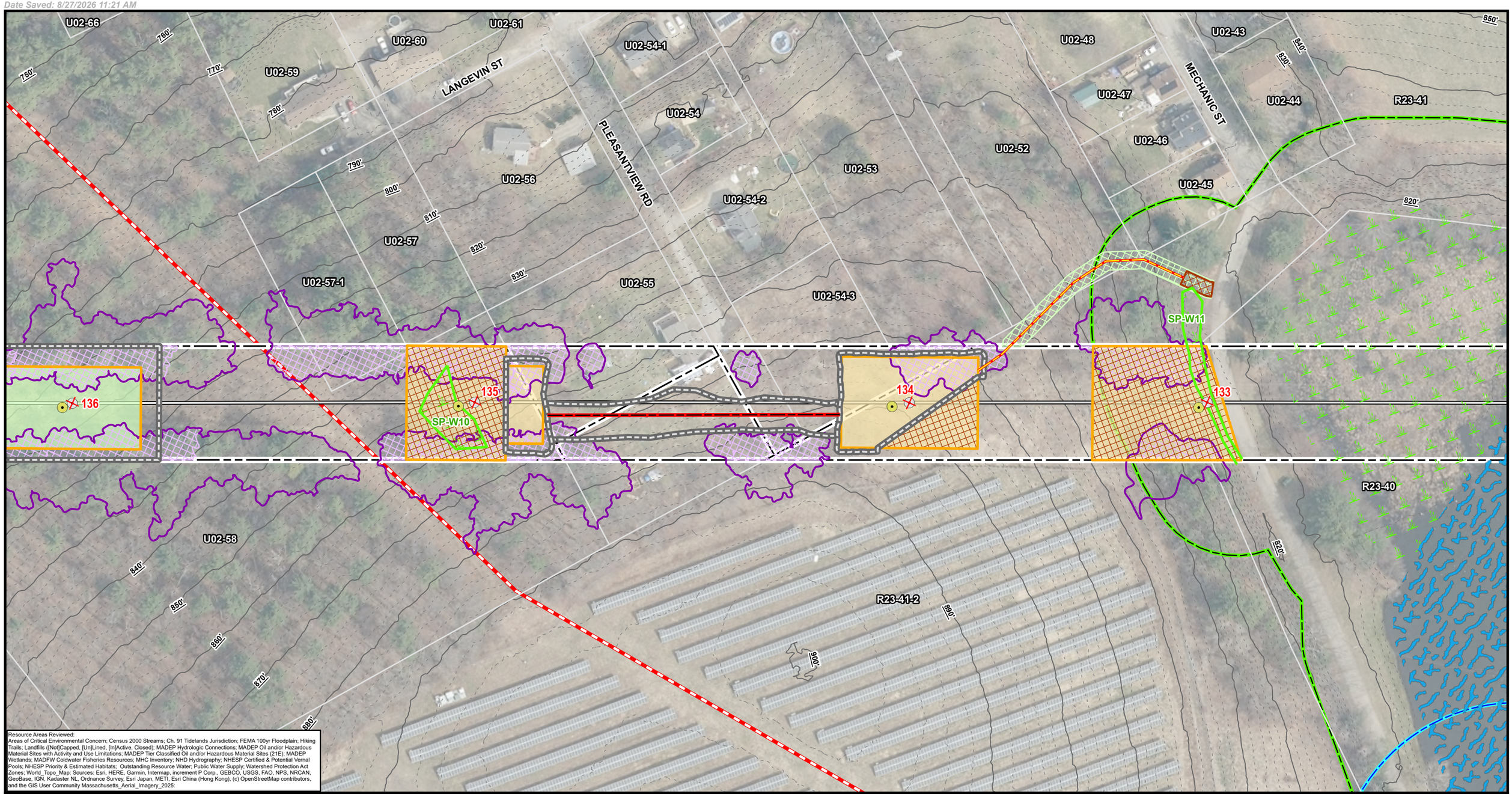
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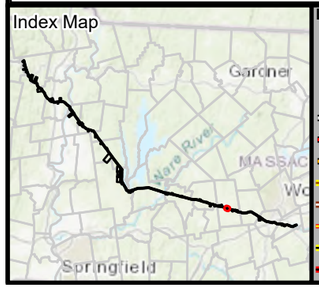
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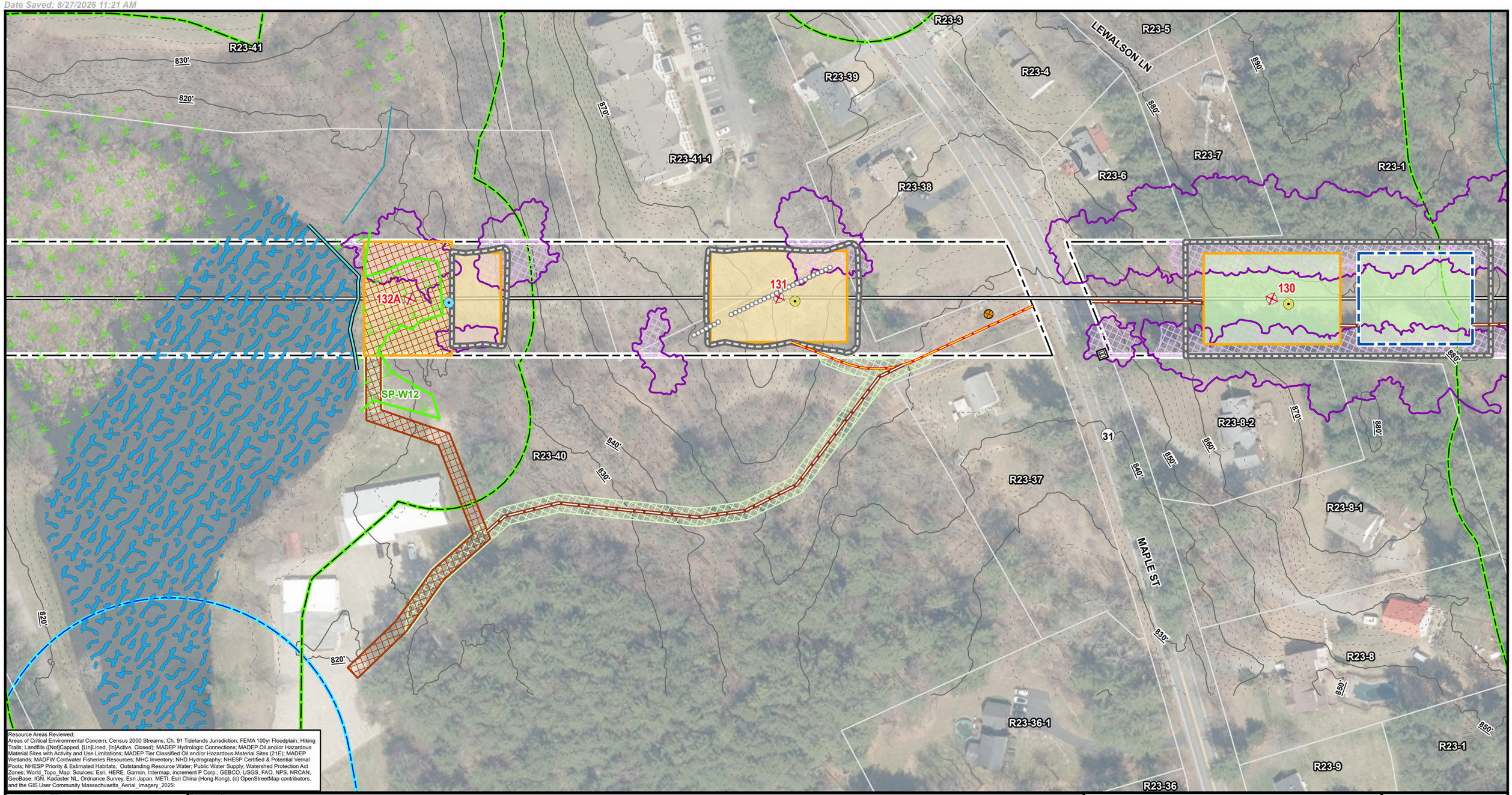
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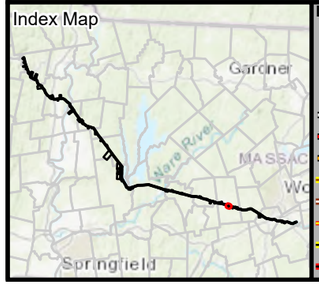
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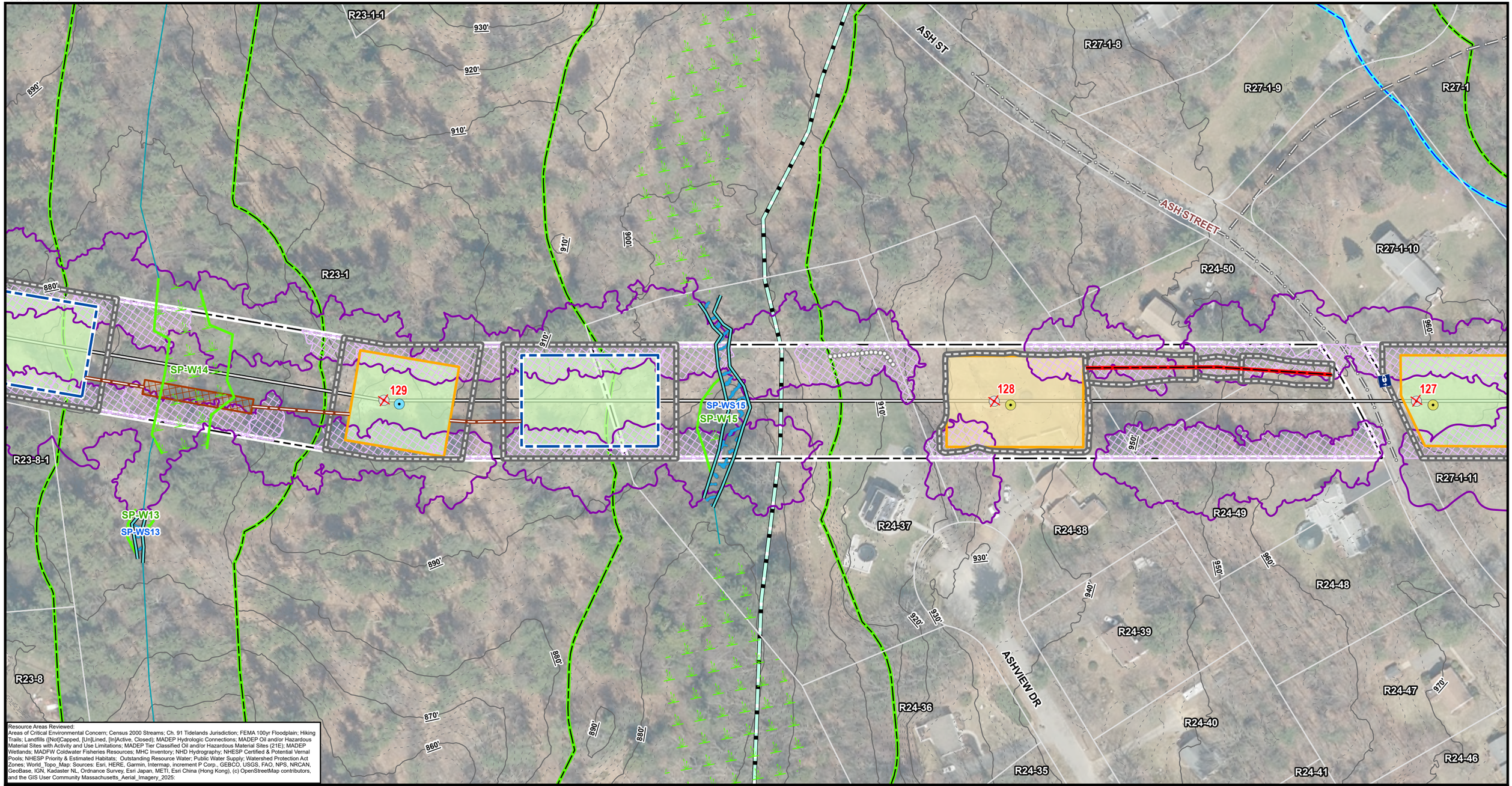
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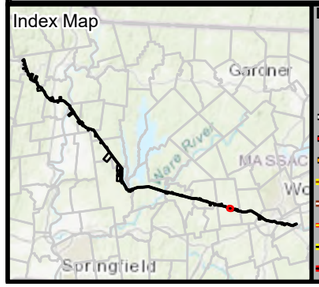
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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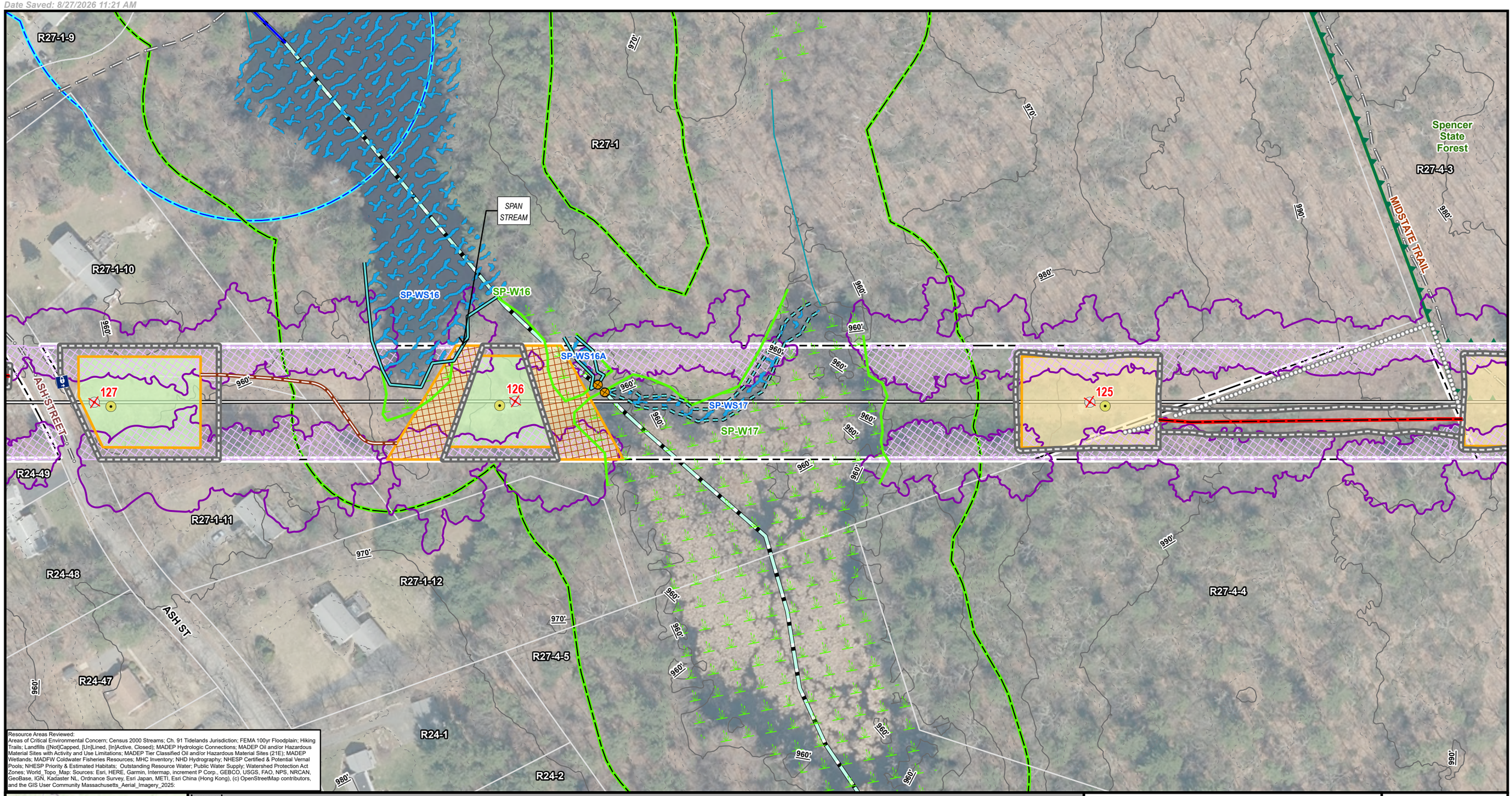
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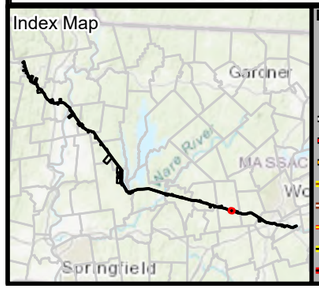
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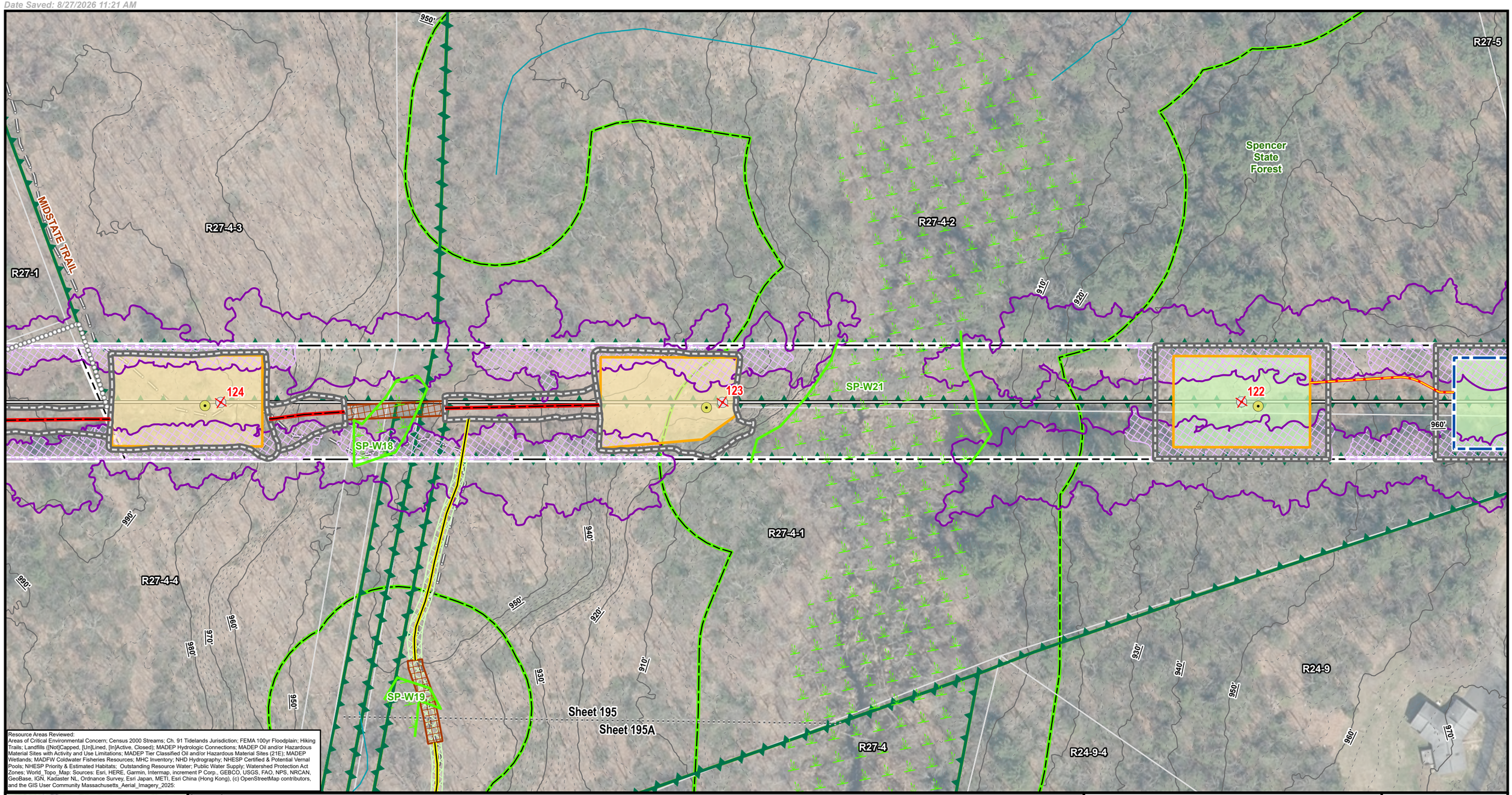
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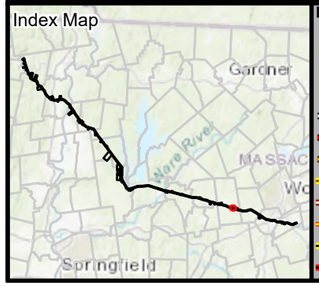
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R24-12
MIDSTATE TRAIL
R JONES RD
R JONES ROAD
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920'
930'
940'
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980'
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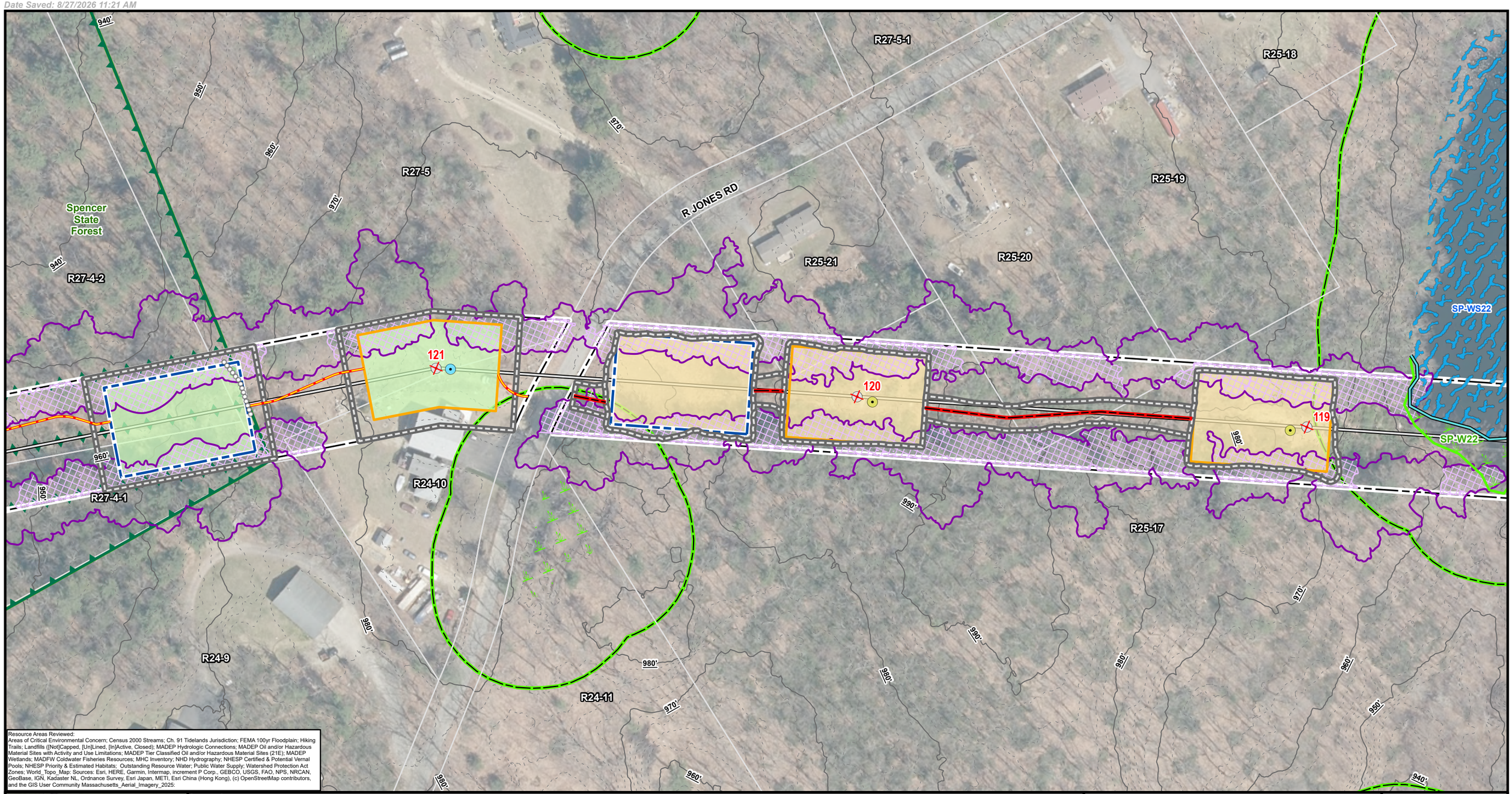
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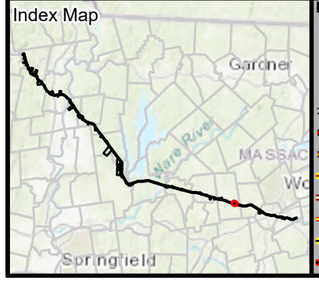
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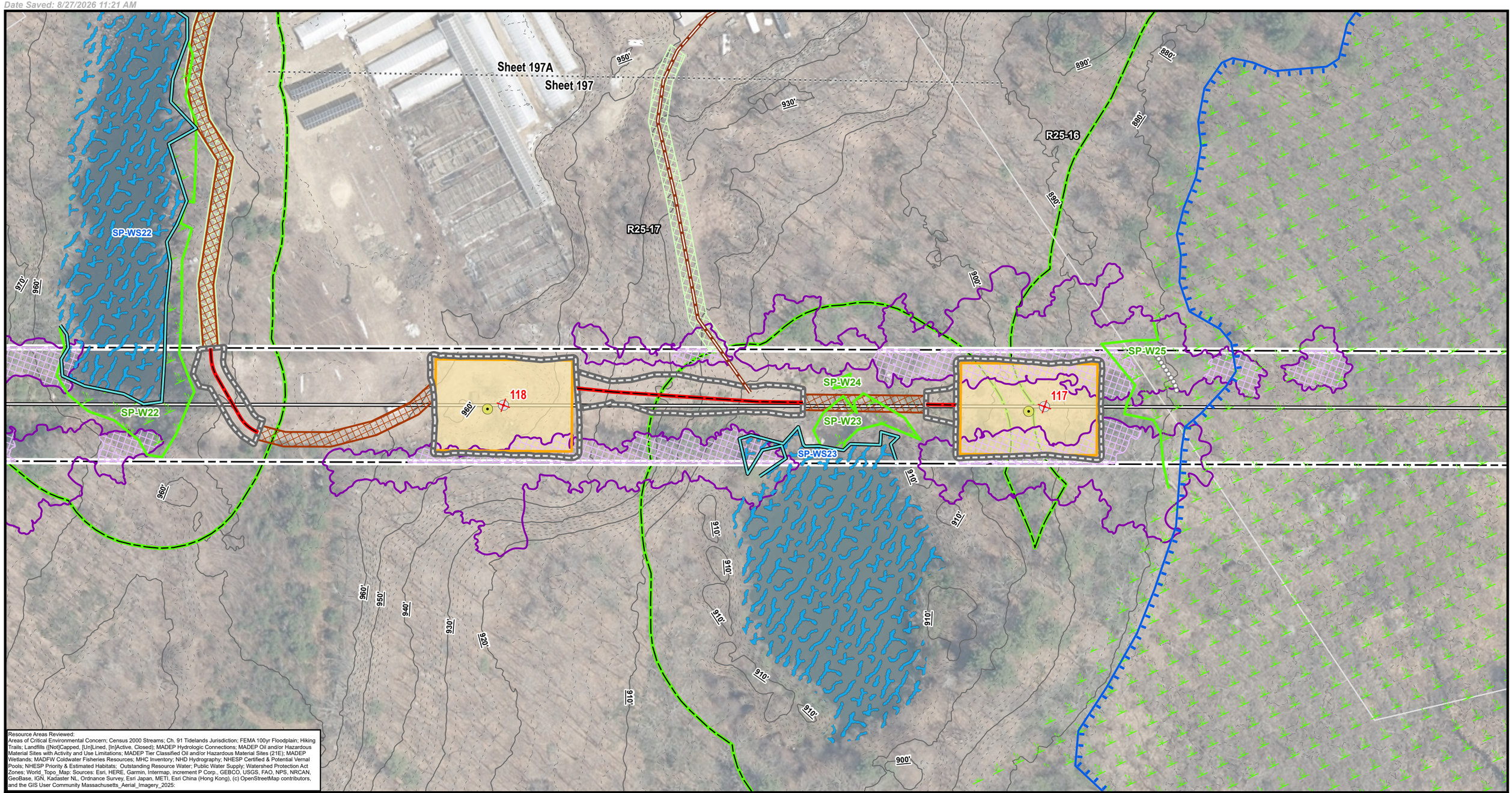
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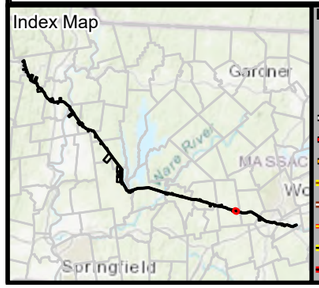
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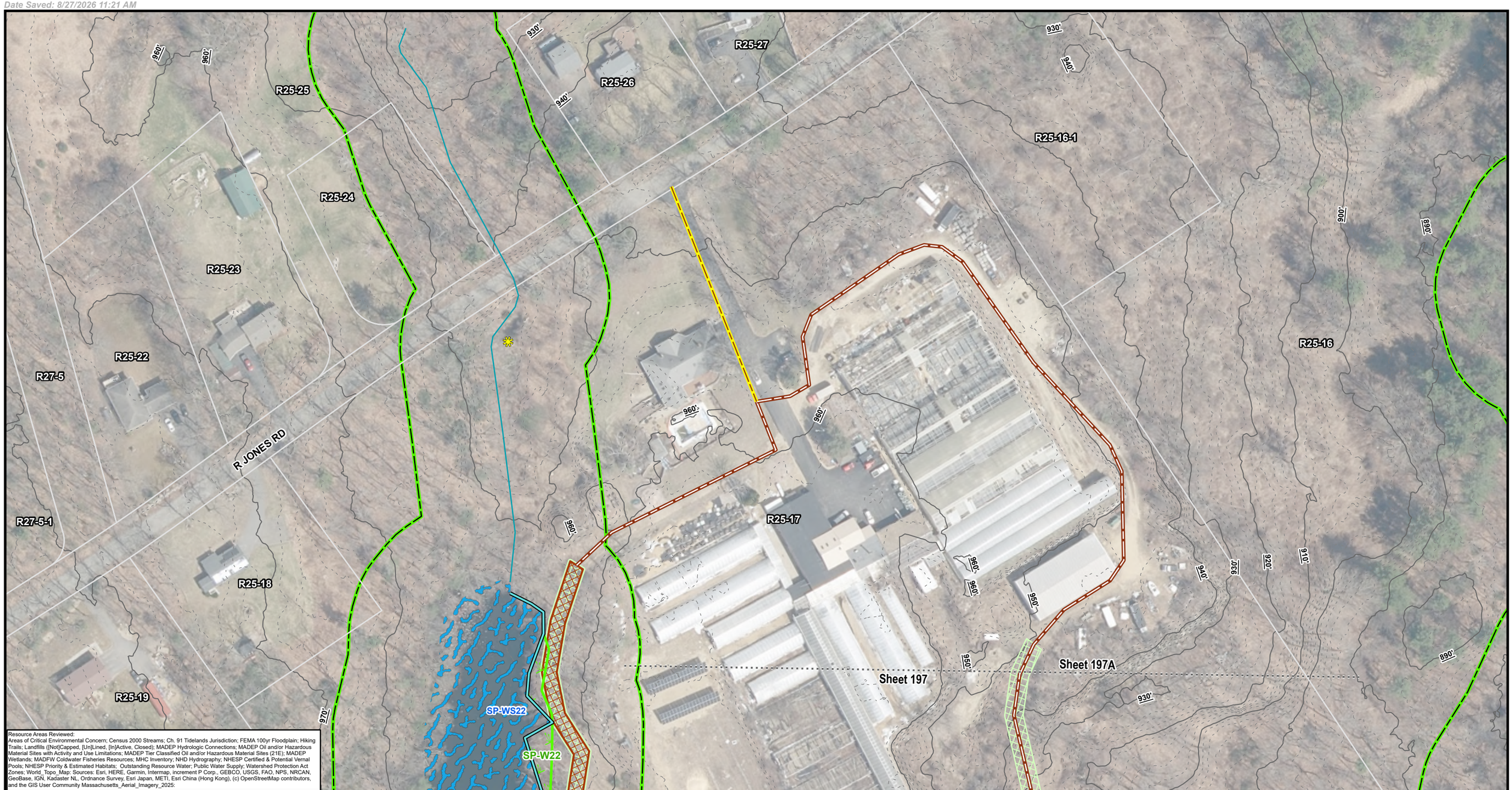
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- Non Profit
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Spencer, MA
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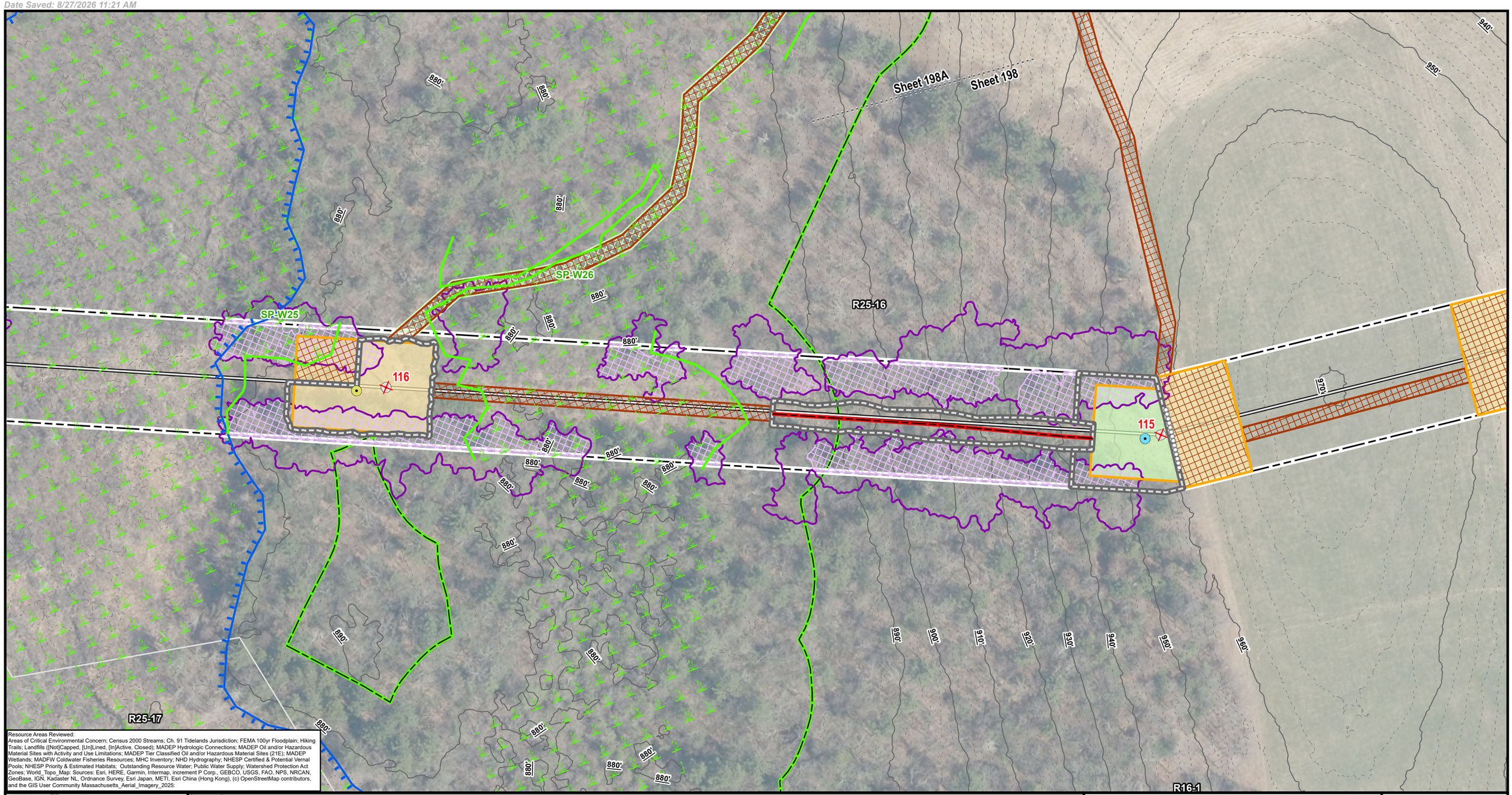
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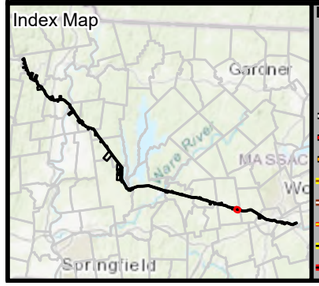
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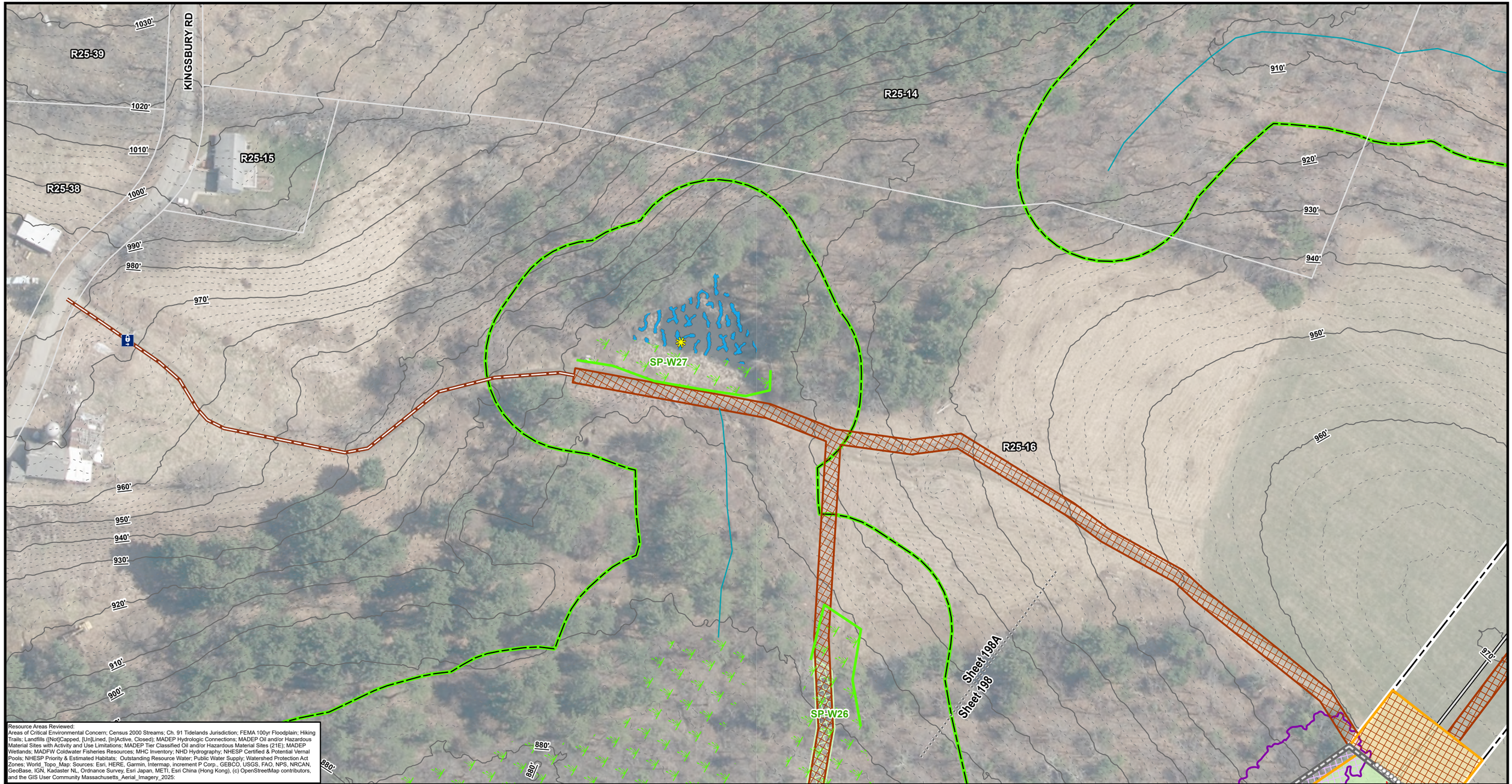
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Spencer, MA
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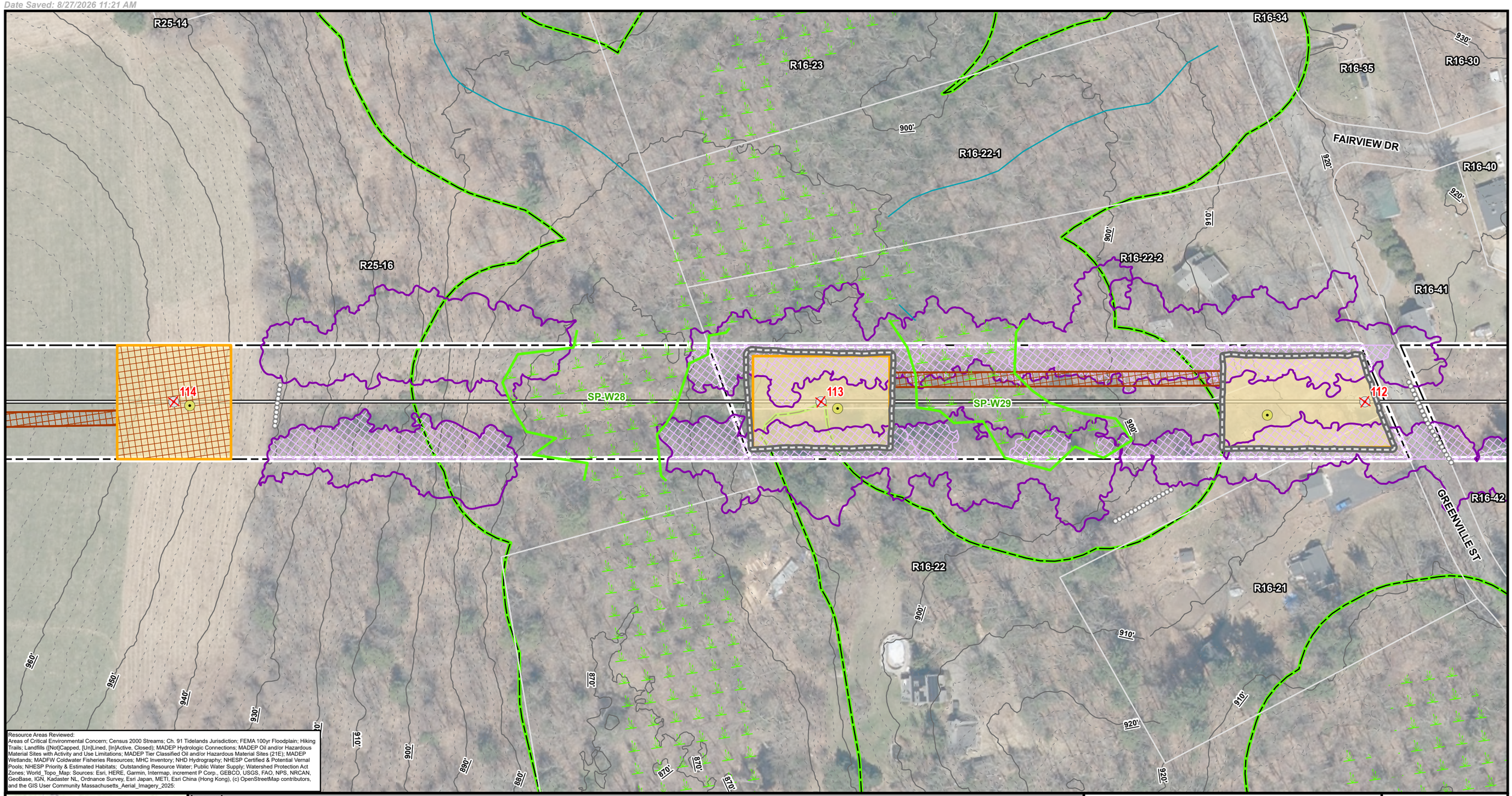
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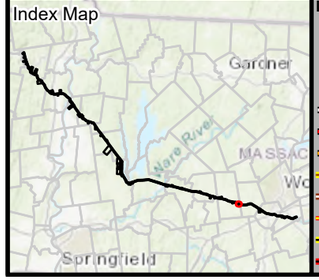
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Environmental Resources Map

Spencer, MA
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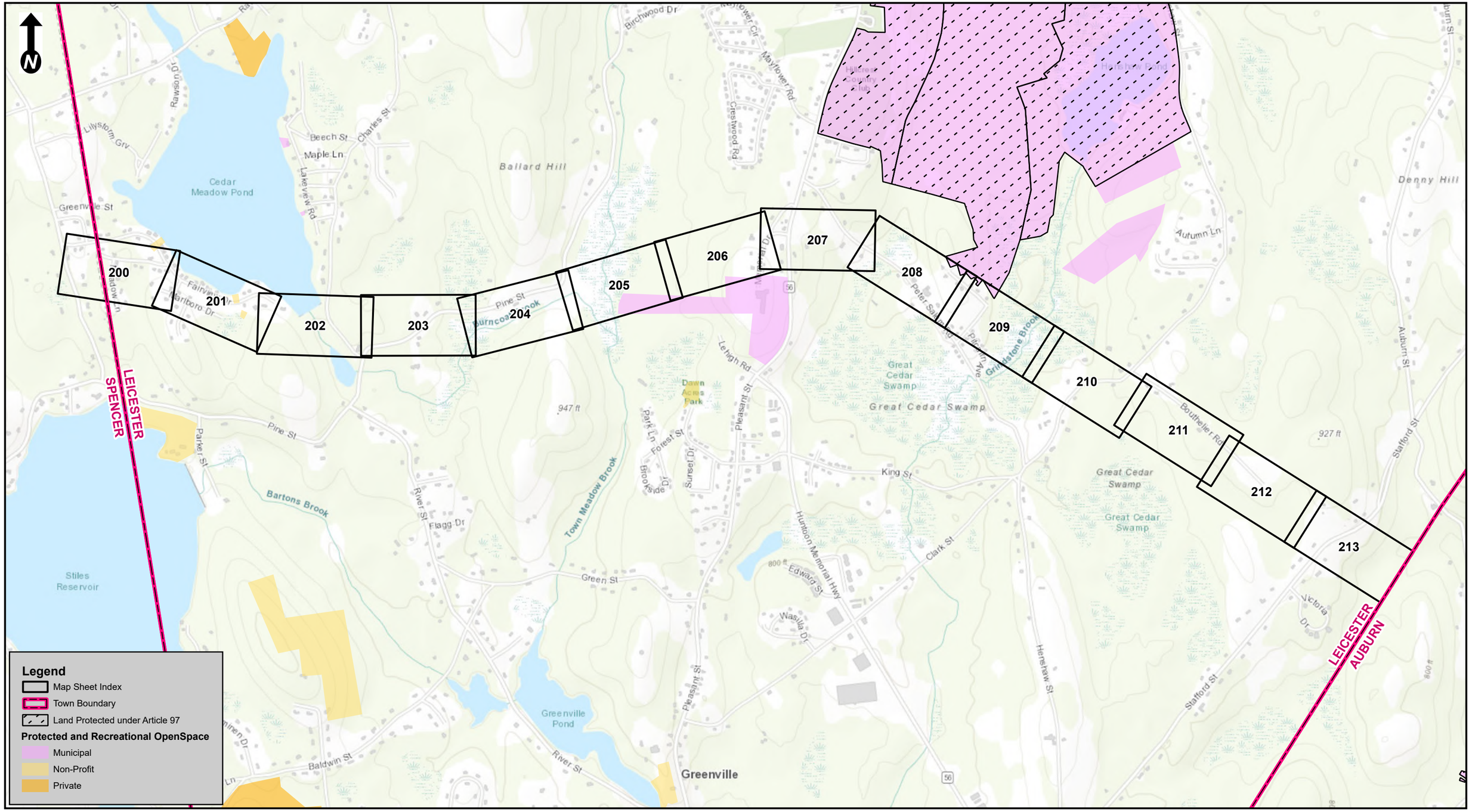
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Legend

- Map Sheet Index
- Town Boundary
- Land Protected under Article 97

Protected and Recreational OpenSpace

- Municipal
- Non-Profit
- Private

Scale:
1 inch = 1,300 feet
(page size: 11 X 17)

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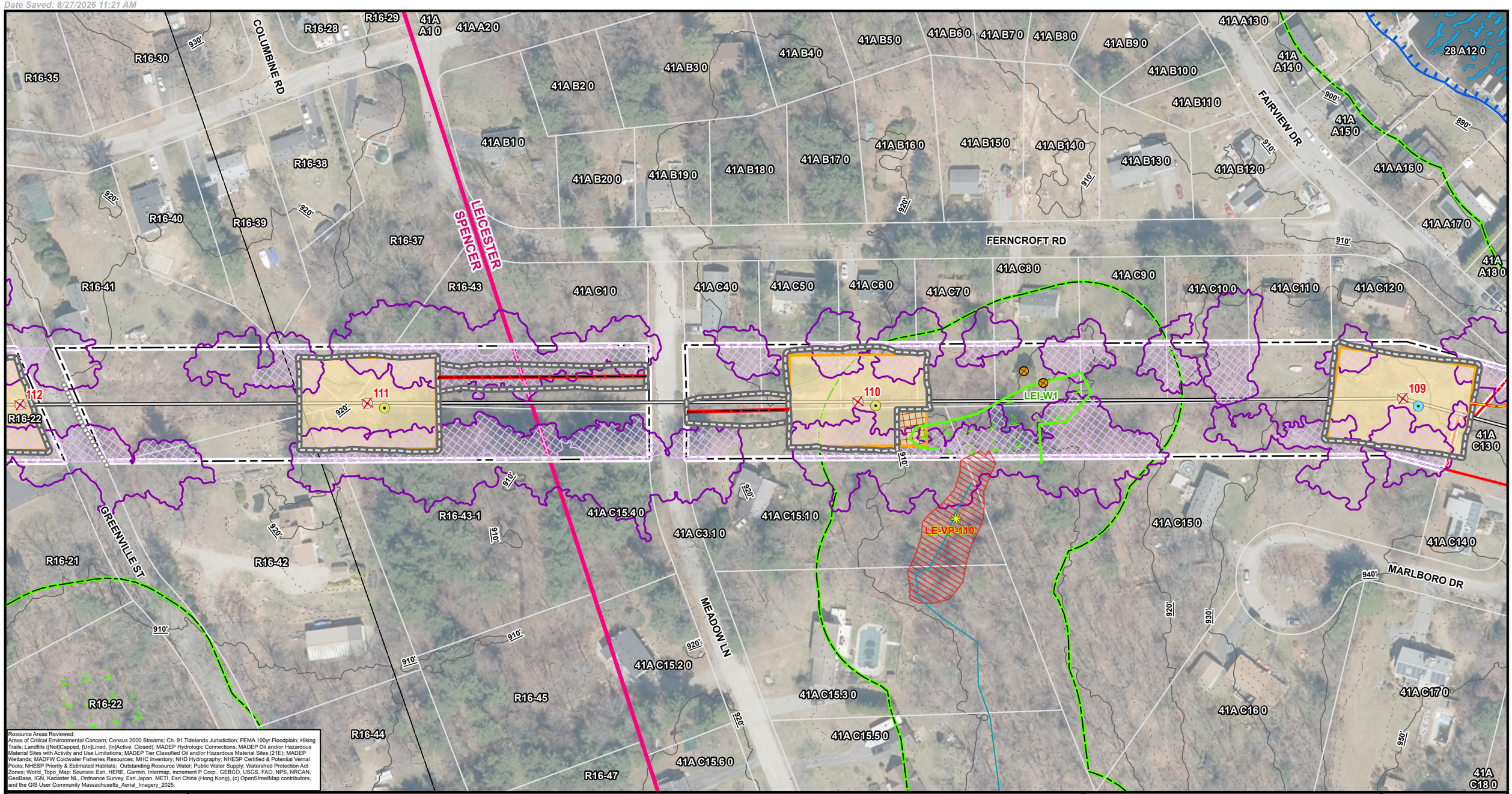
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Leicester, MA

Source: 2013 National Geographic Society, i-cubed

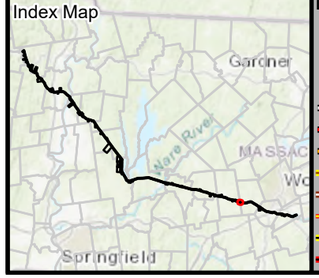
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Environmental Resources Map

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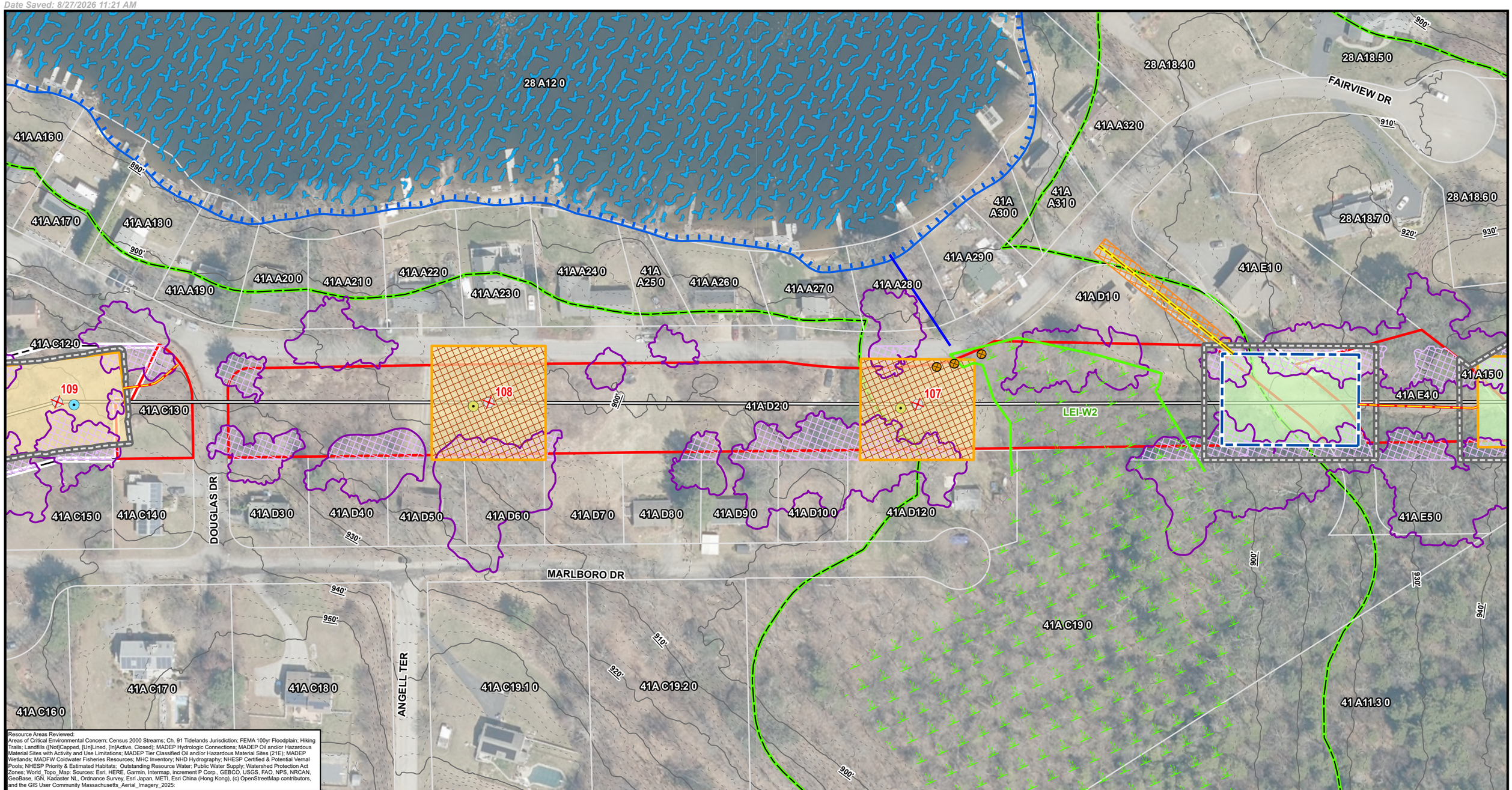
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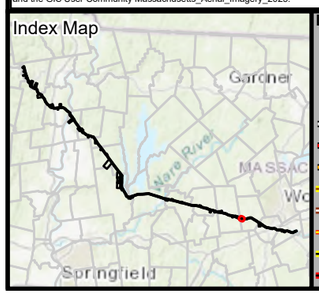
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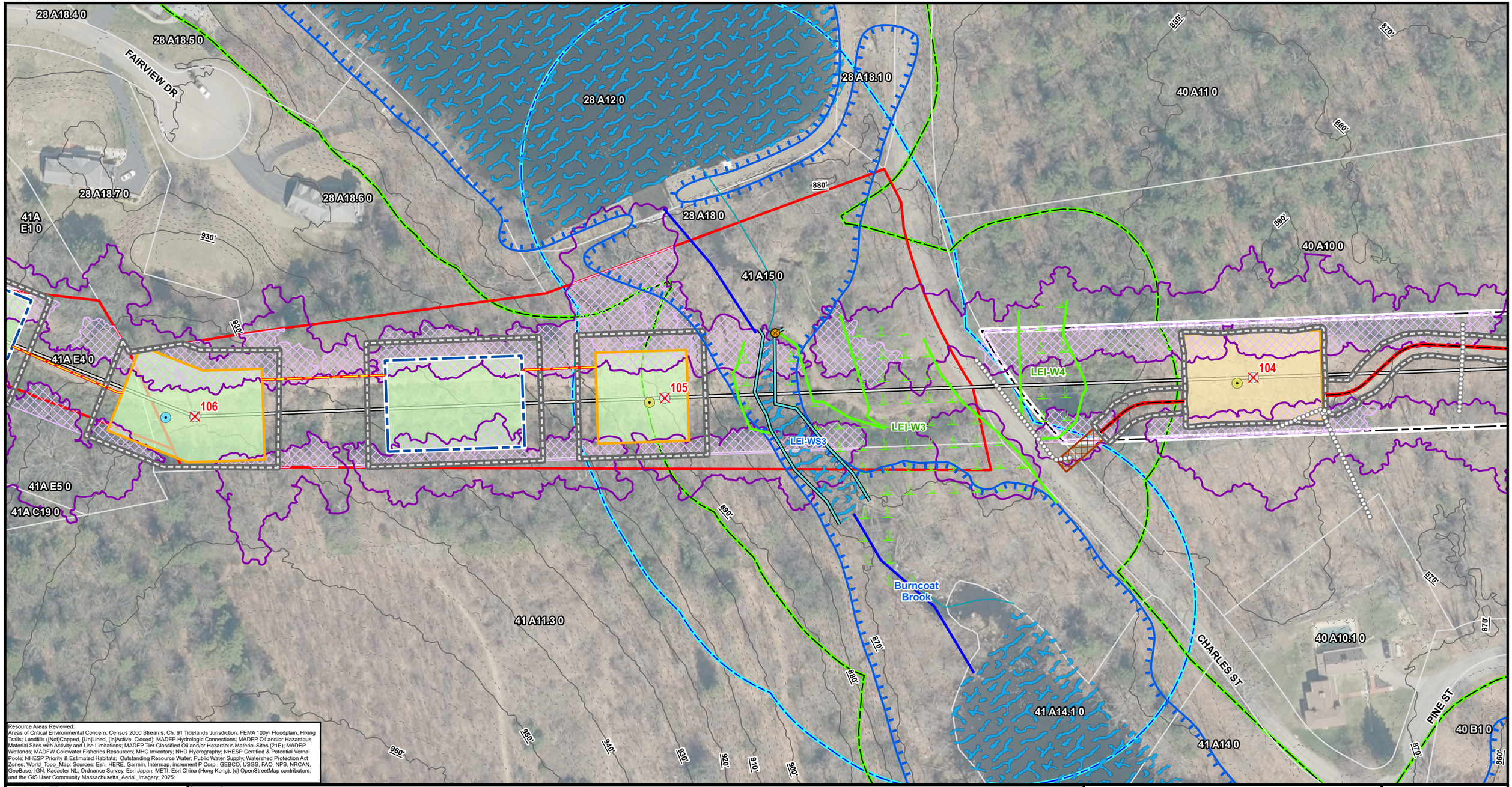
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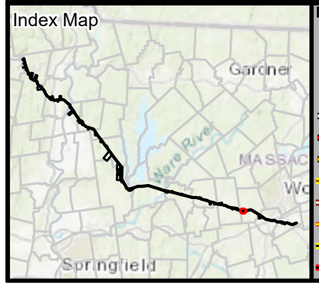
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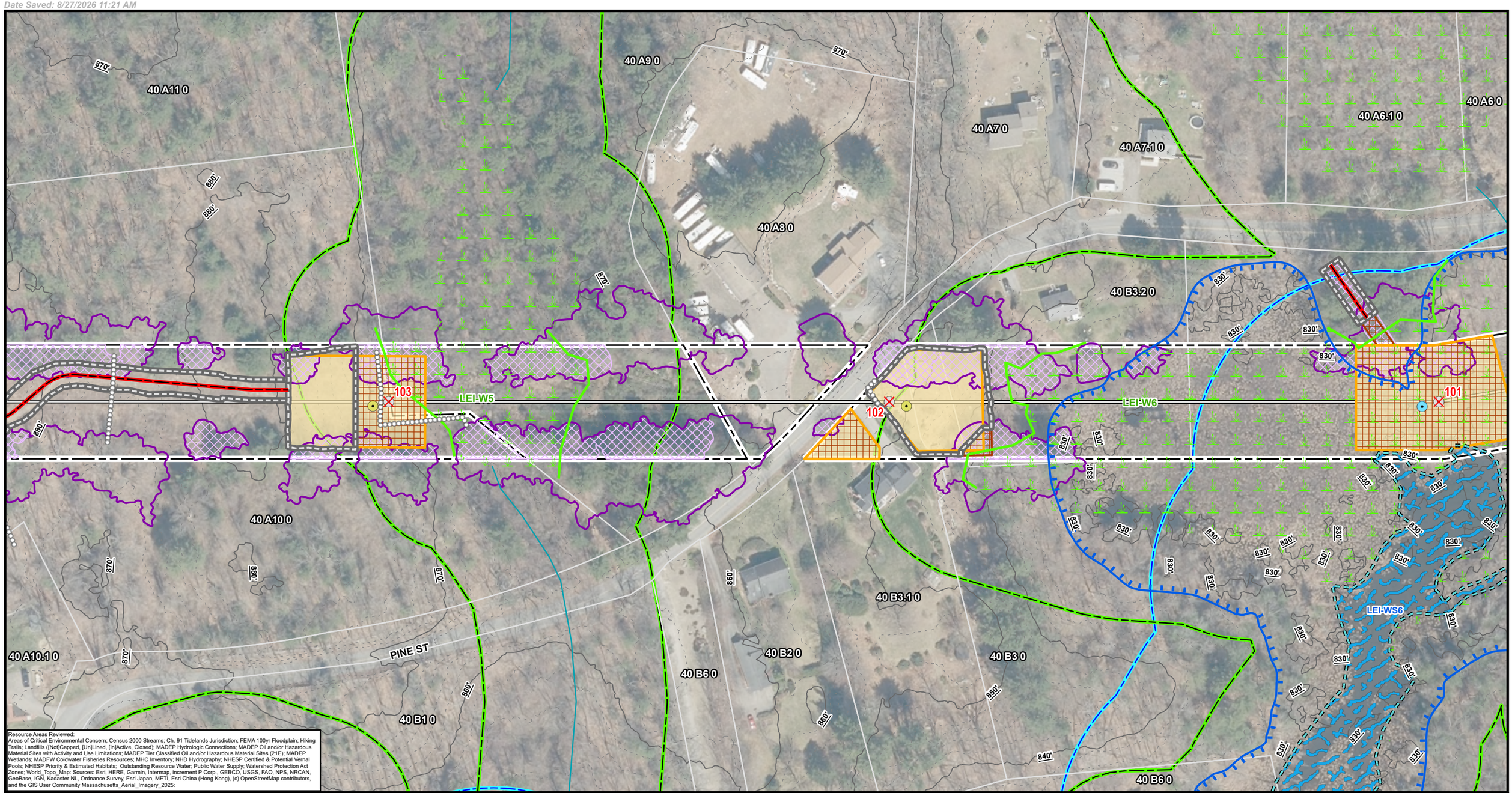
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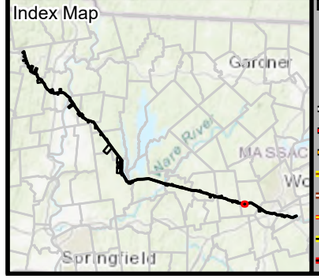
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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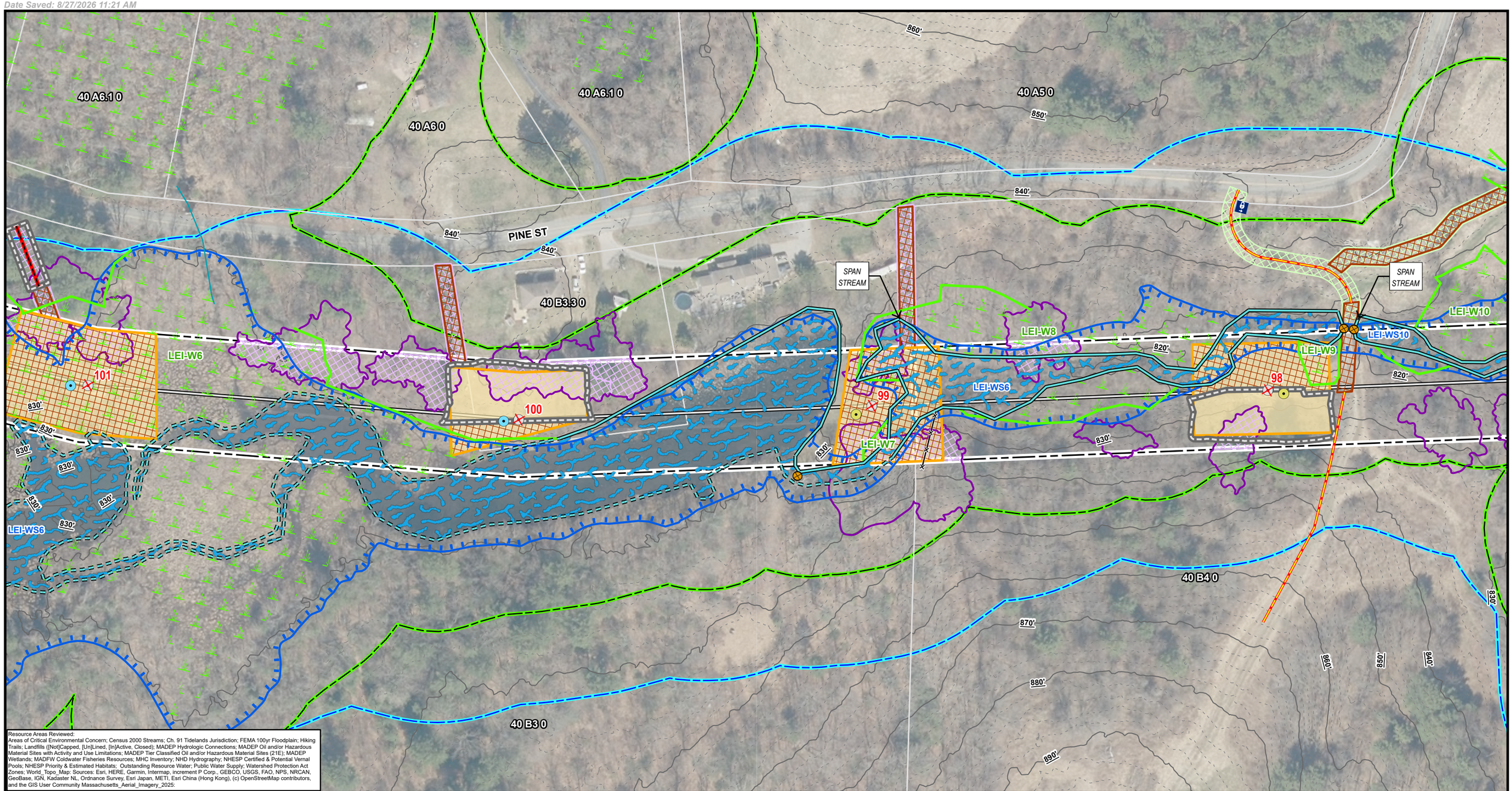
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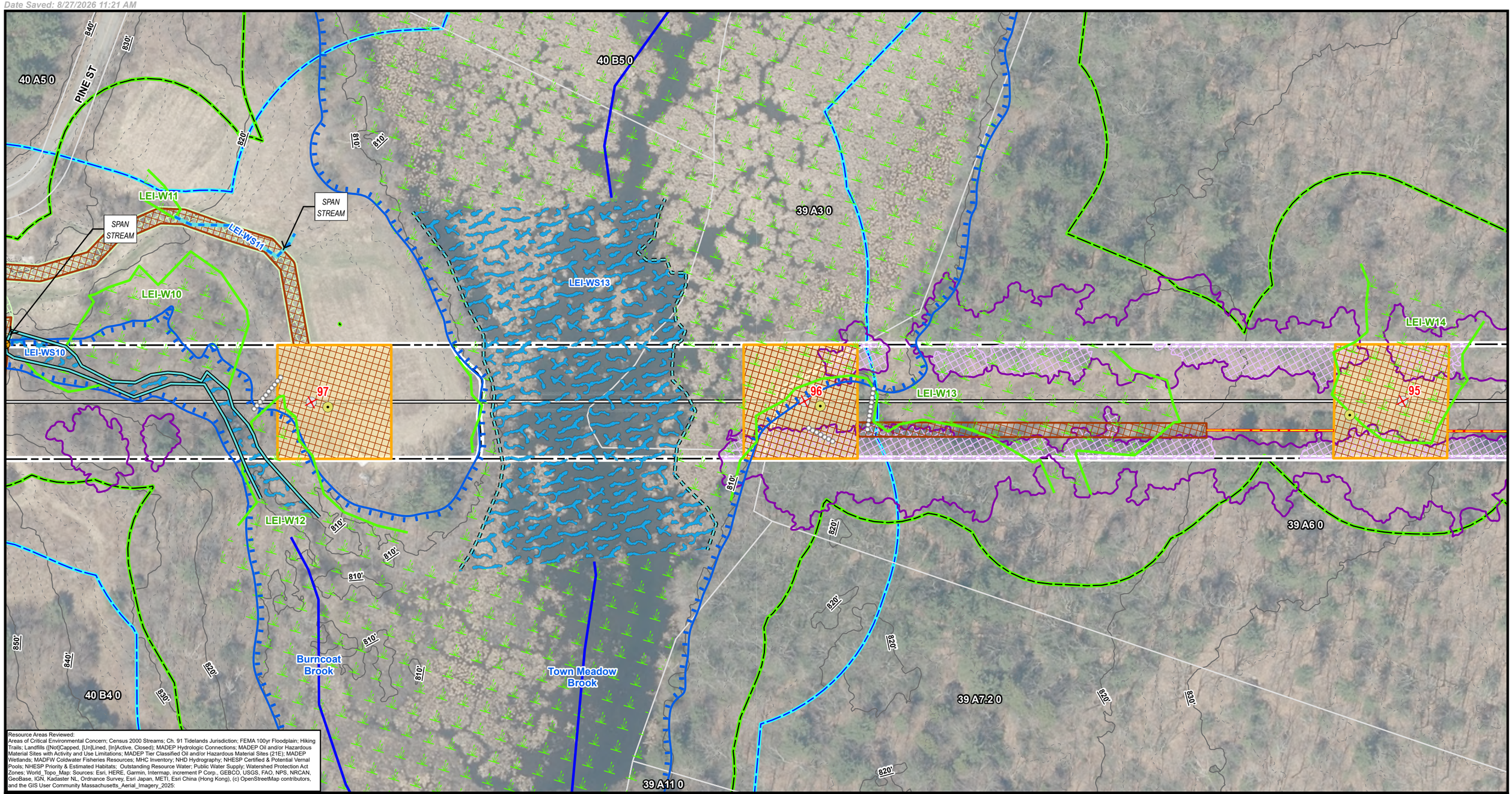
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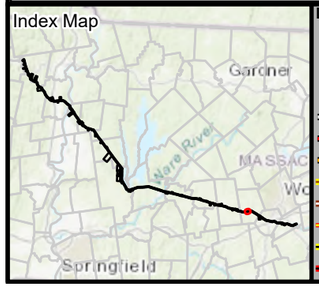
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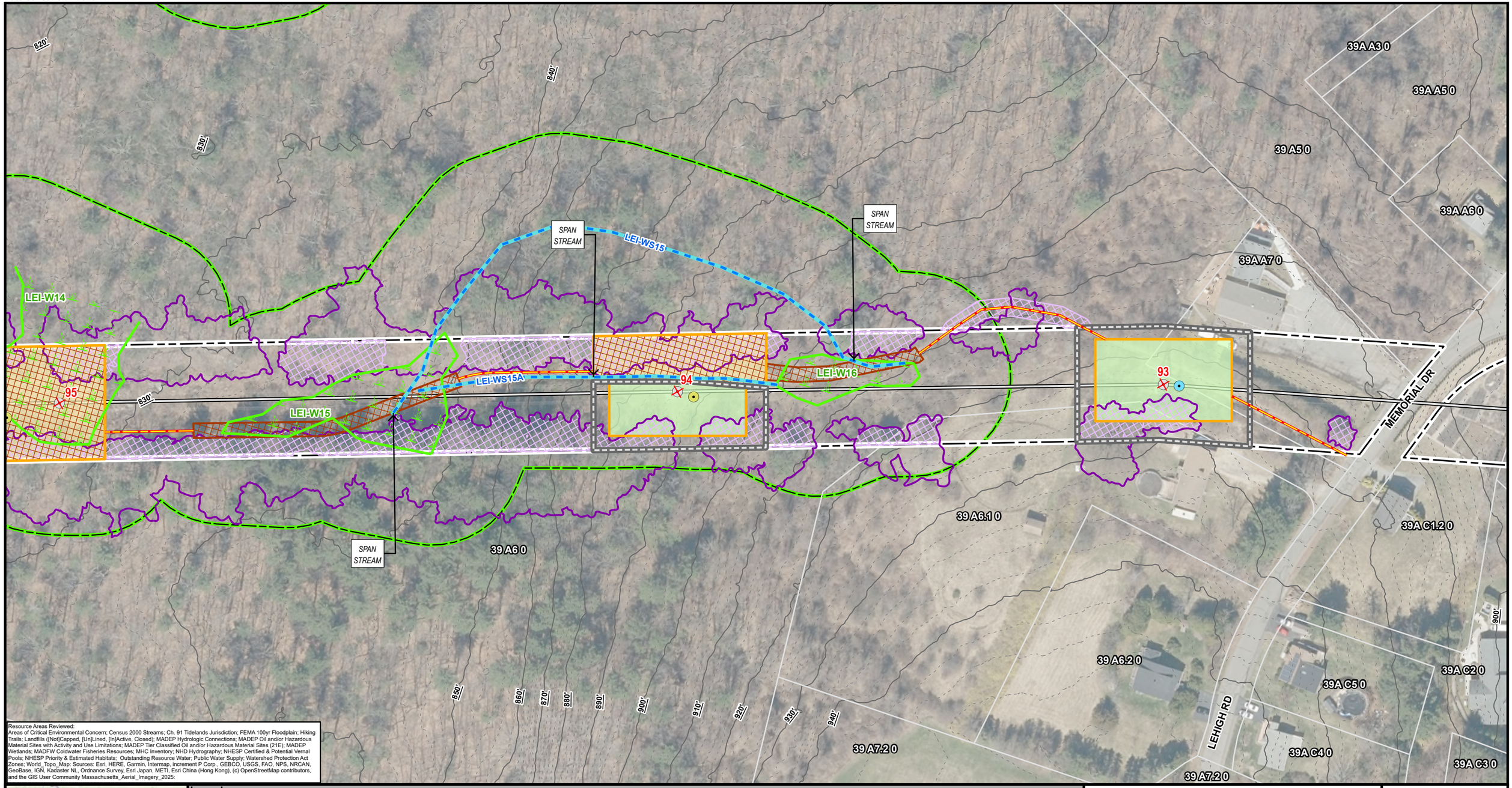
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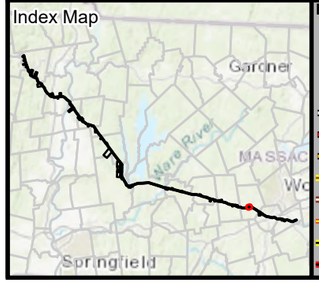
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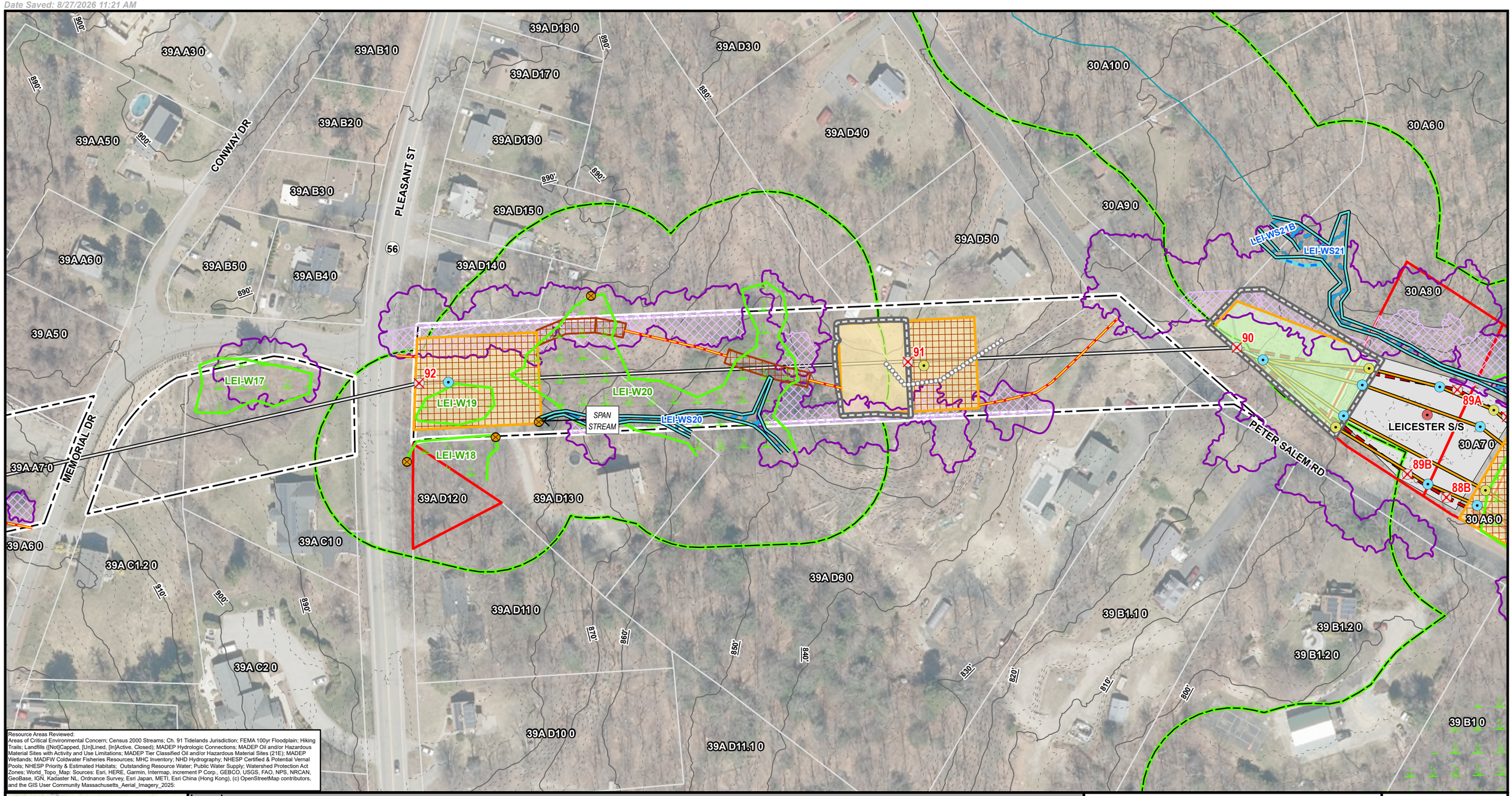
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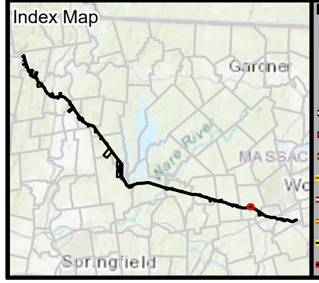
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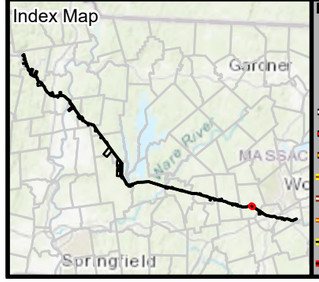
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31A B21 0
31A C1 0
31A C2 0
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31A C4 0
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31A B20 0
31A B19 0
31A B18 0
31A B17 0
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LEI-W21
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89A
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89B
88B
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87
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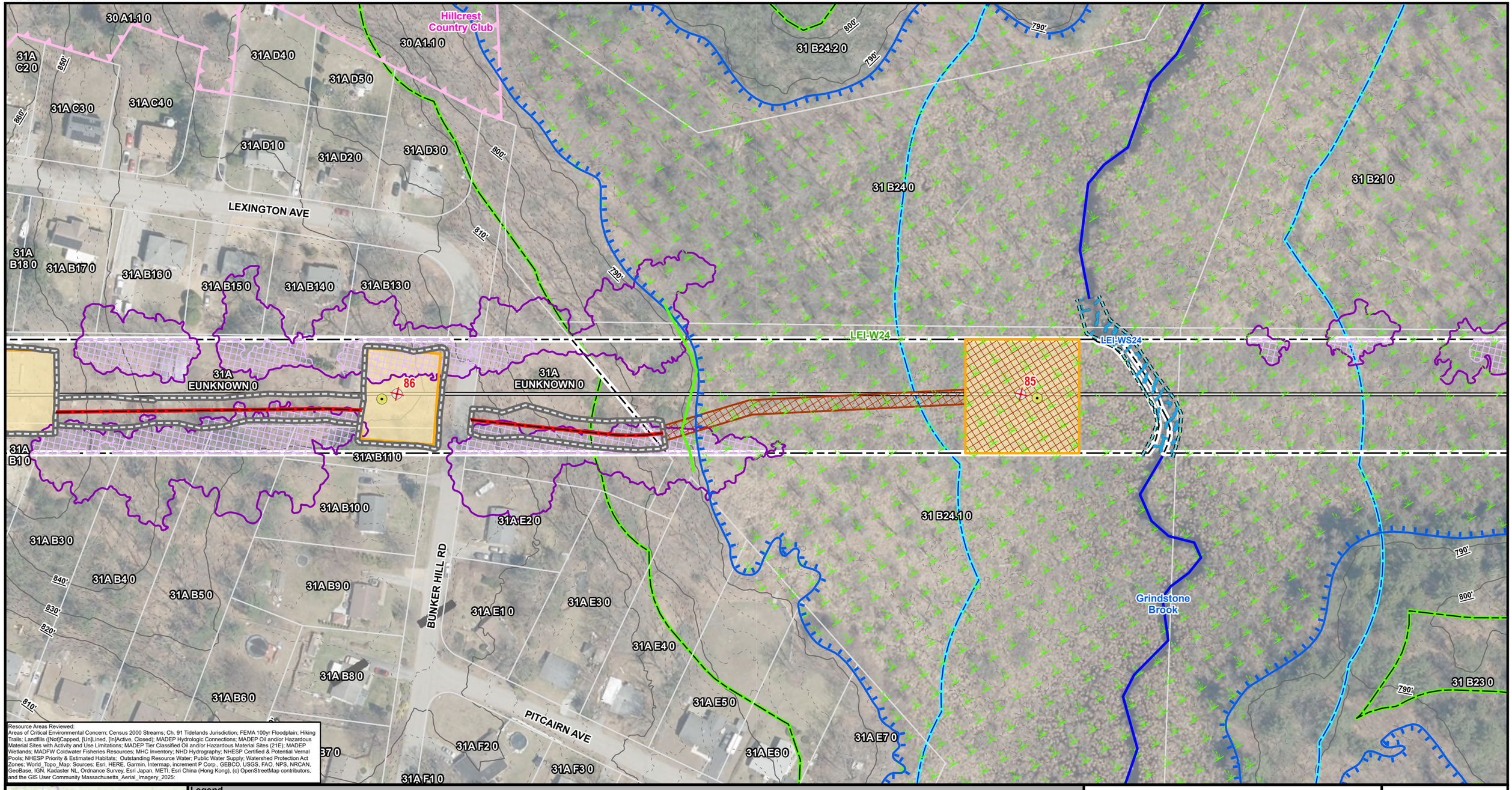
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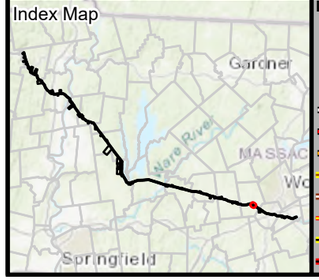
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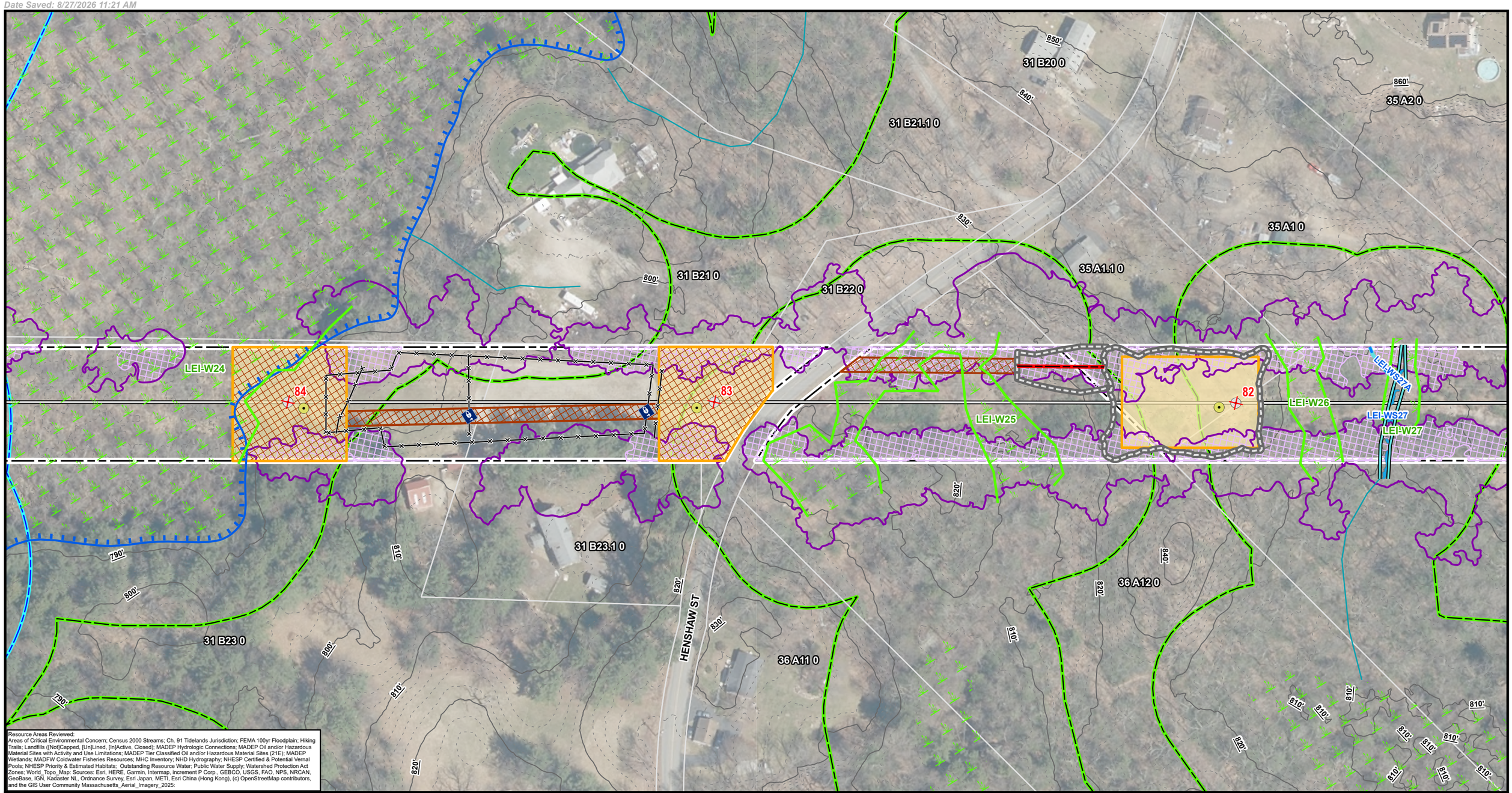
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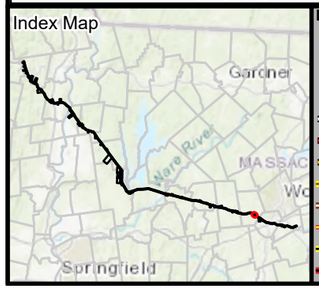
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- Municipal
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Leicester, MA
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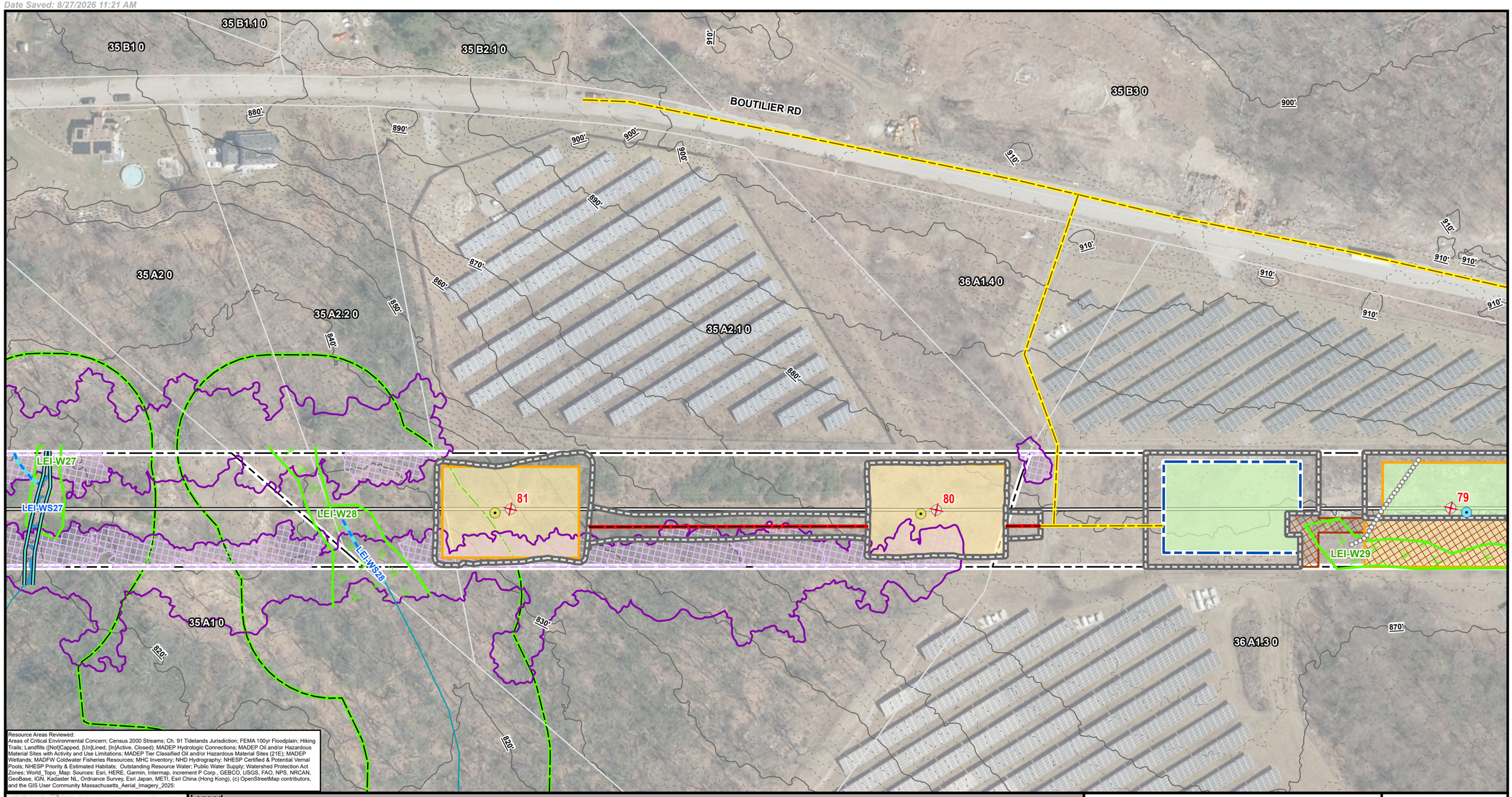
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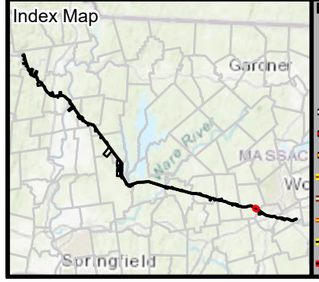
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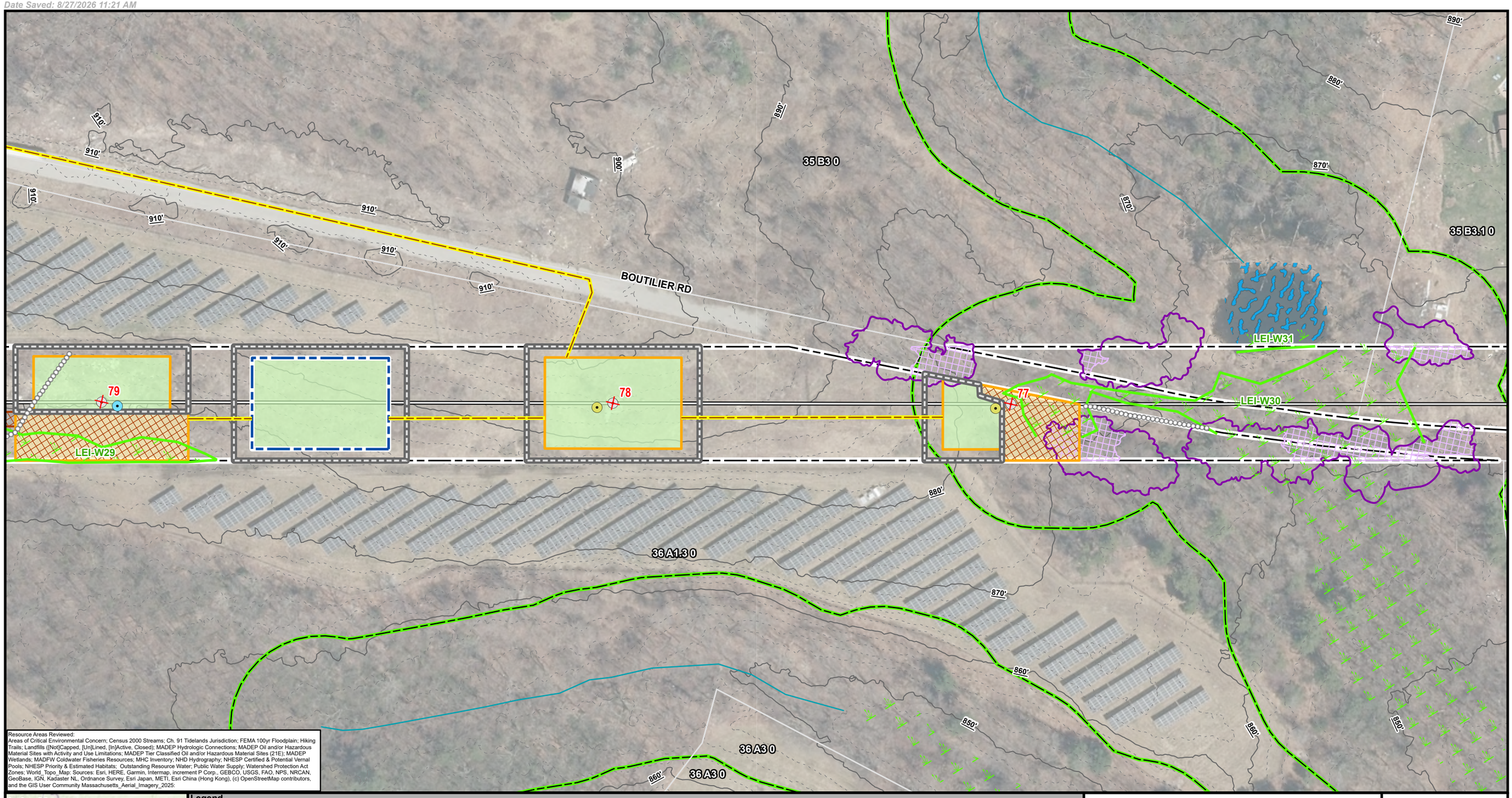
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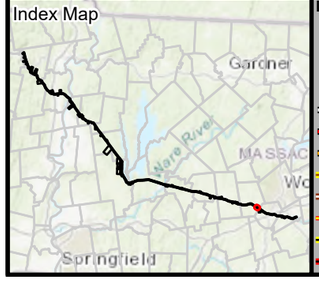
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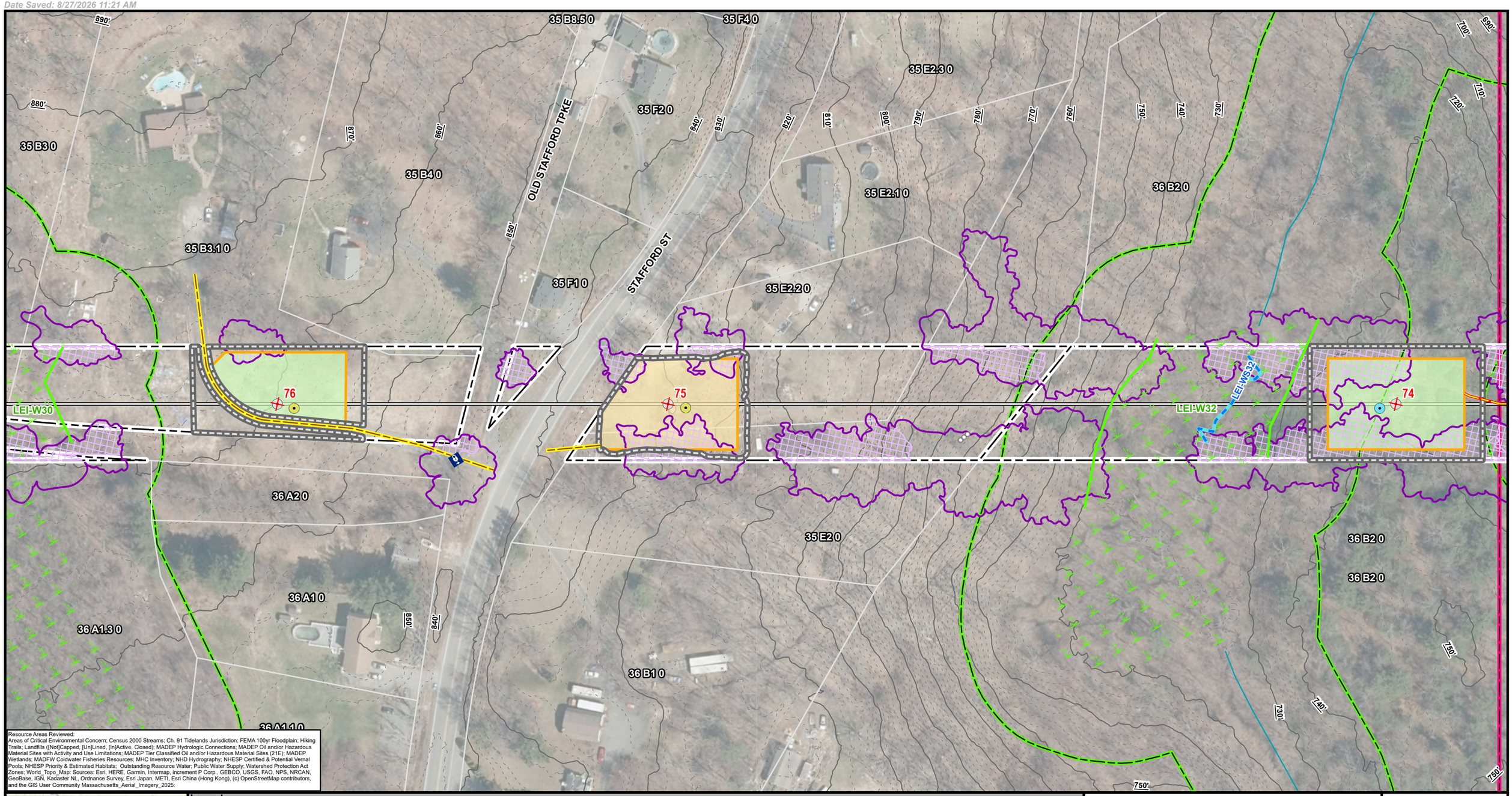
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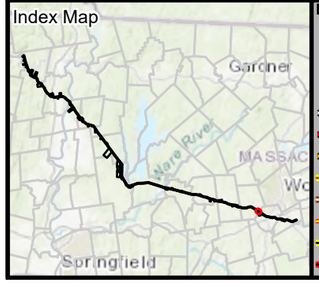
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Leicester, MA
Page 213 of 240

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1 inch = 100 feet

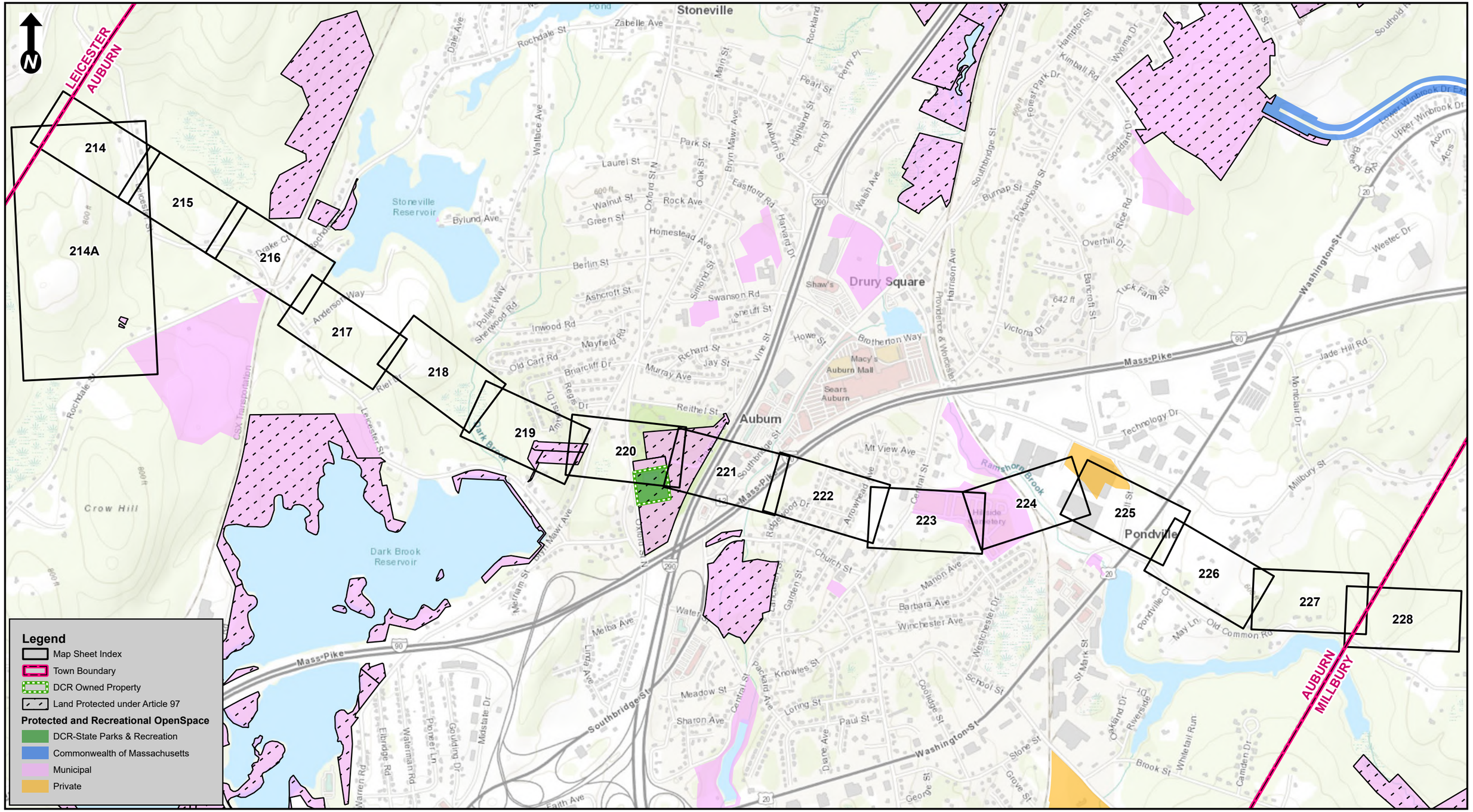
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Legend

- Map Sheet Index
- Town Boundary
- DCR Owned Property
- Land Protected under Article 97

Protected and Recreational OpenSpace

- DCR-State Parks & Recreation
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- Municipal
- Private

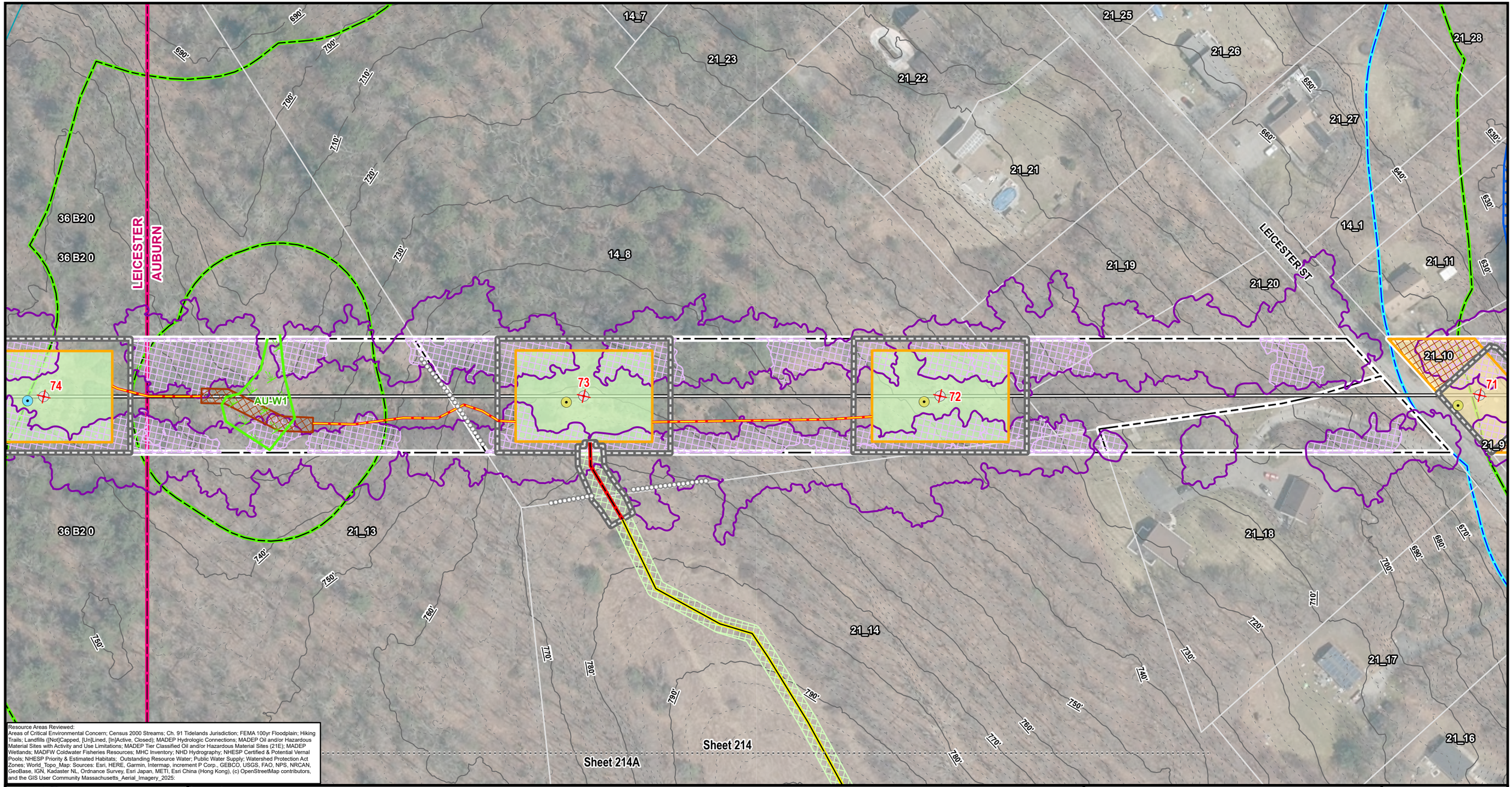
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CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT
Environmental Resources Map - Coverpage
Auburn, MA

Source: 2013 National Geographic Society, i-cubed

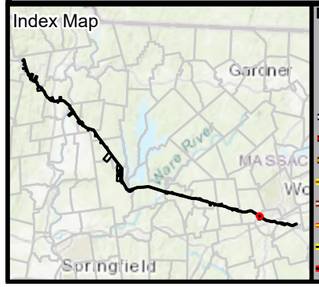
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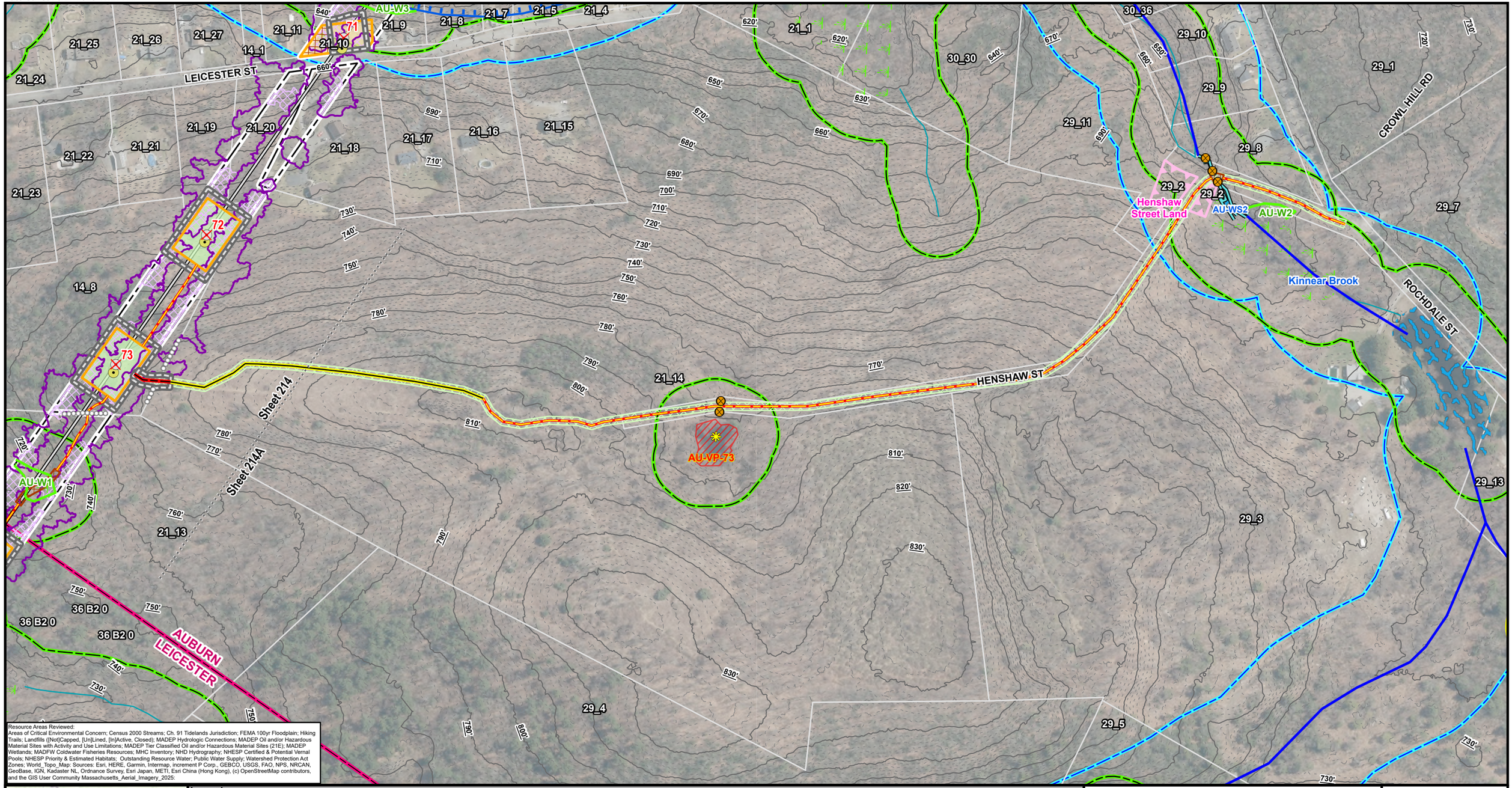
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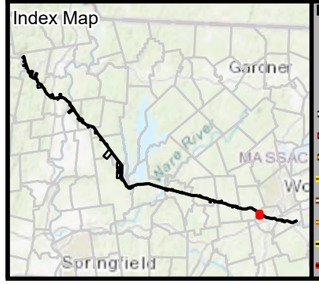
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Environmental Resources Map

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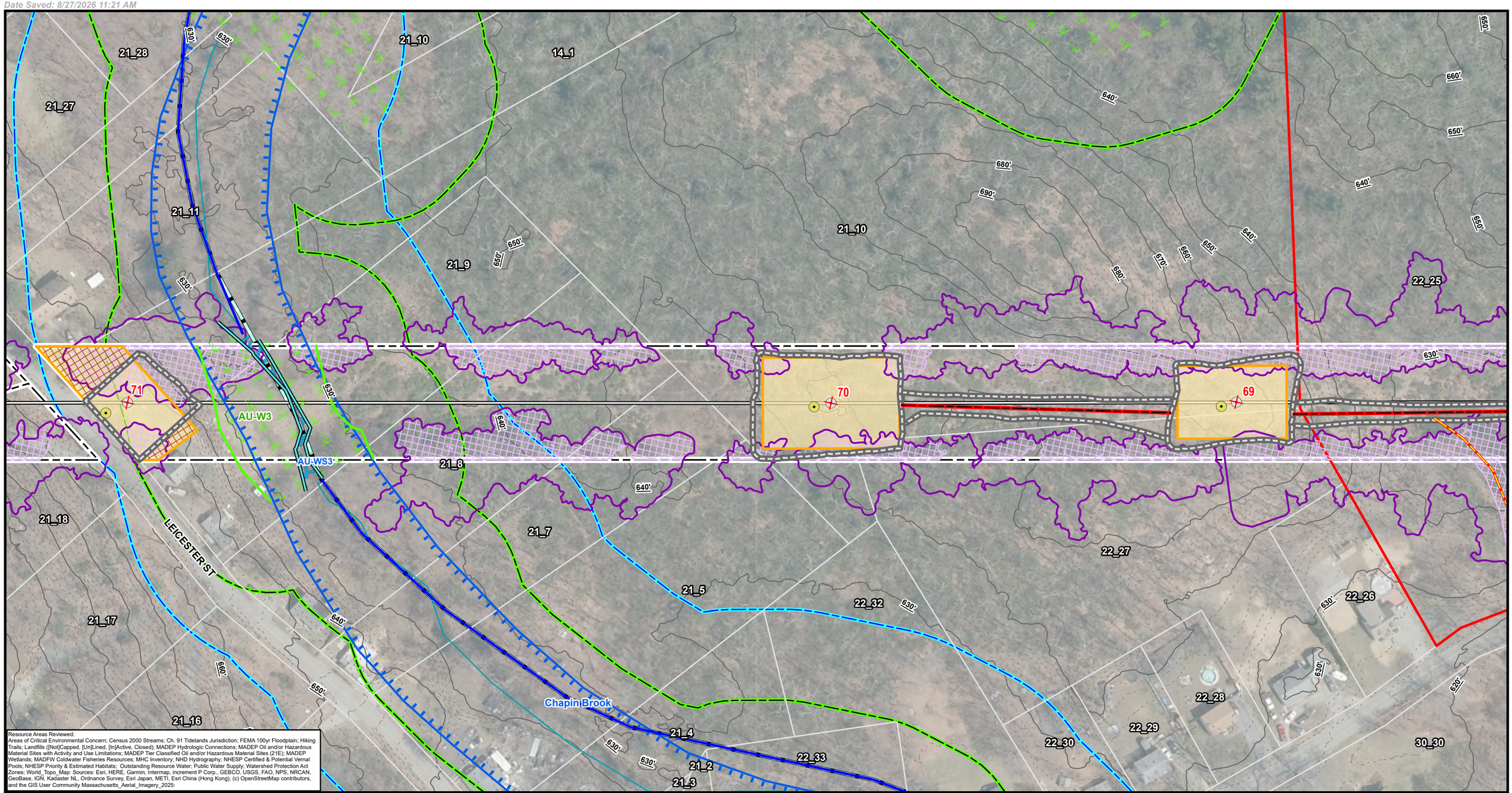
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Environmental Resources Map

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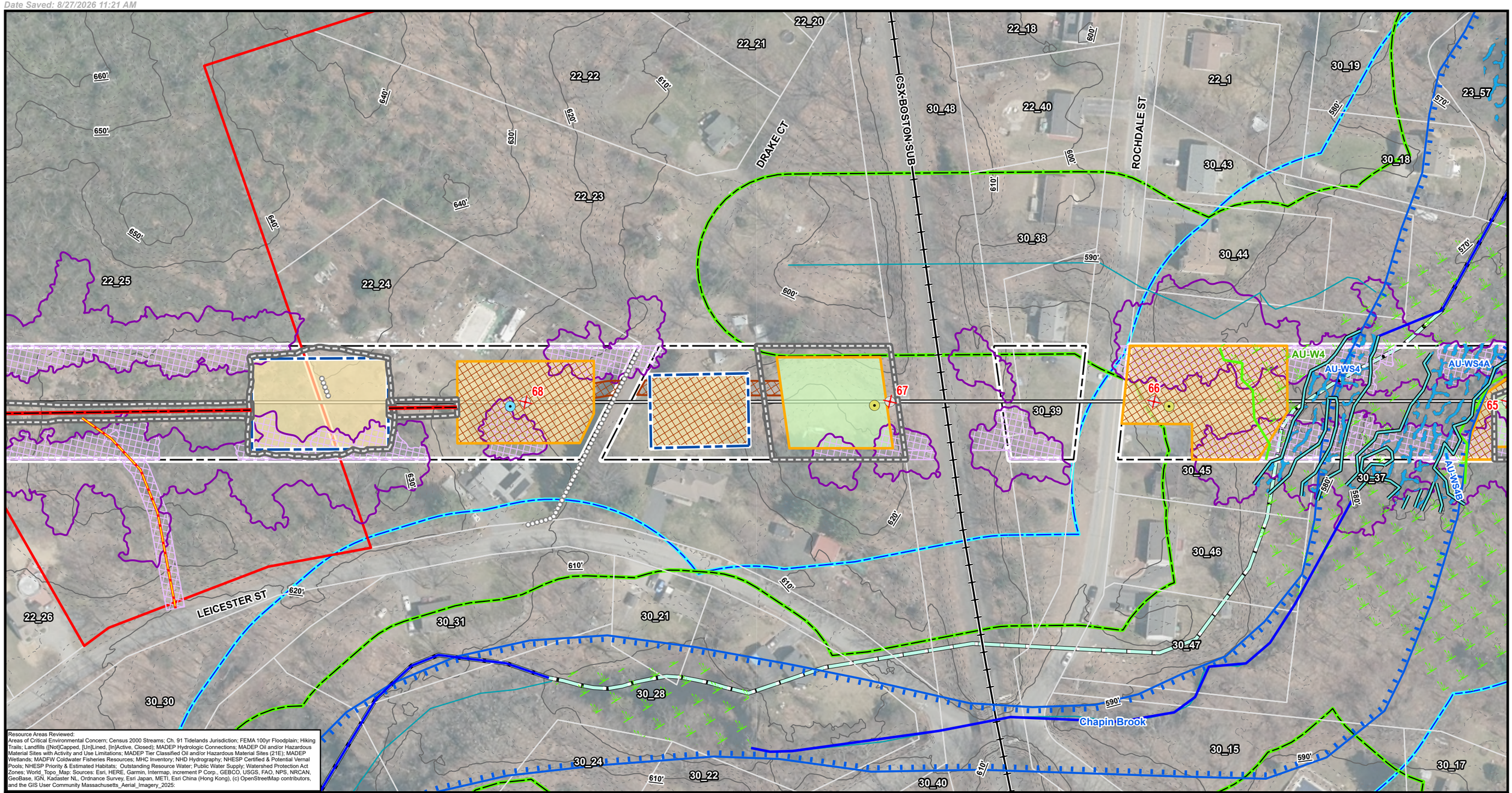
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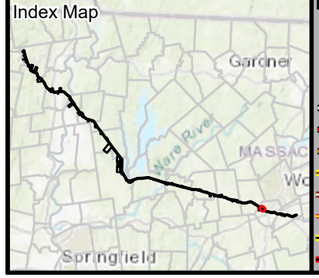
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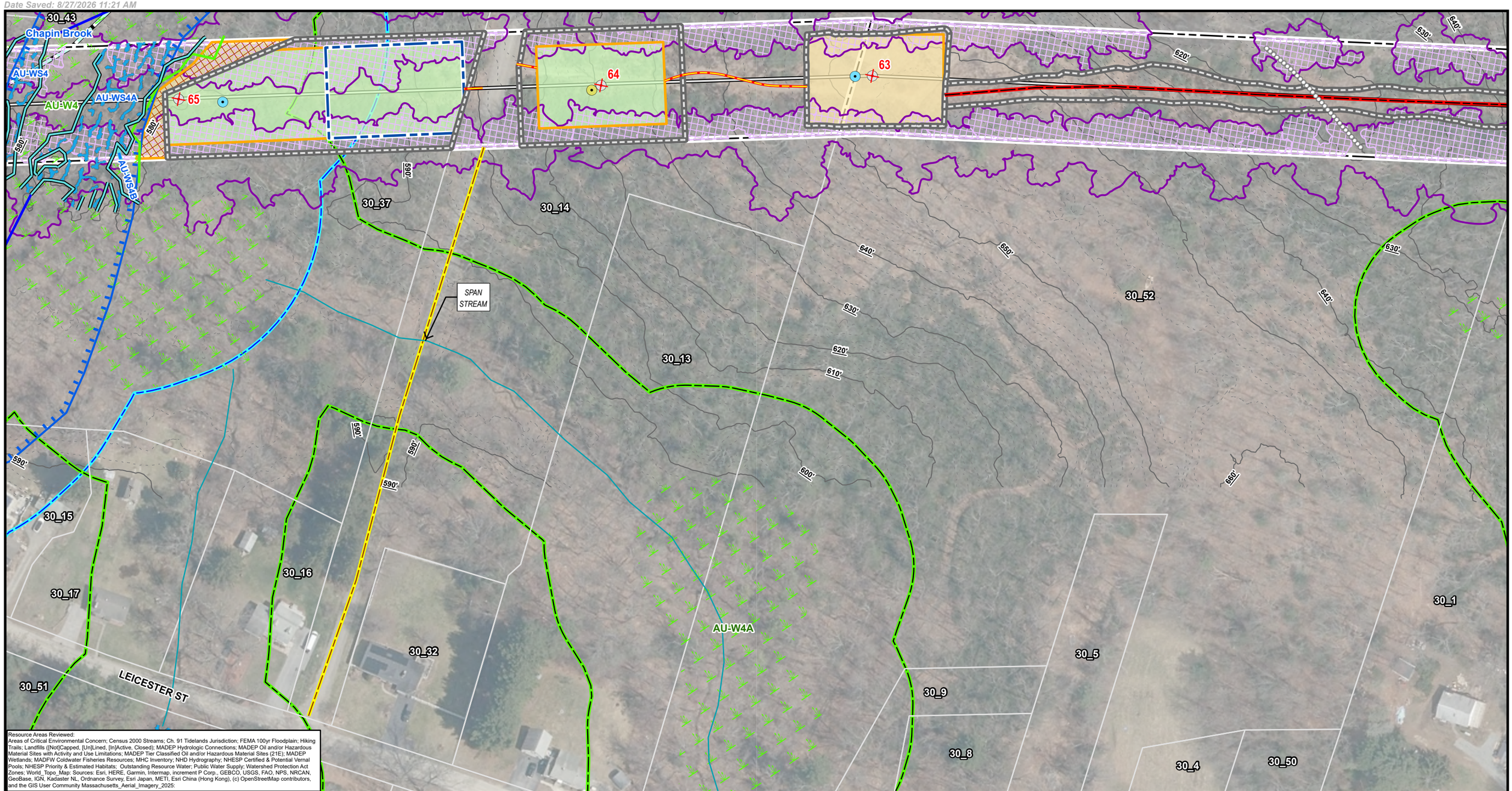
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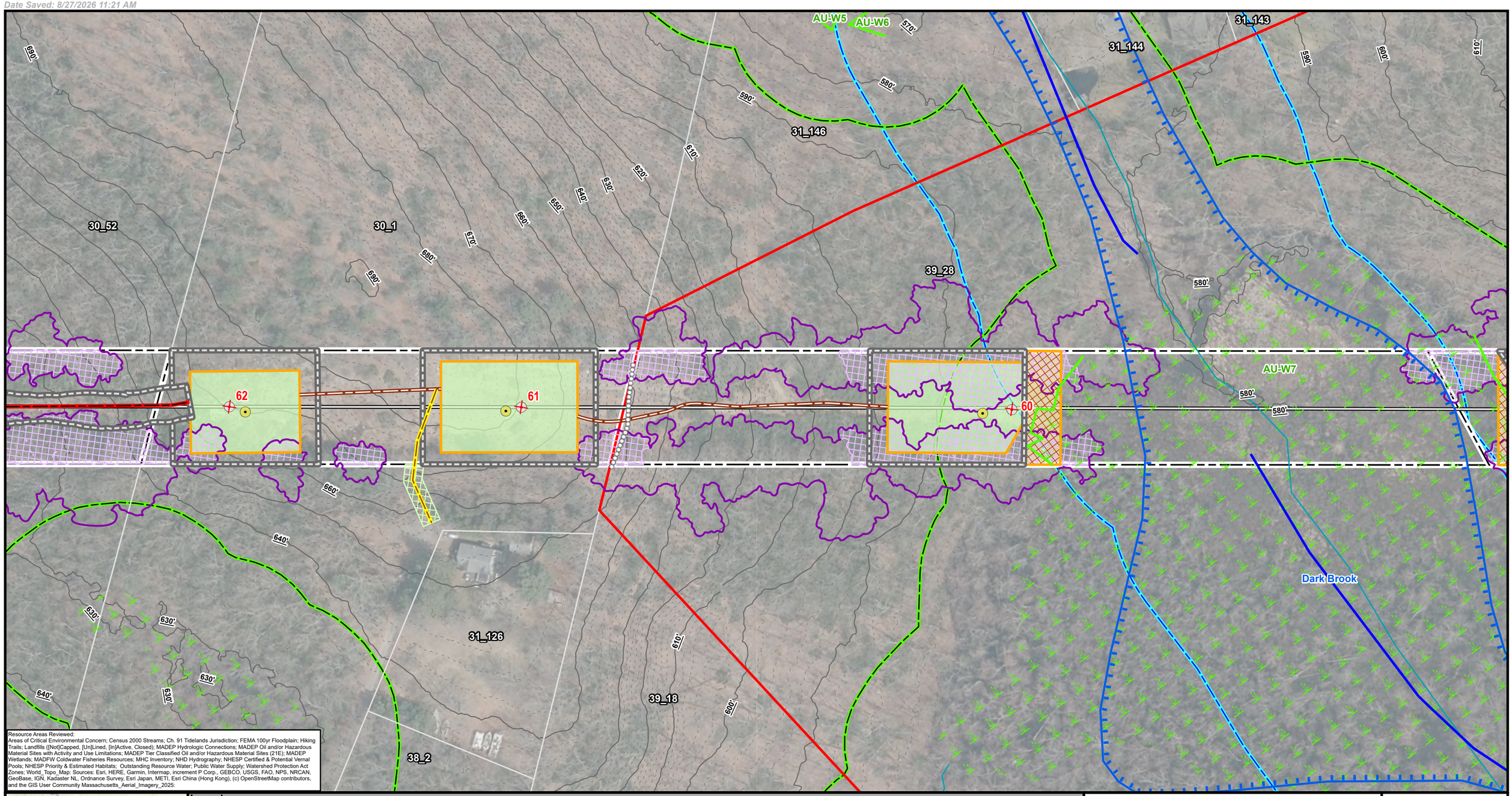
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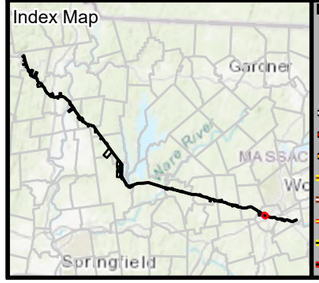
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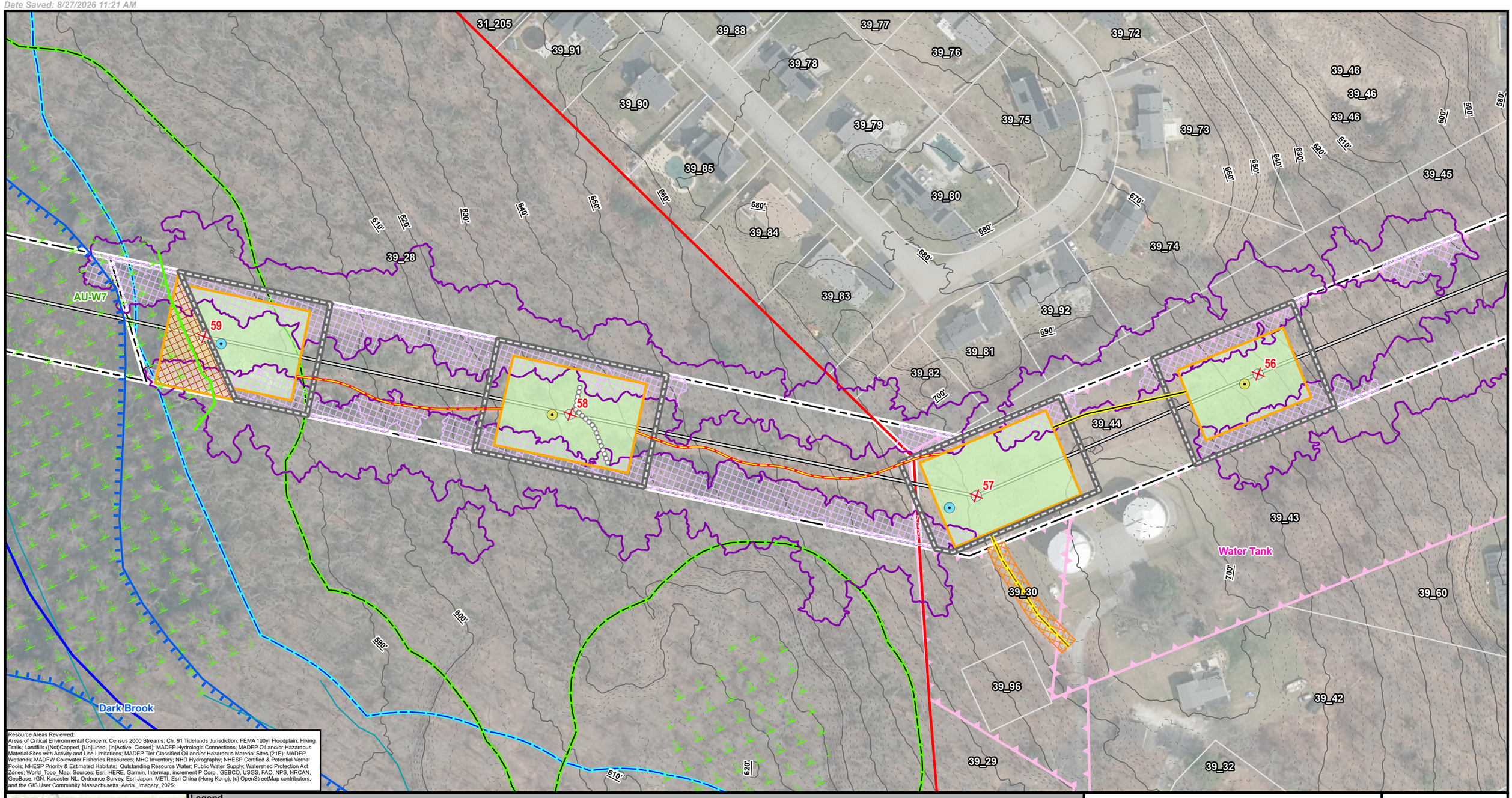
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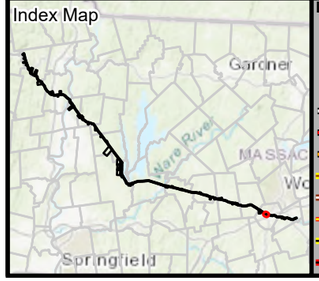
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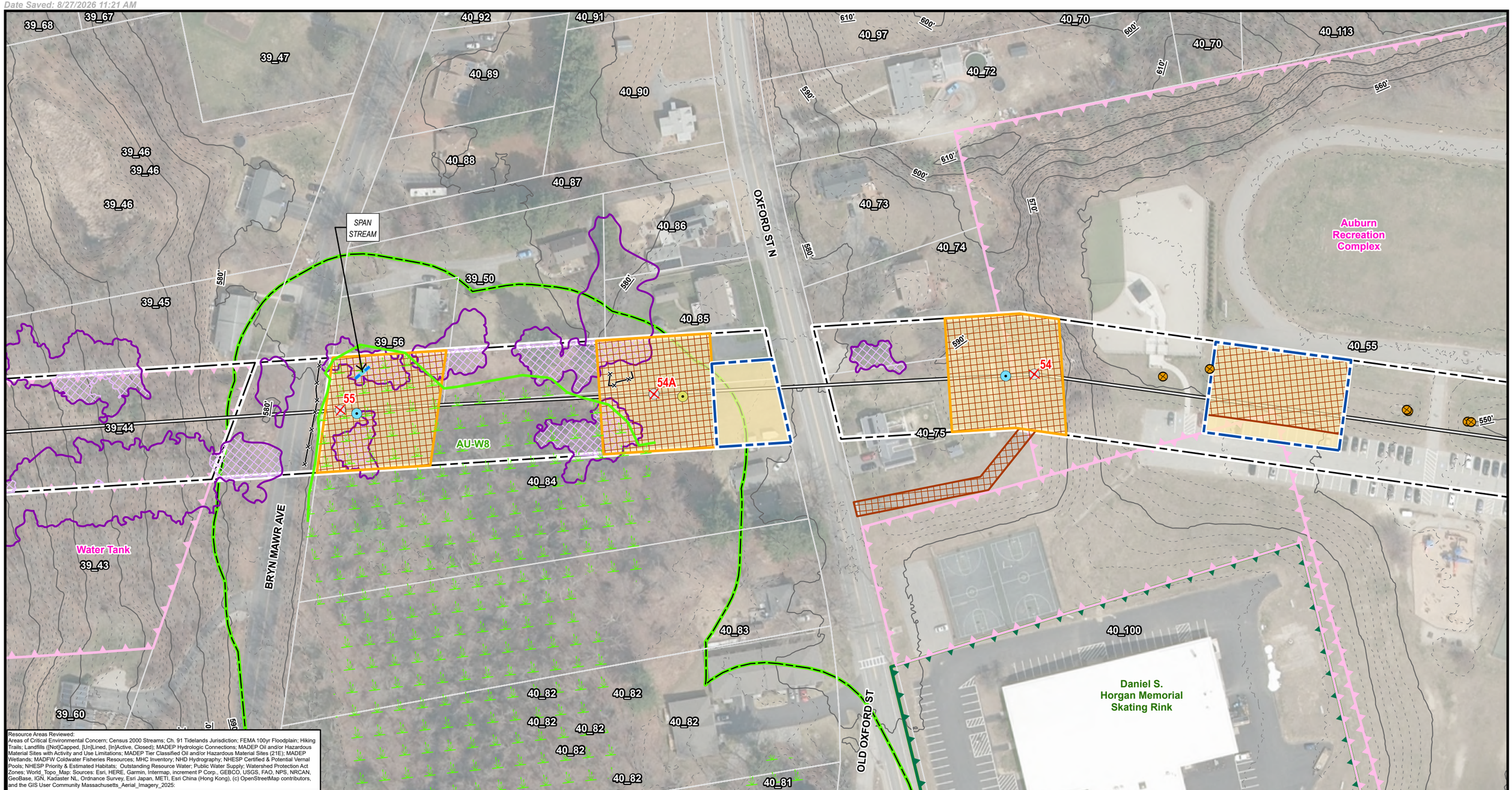
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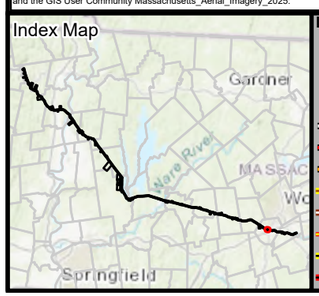
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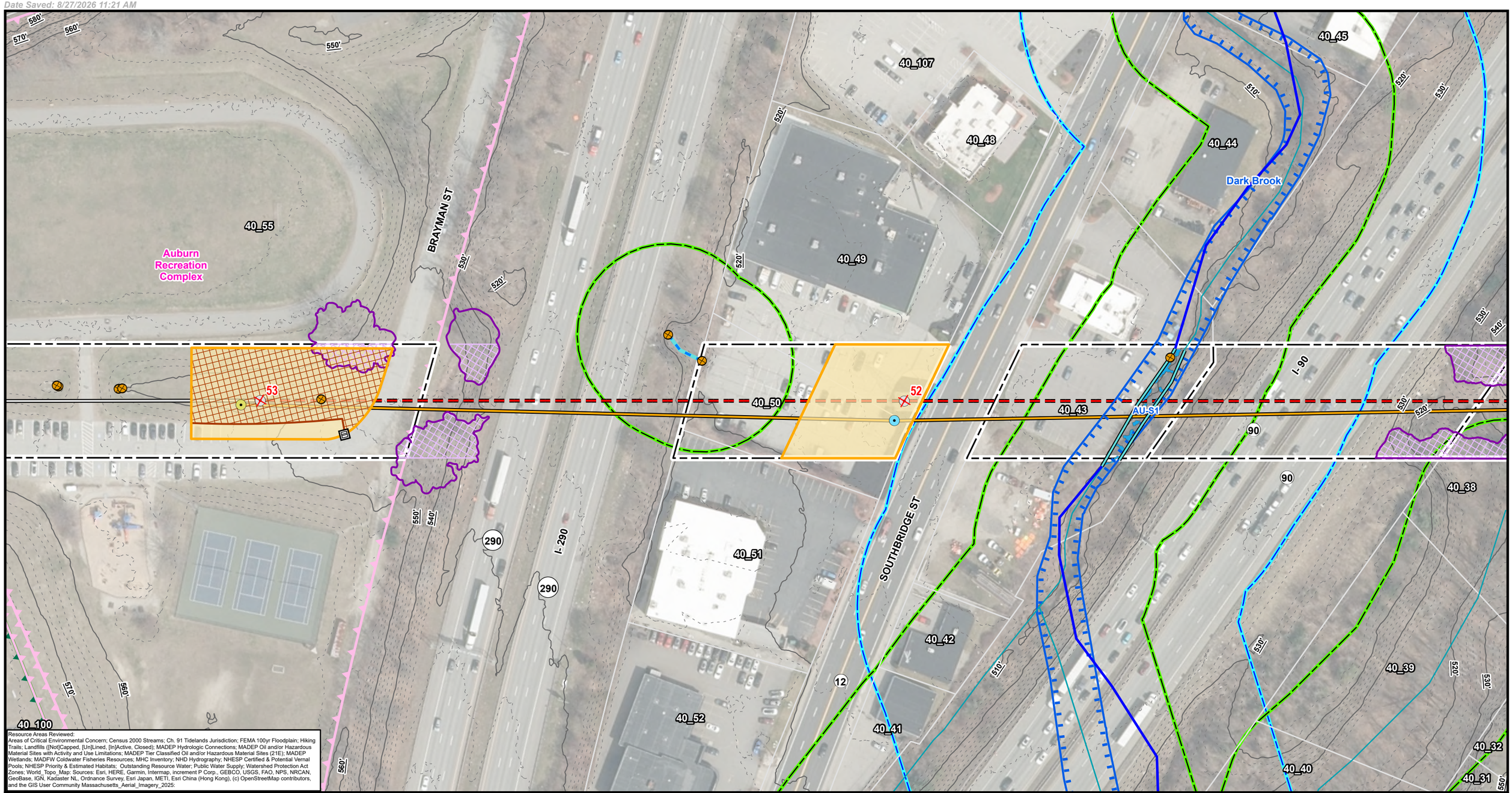
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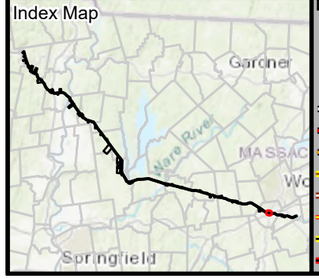
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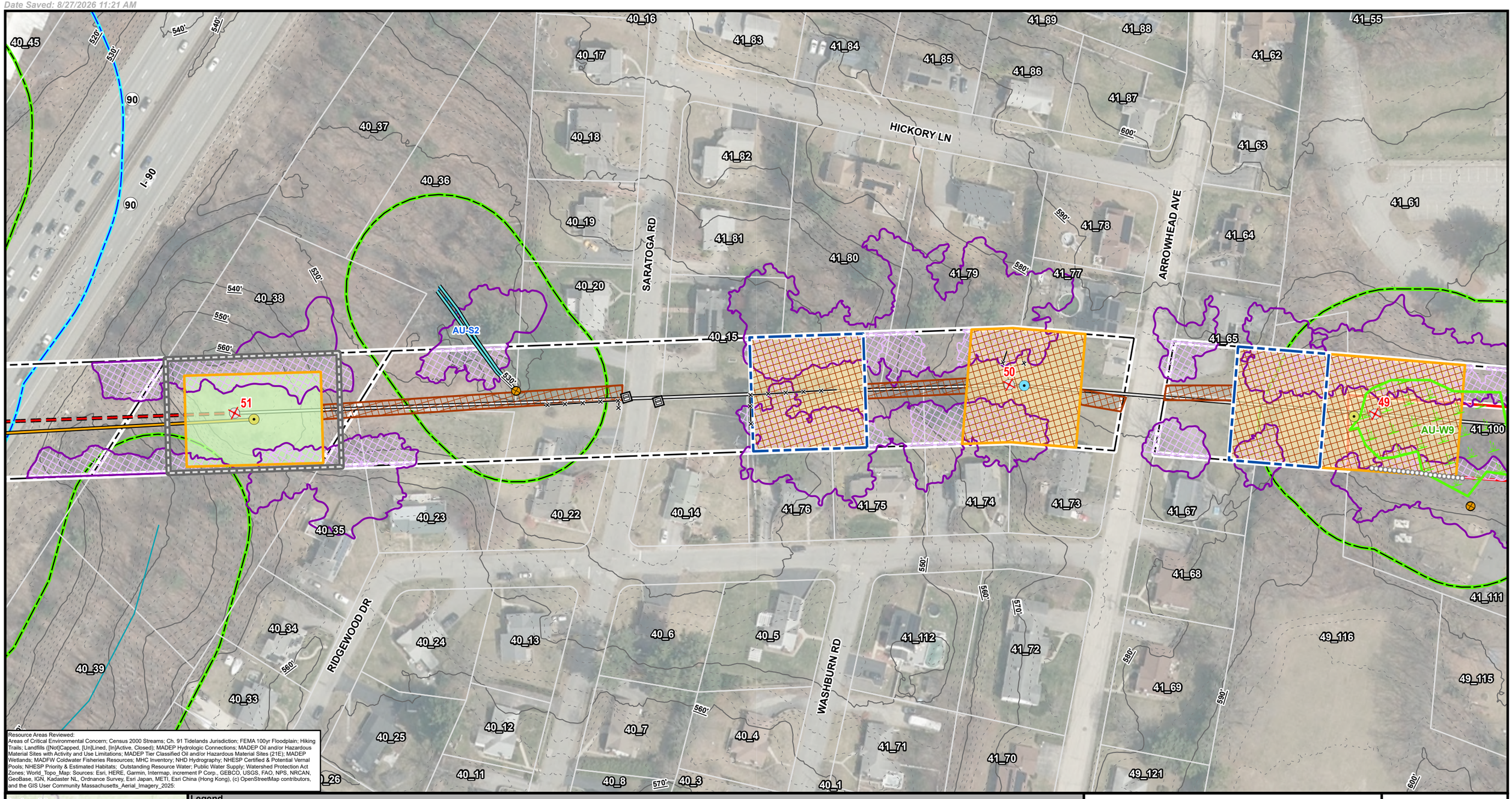
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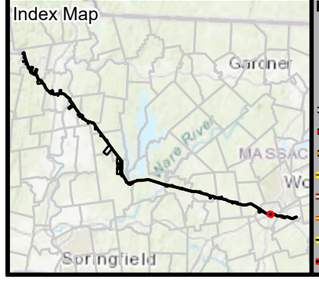
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Auburn, MA
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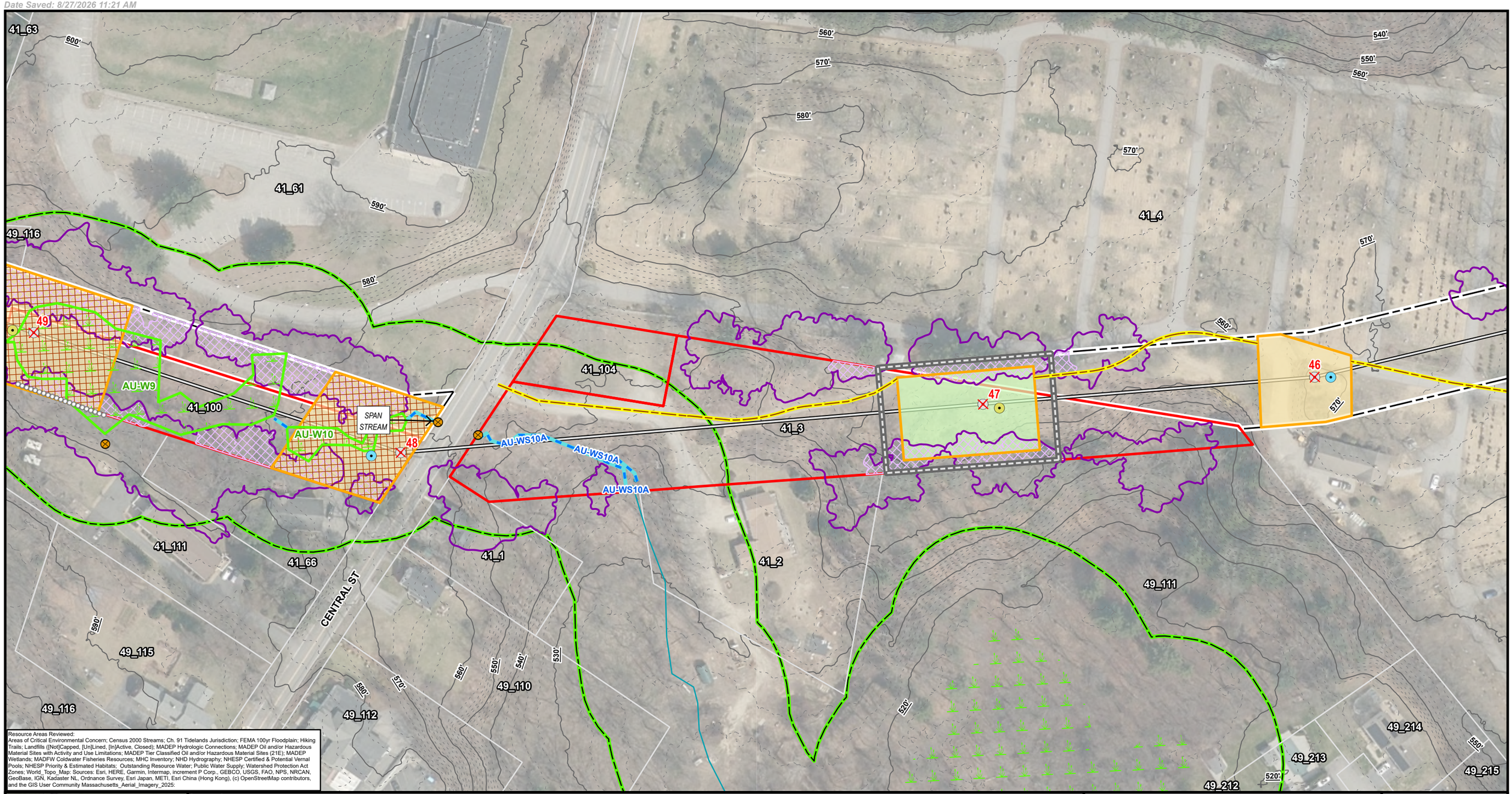
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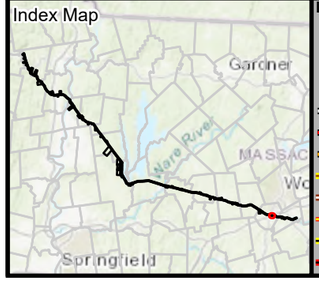
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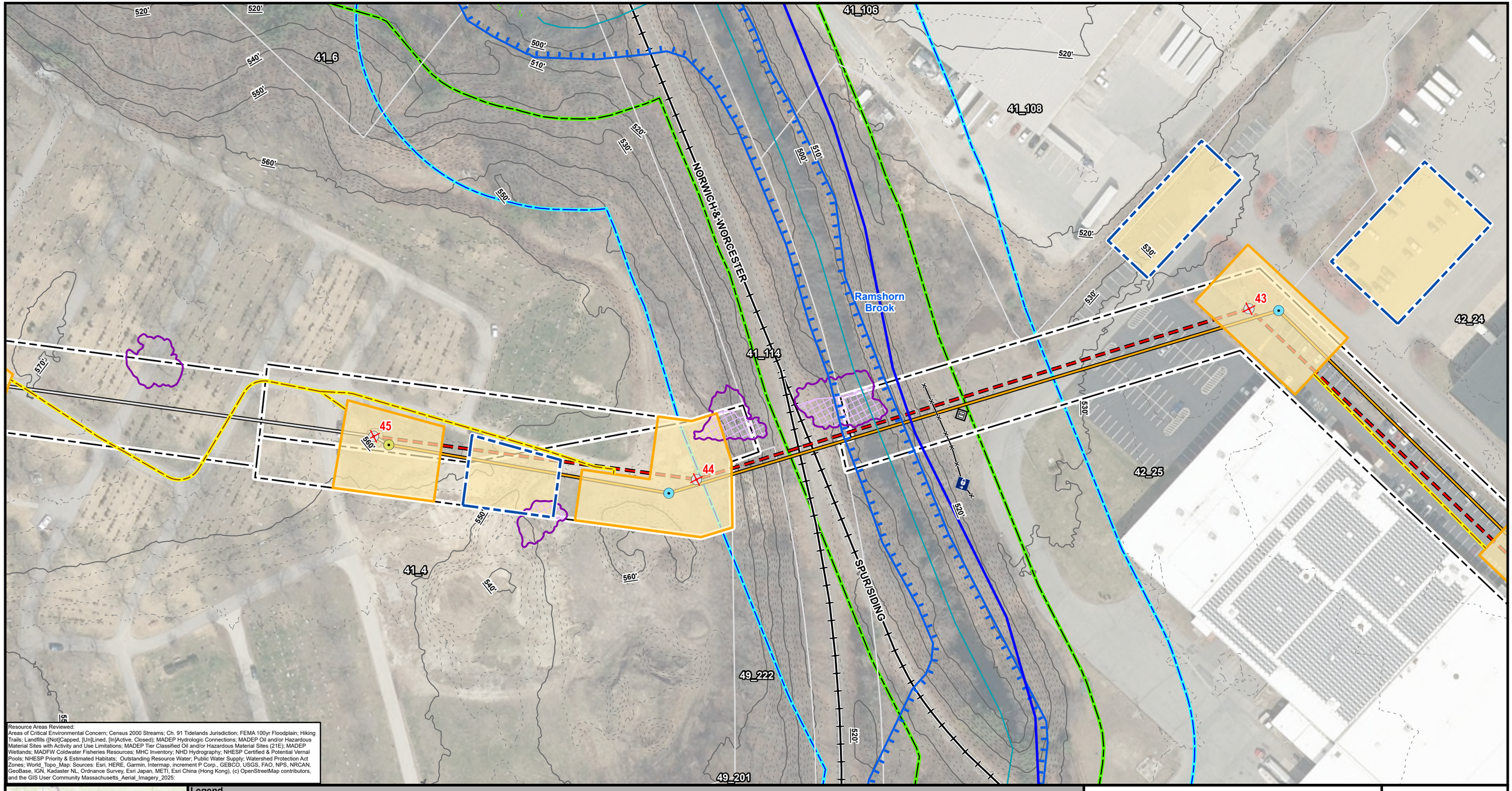
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Auburn, MA
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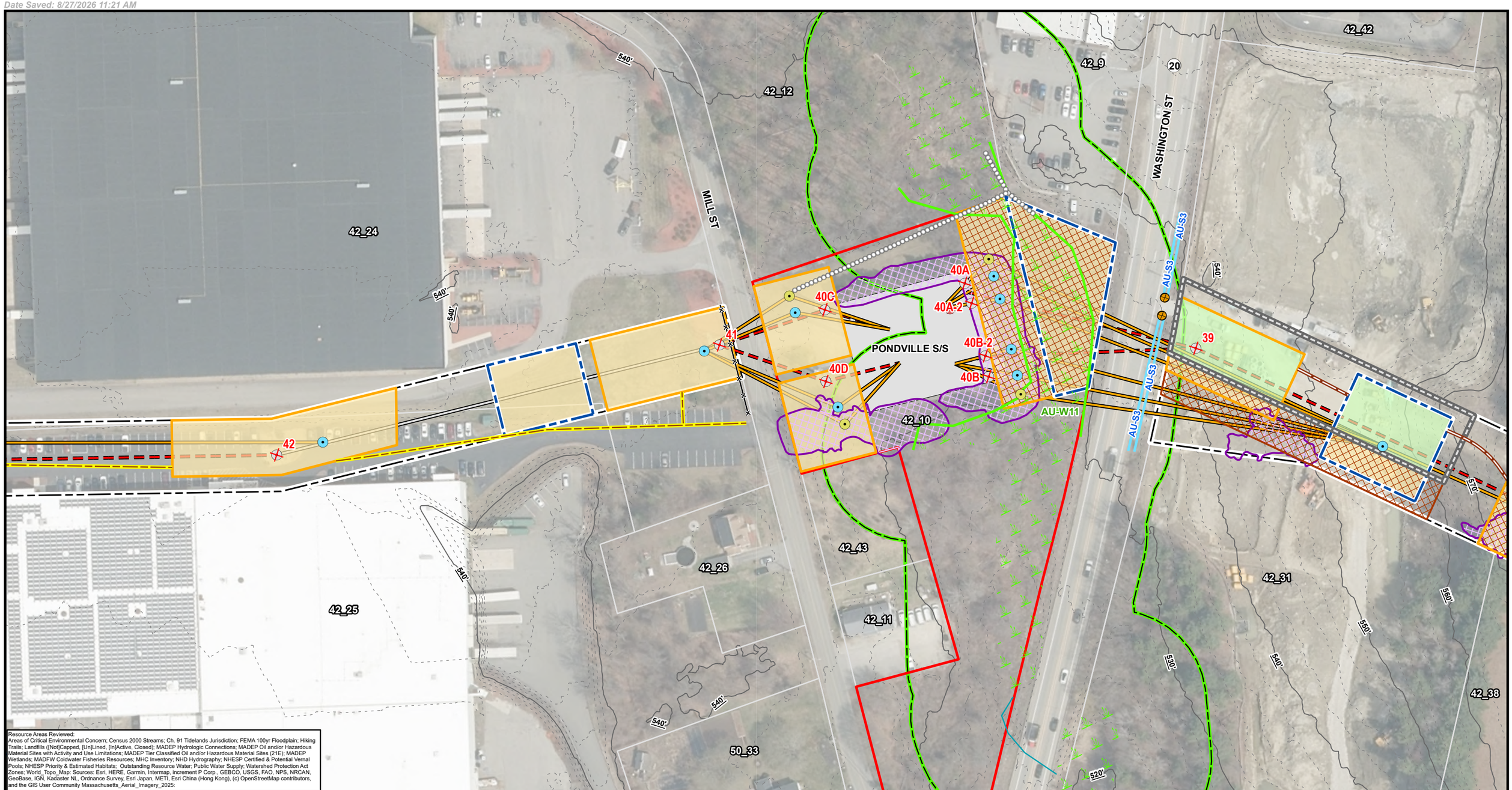
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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Auburn, MA
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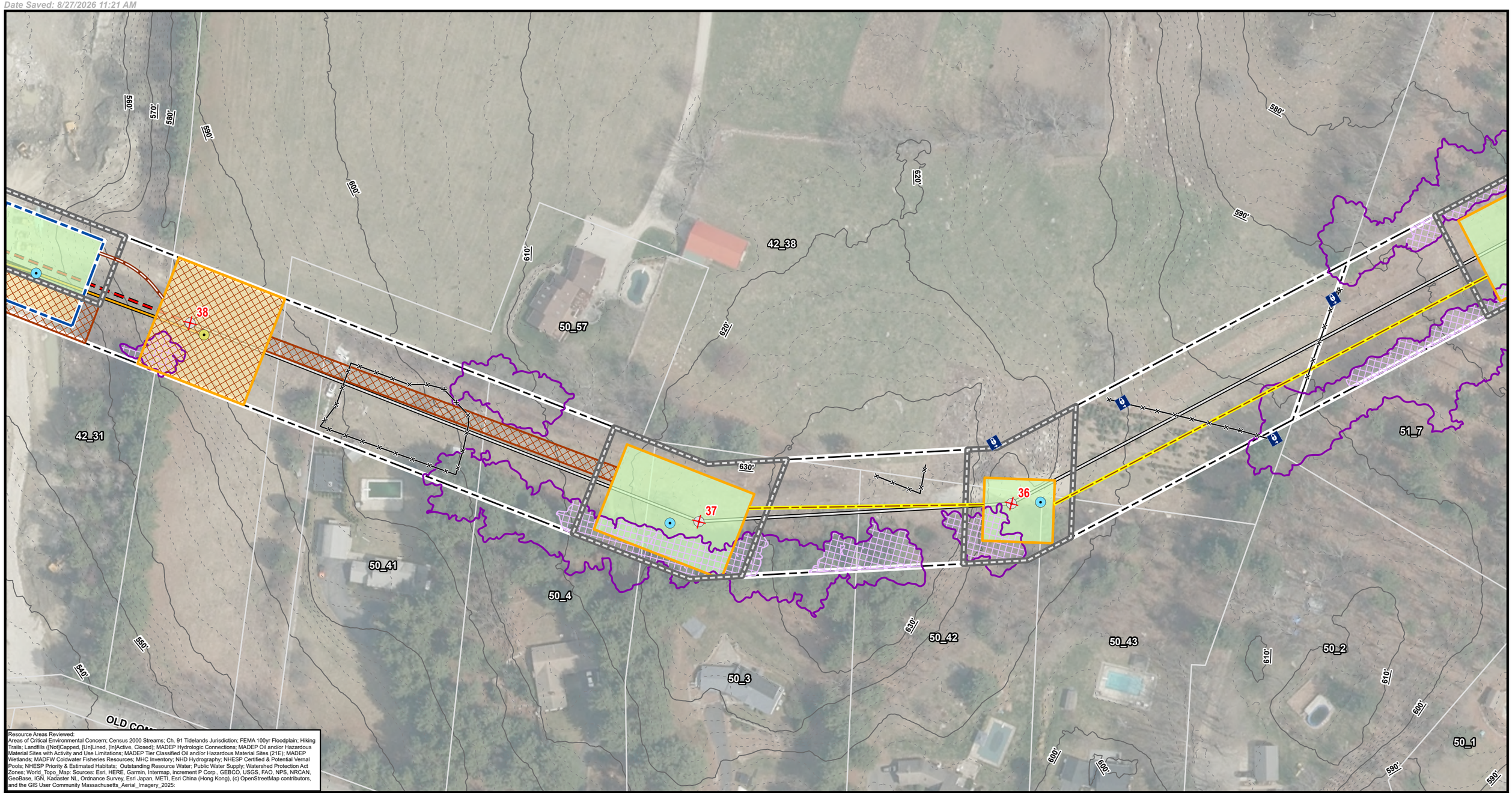
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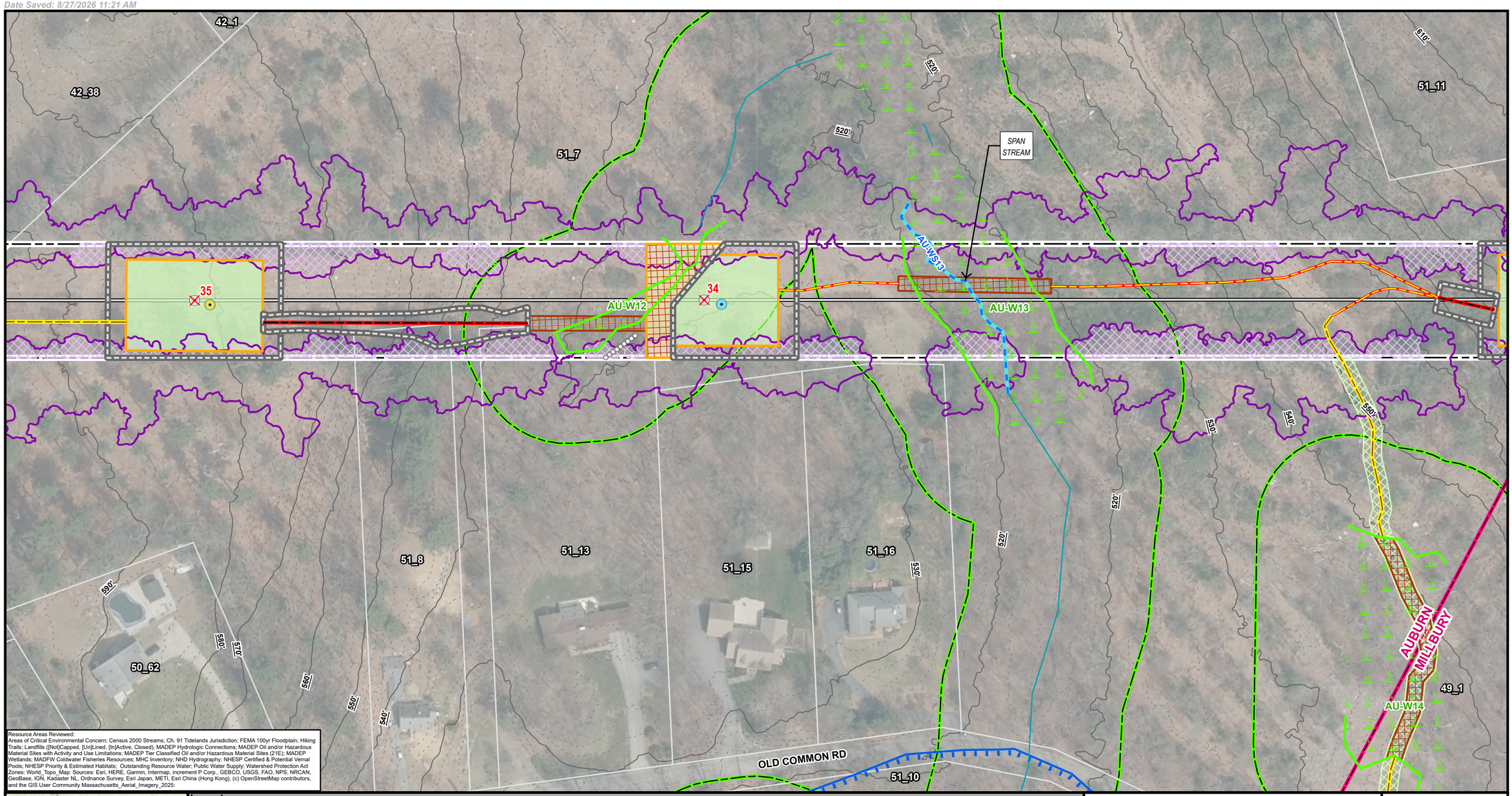
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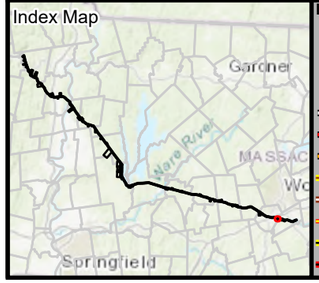
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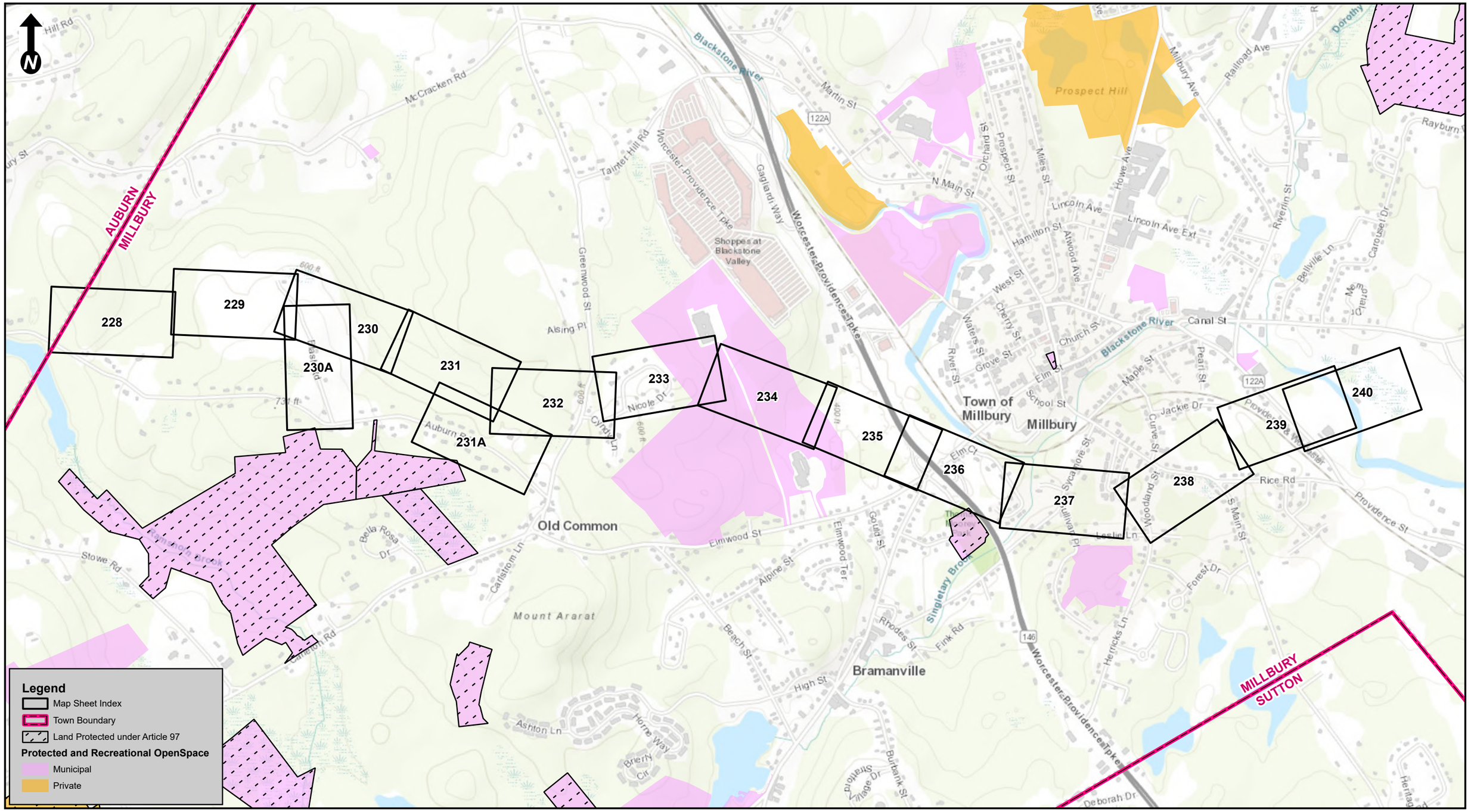
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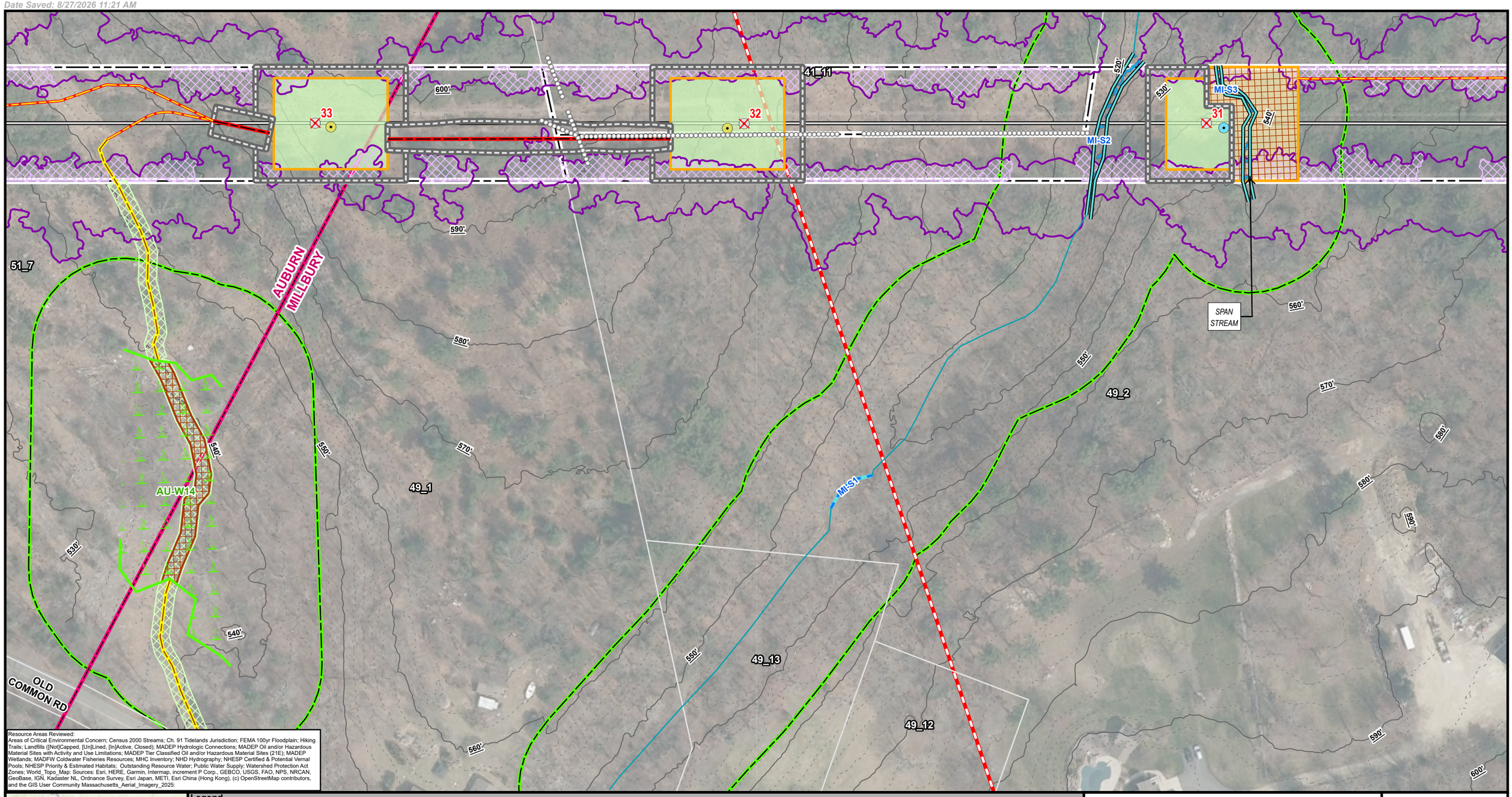
CENTRAL TO WESTERN MA ENERGY IMPROVEMENT PROJECT

Environmental Resources Map - Coverpage
Millbury, MA

Source: 2013 National Geographic Society, i-cubed

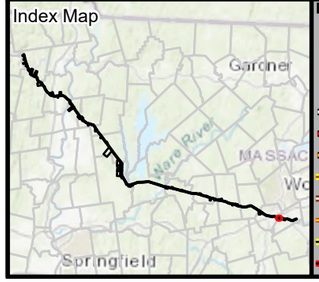
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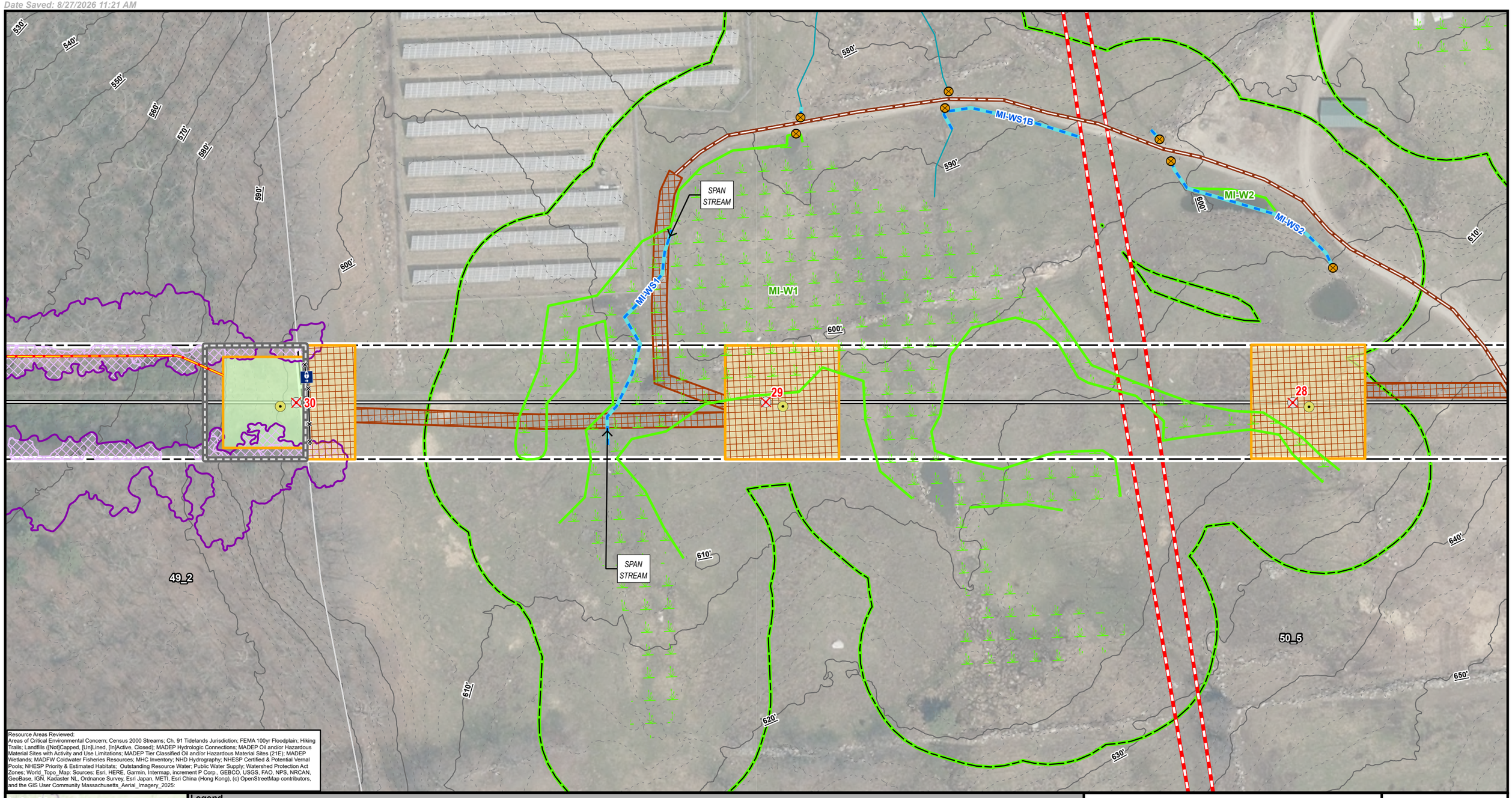
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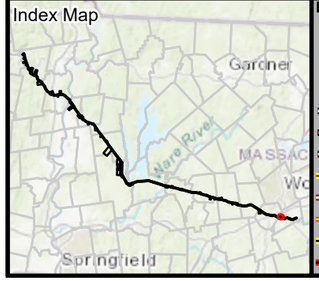
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

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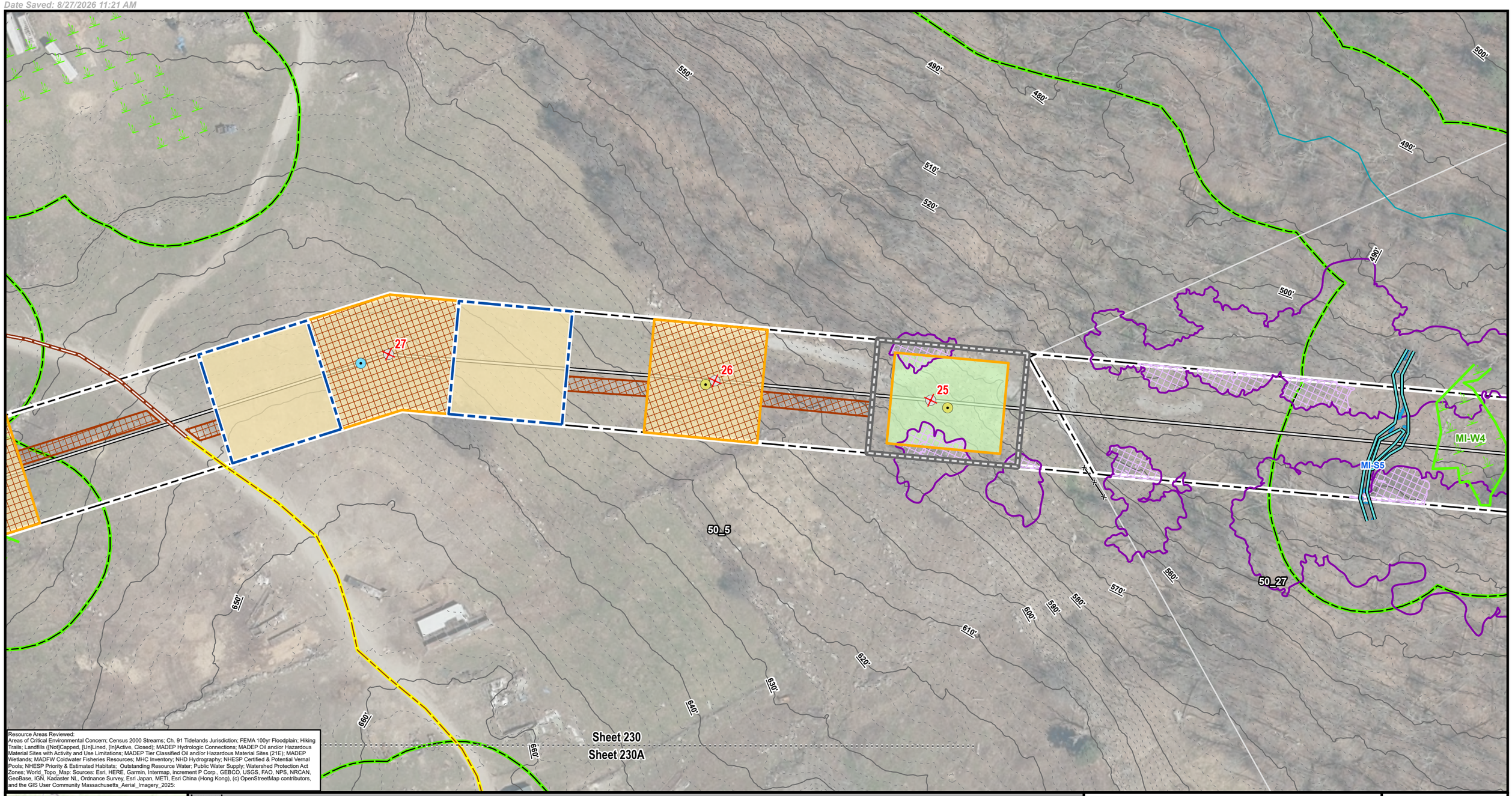
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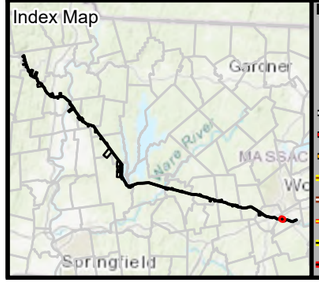
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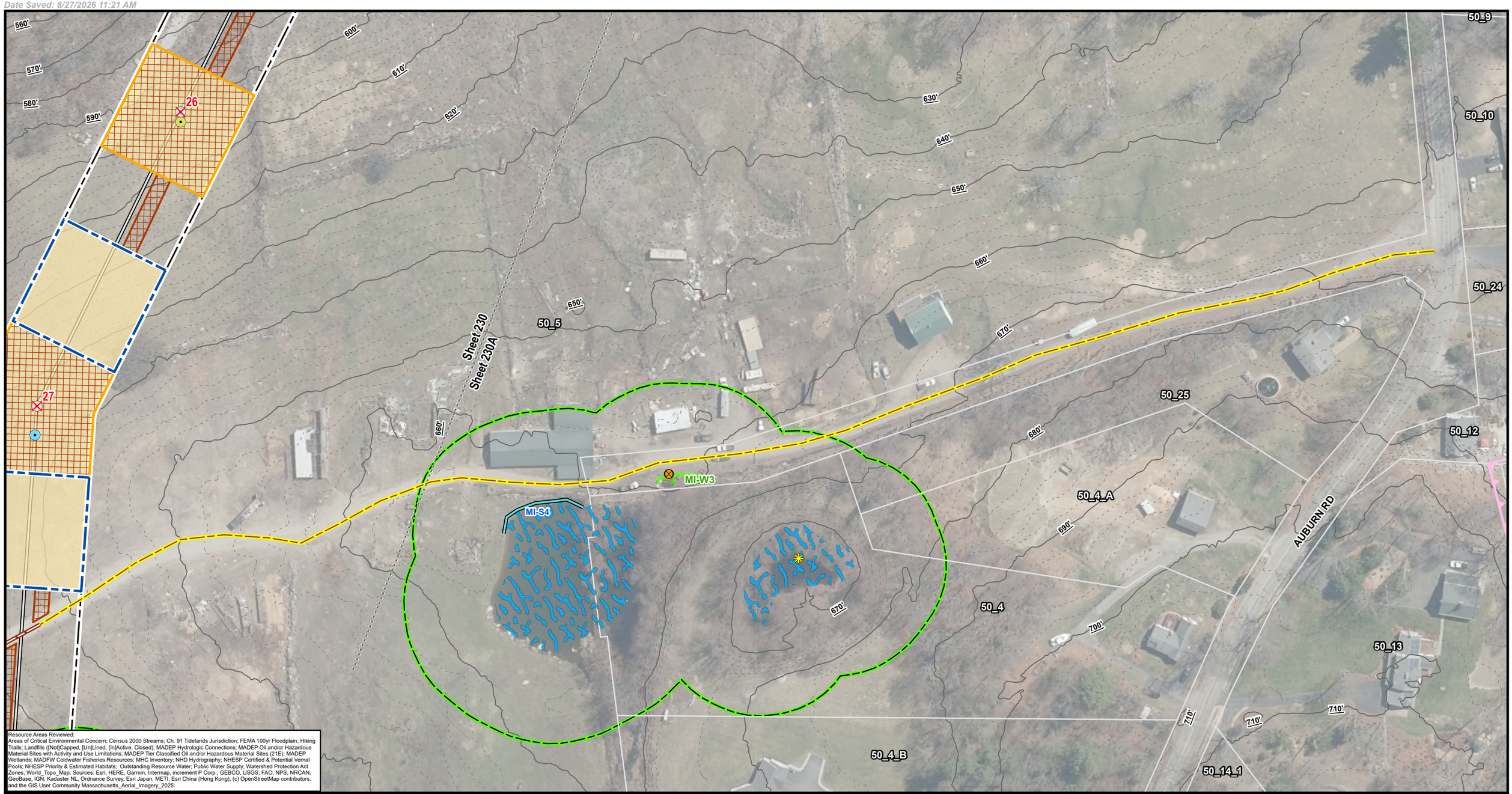
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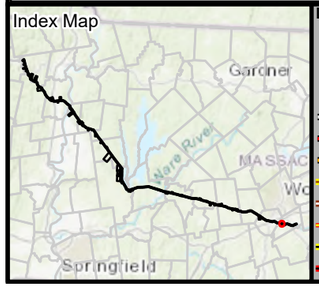
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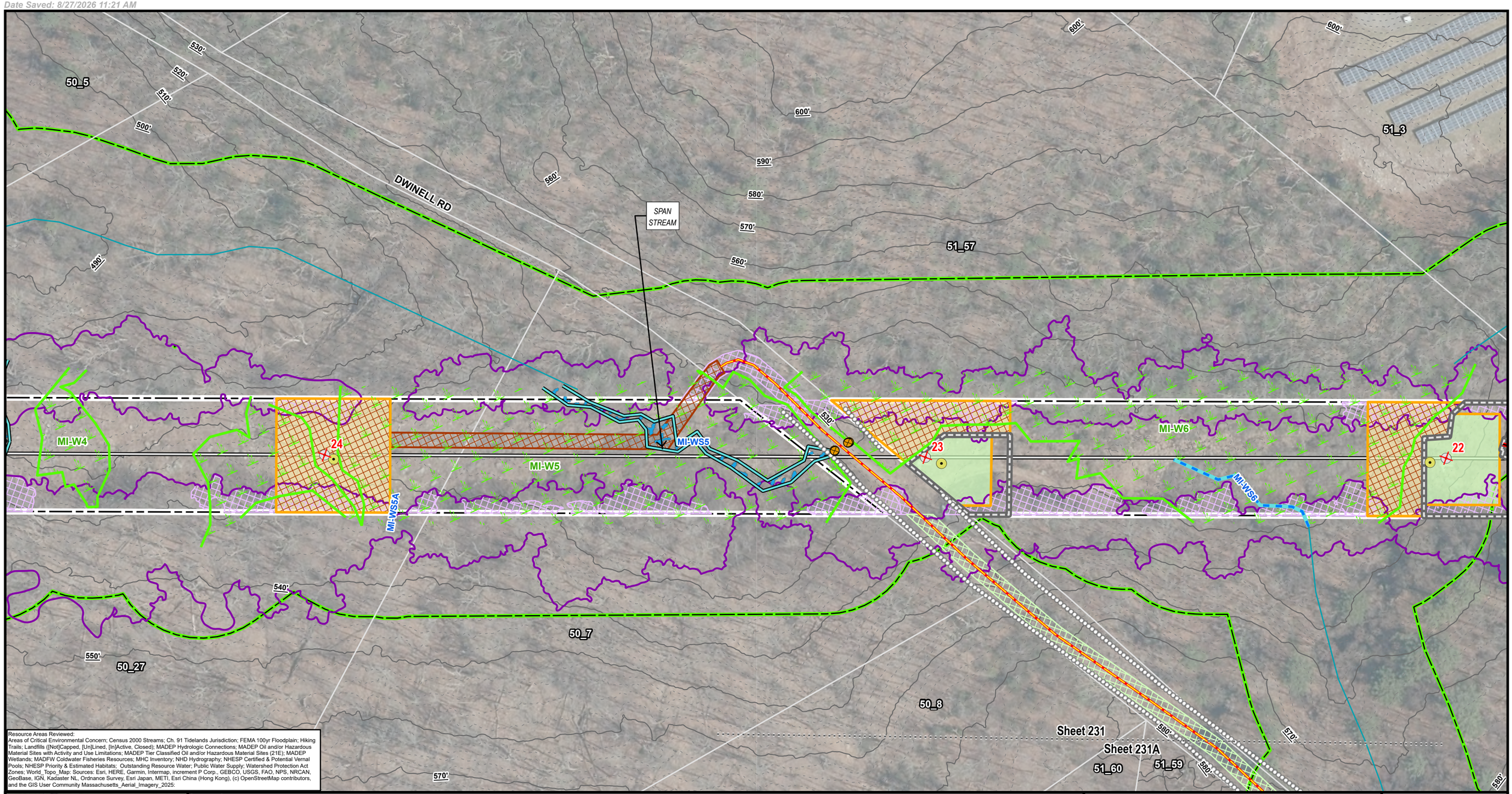
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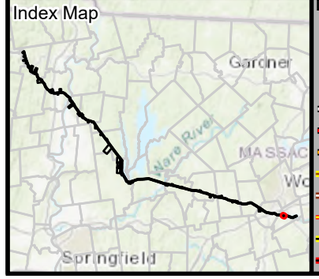
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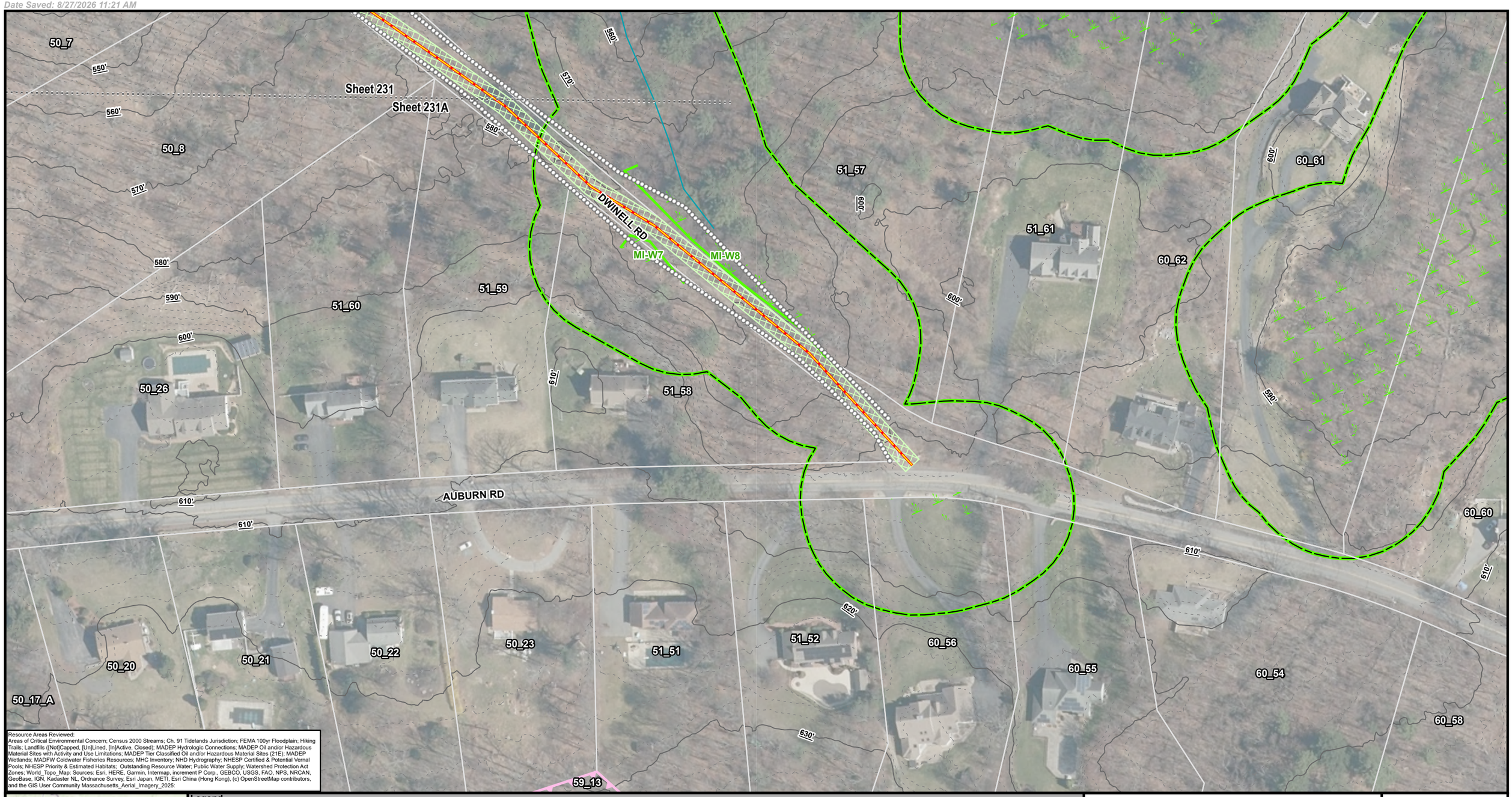
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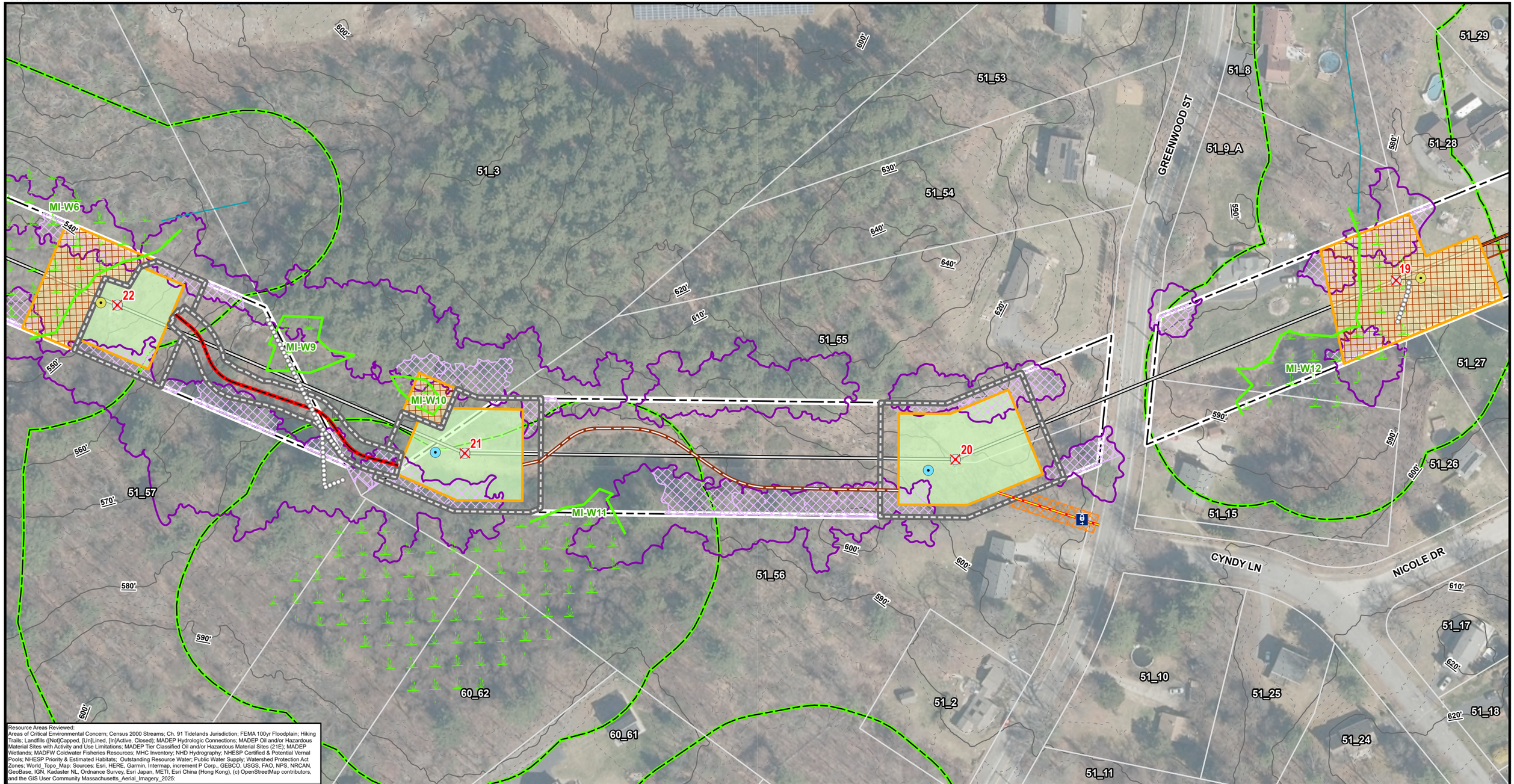
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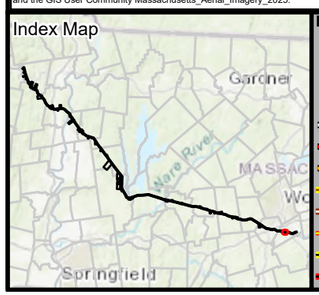
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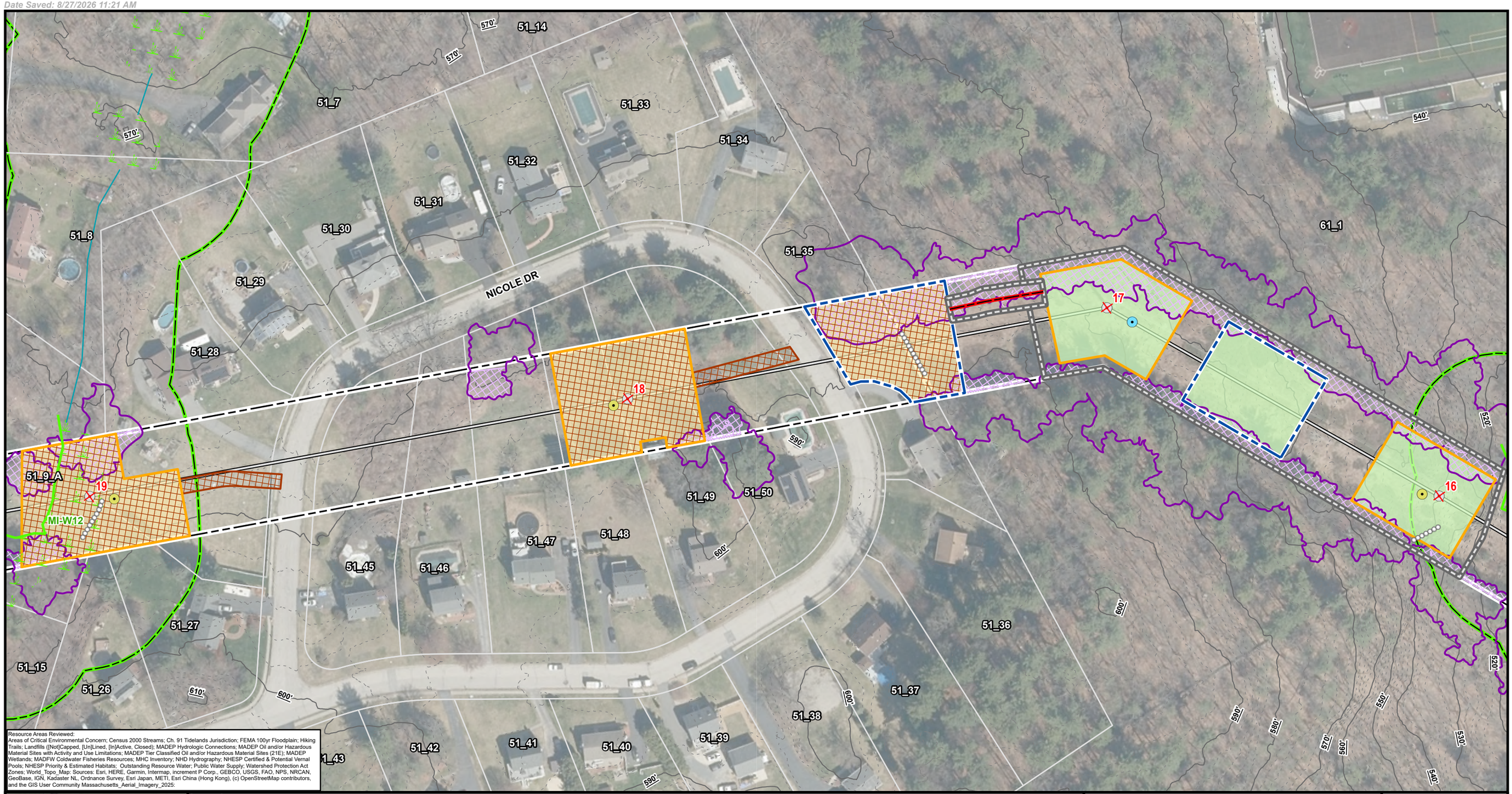
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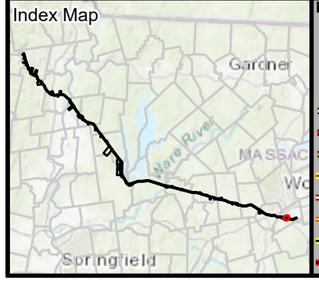
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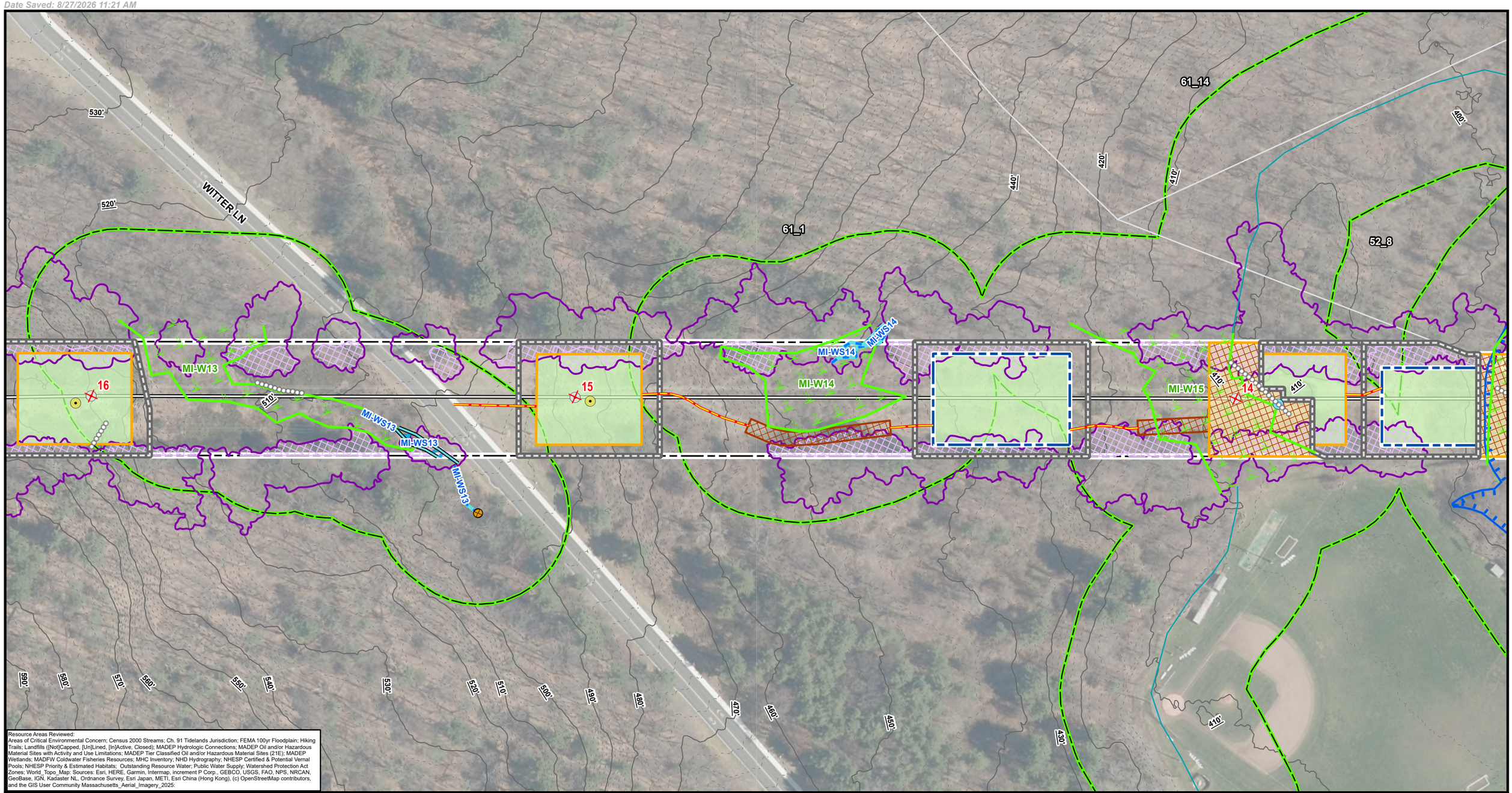
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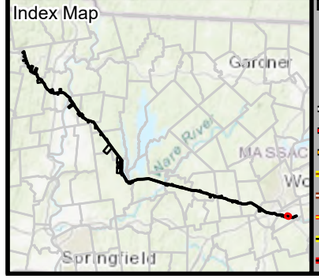
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

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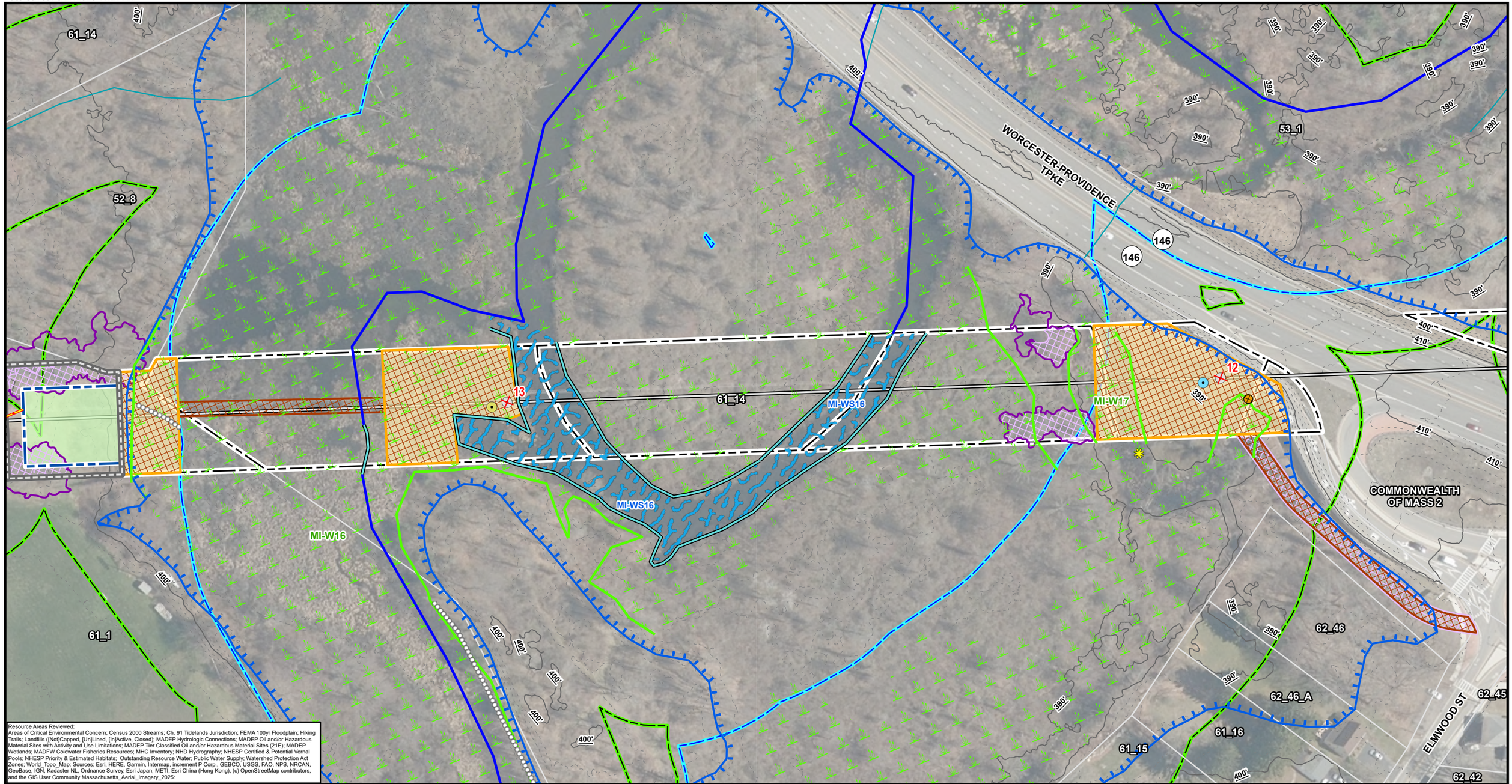
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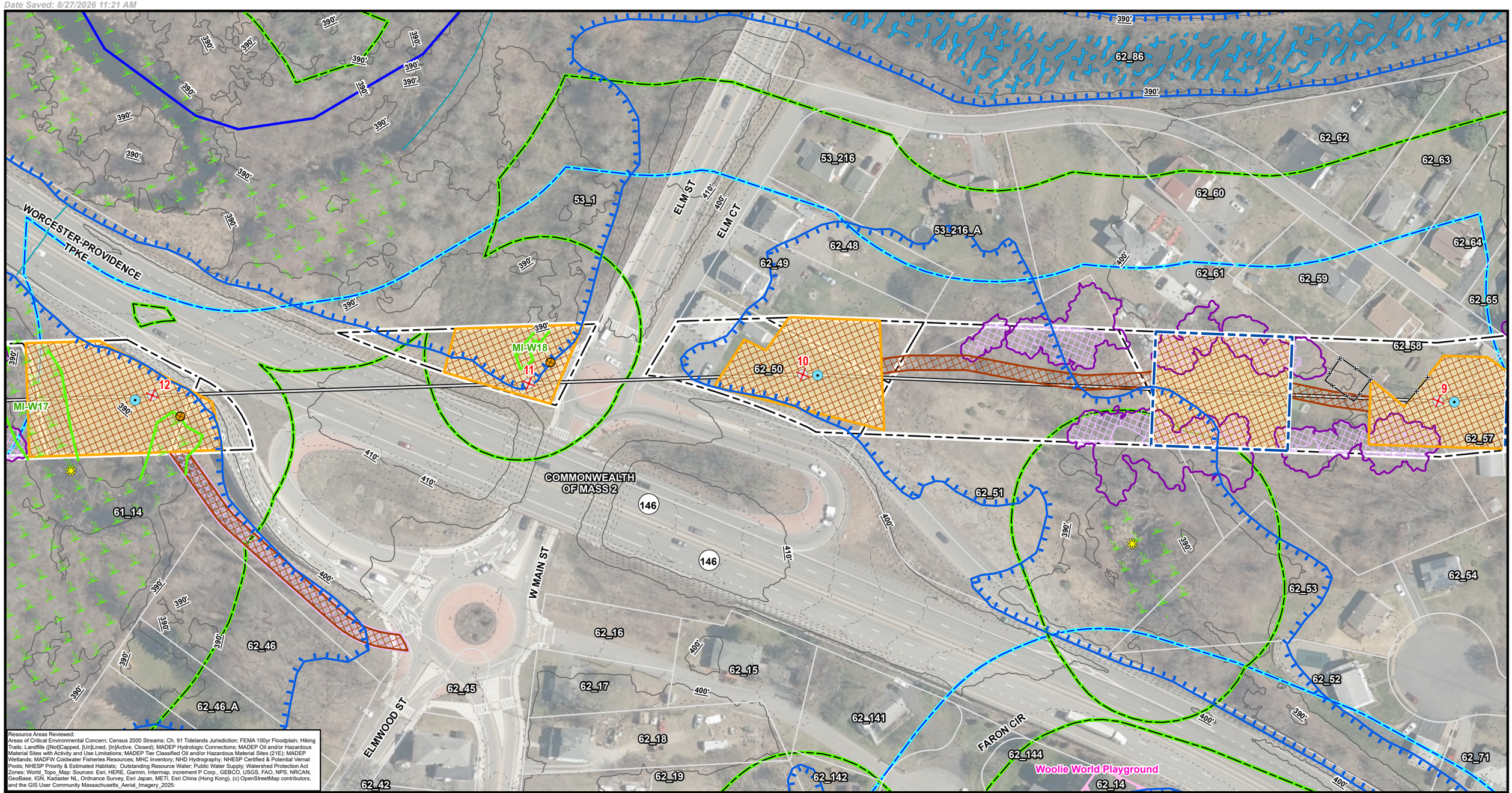
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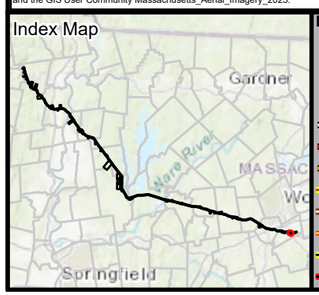
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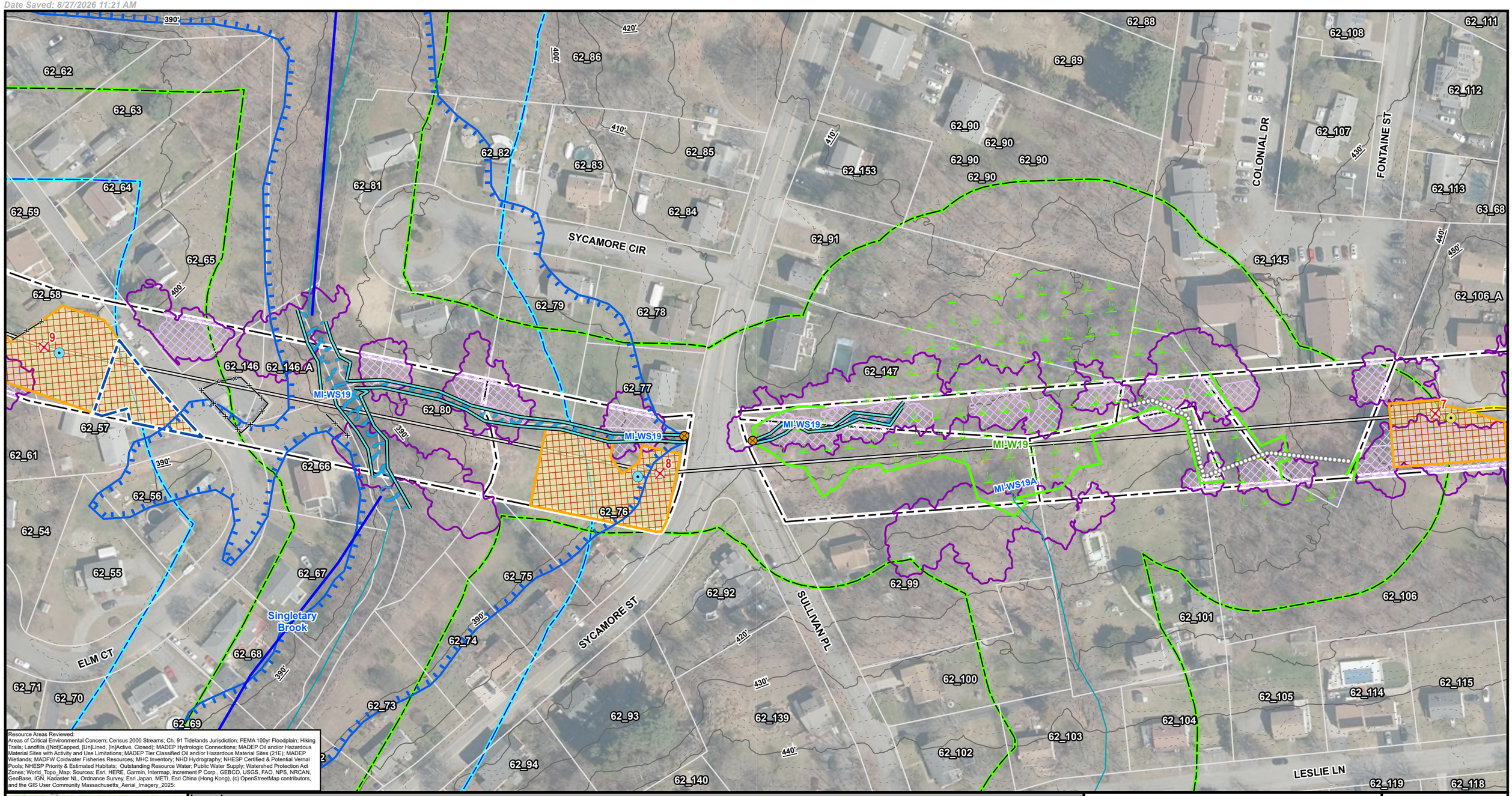
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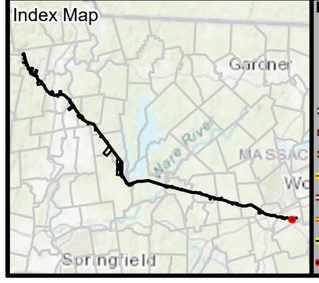
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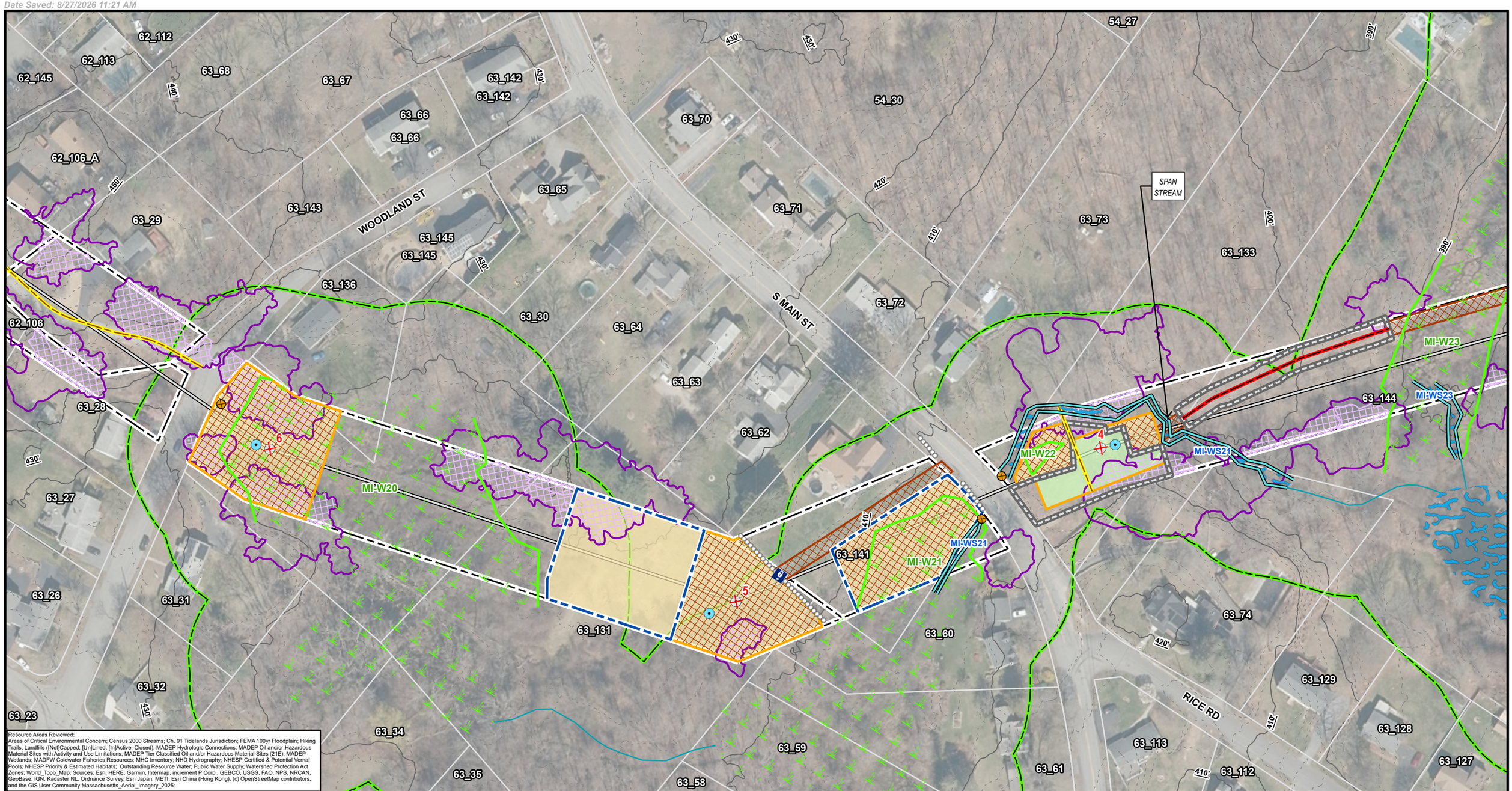
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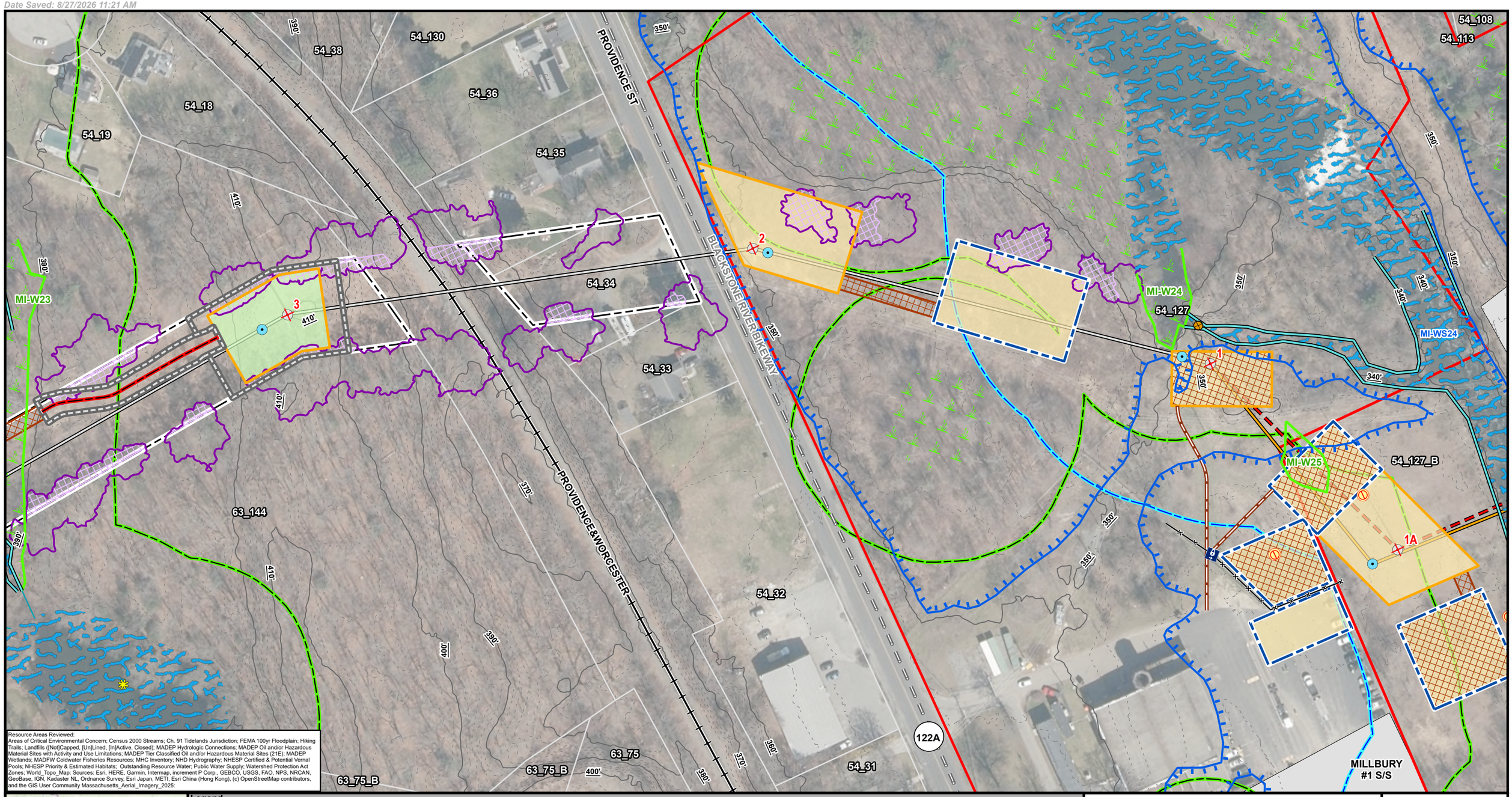
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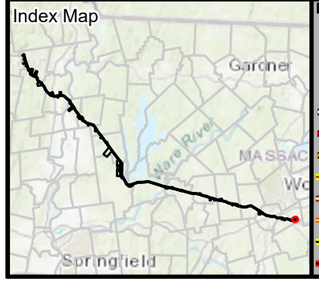
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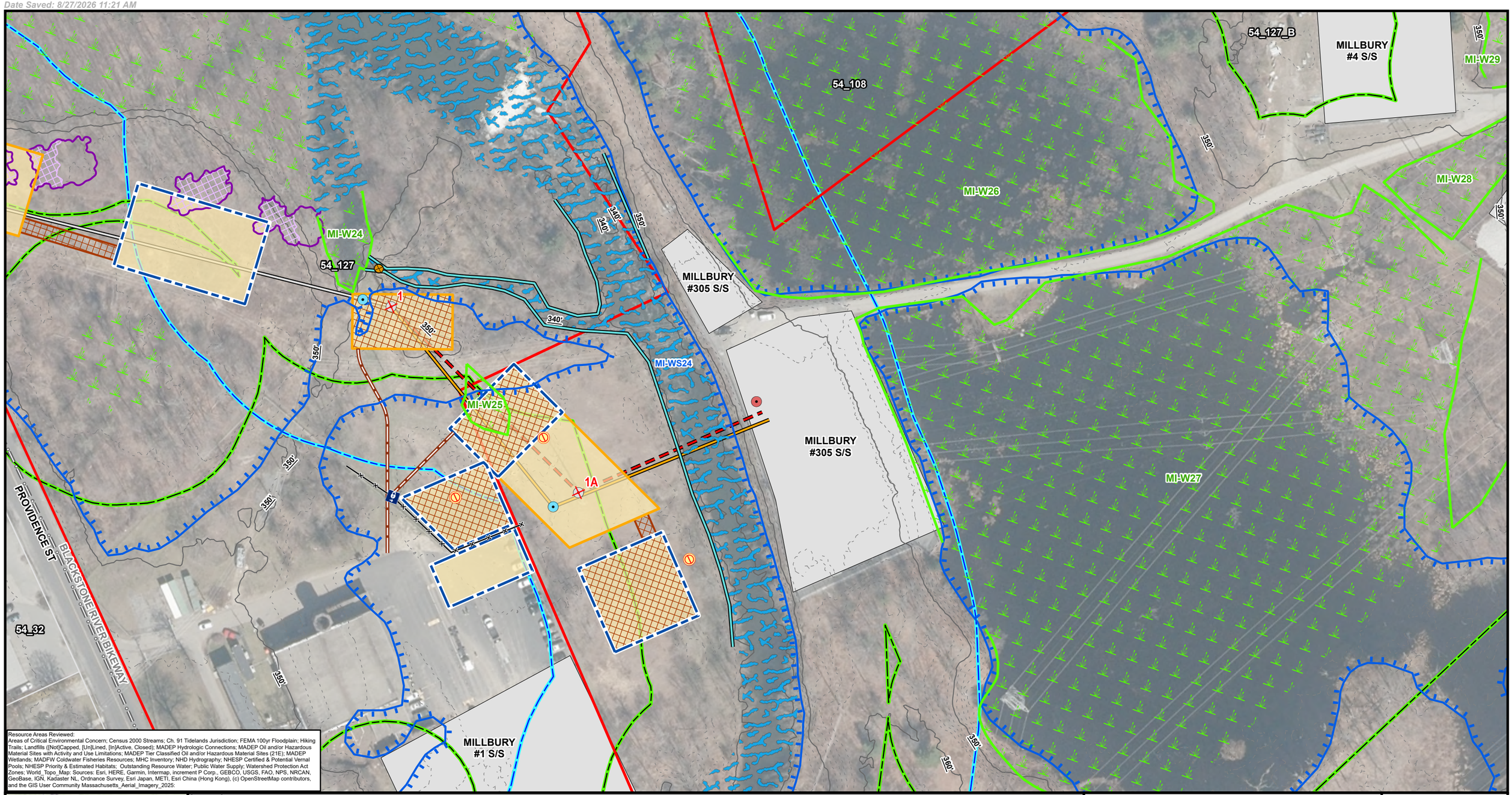
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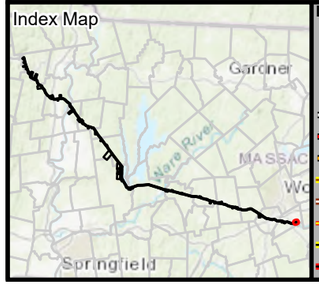
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

Environmental Resources Map

Millbury, MA
Page 240 of 240

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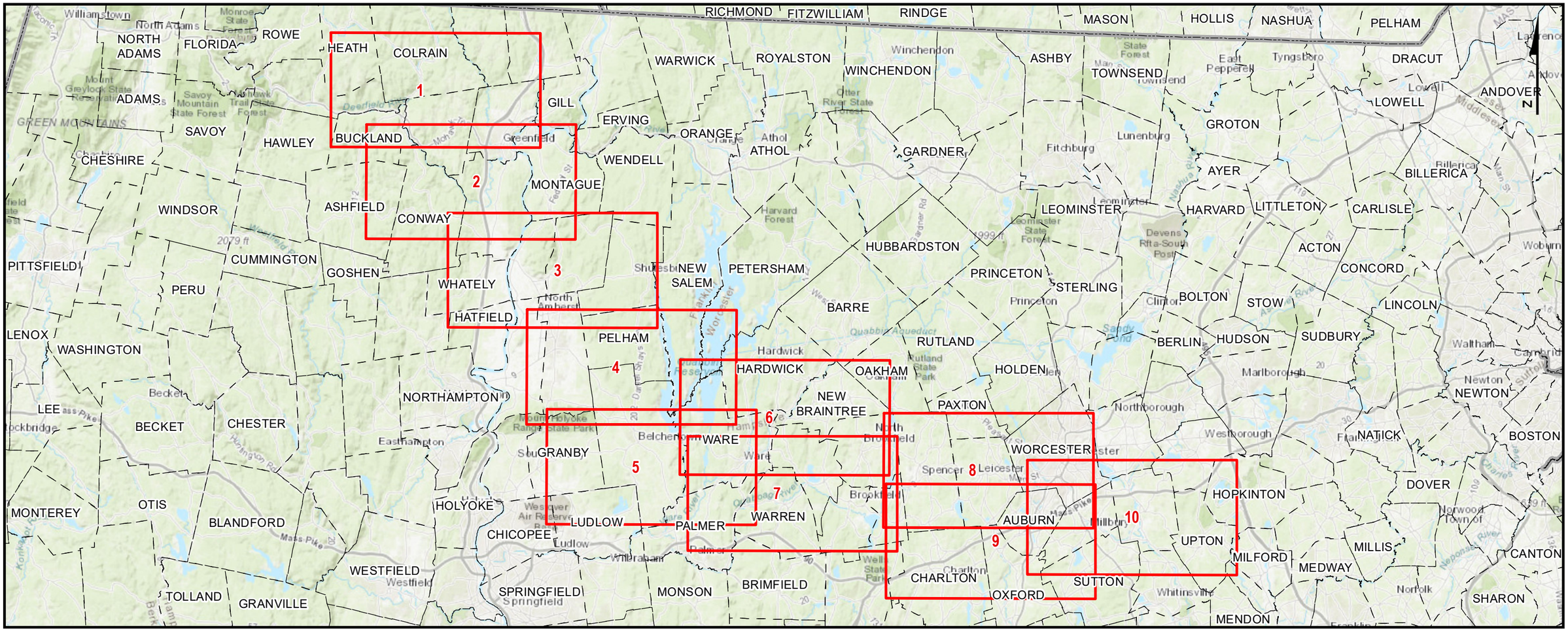
BSC Project Number: 100181.00

Central to Western Massachusetts Energy Improvement Project

Environmental Justice Populations Site Location

Shelburne, Buckland, Conway, Deerfield, Sunderland, Leverett, Shutesbury, Pelham, Belchertown, Ware, West Brookfield, North Brookfield, East Brookfield, Spencer, Leicester, Auburn & Millbury, MA

August 2026



INDEX OF FIGURES

T1 - TITLE SHEET
S1 - SITE LOCATION MAP
1 - 10 - MAP SHEETS

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NOT CONSTRUCTION

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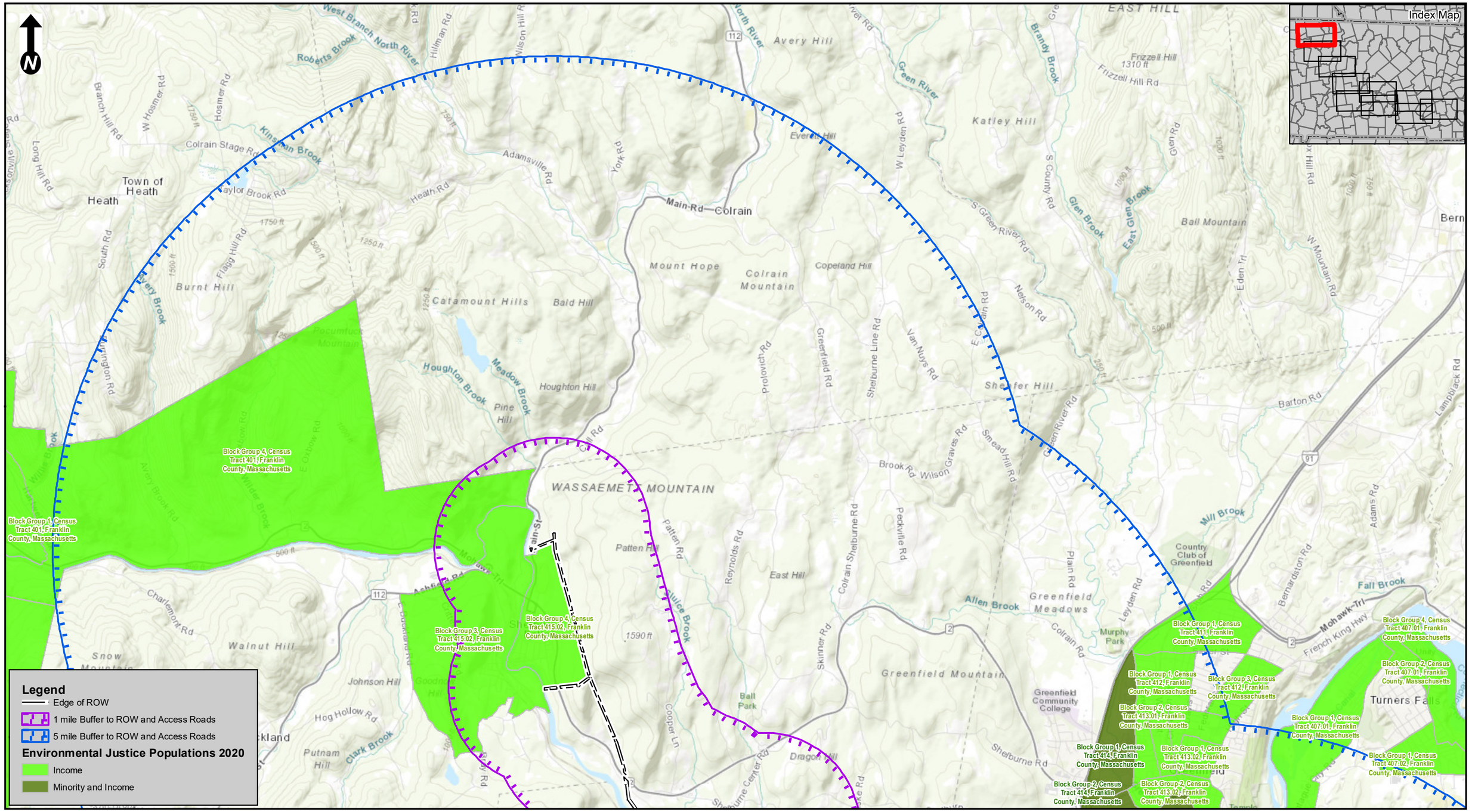
170 Data Drive
Waltham, MA 02451

PREPARED BY:

BSC GROUP

803 Summer Street, Third Floor
Boston, MA 02127

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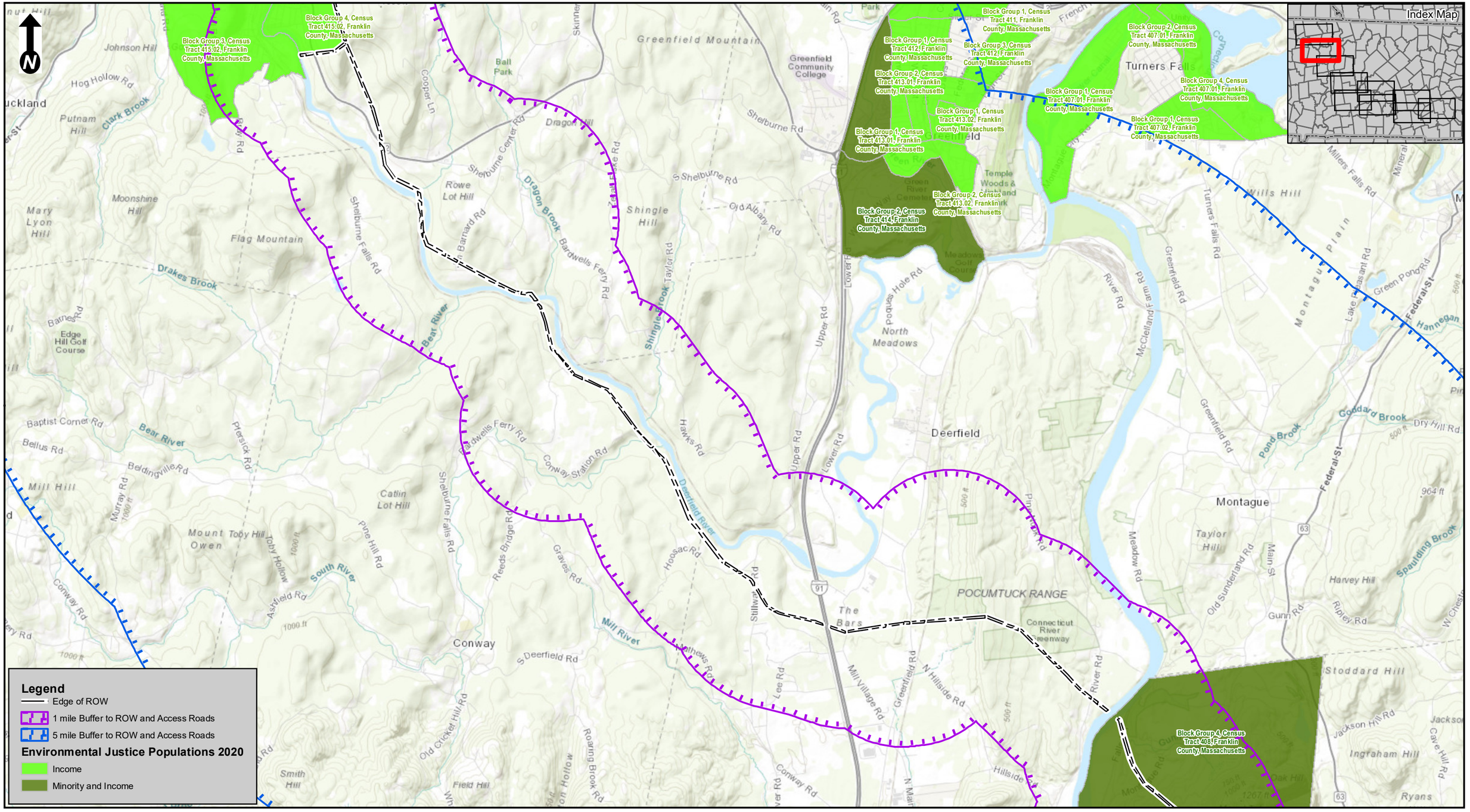
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
Shelburne, MA
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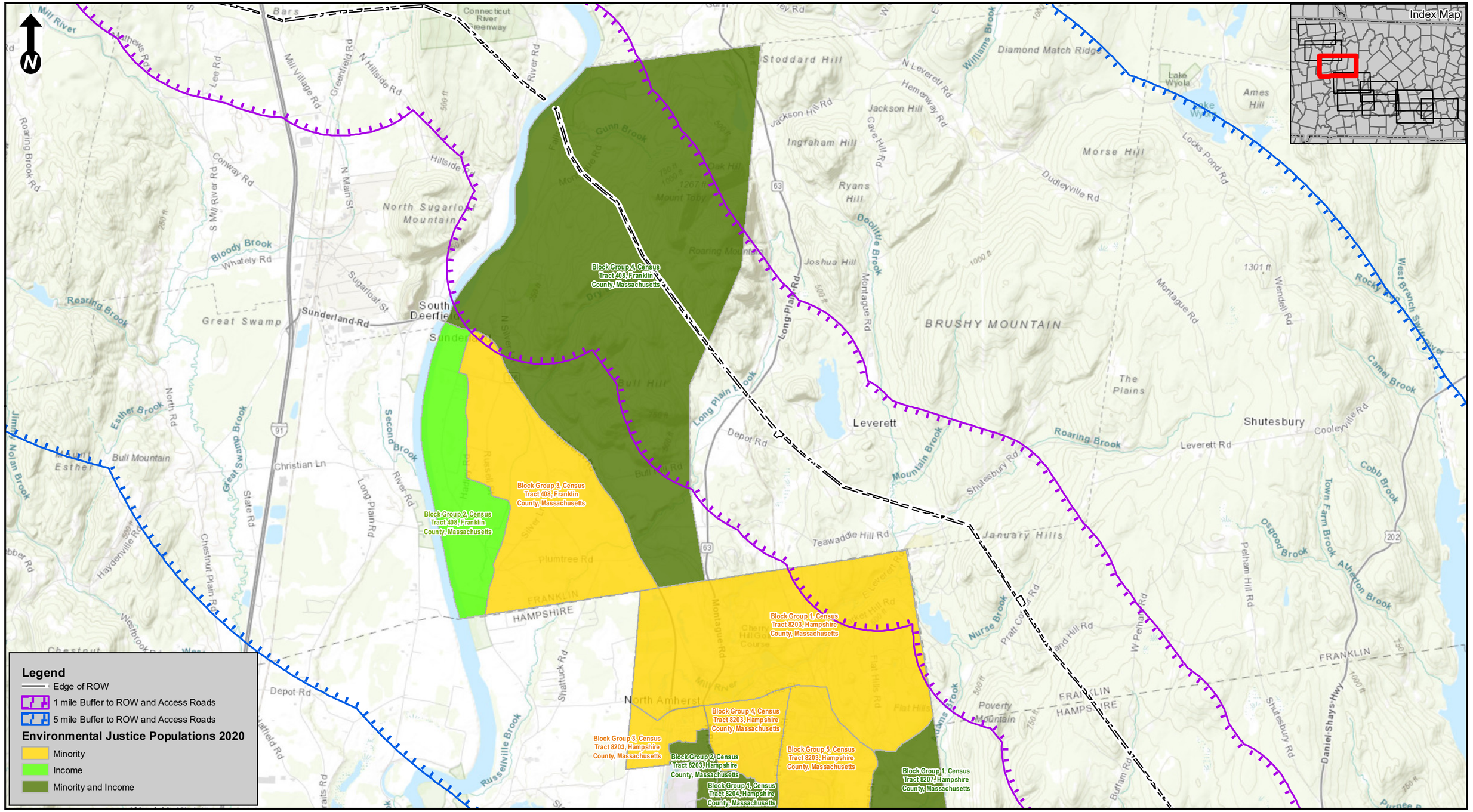
CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
Shelburne, Conway, Deerfield & Sunderland, MA
Page 2 of 10

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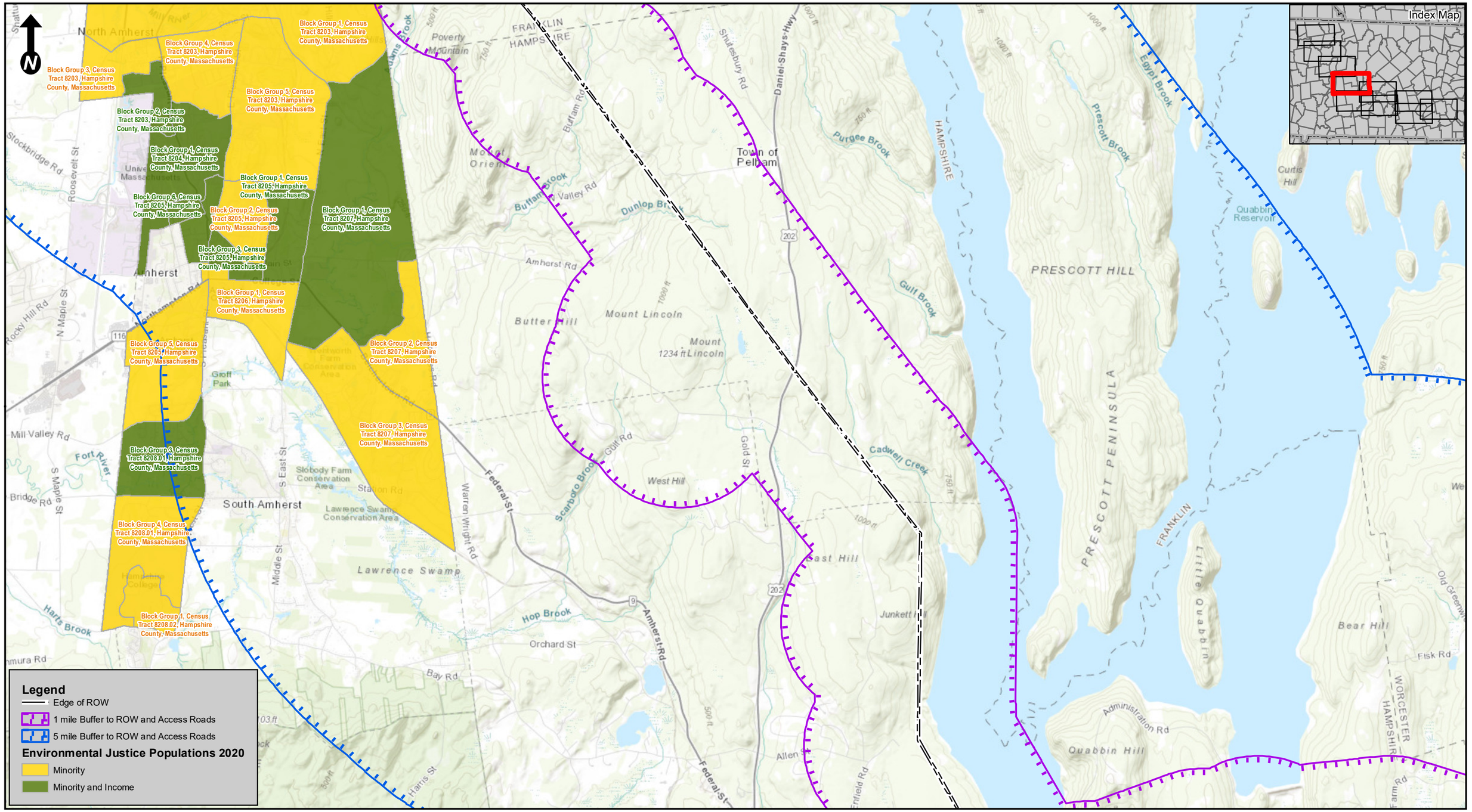
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Index Map
Block Group 4, Census Tract 408, Franklin County, Massachusetts
Block Group 3, Census Tract 408, Franklin County, Massachusetts
Block Group 2, Census Tract 408, Franklin County, Massachusetts
Block Group 1, Census Tract 8203, Hampshire County, Massachusetts
Block Group 4, Census Tract 8203, Hampshire County, Massachusetts
Block Group 3, Census Tract 8203, Hampshire County, Massachusetts
Block Group 2, Census Tract 8203, Hampshire County, Massachusetts
Block Group 5, Census Tract 8203, Hampshire County, Massachusetts
Block Group 1, Census Tract 8207, Hampshire County, Massachusetts
Block Group 4, Census Tract 8204, Hampshire County, Massachusetts
Legend
Edge of ROW
1 mile Buffer to ROW and Access Roads
5 mile Buffer to ROW and Access Roads
Environmental Justice Populations 2020
Minority
Income
Minority and Income
Deerfield
Sunderland
South Deerfield
North Amherst
Leverett
Shutesbury
BRUSHY MOUNTAIN
North Sugarloaf Mountain
Stoddard Hill
Ingraham Hill
Ryans Hill
Joshua Hill
Bull Hill
Mount Toby
Roaring Mountain
Poverty Mountain
January Hills
Diamond Match Ridge
Morse Hill
Ames Hill
The Plains
Great Swamp
Bull Mountain
Esther
Gunn Brook
Bloody Brook
Roaring Brook
Esther Brook
Second Brook
Great Swamp Brook
Long Plain Brook
Doolittle Brook
Montague Rd
Mountain Brook
Nurse Brook
Camel Brook
Cobb Brook
Town Farm Brook
Atherton Brook
Osgood Brook
Rocky Hill Brook
West Branch Swift River
Connecticut River Greenway
Mill River
Sunderland Rd
Whately Rd
Depot Rd
Teawaddle Hill Rd
Dudleyville Rd
Locks Pond Rd
Leverett Rd
Shutesbury Rd
Cooleyville Rd
Wendell Rd
Daniel Shays Hwy
Pelham Hill Rd
W Pelham Rd
Buffam Rd
Pratt Corner Rd
Sugarloaf St
Hillside Rd
N Main St
Mill Village Rd
Greenfield Rd
N Hillside Rd
Lee Rd
Conway Rd
S Mill River Rd
Roaring Brook Rd
Mill River
Matthews Rd
River Rd
Long Plain Rd
Shattuck Rd
Russellville Brook
Christian Ln
State Rd
Chestnut Plain Rd
Haydenville Rd
Westbrook Rd
Plumtree Rd
Bull Hill Rd
Flat Hills Rd
Jackson Hill Rd
Cave Hill Rd
Hemenway Rd
Williams Brook
Lake Wyola
Lake Wyola
Nolan Brook
Jimmy Brook
Chestnut
North Rd
Christian Ln
Depot Rd
Leverett Rd
Shutesbury Rd
Teawaddle Hill Rd
Nurse Brook
Poverty Mountain
Buffam Rd
Daniel Shays Hwy
Pelham Hill Rd
Osgood Brook
Atherton Brook
Town Farm Brook
Cobb Brook
Camel Brook
Rocky Hill Brook
West Branch Swift River
Locks Pond Rd
Dudleyville Rd
Montague Rd
Wendell Rd
Cooleyville Rd
Shutesbury Rd
Daniel Shays Hwy
Pelham Hill Rd
W Pelham Rd
Buffam Rd
Pratt Corner Rd
Nurse Brook
Poverty Mountain
Flat Hills Rd
Bull Hill Rd
Plumtree Rd
Shattuck Rd
Russellville Brook
Christian Ln
State Rd
Chestnut Plain Rd
Haydenville Rd
Westbrook Rd

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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT

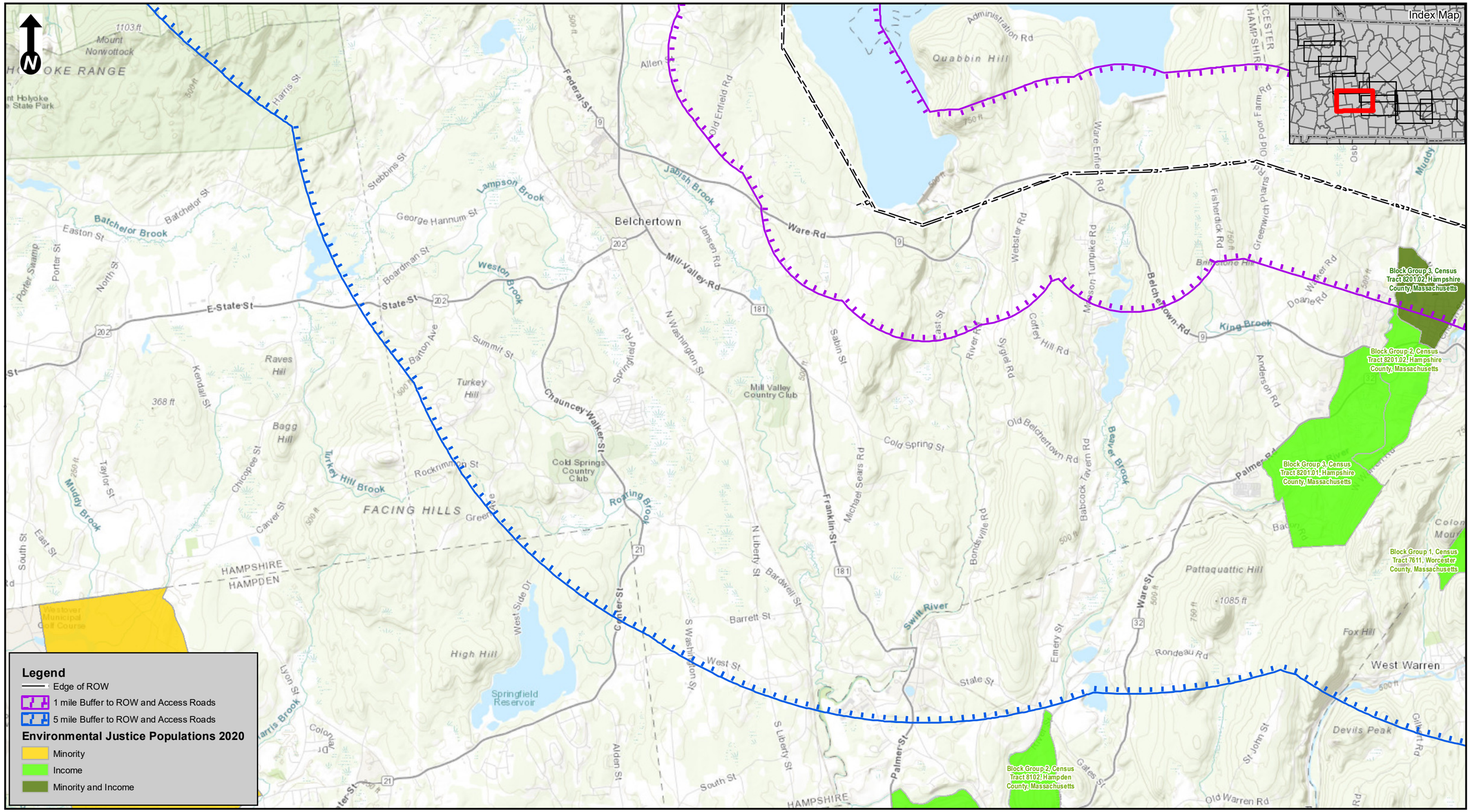
Environmental Justice Populations Site Location Map
Shutesbury, Pelham & Belchertown, MA
Page 4 of 10

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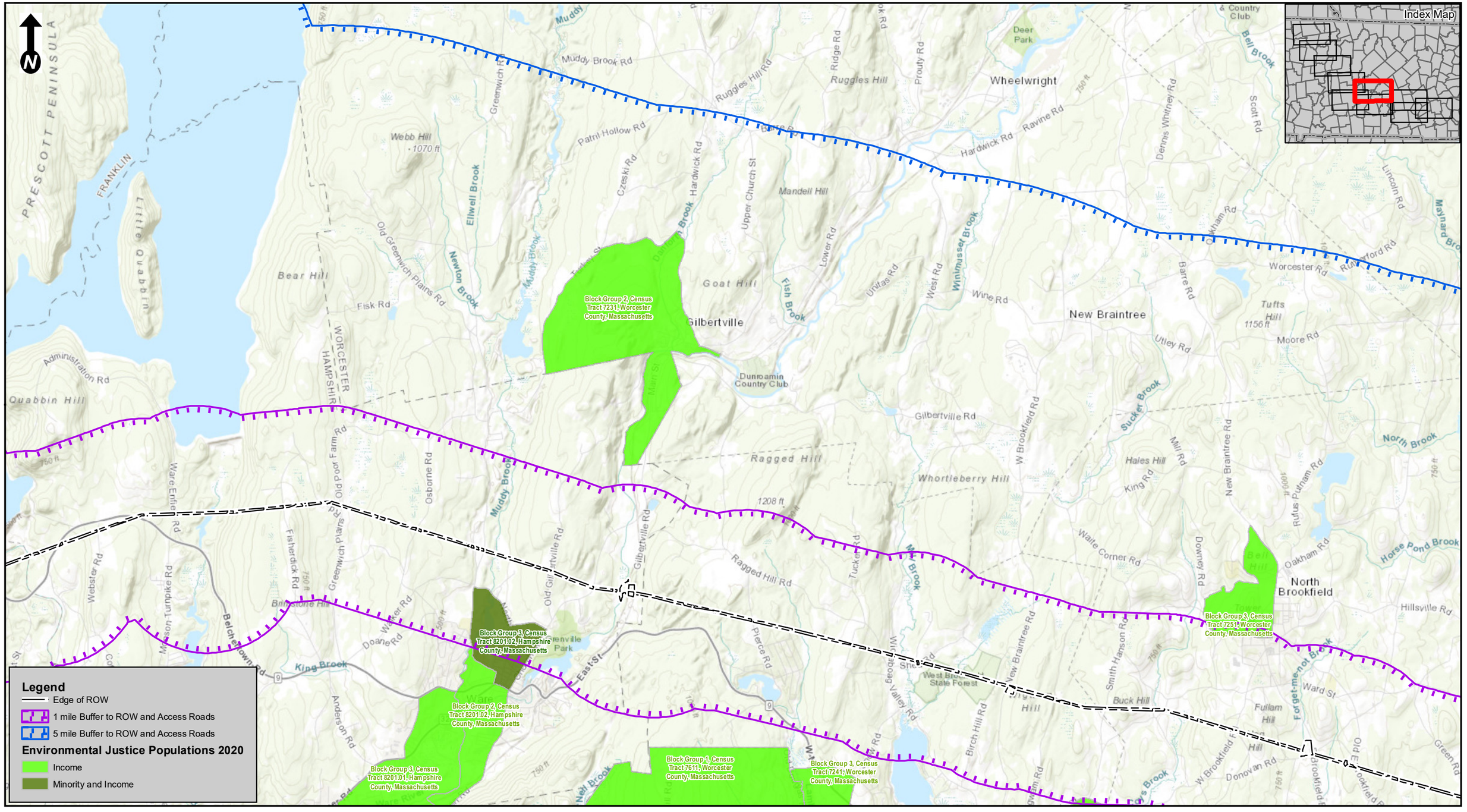
CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
Belchertown & Ware, MA
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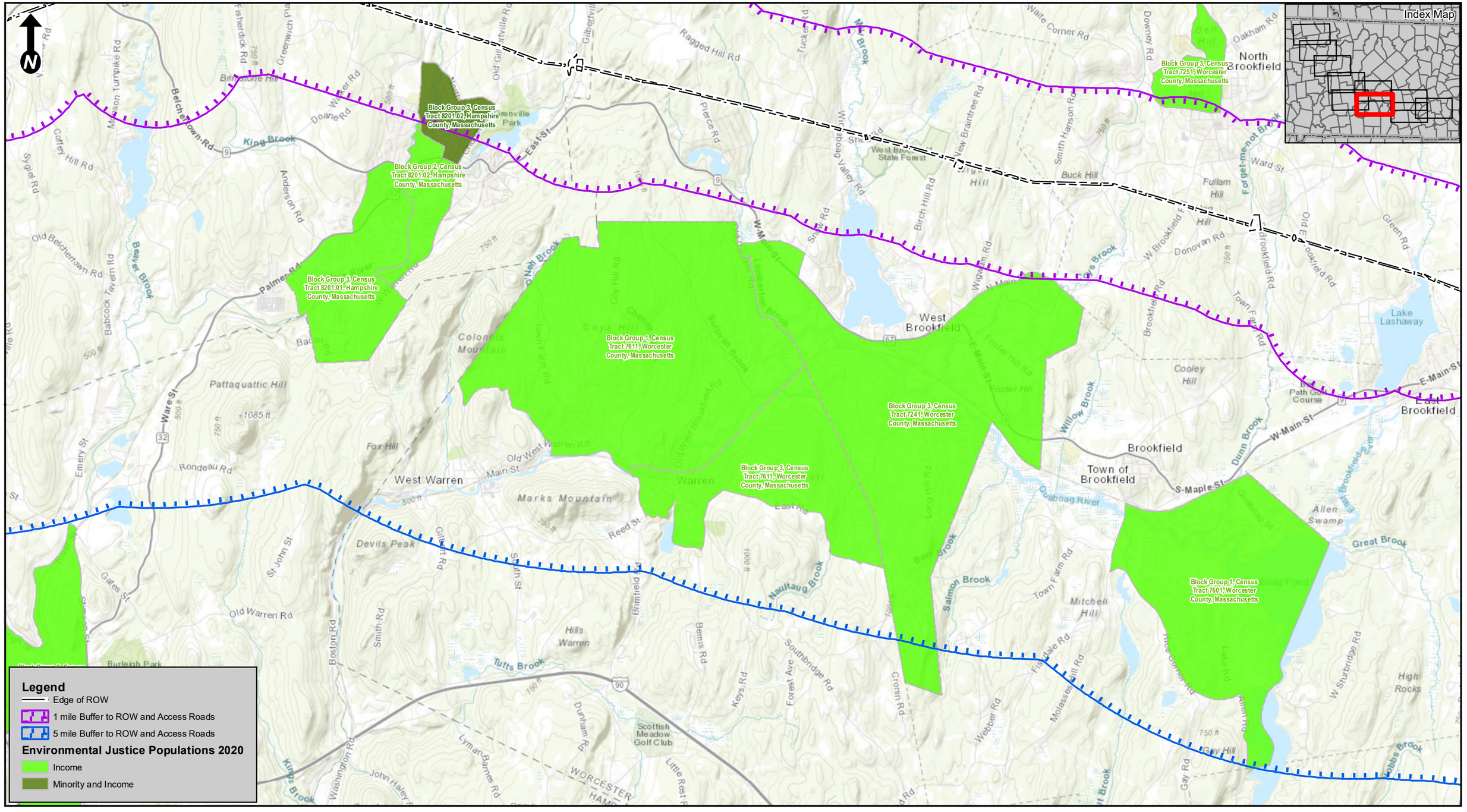
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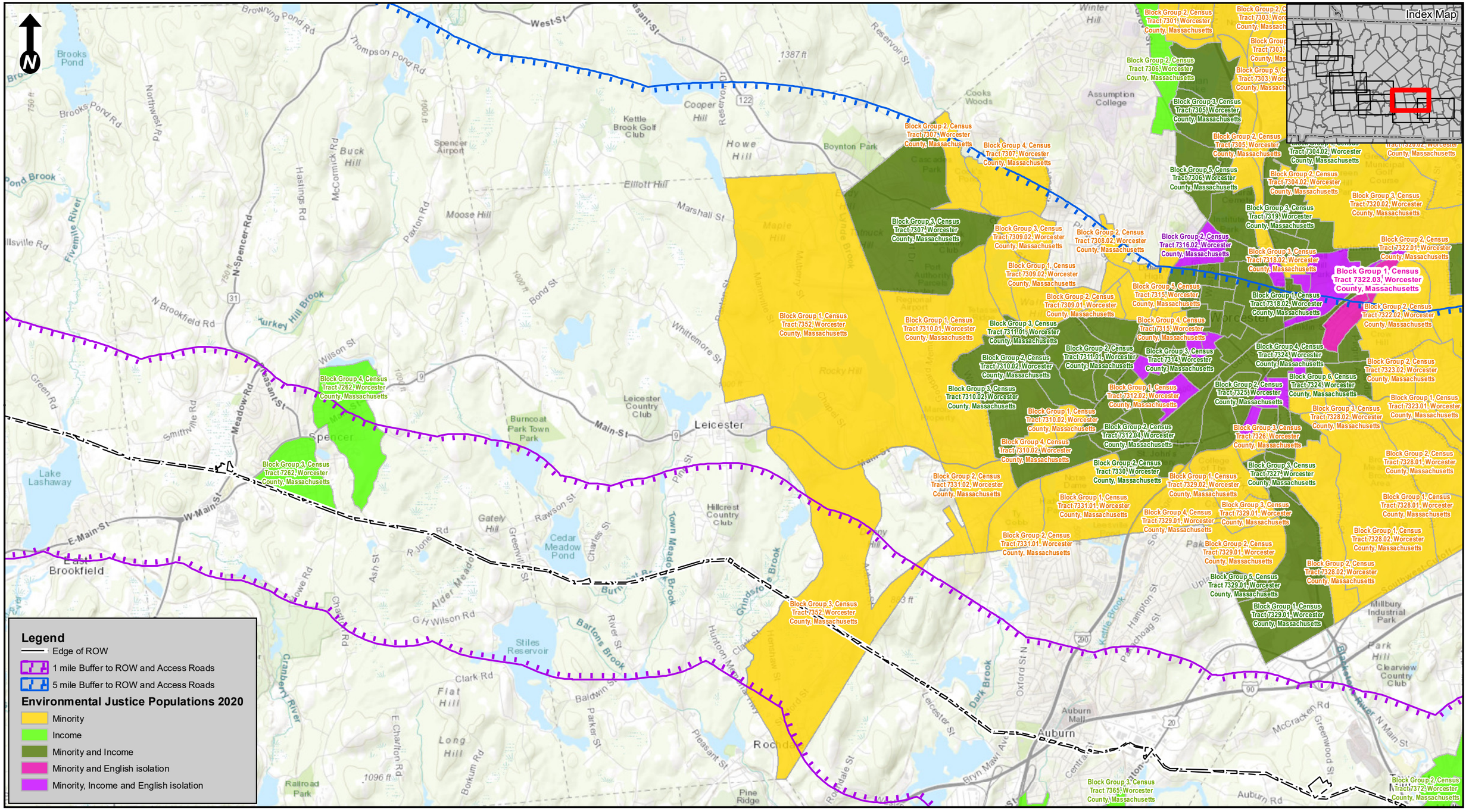
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
Ware, West Brookfield, North Brookfield & East Brookfield, MA
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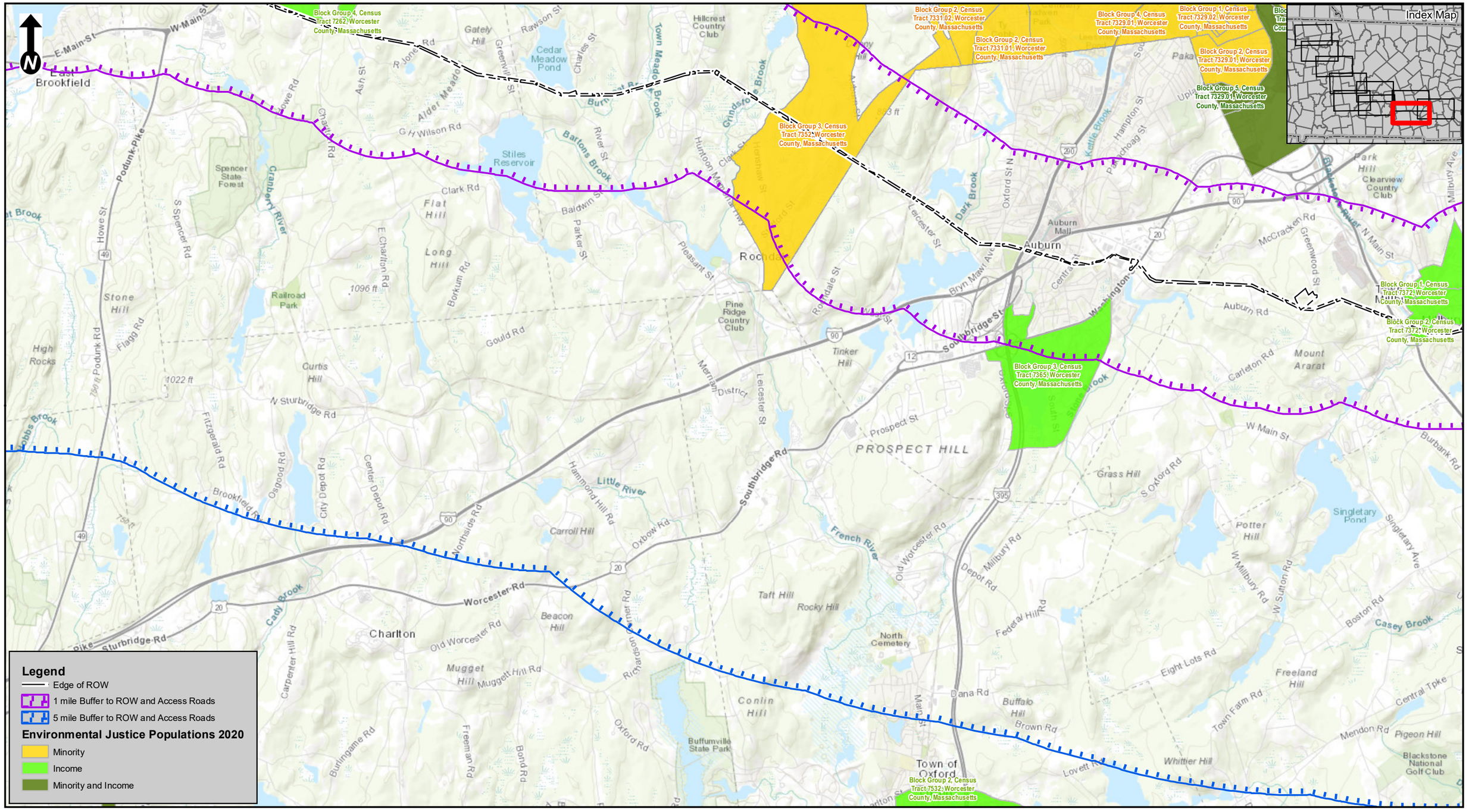
CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
North Brookfield, East Brookfield, Spencer, Leicester, Auburn & Millbury, MA
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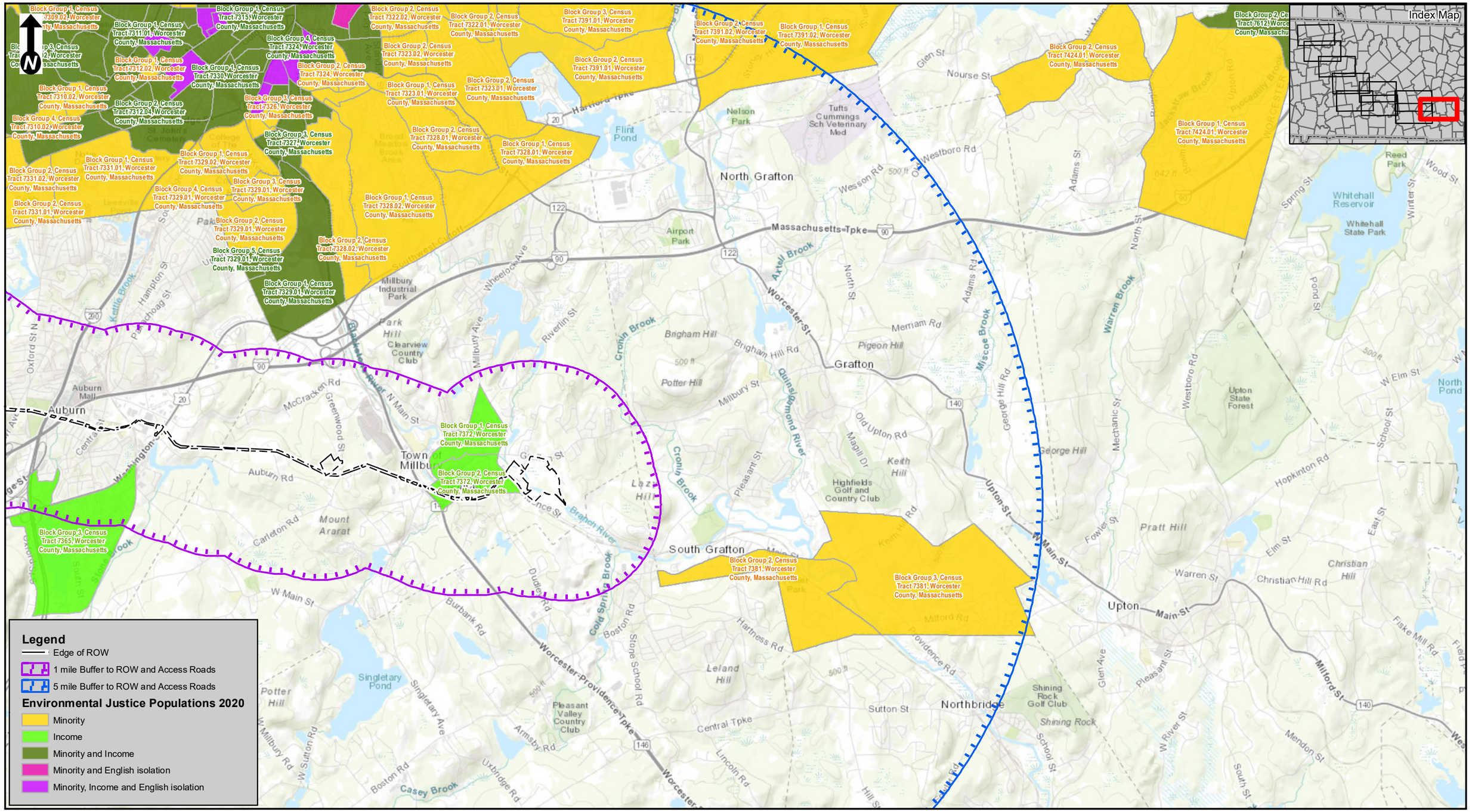
CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
Spencer, Leicester, Auburn & Millbury, MA
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CENTRAL TO WESTERN MASSACHUSETTS ENERGY IMPROVEMENT PROJECT
Environmental Justice Populations Site Location Map
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Appendix B – FEIR Distribution List

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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Massachusetts Environmental Policy Act (MEPA) Distribution List

Agency	Email Address	Address
Massachusetts Environmental Policy Act (MEPA) Office	MEPA@mass.gov	**MEPA Office** 100 Cambridge Street, Suite 900 Boston, MA 02114
Department of Environmental Protection, Boston Office	MassDEP.MEPA@mass.gov	**Commissioner's Office** One Winter Street Boston, MA 02108
Department of Environmental Protection, Appropriate Regional Office and to each program from which a permit will be sought	Sean.Gonsalves@mass.gov	**DEP/Western Regional Office** Attn: MEPA Coordinator State House West - 4th floor 436 Dwight Street Springfield, MA 01103
	andrea.briggs@mass.gov	**DEP/Central Regional Office** Attn: MEPA Coordinator 8 New Bond Street Worcester, MA 01606
Massachusetts Department of Transportation - Boston	MassDOTPPDU@dot.state.ma.us	**Public/Private Development Unit** 10 Park Plaza, Suite #4150 Boston, MA 02116
Massachusetts Department of Transportation – District Office	Brian.Ducey@dot.state.ma.us	**District #1** Attn: MEPA Coordinator 270 Main Street Lenox, MA 01240
	bao.lang@dot.state.ma.us garrett.postema@dot.state.ma.us	**District #2** Attn: MEPA Coordinator 811 North King Street Northampton, MA 01060
	Christopher.P.Silva@dot.state.ma.us Eric.Nascimento@dot.state.ma.us	**District #3** Attn: MEPA Coordinator 499 Plantation Parkway Worcester, MA 01605
Massachusetts Historical Commission	Mail one hard copy of the filing to MHC	**The MA Archives Building** 220 Morrissey Boulevard Boston, MA 02125
Applicable Regional Planning Agency	mepafiling@cmrpc.org	**Central Massachusetts Regional Planning Commission (CMRPC)** 1 Mercantile Street, Suite 520 Worcester, MA 01608
	jatwood@frcog.org kmacphee@frcog.org adonlon@frcog.org and 1 hard copy	**Franklin Regional Council of Governments (FRCoG)** Attn: Jessica Atwood 12 Olive Street Greenfield, MA 01301

Agency	Email Address	Address
If the Project is located within five miles of an Environmental Justice Population	MEPA-EJ@mass.gov	**MEPA Office** Attn: EEA EJ Director 100 Cambridge Street, Suite 900 Boston, MA 02144
If the Project site is within or contains designated significant or estimated habitat, or priority sites of endangered or threatened species or species of special concern in accordance with the Massachusetts Endangered Species Act	melany.cheeseman@mass.gov emily.holt@mass.gov	**Natural Heritage and Endangered Species Program** Division of Fisheries & Wildlife 1 Rabbit Hill Road Westborough, MA 01581
If the Project affects DCR roadways, watersheds or other properties or an ACEC	andy.backman@mass.gov	**DCR** Attn: MEPA Coordinator 251 Causeway Street, Suite 600 Boston, MA 02114
If the Project implicates public health impacts	dphtoxicology@massmail.state.ma.us	**Department of Public Health** Director of Environmental Health 250 Washington Street Boston, MA 02115
If the Project is subject to Greenhouse Gas Emissions Policy or to review by Energy Facilities Siting Board	andrew.greene@mass.gov yonathan.mengesha@mass.gov	**Energy Facilities Siting Board** Attn: MEPA Coordinator One South Station Boston, MA 02110
	paul.ormond@mass.gov	**Department of Energy Resources** Attn: MEPA Coordinator 100 Cambridge Street, 10th floor Boston, MA 02114

Municipal Contacts

Municipality	Email Address	Address
Millbury	Board of Selectmen afleming@millburyma.gov	127 Elm Street Millbury, MA 01527
	Board of Health millburyboh@millburyma.gov jschold@millburyma.gov	
	Planning Board vpanak@millburyma.gov	
	Conservation Commission rfoley@millburyma.gov	
	Millbury Public Library adallair@millburyma.gov	128 Elm Street Millbury, MA 01527
Auburn	Select Board https://www.auburnma.gov/formcenter/Contact-Us-Forms-10/Contact-Us-Select-Board-56	104 Central Street Auburn, MA 01501
	Board of Health https://www.auburnma.gov/FormCenter/Contact-Us-Forms-10/Contact-Us-Public-Health-Department-64	
	Conservation Commission https://www.auburnma.gov/formcenter/Contact-Us-Forms-10/Contact-Us-Conservation-Commission-60	
	Planning Board https://www.auburnma.gov/formcenter/Contact-Us-Forms-10/Contact-Us-Planning-Department-63	
	Auburn Public Library mzeller@auburnma.gov	369 Southbridge Street Auburn, MA 01501
Leicester	Board of Health kampet@leicesterma.org	7 Washburn Square Leicester, MA 01524
	Conservation Commission Attn: Lisa Westwell https://www.leicesterma.org/formcenter/Conservation-Commission-21/Conservation-Commission-111	3 Washburn Square Leicester, MA 01524
	Land Use & Planning Board Attn: Kristin Jacobsen https://www.leicesterma.org/formcenter/Land-Use-13/Contact-Land-Use-Department-55	
	Select Board Attn: Doug Belanger https://www.leicesterma.org/formcenter/Select-Board-23/Contact-Select-Board-105	
	Leicester Public Library https://www.leicesterma.org/formcenter/Library-Trustees-54/Contact-Library-Trustees-148	1136 Main Street Leicester, MA 01524

Municipality	Email Address	Address
Spencer	Board of Health ldaoust@spencerma.gov	157 Main Street Spencer, MA 01562
	Board of Selectmen scampbell@spencerma.gov	
	Planning Board vpoplawski@spencerma.gov	
	Conservation Commission Sdeluca@spencerma.gov Conservation@spencerma.gov	
	Richard Sugden Library cdonahue@cwmars.org	8 Pleasant Street Spencer, MA 01562
East Brookfield	Board of Health ebboh0343@eastbrookfieldma.us	122 Connie Mack Drive East Brookfield, MA 01515
	Conservation Commission conservation@eastbrookfieldma.us	
	Board of Selectmen ebbos300@eastbrookfieldma.us	
	Planning Board https://www.eastbrookfieldma.us/user/566/contact	
	East Brookfield Public Library ebplibrary@gmail.com	
North Brookfield	Board of Health health@northbrookfield.net	215 North Main Street North Brookfield, MA 01535
	Conservation Commission concomm01535@gmail.com	
	Board of Selectmen selectmen@northbrookfield.net	
	Planning Board whking2005@gmail.com	
	Haston Free Public Library nbdirector@cwmars.org	161 N Main Street North Brookfield, MA 01535
West Brookfield	Board of Health boh@wbrookfield.com	2 East Main Street West Brookfield, MA 01585
	Board of Selectmen bos@wbrookfield.com	
	Conservation Commission pskowyra@wbrookfield.com	
	Planning Board mbarnes@wbrookfield.com	
	Merriam-Gilbert Public Library merriamgilbert@gmail.com	3 W Main Street West Brookfield, MA 01585

Municipality	Email Address	Address
Ware	Health Department acrete@townofware.com	Town Hall 126 Main Street Ware, MA 01082
	Selectboard sbeckley@townofware.com	
	Conservation Commission jprenosil@townofware.com	
	Planning & Community Development Department psmith@townofware.com	
	Young Men's Library Association hreed@cwmars.org	37 Main Street Ware, MA 01082
Belchertown	Health Department (see Town of Ware's Health Department contact)	Town Hall 2 Jabish Street Belchertown, MA 01007-0670
	Conservation Commission conservation@belchertown.org	
	Planning Board planning@belchertown.org	
	Select Board selectboard@belchertown.org	The Finnerty House One South Main Street Belchertown, MA 01007
	Clapp Memorial Library charbeson@cwmars.org	19 S Main Street Belchertown, MA 01007
Pelham	Health Department (see Town of Ware's Health Department contact)	351 Amherst Road Pelham, MA 01002
	Conservation Commission conservationagent@pelhamma.gov	
	Planning Board planning@pelhamma.gov	
	Select Board executiveassistant@pelhamma.gov	
	Pelham Free Public Library library.pelham@gmail.com	2 S Valley Rd, Pelham, MA 01002
Shutesbury	Board of Health boardhealth@shutesbury.org	1 Cooleyville Road, Shutesbury, MA 01072
	Planning Board planning@shutesbury.org	
	Select Board selectboard@shutesbury.org	
	Conservation Commission landuseclerk@shutesbury.org concom@shutesbury.org	
	M N Spear Memorial Library library.director@shutesbury.org	10 Cooleyville Rd, Shutesbury, MA 01072

Municipality	Email Address	Address
Leverett	Board of Health boardofhealth@leverett.ma.us	9 Montague Road Leverett, MA 01054
	Select Board selectboard@leverett.ma.us	
	Planning Board planningbd@leverett.ma.us	
	Conservation Commission leverettconcom@gmail.com	
	Leverett Library leverettlibrary@gmail.com	75 Montague Road Leverett, MA 01054
Sunderland	Board of Health *Not Available*	12 School Street Sunderland, MA 01375
	Conservation Commission conservation@townofsunderland.us	
	Planning Board droscoe@pvpc.org	
	Selectboard *Not Available*	
	Sunderland Public Library director@sunderlandpubliclibrary.org	20 School Street Sunderland, MA 01375
Deerfield	Board of Health healthagent@town.deerfield.ma.us	8 Conway Street Deerfield Municipal Offices South Deerfield, MA 01373
	Conservation Commission landuse@town.deerfield.ma.us	
	Planning Board (see Town of Deerfield's Conservation Commission's contact)	
	Selectboard thilchey@town.deerfield.ma.us	
	Tilton Library tiltonlibrary@cwmars.org	75 N Main Street South Deerfield, MA 01373
Conway	Board of Health boardofhealth@conwayma.gov	32 Main Street PO Box 240 Conway, MA 01341
	Conservation Commission concomm@conwayma.gov	
	Planning Board planningboard@conwayma.gov	
	Select Board cwaldo@conwayma.gov	Town Hall 5 Academy Hill Road Conway, MA 01341
	Field Memorial Library director@fieldmemoriallibrary.org	1 Elm Street Conway, MA 01341

Municipality	Email Address	Address
Shelburne	Board of Health Boardofhealth@townofshelburnema.gov	51 Bridge Street Shelburne, MA 01370
	Conservation Commission conservation@townofshelburnema.gov	
	Planning Board Planningboard@townofshelburnema.gov	
	Selectboard townadmin@townofshelburnema.gov	51 Bridge Street, Shelburne, MA 01370
	Shelburne Free Public Library sfplibrary@cwmars.org	233 Shelburne Center Road, Shelburne Falls, MA 01370
Buckland	Board of Health Bucklandhealth@town.buckland.ma.us	17 State Street Shelburne Falls, MA 01370
	Conservation Commission concom@town.buckland.ma.us	
	Planning Board PlanningBoard@town.buckland.ma.us	
	Select Board Cphillips@town.buckland.ma.us	
	Library https://bucklandpubliclibrary.org/faq/	30 Upper Street Buckland, MA 01338

NEP will make an attempt to provide a link to the FEIR through online portals.

Environmental Justice (EJ) Reference List

First Name	Last Name	Title	Phone	Email	Affiliation
Kerry	Bowie	Board President	Not Provided	kerry@msaadapartners.com	Browning the GreenSpace
Alma	Gordon	President	Not Provided	tribalcouncil@chappaquiddickwampanoag.org	Chappaquiddick Tribe of the Wampanoag Nation
Patricia	D. Rocker	Council Chair	Not Provided	rockerpatriciad@verizon.net	Chappaquiddick Tribe of the Wampanoag Nation, Whale Clan
Cindy	Luppi	New England Director	(617) 338-8131 x208	cluppi@cleanwater.org	Clean Water Action
Sylvia	Broude	Executive Director	(617) 292-4821	sylvia@communityactionworks.org	Community Action Works
Melissa	Langley	Lab and Monitoring Coordinator	Not Provided	mlangley@ctriver.org	Connecticut River Conservancy
Alex	St. Pierre	Director of Communities & Toxics	Not Provided	aestpierre@clf.org	Conservation Law Foundation
Paulina	Muratore	Director of Transportation Justice and Infrastructure	Not Provided	pmuratore@clf.org	Conservation Law Foundation
Breanne	Frank	Associate Attorney	Not Provided	bfrank@clf.org	Conservation Law Foundation
Britteny	Jenkins	Vice President	Not Provided	Bjenkins@clf.org	Conservation Law Foundation
Phil	Papiasvili	Staff Attorney	Not Provided	ppapiasvili@clf.org	Conservation Law Foundation
Priya	Gandbhir	Director of Clean Power	Not Provided	pgandbhir@clf.org	Conservation Law Foundation
Julia	Carlton MacKay	Director of Community Resilience	Not Provided	jcarltonmackay@clf.org	Conservation Law Foundation
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Library Distribution List

Library Name	Municipality	Type of Distribution	Distribution Address (if Applicable)
Millbury Public Library	Millbury	Requested no copy	N/A
Auburn Public Library	Auburn	Requested physical copy	369 Southbridge Street Auburn, MA 01501
Leicester Public Library	Leicester	Requested no copy	N/A
Richard Sugden Library	Spencer	Requested no copy	N/A
East Brookfield Public Library	East Brookfield	Requested physical copy	122 Connie Mack Drive East Brookfield, MA 01515
Haston Free Public Library	North Brookfield	Requested electronic copy previously	nbdirector@cwmars.org
Merriam-Gilbert Public Library	West Brookfield	Requested electronic copy	merriamgilbert@gmail.com
Young Men's Library Association	Ware	Requested no copy	N/A
Clapp Memorial Library	Belchertown	Requested no copy	N/A
Pelham Free Public Library	Pelham	Requested physical copy	2 S Valley Rd, Pelham, MA 01002
M N Spear Memorial Library	Shutesbury	Requested no copy	N/A
Leverett Library	Leverett	Requested no copy	N/A
Sunderland Public Library	Sunderland	Requested no copy	N/A
Tilton Library	Deerfield	Requested physical copy previously	75 N Main Street South Deerfield, MA 01373
Field Memorial Library	Conway	Requested physical copy	1 Elm Street Conway, MA 01341
Shelburne Free Public Library	Shelburne	Requested electronic copy	eantaya@cwmars.org
Buckland Public Library	Buckland	Requested no copy	N/A

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Appendix C – Delineated Secretary's Certificate and Comment Letters

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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Maura T. Healey
Governor

Kimberley Driscoll
Lieutenant Governor

Rebecca L. Tepper
Secretary

January 16, 2026

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

PROJECT NAME	: Central to Western Massachusetts Energy Improvement Project
PROJECT MUNICIPALITY	: Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield
PROJECT WATERSHED	: Blackstone, Chicopee, Connecticut, Deerfield, and French
EEA NUMBER	: 16913
PROJECT PROPONENT	: New England Power Company
DATE NOTICED IN MONITOR	: November 7, 2025

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62L) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Draft Environmental Impact Report (DEIR) and hereby determine that it **adequately and properly complies** with MEPA and its implementing regulations. The Proponent may prepare and submit for review a Final Environmental Impact Report (FEIR).

Project Description

As described in the DEIR, the project consists of asset condition and refurbishment (ACR) activities along the New England Power Company's (NEP's) existing E5 and F6 transmission lines ("E5/F6 Lines" or "the Lines") and seven interconnecting Tap Lines ("Taps" or Tap Lines").[1] The E5/F6 Lines are 69-kilovolt (kV) double-circuit overhead transmission lines. According to the Proponent, the Lines were originally constructed in the early 1900's and, despite refurbishments in 2001 and 2020, are among the least reliable lines in the NEP transmission system; as reported in the DEIR, the Lines have experienced 61 outages in the last

[1] Tap Lines are transmission lines that serve as a connection between a primary transmission line (i.e., the mainline) and a substation facility. NEP maintains rights of way (ROWs) along both the mainline and Tap Lines within the E5/F6 network.

five years. The structures and wires need replacement due to their condition, age, nonconformance with industry standards, and the presence of tall trees in the right-of-way (ROW) along the Lines and Tap Lines. The Tap Lines also have a poor operating history and have insufficient capacity to interconnect additional loads, including from renewable sources, to the electric grid. In addition, the condition of access for vehicles and equipment varies considerably throughout the ROWs. The primary purpose of the project is to complete system improvements that will address poor asset conditions and impediments to maintenance activities, mitigate potential risks of electrical failure, and provide long-term and reliable delivery of electrical service. An updated description of specific project components is provided below.

Structure Replacement

According to the DEIR, there are a total of 745 existing structures on the ROW, including 711 structures on the E5/F6 Lines and 34 structures on the Tap Lines.[2] The existing lattice, wood, and steel pole towers will be replaced with 696 steel monopole, double circuit, davit arm structures. The replacement structures will provide improved reliability and climate resilience through the use of steel structures and design features such as increased height to minimize storm damage to transmission lines. The replacement structures are on average 85 ft above ground (ranging from 70 ft to 145 ft in height), an increase in average height of 10 feet compared to existing structures. The new structures will be installed within the ROW approximately 5 feet away from the structures they will replace.

The new steel monopole structures will be constructed primarily on foundations directly embedded into the ground or on reinforced concrete caisson foundations; however, alternative foundation types such as a micropile foundation will be used if warranted by site conditions**.** Depending on site conditions, construction of direct embedment or caisson foundations will involve excavation using augurs, rock drills, backhoes, and excavators. For direct embedment foundations, a corrugated metal pipe casing will be placed vertically into the excavated hole and backfilled with controlled low-strength material (CLSM). Caisson foundations will be constructed by drilling a vertical shaft, installing a casing and a steel reinforcing bar cage, placing anchor bolt clusters, pouring concrete, and backfilling as necessary. Micropile foundations, if needed, would be constructed by drilling holes into the ground, installing a casing in each hole, then drilling within the casing to the required depth for the micropile. Steel reinforcement would be placed within each drilled hole, which would then be filled with grout. A steel pile cap then would be fastened to the micropiles. The poles to be installed on any of the foundation types will be field assembled, lifted by cranes, and placed onto either the anchor bolts (caisson foundations), into the embedded corrugated metal pipe (direct embedment foundation), or bolted onto the stee pile cap (micropile foundation). According to the DEIR, it is estimated that the project will include 283 concrete caisson foundations, 240 micropile foundations, and 185 direct embedment foundations; however, the number of each type of foundation is subject to change based on geotechnical data that is still being collected.

Vegetation Management and Tree Removal

Mowing and tree removal will be conducted within the ROWs and outside of the ROW

[2] The ENF Certificate incorrectly indicated that there are a total of 711 structures on the E5/F6 Lines and Tap Lines.

("off-ROW") to provide access to the proposed structure locations, to facilitate safe vehicular and equipment passage, to provide safe work sites for personnel, and to meet conductor clearance requirements. According to the DEIR, the design and clearance requirement is primarily guided by applicable standards established by the North American Electric Reliability Corporation (NERC), the National Electric Safety Code (NESC), and the Proponent's own transmission engineering criteria. The NERC's Transmission Vegetation Management standards (FAC-003-4) require that vegetation management be performed "to manage vegetation located on transmission rights-of-way and minimize encroachments from vegetation-related outages that could lead to Cascading." According to the DEIR, high voltage transmission lines must be designed, constructed, and maintained to minimize the risk of interruptions from trees within the ROW that pose a danger to the lines.

According to the DEIR, approximately 240 acres of trees will be removed, including approximately 181 acres of trees from within the ROW and 59 acres of trees off-ROW. Pruning, rather than tree removal, will be used in some off-ROW access locations. The DEIR provided the following refined descriptions of proposed vegetation management:

- "Tree removal" refers to the complete removal of trees that would be required to ensure conformance with the appropriate vegetation management on ROW and off-ROW. The approach to assessing tree removal needs is based largely on analysis of aerial photography and Light Detection and Ranging ("LiDAR") data on tree canopy height, and provides a conservative estimate of the extent of tree removals needed to meet known minimum clearance requirements. As noted below, the project does not propose to clear-cut the ROW.
- "Off-ROW selective tree removal" refers to the evaluation of trees in the field to determine the need for complete removal. This methodology will be conducted along historically used off-ROW access where feasible and in coordination with landowners; only trees required to safely accommodate passage of construction equipment and vehicles will be removed off-ROW via selective tree removal.
- "Pruning" applies to areas where full tree removal is not required, but tree trimming (i.e., branches) is necessary to achieve the required clearance for structures, work areas, and access, both on and off-ROW.

The ROW will not be uniformly cleared of trees across its full width. As shown on the project plans included in the DEIR, there are areas of tree canopy mapped within the ROW that will not be removed if the trees are not in conflict with required work pad construction and do not pose a risk to adjacent structures because they meet clearance standards. According to the DEIR, it is likely that approximately 25% of the trees designated for removal in the DEIR will be pruned rather than removed. In addition, the estimate of 240 acres of tree removal includes the land area where "selective tree removal" is proposed off-ROW. However, the analyses in the DEIR are based on tree removal on 240 acres of land. The FEIR should provide an estimate of areas of mapped tree canopy within the ROW that will not be removed.

Access Improvements

Access to the ROWs will be improved by grading and the addition of stone to existing

access, and by constructing new access routes where needed. One new off-ROW access road, on private land in Deerfield, will be constructed; otherwise, access will be aligned with previously used routes and pathways along and adjacent to the ROW. According to the DEIR, there are three types of access improvements: "Type R" access improvements that generate no new impacts because only minor work is required, such as regrading ruts and potholes, and no widening is necessary; "Type S" access, which generates new impacts associated with widening the access through the addition of stone/gravel to provide a 16-ft travel surface, and minimal grading; and "Type 1-5" access, which generates new impacts across the width of the access road due to capping of the existing stable sub-base with clean stone/gravel and widening of the access road to 16 ft.

The Proponent will prepare a Construction Access Plan to identify measures that will be undertaken to restore any temporary off-ROW access to be constructed on land owned by the Department of Conservation and Recreation (DCR); according to the Proponent, no new permanent off-ROW on DCR land is proposed. As noted below, DCR will need to confirm that Article 97 legislation is not required for any change in use or disposition of DCR land. For permanent access roads proposed on non-Article 97 land, the Proponent will ensure maintenance in coordination with the landowner and may require new easements for maintenance.

Replacement of Conductors and Shield Wire

Following the construction of transmission line structures, insulators will be installed on the structures. The insulators will isolate the energized power conductors from the structure. Optical ground wires (OPGWs) and power conductors will then be installed using stringing blocks and wire stringing equipment. The wire stringing equipment is used to pull the conductors from a wire reel on the ground through stringing blocks attached to the structures to achieve the desired sag and tension condition.

The conductors are wires installed on the structure to transmit the electricity from one location to another (structure to structure). For this project, most structures carry two circuits (E5 and F6). Each circuit has three conductors. The existing copper conductor wire will be replaced with 795 Thousands of Circular Mils ("MCM") Aluminum Conductor Steel Supported (ACSS) conductor wire, which has a higher conductivity than the existing wire. The new conductors will improve system reliability when transmitting 69 kV and allow the lines to operate at 115 kV voltage at a future date to meet future transmission needs associated with electrification and implementation of climate change initiatives across the state, including interconnections with future solar photovoltaic (PV) generating systems and battery storage facilities.The project also includes the installation of flyover switches, which are connected to conductors and allow for the interruption of electricity in the conductor.

The existing shield wires, which protect conductors from lightning strikes, will be replaced with two optical ground wires (OPGWs). Two OPGWs will be installed at the top of the poles, above the conductors, to provide shielding (as shield wires do under existing conditions). The OPGWs will serve the dual function of providing shielding for the conductor as well as allowing for high-speed communications between substations. The "shielding angle" is critical design feature which indicates the position of the conductors in relation to the shield wire above

it. A conductor will be most protected from a lightning strike if it is directly below a shield wire (a shielding angle of zero) and less protected the more the shielding angle increases (up to 90 degrees, in which case the conductor would be at the same height as the shield wire). The targeted shielding angle for the project is 30 degrees (the current industry practice) or less; the existing shield wire angles generally exceed 30 degrees.

Installation of Load Break Switches

The project includes installation of 20 new 115kV manually-operated 3000A load break switches. The load break switches are installed on a structure to be able to interrupt the flow of electricity if needed. The switches will be mounted to the side of the pole, and do not have any footprint on the ground. The "3000A" designation refers to how much current the switch is rated for, and "load break" indicates that the switch is capable of opening and interrupting the flow of electricity without the conductors previously being de-energized. The switches will be used to ensure maintenance and repairs are able to be safely performed as needed, by de-energizing portions of the line.

Changes Since the ENF

The DEIR identified the following changes since the filing of the ENF:

- A pull pad will be installed on the west side of the Deerfield River in Buckland; in the ENF, no work was proposed in Buckland
- Open space areas were updated due to an update in the MassGIS land use data layer
- As detailed below, changes in the size, location, and composition of work pads and access roads in Priority Habitat have been made to minimize permanent impacts to rare species habitat.
- The length and area associated with proposed access roads have been reduced by 584 lf (7,008 sf or 0.16 acres) within the ROW and 7,525 lf (90,297 sf or 2.07 acres) off-ROW. (last paragraph in section 3.5.3 of DEIR)

The changes noted above suggest that the area of land alteration has been reduced since the ENF was filed, and the DEIR did not identify any changes to the project that would cause an increase in land alteration; however, the DEIR included a land alteration estimate of 566.9 acres, an increase of approximately six acres compared to the 561 acres included in the ENF. According to the Proponent, while the total area of land alteration has increased since the ENF due to refinement of area calculations and changes to the project design, there has been an overall reduction in permanent impacts and an increase in temporary impacts (which were not separately quantified in the ENF). The FEIR should provide updated estimates of the project's impacts, including land alteration, and any changes that increase or decrease impacts should be described and shown on a plan.

Project Corridor

The ROW is approximately 67 miles long, is generally 80-ft to 125-ft in easement width (with some areas up to 200-ft in easement width), and covers approximately 1,165 acres in land

area; the total project area, including off-ROW areas, is 1,251 acres. The project corridor extends along the ROWs of the E5/F6 Lines and the Tap Lines, in a generally northwest to southeast orientation, from the Deerfield #4 Substation in Shelburne to the Millbury #305 Substation in Millbury. The corridor traverses (from west to east) through Shelburne, Conway, Deerfield, Sunderland, Leverett, Shutesbury, Pelham, Belchertown, Ware, West Brookfield, North Brookfield, East Brookfield, Spencer, Leicester, Auburn, and Millbury. The existing E5/F6 Lines are supported primarily on double-circuit lattice towers and steel pole structures, and the existing Tap Lines consist of two parallel single circuit lines supported by steel and wood pole structures. The Lines and Tap Lines provide power to 26 cities and towns in Massachusetts and transmit power from three generating stations to the New England region. The Lines are the sole transmission source for approximately 24,000 customers in 12 Massachusetts municipalities. As noted above, the project also upgrades to, including new construction of, off-ROW access roads. The land uses in the ROW and within 300 ft of the ROW were previously described in the ENF and are shown in Table 1 below.

Table 1. Land Uses Within and Adjacent to the ROW (Previously provided in the ENF Certificate and derived from Table 4 in the ENF).[3]

Land Use Type	Within the ROW (acres)	% Within ROW	Study Buffer (acres)	% Within 300-ft of ROW
Agricultural/Horticultural	41	4%	185	4%
Commercial	12	1%	67	1%
Exempt Property	264	23%	1,328	26%
Forest Land	86	8%	391	8%
Industrial	167	15%	367	7%
Mixed Use	138	12%	708	14%
Recreation	17	1.5%	73	1%
Residential	167	15%	1,032	21%
Transportation	2	<1%	147	3%
Unknown	2	<1%	4	<1%
Vacant	221	20%	645	13%
Water	7	1%	86	2%
Total	**1,124**	**100%**	**5,033**	**100%**

Wetland resources areas within the ROW include Bordering Vegetated Wetlands (BVW), Inland Bank, Riverfront Area, Land Under Water Bodies and Waterways (LUW), Bordering Land Subject to Flooding (BLSF) and Isolated Vegetated Wetlands (IVW). Twenty-two vernal

[3] According to the ENF, the land use data was obtained from MassGIS. "Exempt Property" includes public land and facilities, hospitals, schools, churches, and cultural institutions, and "Unknown" refers to land for which a use has not been yet identified by the applicable municipality and/or passed the MassGIS Quality Assurance procedures required for publishing data.

pools, including 10 which are Certified Vernal Pools, are located within the ROW. As shown on the Federal Emergency Management Administration's (FEMA's) National Flood Hazard Layer, sections of the ROW in Spencer, Leicester, Auburn, and Millbury are located within the 100-year floodplain (BLSF). Five water bodies designated as Outstanding Resource Waters (ORWs) and 17 impaired water bodies are located in or within a half-mile radius of the project corridor.

The project corridor includes Priority Habitat of 26 state-listed rare species, including three birds, three reptiles, one amphibian, five invertebrates, one fish, and 13 plants. Project activities are proposed within areas mapped as Priority Habitat for several rare species, including but not limited to, Eastern Box Turtle (*Terrapene Carolina*; Special Concern), Wood Turtle (*Glyptemys insculpta*; Special Concern), Marbled Salamander (*Ambystoma opacum*; Special Concern), American Bittersweet (*Celastrus scandens*; Threatened), Muskflower (*Erythranthe moschata*; Threatened) and Variable Sedge (*Carex polymorpha*; Endangered).

The ROW passes through parklands, forests, and water supply protection lands managed by the Department of Conservation and Recreation (DCR), including South River State Forest in Conway, Connecticut River Greenway State Park in Deerfield, Division of Water Supply Protection ("DWSP") lands around the Quabbin Reservoir in Belchertown and Ware, West Brookfield State Forest, and Spencer State Forest. In addition, the ROW passes through land owned by New England Forestry Foundation on the Pocumtuck Range in Deerfield and land owned by Great River Hydro along the Deerfield River subject to conservation restrictions (CRs) held by DCR, the Department of Fish and Game's Mt. Toby Wildlife Management Area (WMA) in Sunderland, Cadwell Memorial Forest managed by the University of Massachusetts, and open spaces owned by municipalities, land trusts and private entities. The Appalachian Mountain Club's (AMC's) Midstate Trail, which is a 92-mile hiking trail stretching from Rhode Island to New Hampshire, coincides with a section of the ROW in Spencer State Forest. The ROW passes through 21 historic districts listed in the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth.

The project corridor crosses through six Environmental Justice (EJ) populations, including one designated as Minority located in Leicester; four designated as Income located in Buckland, Shelburne, Spencer, and Millbury; and one designated as Minority and Income located in Sunderland.[4] The project corridor passes within one mile of 13 additional EJ populations, including two designated as Minority located in Sunderland and Amherst; nine designated as Income located in Charlemont, Sunderland, Ware, North Brookfield, Brookfield, West Brookfield, Spencer, Auburn, and Millbury; and two designated as Minority and Income located in Sunderland and Ware. The project corridor is within five miles of 139 additional EJ populations designated as Minority; Income; and Minority, Income, and English Isolation, which are located in Montague, Greenfield, Worcester, Leicester, Grafton, Shrewsbury, Brookfield, Warren, Palmer, Ware, and Amherst.

[4] The number of EJ populations within the project corridor has increased from five, as previously identified in the ENF, to six due to the addition of an EJ population within the section of Buckland where work is now proposed. Buckland was previously identified in the ENF Certificate as one of the 19 EJ populations within one mile of the project corridor.

Environmental Impacts and Mitigation

The DEIR provided updated project impact estimates. Potential environmental impacts associated with the project include the alteration of approximately 567 acres of land, including 240 acres of tree cutting and creation of approximately 0.25 acres of impervious area, and 88.4 acres of Priority Habitat.[5] Impacts to wetland resources areas include alteration of approximately: 62 acres of BVW (approximately 20 acres permanent impact, including 0.1 acres of fill and approximately 19.8 acres of vegetation conversion); 3.17 miles of Inland Bank (1.87 miles of permanent impact); 60.7 acres of Riverfront Area (29.3 acres permanent impact); 8.2 acres of BLSF (3.7 acres permanent impact); one acre of LUW (temporary impacts only); and 2.1 acres of IVW (0.6 acres permanent impacts). As noted above, the DEIR details project changes that appear to reduce permanent impacts, though overall impact calculations are shown as increased from ENF to DEIR due to a larger area of land that will be temporarily impacted. The FEIR should provide an updated estimate of the project's impacts and additional details of the project's impacts as discussed below.

Measures to avoid, minimize, and mitigate project impacts include use of existing access roads and transmission ROW to avoid new land disturbance, where feasible; use of temporary construction mats in wetlands; restoration of temporary work areas to pre-construction conditions; replication of BVW and restoration of wetland resource areas; payment of an In-lieu Fee as may be required by the Army Corps of Engineers; restoration of public open space; funding one or more of a suite of DCR programs that either directly enhance carbon storage, rates of sequestration, or support the resiliency of forest carbon storage; supporting the preservation of carbon-rich lands acquired through Mass Audubon's 30x30 Catalyst Fund; making felled trees available to community wood banks or using trees to make long-lived wood products; and mitigation for rare species impacts, as required by NHESP. The FEIR should provide final mitigation commitments, including a quantification of GHG benefits provided by proposed measures.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a mandatory EIR because it requires Agency Actions and meets or exceeds the following review thresholds: 301 CMR 11.03(1)(a)(1), alteration of 50 or more acres of land; 301 CMR 11.03(3)(a)(1)(a), alteration of one or more acres of BVW; and 301 CMR 11.03(3)(a)(1)(b), alteration of ten or more acres of any other wetlands (Riverfront Area, BLSF, and Inland Bank). The project is also required to prepare an EIR under 301 CMR 11.06(7)(b) because it is located within one mile of one or more EJ populations. Additionally, the project exceeds the Environmental Notification Form (ENF) thresholds at 301 CMR 11.03(2)(b)(2), Greater than two acres of disturbance of designated priority habitat, as defined in 321 CMR 10.02, that results in a take of a state-listed endangered or threatened species or species of special concern; 301 CMR 11.03(3)(b)(1)(b), alteration of 500 or more linear feet of bank along a fish run or inland bank; 301 CMR 11.03(3)(b)(1)(d), alteration of 5,000 or more sf of BVW or IVW; and 301 CMR 11.03(3)(b)(1)(f), alteration of one-half acre or more of any other wetlands.

[5] Impacts to Priority Habitat were not previously quantified in the ENF.

The project requires a 401 Water Quality Certification (WQC) and Variance (due to placement of temporary fill within 400 feet of an ORW) from the 401 WQC Regulations (314 CMR 9.00) and potentially a Chapter 91 Permit or License from the Massachusetts Department of Environmental Protection (MassDEP); a Conservation and Management Permit (CMP) from NHESP; a Construction Access Permit (CAP) and potentially a Watershed Protection Act Variance from DCR; Access Permits and Non-municipal Utility Permits for Crossing over State Roads with Utility Lines from the Massachusetts Department of Transportation (MassDOT); an Approval to Construct Transmission Lines (M.G.L. c. 164, s. 69J) from the Energy Facilities Siting Board (EFSB); and a Determination of Public Necessity and Convenience (M.G.L. c. 164, s.72) from the Department of Public Utilities (DPU). The FEIR should identify any approvals from DFG and the University of Massachusetts that may be needed for work on land owned by these agencies. While the DEIR does not identify the need for Article 97 legislation, the applicability of Article 97 for permanent improvements on DCR land or other land subject to Article 97 should be further addressed in the FEIR, as further discussed below. The project is subject to review under the May 2010 MEPA GHG Emissions Policy and Protocol (GHG Policy).

The project requires Orders of Conditions (OOC) from the Auburn, Belchertown, Buckland, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield Conservation Commissions (or in the case of an appeal of any OOC, a Superseding Order of Conditions from MassDEP); a Section 404 Pre-Construction Notification (PCN) from the U.S. Army Corps of Engineers (USACE); a National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) from the U.S. Environmental Protection Agency (EPA); and review by MHC acting as the State Historic Preservation Officer (SHPO) pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (36 CFR 800).

Because the project is not seeking Financial Assistance from an Agency, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of required or potentially required Permits or within the area subject to a Land Transfer, and that are likely, directly or indirectly, to cause Damage to the Environment. The subject matter of required DPU and EFSB approvals is sufficiently broad such that jurisdiction is functionally equivalent to full scope jurisdiction and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment.

Review of the DEIR

The DEIR was generally responsive to the Scope included in the ENF Certificate. It identified changes to the project, provided updated impact estimates and plans, and included a supplemental alternatives analysis. It provided updated estimates of the project's impacts to environmental resources, included open space, and identified mitigation measures. The DEIR provided draft Section 61 Findings and responses to comments received on the ENF.

Alternatives Analysis

As previously described in the ENF and summarized again in the DEIR, the Proponent evaluated the No Build Alternative, two Partial Rebuild Alternatives, and a Complete Rebuild Alternative (the Preferred Alternative). The No Build was rejected because it would not address the need for better system reliability, improve operation of the system by adding OPGW for communication between substations, or provide future capacity by upgrading the conductors to allow the lines to operate at 115 kV. According to the DEIR, the No Build Alternative would not require construction of new or improved access roads. Vegetation management, including tree removal, and maintenance activities would be undertaken under the No Build Alternative on an as-needed basis over a longer time span than proposed under the Preferred Alternative; therefore, the DEIR did not provide an estimate of impacts under the No Build Alternative.

As previously detailed in the ENF, the two Partial Rebuild Alternatives considered would replace and repair some of the structures, which would extend the life of the transmission lines at lower cost with minimal impacts. The two Partial Build Alternatives are similar, but one generally involves replacement of 21 lattice towers while the other would replace 21 lattice towers and 10 wood pole structures. However, under the Partial Build Alternatives, the majority of existing structures would be left in place, and the underlying reliability issues would not be addressed; furthermore, the benefits of replacing some structures would not be fully realized because the new structures would have to be integrated with existing towers that would remain in place, with the latter continuing to have flaws that undermine system reliability. As with the No Build Alternative, vegetation management, including tree removal, would be conducted under the Partial Build Alternatives over a longer time span than proposed under the Preferred Alternative. According to the DEIR, actions needed to meet the purpose of the Preferred Alternative would still need to be implemented, which would require improvements to access roads, but would be deferred until a later time; therefore, the impacts of the Partial Build Alternatives would be similar to those of the Preferred Alternative overall. The Partial Build Alternatives were rejected because they would not fully meet the project purpose of addressing reliability by minimizing or avoiding outages along the E5/F6 Lines.

As required by the ENF Certificate, the DEIR assessed the feasibility of burying the Lines and Tap Lines to potentially minimize the need for tree clearing and future maintenance. According to the Proponent, burial of the transmission lines would require dismantling structures along the entire transmission line, collecting data on subsurface conditions along the entire ROW, redesigning the transmission circuits, and reinstalling the cables in buried conduits with space between them. Burying the Lines and Tap Lines would require the use of more horizontal space than the Preferred Alternative in order to provide enough workspace for construction equipment, bury the transmission lines, stockpile excavated limit opportunities for avoiding wetland resource areas while remaining within the ROW; therefore, tree clearing and land alteration associated with construction of the buried lines would not be lower than those of the Preferred Alternative. Furthermore, the Proponent's rights in the parts of the ROW that it does not own generally do not include installation of underground lines; therefore, the Proponent would have to acquire new rights within the easement. According to the DEIR, burying the Lines and Taps is not feasible due to the need to redesign the lines and acquire new easement rights, and because it would not minimize impacts.

The Preferred Alternative involves rebuilding the Lines and Tap Lines within their current ROWs by replacing all structures, conductors, and shield wires, as described above. These improvements address reliability issues by adding protection to the Lines and Tap Lines. Replacing the existing structures with taller structures will correct the poor shielding angle and avoid many of the outages caused by lightning. In addition, the new, taller monopole structures will reduce opportunities for trees striking the line and for bird nesting. The Preferred Alternative also contains additional elements to improve overall reliability, including removal of trees that do not meet conductor clearance requirements along the ROW and new and improved access roads for construction and maintenance. As described above, the project will not widen the ROW or remove all trees within the ROW; instead, only those trees that pose a risk to the Lines and Tap Lines because they do not meet clearance requirements, or interfere with construction access, will be removed. Furthermore, the estimates approximately 25% of the trees identified in the DEIR for removal will need only to be pruned to allow access for construction vehicles. Off-ROW access will be used when access within the ROW by construction equipment is not possible due to steep grades or other impassable conditions, and to minimize impacts when use of the ROW would require direct impacts to wetlands within the ROW. Existing access roads, paths, or trails will be improved to allow passage by construction equipment while minimizing impacts associated with construction of new access. The DEIR indicates that access improvements will improve the Proponent's ability to quickly repair damage to the lines when an outage does occur. In addition, the Preferred Alternative includes constructing the lines to accommodate 115 kV (compared to the 69 kV capacity of the existing lines) so that the Lines and Tap Lines can be operated at the higher voltage in the future to meet future transmission needs associated with electrification and implementation of climate change initiatives across the state, including interconnections with future solar photovoltaic (PV) generating systems and battery storage facilities. meet transmission needs as the implementation of electrification and climate change initiatives increase across the state. Installing conductors with the capacity to accommodate 115 kV as part of this project will avoid the need for future impacts if the 115-kV conductors were installed separately in the future when the operating voltage is to be increased. According to the DEIR, no additional structures will be required within the ROW when the voltage is increased to 115 kV; however, substation upgrades will be necessary. As discussed further below, the Proponent has made changes in the size, location, and composition of work pads and access roads to minimize permanent impacts to rare species habitat.

Environmental Justice / Public Health

As noted above, project activities are proposed within six EJ populations, including one designated as Minority located in Leicester; four designated as Income located in Buckland, Shelburne, Spencer, and Millbury; and one designated as Minority and Income located in Sunderland. The project corridor passes within one mile of 13 additional EJ populations, including two designated as Minority located in Sunderland and Amherst; nine designated as Income located in Charlemont, Sunderland, Ware, North Brookfield, Brookfield, West Brookfield, Spencer, Auburn, and Millbury; and two designated as Minority and Income located in Sunderland and Ware. Within the census tracts containing the above EJ Populations within one mile of the project site, no languages were identified as spoken by 5% or more of residents who also identify as not speaking English very well. The DGA is identified as 1 mile.

Public Engagement

The DEIR described public involvement activities conducted after the ENF certificate was issued. Notice of the DEIR filing was sent to an updated Distribution List, including the EJ Reference List, which described how the DEIR could be viewed online and how a hard copy could be requested. The Proponent contacted the public libraries in the 17 towns through which the ROW passes, and provided hard copies or digital copies of the DEIR to those libraries that requested it. The Proponent continues to maintain and update a project website (www.cmatowmaenergy.com) with project information, which is available in Spanish upon request, including contact information, FAQs, MEPA and EFSB filings, and the EFSB's notice for public comment hearings on January 13 and 14, 2026. The Proponent requested that all towns through which the ROW passes add links to the project website on the towns' websites. The Proponent held a meeting with state and local elected officials on February 24, 2025 and held a site visit with the Kestrel Land Trust, a landowner along the ROW, on October 15, 2025. An updated PowerPoint presentation describing the project was provided to municipalities in early September 2025. As detailed below, the Proponent contacted the Wampanoag Tribe of Gay Head (Aquinnah), the Mashpee Wampanoag Tribe, the Stockbridge-Munsee Tribe, the Narragansett Indian Tribe, and the Hassanamisco Nipmuc Band several times between September 2022 and April 2025 in connection with planned archaeological surveys and will provide these Tribes with archaeological reports when the surveys are complete.

Because an in-person site visit was not held during the review of the ENF due to snow cover, the ENF Certificate required the Proponent to organize one or more in-person site visits during the DEIR review period. Site visits were held at two locations along the ROW, in Shutesbury and Spencer, in November 20, 2025. The sites were selected after the Proponent contacted each municipality in the project corridor to determine their interest in participating. A notice of the site visit was sent by the MEPA Office to the distribution list maintained by the Proponent, including the EJ Reference List developed based on a list provided by the MEPA Office. The Shutesbury site visit was attended by representatives of MassDEP, the Town of Shutesbury, and the Kestrel Land Trust; representatives of DCR and the Town of Spencer attended the site visit in Spencer. At the request of the municipalities of Shutesbury, Pelham, Amherst, and Belchertown, the Proponent held a public information meeting at 7:00 PM on December 10, 2025 at the Pelham Public Library. A video recording of the meeting is posted on www.responsiblegrid.org, a website established by residents in these communities to provide information about the project and another transmission project proposed in the vicinity by Eversource (WT-011, EEA# 16570). The meeting was attended by approximately 50 people, who asked a wide range of questions about the project and expressed particular concern about the proposed tree clearing, and the project's impacts on users of recreational trails that cross the ROW, wildlife habitat, wetlands, and the Town of Amherst's water supply, which includes land in Pelham. Attendees also noted that the project is one of two transmission line projects, along with a project proposed by Eversource (EEA# 16570), that will generate significant impacts on forested areas, wetlands, habitat, and water quality, and on local roads that are unsuited to large construction vehicles.

According to the DEIR, the Proponent will obtain an updated EJ Reference List from the MEPA Office and maintain a list of interested parties to which the FEIR and future notices will be provided. As noted below, the Proponent should make efforts to engage with residents in EJ

populations along the ROW and report on these measures in the FEIR.

Baseline Assessment

The DEIR contained a baseline assessment of any existing unfair or inequitable Environmental Burden and related public health consequences impacting EJ Populations in accordance with 301 CMR 11.07(6)(n)1. and the MEPA Interim Protocol for Analysis of EJ Impacts. According to the DEIR, the data surveyed show some indication of an existing "unfair or inequitable" burden impacting the identified EJ Populations based on an evaluation of four environmentally related health indicators that are measured to be 110% above statewide rates based on a five-year rolling average.[6] Among the communities located within the DGA, the Towns of Millbury, Shelburne, and West Brookfield meet the vulnerable health EJ criteria for heart attack hospitalizations; the Towns of Shelburne, Sunderland, and Ware meet the criteria for elevated blood lead levels; the Towns of Sunderland and Ware meet the criteria for low birth weight; and the Town of Ware meets the criteria for pediatric asthma. In addition, one census tract (408 in Sunderland) meets the criteria for elevated blood lead levels and two census tracts (7251 in North Brookfield and 8201.02 in Ware) meet the criteria for both elevated blood lead levels and low birth weight.

According to the DEIR, the following sources of potential pollution exist within the one-mile DGA, based on the mapping layers available in the DPH EJ Tool:

- Major air and waste facilities: 23
- M.G.L. c. 21E sites: 12
- "Tier II" toxics use reporting facilities: 55
- MassDEP sites with AULs: 28
- Groundwater discharge permits: 1
- Wastewater treatment plants: 11
- Public water suppliers: 50
- Underground storage tanks: 33
- EPA facilities: 13
- Road infrastructure: 95
- MBTA bus and rapid transit: 94
- Regional transit agencies: 4
- Other transportation infrastructure: 85
- Energy generation and supply: 43

According to the output report from the Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action Team (RMAT) (the "MA Resilience Design Tool") previously included in the ENF, the project corridor has a High exposure to riverine and stormwater flooding due to extreme precipitation and has a High exposure to extreme heat. EJ populations near the site are likely also exposed to these climate risks. According to the DEIR,

[6] See https://matracking.ehs.state.ma.us/Environmental-Data/ej-vulnerable-health/environmental-justice.html. Four vulnerable health EJ criteria are tracked at the municipal level in the DPH EJ Viewer (heart attack hospitalization, childhood asthma, childhood blood lead, and low birth weight); of these, two (childhood blood lead and low birth weight) are also available at the census tract level.

there are two areas where project activities are located within the 100-year floodplain and in an EJ population, including an area in Millbury within the Singeltary Brook floodplain and an area in Spencer near the Sevenmile River. The Proponent asserts that the project will not worsen flooding in these areas because any regrading will be primarily confined to the ROW, the project will not add significant new impervious area (total of 0.25 acres for the entire project), and stormwater BMPs such as plunge pools, stone filters, and drainage swales will be implemented to manage runoff. The FEIR should specifically assess whether riverine or stormwater flooding risks may be exacerbated for nearby EJ populations due to project activities, including under future climate conditions.

The DEIR included an analysis of the potential for the project, including proposed tree clearing, to contribute to heat islands in EJ populations. According to the DEIR, there is one location along the ROW where tree clearing is proposed in a mapped hot spot within an EJ population; however, only 40 sf of tree removal is proposed within this area. This location is within an EJ population designated as Income in Millbury but which does not meet any vulnerable health EJ criteria at the census tract level (however, Millbury meets the criterion for heart attack hospitalizations at the community level). The Proponent asserts that the proposed tree removal in that area will not exacerbate extreme heat conditions due to the small area of impact. In addition, potential heat impacts of associated with the project along its entire length will be minimal because forested areas adjacent to, but outside of the ROW and off-ROW access, will remain forested; the areas to be cleared of trees will remain vegetated with shrubs and other plants; the project will add minimal new impervious area (a total of 0.25 acres for the entire project); and the ROW does not pass through densely developed areas. As detailed below, the project will mitigate tree removal impacts by contributing to land protection and forest resiliency programs, and by donating felled trees to community wood banks. The FEIR should continue to assess the impacts of tree clearing on all EJ populations adjacent to areas of clearing, even if not within a mapped “hot spot.” The FEIR should review opportunities to target mitigation towards affected EJ populations.

During the construction period, the project will generate traffic, including truck trips, that will travel through EJ populations. According to the DEIR, it is not possible to accurately calculate the number of truck trips in a specific area over any given period of time due to the intermittent nature of project activities, with work occurring at different times along the entire 67-mile ROW; however, truck traffic volumes at any given location will fall well below an annual average of 150 adt of diesel trucks. Construction vehicles, which range from pick-up trucks to heavy construction equipment and large trailers delivering materials, will typically access the ROW from public roadways, which cross the ROW in various locations. According to the DEIR, as access at any given location along the ROW will be intermittent, traffic volumes will not be significantly increased, nor will the work adversely impact the ability of existing traffic to safely navigate the roadway, or result in any significant environmental or public health impacts, or disproportionate impacts on EJ Populations. The Proponent will work with MassDOT and local authorities to develop traffic management plans to minimize impacts during construction. The DEIR described mitigation measures that will be implemented to minimize air quality, noise, vibration, and water quality impact during the construction period.

For the reasons noted above, the DEIR asserts that the project will not result in any significant adverse effects on EJ populations. Temporary and permanent alterations from pre- and post-construction will be minimized through the use of BMPs and mitigated through post-construction restoration of work areas and construction-period mitigation measures will be implemented to minimize air quality, noise, vibration, and water quality impacts, including within EJ populations. However, while the DEIR described the project's impacts and identified mitigation measures applicable throughout the project area, it did not describe or quantify specific (apart from the hot spot analysis summarized above) project impacts in EJ populations within which proposed activities will be conducted, or identify measures that will be implemented to minimize and mitigate impacts based on characteristics of the EJ populations, such as vulnerable EJ health criteria; this analysis should be provided in the FEIR.

Land Alteration and Impervious Surfaces

As noted above, the DEIR provided an updated estimate of total land alteration, including new impervious area and tree clearing, and included detailed maps showing proposed activities along the ROW and off-ROW areas and environmental resources that will be affected by the project. As required by the ENF Certificate, the DEIR quantified the land cover type in the ROW using MassGIS Land Use/Land Cover data, as summarized in Table 2.

Table 2. Land cover types within the ROW.

Land Cover Type	Area (acres)
Bare Land	4.9
Cultivated	6.7
Deciduous Forest	236.7
Developed Open Space	57.9
Evergreen Forest	103.2
Grassland	322.1
Impervious Area	36.8
Pasture/Hay	31.1
Scrub Shrub	134.8
Palustrine Aquatic Bed	<0.1
Palustrine Emergent Wetland	6.3
Palustrine Forested Wetland	13.1
Wetland	167.8
Vernal Pool	0.5
Water	37.6
Total	1,166.9

As shown in Table 2, approximately 75% of the ROW is covered by forest, grassland, scrub/shrub, and wetland land cover, with a combination of other land cover types found over 25% of the ROW. The FEIR should identify land cover types in off-ROW areas.

The DEIR described the impacts associated with each project activity, including ROW mowing and vegetative cover type conversion (primarily tree clearing); installation of stormwater BMPs; construction and improvement of access within the ROW and in off-ROW

areas; construction of work pads, pull pads, and staging/laydown areas; construction of foundations; installation of conductors and OPGW; removal of existing transmission line structures; and restoration of ROW and off-ROW areas. Proposed mitigation measures, including mitigation for 240 acres of tree clearing, are discussed below.

Article 97/Open Space

As described in the DEIR, the ROW passes through 54 areas of public open space and recreational land owned by federal, state, private, municipal, and non-profit agencies or entities, including 43 properties (of which 10 are privately-owned) that are protected under Article 97. Approximately 237 acres of open space is located within the ROW. Public open space within which project activities (within the ROW and off-ROW) are proposed include the South River State Forest in Conway, Connecticut River Greenway State Park in Deerfield, West Brookfield State Forest, and Spencer State Forest, all under the care and control of DCR, as well as land owned by New England Forestry Foundation on the Pocumtuck Range in Deerfield and land owned by Great River Hydro along the Deerfield River subject to conservation restrictions (CRs) held by DCR; the Department of Fish and Game's (DFG's) Mount Toby Wildlife Management Area (WMA) in Sunderland; forestland in Pelham managed by the University of Massachusetts; and open space owned by land trusts and municipalities throughout the length of the ROW. The ROW and certain proposed off-ROW access intersect and follow numerous public recreational trails, including the Mahican Mohawk Trail in Conway and Deerfield, the New England Trail in Pelham, the Midstate Trail in Spencer State Forest, and numerous parkland trails and trail systems. These lands are protected under Article 97 and any change in use requires approval by the Legislature. As discussed below, project activities are also proposed in several public water supply watersheds. As detailed below, the Proponent should consult with DFG and the University of Massachusetts prior to filing the FEIR and add them to the FEIR distribution list.

Proposed activities within open space and Article 97-protected land in the project area include structure maintenance and replacement, access improvements, work area grading, tree removals, and the use of temporary construction matting, as summarized in Tables 3 and 4. As detailed in the Scope, the FEIR should confirm which open space parcels

Table 3. Impacts to open space within the ROW

Open space area	Access	Structures	Matting	Vegetative Cover Type Conversion
DCR parks and watershed	2.2 acres	0.2 acres	16.4 acres	29.1 acres
DFG WMA	0 acres	529 sf	1.7 acres	1.8 acres
Municipal open space	0.5 acres	2,169 sf	4.2 acres	10.6 acres
Non-profit open space	1,544 sf	0 acres	0.1 acres	0.4 acres
Land Trust open space	0.6	1,640 sf	2.1 acres	6.7 acres
Private Land	2.2 acres	0.1 acres	11.2 acres	20 acres
Total	5.2 acres	0.3 acres	35.7 acres	68.6 acres

The project includes improvement of existing access roads and construction of new temporary access roads on Article 97-protected land outside of the ROW; however, no new

access roads will be constructed in these areas. Work for the proposed access roads includes tree clearing, widening, grading and installation of drainage structures, and placing of gravel to support heavy equipment, which if left in place would result in permanent impacts to the state forests. Ther project's impacts to off-ROW open are summarized in Table 4.

Table 4. Impacts to open space outside of ROW

Open space area	Access	Structures	Matting	Vegetative Cover Type Conversion
DCR parks and watershed	1,613 sf	0 acres	0.9 acres	13 acres
DFG WMA	0 acres	0 acres	0.1 acres	2.4 acres
Municipal open space	0 acres	0 acres	65 sf	1.1 acres
Non-profit open space	0 acres	0 acres	0 acres	0 acres
Land Trust open space	0 acres	0 acres	13 sf	3.1 acres
Private Land	276 sf	0 acres	1 acre	7.2 acres
Total	0.1 acres	0 acres	2 acres	26.8 acres

Proposed work for the access roads and trails outside of the ROW includes tree clearing, widening, grading and installation of drainage structures, and placing gravel to support heavy equipment, which in several locations will result in impacts to the state forests and watershed lands. According to the DEIR (Tables 4-6 and 4-7), off-ROW impacts to DCR property will be temporary and restoration will occur in coordination with DCR; however, this was not listed as a mitigation measure in the draft Section 61 Findings included in the DEIR, and as noted by DCR, the Proponent has indicated that off-ROW access may be used for ongoing maintenance. The FEIR should provide additional details on the work proposed in off-ROW areas and clearly identify off-ROW areas on DCR land that will be used on a continuing basis. The DEIR did not indicate whether off-ROW impacts to other Article 97 land will also be temporary, and did not provide a detailed description of potential restoration measures; this information should be provided in the FEIR.

According to the DEIR, the project does not require any new easements in Article 97-protected DCR land because all proposed activities, including off-ROW activities, are within the Proponent's existing easement rights. According to the DEIR, the Proponent's easements for the Lines and Tap Lines, which predate the establishment of DCR properties and state forests in these areas, grant rights for the construction and maintenance of towers, poles, wires, and other structures for the transmission of electric power in these locations. The project has been designed to use existing access within the easements wherever feasible; however, improvements to off-ROW access which, according to the DEIR, has been historically used by the Proponent will be required within DCR lands. The DEIR asserts that for these reasons, no additional easements or Article 97 legislation is required for the project. As noted, the DEIR also indicates that all impacts to DCR land are temporary and will be restored, and that on-going access to the off-ROW road may not be needed (hence, obviating the need for any new easements); however, as noted below, the FEIR should clarify whether the project will permanently impact off-ROW areas and if the Proponent will use off-ROW access for ongoing maintenance. In its comments on the ENF, DCR requested that the Proponent provide copies of any easement documents that grant access over DCR land in these areas. This information was provided for the Quabbin Watershed; however, the Proponent did not provide easement information for other DCR land

until the day before the comment period ended and DCR was not able to review the information in time to address it in its comment letter. The Proponent should consult with DCR prior to filing the FEIR to confirm agreement on the scope of existing easements and proposed activities, and verify that no Article 97 compliance is required for the project. The DEIR did not provide detailed information regarding project activities and proposed mitigation measures on Article 97 land not owned by DCR; this should be provided in the FEIR. As noted above, analogous information on the extent of impacts to Article 97-protected DFG and the University of Massachusetts land was not provided in the DEIR, and should be supplemented in the FEIR.

Because of the many hiking trails located on public open space within the ROW and off-ROW, the Scope included in the ENF Certificate required the Proponent to identify measures to restore any impacted trails such as a trail bypass and maintain safe routes for trail users during construction, and to review comments provided by DCR and the Appalachian Mountain Club (AMC) which offered specific recommendations on this topic. According to the DEIR, the Proponent will continue to coordinate with DCR to restore trails and maintain access to trails. However, the DEIR did not identify any measures that will be implemented by the Proponent or review the recommendations of DCR and AMC; this should be provided in the FEIR. According to DCR, several trails within the Quabbin watershed coincide with the Proponent's activities along access roads. In addition to construction impacts to the trails, DCR is concerned that the project may result in increased OHV access to the state forests, potentially causing further degradation of natural, cultural, and recreational resources. As requested by DCR, the Proponent should continue to coordinate with DCR Trails and Operations staff to develop and implement strategies to deter unauthorized motorized trail use, including the installation of gates or boulders at strategic locations identified by DCR.

Drinking Water Supply

The project includes activities in the watersheds of the Quabbin Reservoir and the water supplies of the Town's of Amherst and Ludlow.[7] These are designated as Class A waterbodies, as are tributaries and wetlands hydrologically connected to the water supplies, and are classified as Outstanding Resource Waters (ORWs). According to the DEIR, the project ROW transects 52 ORWs associated with these water supplies. In addition, the project ROW transects Zone II Wellhead Protection areas and Interim Wellhead Protection Areas associated with public groundwater supply wells. Activities in these areas include placement of construction mats, access improvements, construction of work pads, and tree removal. According to the DEIR, proposed structures and work areas have been sited to avoid permanent impacts to ORWs to the extent practicable.

Project activities are proposed within the Watershed Protection Act (WsPA) Primary and Secondary Protection Zones associated with the Quabbin Reservoir in Belchertown. According to DCR, the WsPA regulations at 313 CMR 11.05(11) contain exemptions for utility work if maintenance, repair or expansion activities, structures, or facilities do not materially impair the quality of water in the public water supply watersheds. A determination as to the applicability of any exemptions or the relevant performance standards will be determined by DCR upon its review of a Watershed Request for Determination of Applicability, along with all required

[7] The DEIR clarified that the project does not directly cross over any reservoirs.

documentation, to be filed by the Proponent. The FEIR should include a review of the WsPA regulations and describe how the project meets the exemptions noted above or can be permitted if it is not eligible for exemptions.

Proposed activities within these areas include structure installation, access improvements, placement of construction mats, and conversion of vegetative cover type along the Line and Tap Lines. According to the DEIR, the project does not include any activity or facility that will generate pollutants or contaminants that might affect water quality; therefore, potential impacts to surface water supplies could occur only as a result of unanticipated failure of sedimentation and erosion controls during construction or spills of fuel or hydraulic oil related to construction equipment. Measures to minimize potential impacts to surface and groundwater supplies include:

- Minimizing soil and vegetation disturbance, erosion and sedimentation control, and post-construction restoration and stabilization. Soil erosion and sediment controls will be used to contain excess soils prior to removal of the excess soils from the work sites.
- In locations where ORWs cannot be avoided, sediment and erosion controls will be implemented to minimize sediment migration outside the limits of disturbance, and construction mats will be immediately removed.
- Refueling vehicles and equipment at least 100 feet away from sensitive areas and on a paved surface if possible.
- Mitigation measures to be implemented during refueling include connecting a safety grounding strap between the fuel tank and the vehicle or equipment being refueled, frequent checks for fuel spills, drips or seeps during the refueling operation, equipping vehicles with spill kits to provide, and additional measures to ensure that any release of oil or hazardous material is contained and spill response procedures initiated.
- Where dewatering is necessary during excavations for structures within or adjacent to wetland areas, water will be pumped into appropriate dewatering basins. Where vegetation is absent or where slope prohibits, water will be pumped into a straw bale or silt fence settling basin located in NEP-approved areas outside wetland resource areas or into a temporary storage tank.
- Where drilling is necessary for the installation of caisson foundations, the mud boxes or similar containment devices used to contain the drilling mud and excess soil will be removed regularly from the work site.
- No blasting will occur within Zone II Wellhead Protection Areas; the FEIR should clarify whether blasting is proposed in any other water supply protection areas

According to DCR, existing access routes across Quabbin Reservoir watershed land vary widely in their existing condition, ranging from established internal road used for maintenance and management of the watershed, to woods roads in fair to poor condition, to less-defined trails or paths. In less-established areas, such as the access route west of Gate PL6 and between Structures 345 and 346, temporary matting should be used, and the areas fully restored after work is completed. As noted by DCR, vehicle access is not permitted within the Quabbin Watershed during mud season. The timing of any use of off-ROW access routes, particularly in areas closest to the reservoir, should be coordinated with DCR to minimize impacts to management roads and to address erosion and water quality protection concerns. The Proponent should continue to consult with DCR as the project design advances to determine the appropriate long-term treatment and use of each segment of the off-ROW areas.

Wetlands and Waterways

The project requires an OOC from the Conservation Commissions of each of the 17 municipalities where project activities are proposed. In addition, the project requires an individual WQC from MassDEP because it proposes over 5,000 sf of impacts to BVW. Because the project proposes to place temporary fill (in the form of construction mats) within 400 feet of the Quabbin Reservoir, which is a Class A waterbody, a Variance from the WQC Regulations is required. Wetland resource areas located within the ROW and off-ROW access roads include BVW, Inland Bank, LUW, Riverfront Area, BLSF, and IVW. In addition, there are 22 vernal pools (including 10 Certified Vernal Pools), 70 perennial streams, including 25 streams designated as Coldwater Fisheries by the Division of Fisheries and Wildlife, and 265 intermittent streams within the project corridor. The DEIR provided updated estimates of the project's impacts on wetland resource areas, reviewed applicable permitting standards, and identified measures to minimize and mitigate project impacts. To facilitate review of the project by municipalities along the ROW, the DEIR provided a table listing wetlands impacts in each town.

According to the DEIR, wetland resource areas will be temporarily impacted by the placement of construction mats in wetlands and across streams; establishment of staging/laydown areas and work areas, including placement of work pads and pull pads to provide a stable base for construction equipment; and improvements to access roads by placement of gravel. Permanent impacts to wetland resource areas will be caused by placement of new structures and conversion of vegetative types. The project's wetland impacts are summarized in Table 5.

Table 5. Wetland impacts by project activities.

Activity	BVW	IVW	Vernal Pools	LUW	BLSF	Riverfront Area	Inland Bank
Construction mats	42 acres	1.6 acres	1,588 sf	1 acre	3.7 acres	20.7 acres	1.3 miles
Work areas	858 sf	0	0	0	0.8 acres	10.7 acres	0
Access improvements	0	49 sf	0	0	0	329 sf	0
Subtotal temporary impacts	42 acres	1.6 acres	1,588 sf	1 acre	4.5 acres	31.4 acres	1.3 miles
Structures	0.1 acres	129 sf	0	0	1,140 sf	0.1 acres	0
Vegetative cover type conversion	19.8 acres	0.5 acres	0.1 acres	0	2.4 acres	29.2 acres	1.87 miles
Subtotal Permanent impacts	19.9 acres	0.5 acres	0.1 acres	0	2.4 acres	29.3 acres	1.87 miles
Total	61.9 acres	2.1 acres	0.1 acres	1 acre	6.9 acres	60.7 acres	3.2 miles

Most of the project's wetland impacts will occur within the ROW; of the total impacts listed in Table 5, 2.4 acres of BVW, 0.3 acres of IVW, 0.1 acres of Vernal Pools, 0.6 acres of BLSF, and 5.5 acres of Riverfront Area will be caused by off-ROW access construction activities. According to the DEIR, off-ROW access will be used, in part, to minimize wetlands impacts within the ROW in cases where movement of construction equipment through the ROW would have significant wetland impacts. In addition, off-ROW access will be used when direct access to a structure from within the ROW does not meet the requirements of construction vehicles due to steep grades or similar conditions; in these cases, any improvements needed for off-ROW access be designed to minimize impacts to any wetlands within the off-ROW access route. The DEIR did not review specific impacts or mitigation measures as with respect to work in coldwater fisheries; this should be provided in the FEIR.

The DEIR included a list of measures and procedures that will be implemented to minimize construction impacts to wetland resource areas, including:

- Maintain temporary soil erosion and sediment controls, and other applicable construction BMPs, around work sites in or near wetlands to minimize the potential for erosion and sedimentation; leave BMPs in place, where necessary based on grades and soil disturbance, until suitable vegetation is established
- Mark the limits of wetlands, and restrict crew access, as appropriate
- Install temporary construction matting for access across wetlands to reduce soil disturbance and protect water quality
- Avoid or minimize access through wetlands to the extent practicable. Where access must be improved or developed, the access would be designed, where practical, so as not to interfere with surface water flow or the functions of the wetland
- Refuel construction equipment (apart from equipment that cannot practically be moved) 100 ft or more from a wetland; if refueling must occur within a wetland, secondary containment will be used
- Minimize spread of invasive plant species by removing plant matter, soil, or other deleterious material from equipment and construction matting prior to moving to other work locations
- Stockpile excavated material next to the excavation (but not in any adjacent wetland resource areas); if the stockpile is near wetlands, it will be enclosed by straw wattles or other erosion controls. Removed excess excavated soil or spread it over the surface in an upland area
- Inspect areas from which mats have been removed and remove any material remaining in the wetland and regrade any ruts remaining in the soil to restore pre-construction topography and hydrology
- Inspect wetland crossings as mats are removed to ensure any materials on top of the mats are properly removed and disposed of outside of wetland resource areas or off-site
- Wetland areas where adequate root and seed stock are absent will be seeded using an approved wetland native seed mix
- Comply with all permit conditions related to wetlands, including requirements for restoration
- Minimize work near vernal pools, maintain a 25-ft vegetated buffer around vernal pools, and where feasible, adhere to seasonal windows to minimize impacts to amphibians

The DEIR reviewed how the project's temporary and permanent impacts will be mitigated. Impacts to BVW and LUW will be mitigated by providing an In-Lieu Fee payment, as may be required by the USACE, and by constructing BVW replication areas at a minimum ratio of 1:1. The DEIR provided a general description of how the Proponent will design, construct, and monitor BVW replication areas. Impacts to Riverfront Area and Inland Bank will be restored in situ with loam and seed to restore wetland functions, including wildlife habitat, to these areas. In its comments on the ENF, MassDEP noted that the Proponent must demonstrate that no mitigation is required for the loss of forested BVW; however, the DEIR asserts that mitigation is not required for the conversion of vegetative cover types in BVW. The FEIR should support the assertion that no mitigation is required. According to the DEIR, the project will place permanent fill within a total of 1,140 sf of BLSF in the project area in connection with construction of 12 foundations; the DEIR asserts that this impact is de minimis and does not require compensatory flood storage. As requested by MassDEP, the FEIR should include additional information in support of this assertion.

The DEIR reviewed the project's compliance with the WQC standards at 314 CMR 9.06. According to the DEIR, the Proponent evaluated alternatives to the project, summarized above, which determined that the Preferred Alternative minimize environmental impacts and the discharge of fill within Waters of the United States. In addition, the Proponent will implement the mitigation measures described in the DEIR, including stormwater BMPs, to avoid and minimize unavoidable impacts to wetlands and attenuate pollutants in runoff. The WQC regulations at 314 CMR 9.08 specify that a Variance can be granted if a project includes all reasonable measures to avoid, minimize, and mitigate adverse effects in the environment, and the Variance is justified by an overriding public interest. According to the DEIR, the project meets the Variance requirements because it includes the mitigation measures described above, which will avoid, minimize, and mitigate impacts to wetlands and ORWs. The FEIR should include a discussion of the overriding public interest served by the project.

As noted above, the project will intersect with 70 perennial streams and 265 intermittent streams. Intermittent streams with a discernable bank, a bank width of three feet or greater, and a water depth of at least 12 inches, and all perennial streams, were assumed to be navigable in the DEIR. Project activities, including crossings by overhead transmission wires and structures to facilitate crossing of the streams by construction equipment, are proposed to cross navigable waterways subject to c. 91 jurisdiction. According to the DEIR, the Waterways regulations at 310 CMR 9.05 specify that no c. 91 license is required for the placement of structures in or over non-tidal streams that do not reduce the space available for navigation (such as overhead wires) for which a Final OOC issued; furthermore, 310 CMR 9.22 states that the subsequent maintenance of such structures does not require a c. 91 license. At the request of MassDEP, the Certificate on the ENF required the DEIR to provide a list of all waterway crossings, documentation to support a determination as to whether each waterway is jurisdictional pursuant to Chapter 91 (e.g., photos, bathymetric data, bankfull width, topography, etc.), detailed information on the specific work proposed in, over, under, or within each waterway, including the height above the High Water Mark of all transmission line crossings, and anticipated timing and details for all activities that are proposed to occur within each waterway, such as deployment of construction matting. The analysis provided in the DEIR assumed that all waterways were jurisdictional under c. 91;

however, according to MassDEP, it did not include sufficient detail about the nature and duration of project activities associated with stream crossings to assess whether all project components are eligible for the exemptions referred to in the DEIR. This information should be provided in the FEIR.

Stormwater

The project will add approximately 0.25 acres of impervious area over the entire 67-mile length of the ROW and associated off-ROW areas, which covers 1,251 acres of land. According to the Stormwater Management Report included in the DEIR, the SMS have not generally been applied to cross-country utility projects as the work does not have a substantial impact on watershed hydrology or drainage patterns. The FEIR should review comments provided by the Shutesbury and Belchertown Conservation Commissions, and describe any additional stormwater management measures that may be required to meet municipal requirements.

The DEIR reviewed stormwater BMPs that will be implemented during and after the construction period to attenuate stormwater flows and pollutants in runoff. As described above, sediment control barriers such as straw wattles, compost socks, straw bales and silt fence will be used during construction to minimize erosion in areas where construction activities will take place and adjacent undisturbed areas and to prevent sedimentation of wetland resource areas and watercourses. Additional controls, such as watertight spin off boxes or geotextile filter fabric, may be used for saturated stockpile management in work areas in wetlands (e.g., construction mat platforms) where sediment-laden runoff would pose a risk to the surrounding wetland. Temporary filter inserts (e.g., silt sacks) may be installed in catch basins or similar drainage structures as needed. Erosion and sediment control measures will be installed prior to construction and will be maintained through the construction-period until the site is fully stabilized. Dust controls such as application of water or calcium chloride will be used on disturbed soils to minimize potential erosion of stockpiles. Structural measures such as temporary diversion swales, water bars, fill berms and sediment traps will be used to divert flows away from exposed soils and stockpiled soils or otherwise limit runoff and minimize the discharge of pollutants from the site. Stone tracking pads will be installed at construction entrances to minimize tracking of soil onto public roadways. Management of hazardous materials will be described in detail in the Stormwater Pollution Prevention Plan ("SWPPP"). The potential for accidental spills or releases to occur and impacts wetlands and water quality will be minimized by refueling equipment away from wetlands, use of spill containment measures such as drip pans and absorbent pads, and maintenance and inspection of equipment.

According to the DEIR, post-construction stormwater BMPs such as permanent drainage swales, plunge pools, splash pads, vegetated filter strips, or other management BMPs may be installed on a case-by-case basis as warranted to ensure stormwater is controlled and risk of erosion mitigated. The effectiveness of these measures will be monitored until final site stabilization is achieved, as evidenced by visual observations of vegetative and soil stabilization and removal of all construction materials, including sources of pollutants.

According to the DEIR, the Proponent will seek to retain understory vegetation where tree removals are proposed in order to reduce stormwater runoff from these areas. Where

understory vegetation is absent (or is disturbed during tree removal activities), appropriate stabilization and restoration measures will be employed to ensure that stormwater runoff is minimized, and erosion and sedimentation impacts are avoided; such measures may include mulching and seeding of disturbed areas, installation of sediment and erosion controls, or other appropriate measures depending on site specific conditions and resource areas. Stormwater runoff from new stone access and work pads will be managed through appropriate stormwater controls (including drainage swales, plunge pools, and stone filters). In addition, natural revegetation of low-growing herbaceous and grass communities over these stone areas will help to both restore habitat conditions and improve infiltration of stormwater into gravel surfaces.

Rare Species and Biodiversity

Project activities are proposed within 22 areas mapped as Priority Habitat for rare species, including Eastern Box Turtle, Wood Turtle, Marbled Salamander, American Bittersweet, Muskflower, and Variable Sedge. These species and their habitats are protected pursuant to the Massachusetts Endangered Species Act (MGL c.131A) and its implementing regulations (MESA; 321 CMR 10.00). All projects or activities proposed within Priority Habitat, which are not otherwise exempt pursuant to 321 CMR 10.14, require prior review through a direct filing with NHESP for compliance with the MESA Regulations (321 CMR 10.18).

According to the DEIR, approximately 244.4 acres of Priority Habitat are located within the project area. Project activities in the ROW and off-ROW access areas will impact 88.4 acres of Priority Habitat (which were not quantified in the ENF), including temporary impacts to approximately 28.4 acres due to the placement of construction mats, permanent impacts to 45 acres due to vegetative type conversion, and permanent impacts to 15.1 acres due to construction and improvement of access and work areas, including 0.2 acres of impacts due to structure replacement. According to the DEIR, the following design changes have been made to minimize project impacts in rare species habitat:

- Work pads located within Priority Habitat that require permanent stone have been reduced in size to the extent practicable.
- No permanent stone for work pads or access will be placed in rare plant habitats. Instead of permanent stone for these areas, construction matting or temporary stone that will be removed when construction is complete, will be used to create safe, level work surfaces.
- Off-ROW access will be used to avoid direct impacts

The DEIR identified the following construction-period mitigation measures designed to minimize impacts to Priority Habitat:

- A Contractor Education and Awareness Program will be implemented to train contractors to identify rare species in the field; practice good housekeeping, such as proper food waste disposal, in areas where amphibian and reptile habitat is present so as to not attract predator species; and demarcate or flag mapped habitat areas near work zones
- Activities resulting in an open excavation in Priority Habitat for rare reptiles during

the active reptile season must be completed or filled in by the end of workday to ensure no animals become trapped or surrounded by exclusion fencing to prevent animals from accessing open excavations
- Full-time monitoring for protected reptiles will be provided by an approved wildlife monitor for construction work that occurs within Priority Habitat for those species during the active season
- Construction mats must be used for equipment access for work activities occurring in wetland habitat where state-listed species are present
- Mowing in the Priority Habitat of an identified rare bird species will not occur during the May 15 to August 15 nesting season

According to NHESP, the project is likely to result in a Take of American Bittersweet and Muskflower and a third unnamed state-listed species. Based on its review of the DEIR and consultation with the Proponent, NHESP preliminarily anticipates that the project can be sufficiently conditioned to avoid a prohibited Take of Variable Sedge, Eastern Whip-poor-will, American Bittern, and Pied Bill Grebe. Projects resulting in a Take of state-listed species must meet the performance standards for a 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.

As required by the Scope included in the ENF Certificate, the DEIR included an evaluation of the project's impacts on biodiversity in the Commonwealth, the degree to which the project will negatively impact any components of biodiversity identified through Biomap, and whether specific minimization and mitigation measures are proposed to offset the impacts of the project. According to the DEIR, the BioMap Tool[8] identifies 32.9 acres of Core Habitat and 9.2 acres of Critical Natural Landscape within the 1,125-acre ROW. The DEIR asserts that the vegetative cover type conversion proposed by the project will not generally impact biodiversity because none of New England's forest-dependent species view open vegetated spaces, such as the ROWs, as barriers; therefore, the ROW does not fragment habitat for these species, which will cross and use ROW areas. According to the DEIR, ROWs that are managed with shrubs are important to wildlife and biodiversity; some species benefit from having mixed plant communities, both for food and cover. In particular, pollinators, birds, and reptiles benefit from patches of cultural shrublands, which is the upland habitat type applicable to the project ROW, as recognized by the BioMap Tool. In addition, the vegetation management practices specified in the project's VMP are approved by NHESP and are designed and implemented to protect biodiversity and habitat integrity. The Proponent will apply the NHESP-approved BMPs to vegetative cover type conversion and long-term management of the project ROW, and will consult with NHESP to identify BMPs and mitigation measures to protect the specific Priority Habitat within the ROW. According to the DEIR, vegetation management strategies that align with the BioMap Tool's restoration and management recommendations

[8] https://biomap-mass-eoeea.hub.arcgis.com/

include: mowing of grass and clumps of shrubs before stems reach a certain height, invasive plant management, and retaining some downed trees for nesting and cover; in addition, the BioMap Tool prescribes selective tree removal to prevent shading out of flowering plants and shrubs that are important components of the habitat. According to the DEIR, the combination of bordering trees and swatches of shrubland provided by the ROW will continue to offer foraging, cover, nesting, nectaring, and perching opportunities that are currently present.

Traffic and Transportation

The project will require Non-Vehicular Access Permits from MassDOT for the crossing of state highways by overhead wires and temporary access during construction to the ROW from state highways. As previously described in the ENF, new overhead wires will be installed across the following state highways:

- Main Street (Route 112) in Shelburne
- Mohawk Trail (Route 2) in Shelburne
- Interstate 91 (I-91) in Deerfield
- Greenfield Road (Route 5/10) in Deerfield
- Long Plain Road (MA-63) in Leverett
- Daniel Shay Highway (Route 202) in Pelham
- Belchertown Road (Route 9) in Ware
- Gilbertville Road (Route 32) in Ware
- West Main Street (Route 9) in Spencer
- Interstate 290 (I-290) in Auburn
- Southbridge Street (Route 12) in Auburn
- Massachusetts Turnpike (I-90) in Auburn
- Washington Street (Route 20) in Auburn
- Worcester-Providence Turnpike (Route 146) in Millbury

As described above, installation of new conductor wires will occur after construction of new support structures with insulators. The conductor wires will be pulled from a wire reel on the ground through stringing blocks attached to the structures to achieve the desired sag and tension condition. Where new conductors will be installed over roadways, railroad crossings, and at crossings of existing utility lines, temporary guard structures or boom trucks will be used to ensure public safety and uninterrupted operation of other utilities by keeping the wire away from other utility wires and clear of the traveled way. Additionally, for roadway crossings it is standard practice to deploy at least one line guard vehicle within the highway work zone layout. Each guard vehicle typically requires a minimum lateral clearance of 15-ft to operate safely. Efforts will be made to maintain bi-directional traffic flow whenever feasible, and pedestrian traffic is rerouted through possible detour paths as necessary to ensure safety and compliance with applicable standards.

I received comments that express concern about the impact of large construction vehicles on local roads near and adjacent to the ROW. The FEIR should review the Proponent's anticipated coordination with municipalities during the construction period, and describe mitigation measures that will be implemented to maintain traffic on these roads and restore them

to preconstruction conditions.

Historic and Archaeological Resources

The project is subject to review under Section 106 of the National Historic Preservation Act of 1966 as amended (36 CFR 800) and M.G.L. c. 9, ss. 26-27C (950 CMR 71.00). According to the ENF, a cultural resources due diligence review was completed in June 2022, and MHC issued a State Archaeologist's Permit to the Proponent in August 2022 for an intensive (locational) archaeological survey. A total of 22 above-ground resources have been inventoried within or overlapping the project ROW, consisting of 19 districts and three individual resources. Of the 19 districts, four are listed on the National Register of Historic Places ("NRHP"); none of the individual resources have been evaluated for NRHP listing. Additionally, four post-contact archaeological sites and 12 pre-contact archaeological sites have been inventoried within or overlapping the project ROW. Except for one site in Deerfield that was determined to be ineligible for listing, none of the pre-contact sites within the Project ROW have been evaluated for NRHP eligibility. The Proponent is conducting ongoing fieldwork to identify historical and archaeological resources. Prior to conducting field work, the Proponent contacted DCR, the Wampanoag Tribe of Gay Head (Aquinnah), the Mashpee Wampanoag Tribe, the Stockbridge-Munsee Tribe, the Narragansett Indian Tribe, and the Hassanamisco Nipmuc Band to provide a fieldwork schedule and solicit information that could inform the survey work. When fieldwork is complete, archaeological reports will be submitted to MHC, DCR, municipal historical commissions, and the five Tribes listed above. The design of the project was developed to avoid, minimize, and mitigate impacts to stone walls which are present throughout the ROW.

According to the DEIR, the following construction measures will be employed within historically/archaeologically sensitive areas to minimize impacts:

- Using construction fencing to demarcate sensitive areas for crews to avoid
- Demarcating sensitive areas on site maps and plans, with accompanying on-site training for crews working near these areas
- Restricting site grading within/adjacent to sensitive areas
- Cataloging and reporting any unexpected archaeological finds to MHC and/or Tribes. In such an event, construction work within the sensitive area would cease until further advice has been provided by MHC and/or the Tribes
- Establishing detailed procedures to be followed in the event of discovering human remains or burial sites

Climate Change

Adaptation and Resiliency

As previously described in the ENF, the Proponent assessed the climate risks of the project using the MA Climate Resilience Design Standards Tool prepared by the Resilient Massachusetts Action Team (RMAT) (the "MA Resilience Design Tool").[9] Based on output

[9] https://resilientma.org/rmat_home/designstandards/

reports generated by the Tool, the project has a "High" risk rating for extreme precipitation (urban and riverine flooding) and extreme heat. According to the DEIR, the project is part of the Proponent's efforts to ensure the long-term longevity and reliability of the region's electrical infrastructure in the face of growing demand for electricity and the changing climate, and it is intended to make the system more climate-ready and resilient so that it can withstand more extreme weather events, address existing system capacity shortages and increased demand, and support future interconnections from renewable energy projects. As required by the Certificate on the ENF, the DEIR reviewed design measures that will increase the resiliency of the project

Based on the 50-year useful life identified and the self-assessed criticality of the project, the Tool recommends a planning horizon of 2070 and a return period associated with a 50-year (2% annual chance) storm event when designing the project (a "utility infrastructure-energy" asset) for the extreme precipitation parameter. According to the DEIR, the project will make the transmission system more resilient by replacing wooden and steel structures with engineered steel structures will harden the infrastructure and make it more resilient to water damage and decay. The proposed with caisson foundations are designed for wet environments and can withstand inundation, which eliminates the need for the foundations to be elevated above flood elevations. The project includes also installation of new conductors that are designed to withstand corrosion. Tree removal in the ROW is intended in part to protect the Lines and Tap Lines from trees that become weakened and decayed due to prolonged periods of flooding. The project will also construct stormwater management features, such as check dams, and water bars, in locations where they are necessary to minimize erosion and washouts during storm events. According to the DEIR, these stormwater management features will be effective under the 2070 50-year storm event as recommended by the MA Resilience Design Tool; however, neither the DEIR nor the Stormwater Report included as an appendix provided calculations to support this assertion; this should be provided in the FEIR. The DEIR also asserts that the project will reduce the frequency at which future maintenance and upgrades will be necessary, which will minimize future disturbance.

The DEIR included an analysis of existing hot spot locations within or near areas where vegetative cover type conversion (tree cutting) is proposed. The results of the analysis revealed that conversion of vegetative cover type will only occur within 500-ft of existing hot spots for approximately 0.86 acres (0.03 %) of the entire project area, including minimal overlap in EJ populations, as described above. According to the DEIR, proposed tree removal in areas that experience higher land surface temperatures under existing conditions will have a minimal effect on ambient temperatures. In addition, because much of the land adjacent to the ROW is forested, the extent of cover conversion represents an overall negligible impact on canopy cover. Proposed mitigation measures for the project's tree clearing impacts are described below. According to the DEIR, the project will make the Lines and Tap Lines more resilient to extreme temperatures by installing new conductors that can operate at higher temperatures. In addition, the Lines and Tap Lines will have the capacity to support electrification of the grid to meet future demand due to forecasted higher temperatures.

Greenhouse Gas Emissions/Land Alteration

The project is subject to the MEPA GHG Policy because it exceeds thresholds for a mandatory EIR. This project will permanently alter 567 acres of land, including removal of trees from approximately 240 acres. In accordance with the GHG Policy, projects that alter over 50 acres of land are generally required to analyze the carbon associated with land and soil disturbance during the construction period and loss of carbon sequestration. The DEIR included an analysis of the project's carbon emissions using MassGIS LiDAR data on tree canopy cover area and height, which was used to estimate age, and U.S. Forestry Service data on forest types in the project area. Published data on carbon content of live trees (above- and below-ground biomass), standing dead trees, understory, accumulated deadwood and biomass on the forest floor, and soil carbon for forest age and type was used to estimate one-time carbon impact of the project proposed tree cutting. The lost potential carbon sequestration over a period of 30 years was estimated using a published value of 0.15 metric tons of carbon per acre. The DEIR also provided an estimate ("30-year recovery") of carbon sequestration by shrubs growing in areas cleared of trees over 30 years. The project's carbon impacts are summarized in Table 6.

Table 6. Carbon impacts of the project (metric tons).

Source	Acres of impact	One-time carbon loss (metric tons)	30-year recovery (metric tons)	Sequestration loss over 30 years (metric tons)	Total 30-year carbon loss (metric tons)
Non-soil	240.2	10,888	2,474	5,893	14,308
Soil	240.2	3,751	0	1,024	4,774
Total	240.2	14,639	2,474	6,917	19,082

As shown on the project plans, significant areas of mapped tree canopy within the ROW are not proposed to be altered in any way because they are not in conflict with required work pad construction and do not pose a risk to adjacent structures because they meet clearance standards. In addition, the Proponent expects that 25% of the tree canopy proposed to be removed in the DEIR will be subject to pruning, rather than removal. The FEIR should provide a more precise estimate of the area and carbon content of tree canopy that will not be affected within the ROW, and potential reduction in carbon impacts from the estimates provided in the DEIR due to selective tree removal and pruning.

According to the DEIR, the purpose of the project is to provide long-term reliable delivery of electrical service and maintenance of the Lines and Tap Lines to support electrification of the energy system, which is a key component of the Commonwealth's decarbonization goals. The Proponent has proposed to mitigate impacts from tree removal by funding one or more of a suite of DCR programs that either directly enhance carbon storage, rates of sequestration, or support the resiliency of forest carbon storage and by supporting the preservation of carbon-rich lands acquired through Mass Audubon's 30x30 Catalyst Fund. The FEIR should provide additional details about these mitigation commitments and quantify their GHG benefits to the extent feasible.

In addition, felled trees not retained by landowners will be offered to the DCR

Community Wood Bank and other firewood donation programs. According to the DEIR, it is likely that the amount of wood donated will be limited by the capacity of these organizations to accept donations. Within the Proponent's fee-owned parcels, wood collected during tree removal will be committed to reuse in long-lived wood products or will be donated to affordable housing projects or wood banks in Massachusetts. Wood from trees outside of land owned by the Proponent belongs to the owners of those parcels and it is not known how that wood will be used. The FEIR should include an estimate of the volume and carbon content of wood that will be donated to wood banks or used in wood products.

Construction Period and Hazardous Waste

According to the DEIR, construction activities will commence in April 2028, and is expected to be completed in April 2035. Project activities will generally proceed as follows:

- Removal of vegetation and ROW mowing in advance of construction
- Installation of soil erosion and sediment controls
- Improvements to existing access routes, and construction of one new off-ROW access route
- Construction of work pads and staging areas
- Installation of foundations and structures
- Installation of conductor, OPGW, and shield wire
- Removal and disposal of existing transmission line components
- Restoration and stabilization of the ROW

The DEIR reviewed construction-period measures that will be implemented to minimize noise, dust, air emissions, and vibration impacts, and included a commitment to manage any hazardous materials encountered during construction in accordance with the Massachusetts Contingency Plan (MCP) regulations. All construction mitigation measures should be detailed in the FEIR and included as commitments in the draft Section 61 Findings.

SCOPE

General

The FEIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. Recommendations provided in this Certificate may result in a modified design that would further avoid, minimize, and/or mitigate Damage to the Environment. The FEIR should identify measures the Proponent will include to further reduce the impacts of the project since the filing of the DEIR, or, if certain measures are infeasible, the FEIR should discuss why these measures will not be adopted. C-1 C-2

Project Description and Permitting

The FEIR should include updated site plans for existing and post-development conditions. Conceptual plans should be legible and provided at a reasonable scale. Plans should clearly identify all major project components (structures, transmission lines, access roads, etc.); public areas; wetland resource areas; impervious areas; ownership of parcels including easements; stormwater and utility infrastructure; and the additional information described below. C-3

The FEIR should clarify the number of both structures and foundations under existing and proposed conditions. C-4

The FEIR should identify areas where blasting may be used. C-5

The FEIR should provide, in tabular format, an updated description of the project's temporary and permanent impacts to environmental resources; to the extent that the quantified impacts to any of these resources have changed from those identified in the ENF or DEIR, the FEIR should identify the reason for the change. Project impacts should be provided for each municipality. C-6

As detailed above, additional information is needed regarding the extent of work needed on existing trails and paths that will be improved to provide off-ROW access, and the long-term use of off-ROW access roads, evaluate the impacts of the project on Article 97-protected land. C-7

As further described, additional details should be provided regarding impacts to public open space on land owned by DCR, other state and local agencies, and private entities including DFG and University of Massachusetts. C-8

Commenters raised concerns regarding the project's impacts, including tree clearing, habitat alteration, wetlands impacts, use of open space and trails, and changes in hydrological patterns, and noted that the impacts of this project are in addition to those of similar transmission ROW projects recently proposed in western Massachusetts. C-9

The FEIR should provide the additional analysis of the project's impacts and proposed mitigation measures detailed below. In addition, the FEIR should provide direct responses to comments received on the DEIR. C-10

Environmental Justice / Public Health

The Proponent should continue to take steps, including undertaking additional measures, to meaningfully engage EJ populations in decision-making for the project. The FEIR should report on the results of such engagement efforts, including outreach to ROW property owners within EJ populations. C-11

The DEIR asserts that the project will have no significant impacts to EJ populations. The FEIR should support this assertion by quantifying impacts, including tree removal, noise, air emissions, dust, vibrations, potential truck routes, and activities in staging areas, within each EJ population where project activities are proposed, and assessing these impacts in light of the baseline health conditions in each EJ population summarized above. C-12

The FEIR should identify all EJ populations adjacent to tree removal activities, even if not within a mapped hot spot. C-13

The FEIR should specifically assess whether riverine or stormwater flooding risks may be exacerbated for nearby EJ populations due to tree removal, including under future climate conditions. C-14

The FEIR should identify specific mitigation measures that will be implemented in EJ populations along the ROW, including opportunities for tree planting. C-15

Article 97 and Open Space

The FEIR should include a separate chapter that clearly identifies and describes the condition and use of public open space and Article 97-protected lands in the project ROW and off-ROW areas under existing and proposed conditions. It should clarify whether any off-ROW access on DCR property or Article 97-protected land will be used on an ongoing basis for maintenance, and, if so, whether the Proponent will pursue Article 97 legislation to acquire formal recorded easements. If all off-ROW access is intended for temporary construction access only, the FEIR should confirm this and detail proposed restoration measures for both DCR and non-DCR Article 97 land. The FEIR should consult with DCR to review easement documents provided during the DEIR review period to confirm agreement that no Article 97 compliance is needed for the project. The FEIR should clearly identify the open space lands where project activities are proposed and indicate which portions are protected under Article 97 and which are not. The FEIR should describe and quantify impacts on individual Article 97 parcels, including DCR parks; DCR watershed; land where DCR holds a CR; DFG-owned land (Mt. Toby WMA); the Cadwell Memorial Forest managed by the University of Massachusetts; municipally-owned land subject to Article 97; and privately-owned land subject to Article 97. Prior to filing the FEIR, the Proponent should consult with DFG and the University of Massachusetts regarding the work proposed on land owned by those agencies and any activities or changes in use that may require Article 97 legislation. For each type of parcel subject to Article 97 protection, the FEIR should describe the Proponent's easement rights and include an analysis of whether proposed activities on each parcel constitute a change of use that requires Article 97 legislation, and whether future access may require land dispositions for additional easements. The FEIR should include the easement information provided to DCR during the DEIR review period. The FEIR should report on any consultation with property owners of Article 97 land that have been conducted by the Proponent. The draft section 61 Findings to be included in the FEIR should include commitments to restore off-ROW open space that will not be permanently accessed by the Proponent.

C-16
C-17
C-18
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C-21
C-22
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C-25
C-26

As requested by DCR, the FEIR should outline a trail safety and closure plan for all trails affected during construction. It should identify safe by-pass routes or, if by-pass routes are unavailable, trail closures; describe procedures for providing the public with up-do-date information about trail by-passes and closures and construction activities and describe any barriers that will be used at work zones. As recommended by DCR, trails should be posted with project information at least 30 days in advance of the initiation of any project activity and made available to DCR and other organizations so that the information can be posted in other locations and online. The FEIR should report on any coordination with DCR since the filing of the DEIR regarding implementation of strategies to deter unauthorized motorized trail use, such as installation of gates or boulders at strategic locations identified by DCR.

C-27
C-28

Water Supply

The FEIR should include a review of the WsPA regulations and describe how the project meets the exemptions described above or can be permitted if it is not eligible for exemptions. The Proponent should consult with DCR prior to completing this analysis.

C-29

Wetlands and Stormwater

The FEIR should include an analysis in support of the Proponent's assertion that impacts associated with tree clearing in BVW does not require mitigation; the Proponent should consult with MassDEP prior to completing this analysis. The FEIR should identify any mitigation that will be provided for tree clearing in BVW, including the tree clearing mitigation proposed to offset the project's impact on forests and carbon sequestration that may also serve as wetlands mitigation. As requested by MassDEP, the FEIR should provide a justification for the Proponent's assertion that compensatory flood mitigation is not required, or describe how compensatory flood storage will be provided. The FEIR should confirm that project activities, other than the new floodplain fill associated proposed structures in the floodplain already quantified in the DEIR, will not result in changes to preconstruction grades. C-30 C-31 C-32 C-33

The FEIR should identify project activities that will impact coldwater fisheries and describe specific mitigation measures. As noted above, the DEIR included a review of the project's eligibility for a WQC Variance, but did not discuss the overriding public interest to be provided by the project; this should be included in the FEIR. The FEIR should provide additional details about the capacity of the proposed stormwater management system to handle flows under future storm events, and should review any additional measures that may be required to meet local stormwater regulations. C-34 C-35 C-36

Waterways

As requested by MassDEP, the FEIR should provide a detailed description of all proposed activities within streams that are subject to c. 91 jurisdiction. Comments from MassDEP acknowledge that certain project components are eligible for the exemptions cited in the DEIR; however, comments provided on the ENF requested additional information so that other aspects of the project can be assessed. Information previously requested by MassDEP that should be provided in the FEIR include: MassDEP previously requested a list of all waterway crossings, documentation to support a determination as to whether each waterway is jurisdictional pursuant to Chapter 91 (e.g., photos, bathymetric data, bankfull width, topography, etc.), detailed information on the specific work proposed in, over, under, or within each waterway, including the height above the High Water Mark of all transmission line crossings, and anticipated timing and details for all activities that are proposed to occur within each waterway, such as deployment of construction matting. C-37

Rare Species and Biodiversity

The FEIR should provide an update on potential impacts to state-listed rare species habitat associated with the project and proposed measures to avoid, minimize and mitigate those impacts. The FEIR should clarify whether a Take of species will occur, and if so, how the project will meet the performance standards for a CMP. It should report on the Proponent's consultation with NHESP since the DEIR was filed. It should describe how the project will mitigate impacts on rare species habitat and biodiversity, including any benefits associated with the support for DCR programs and land preservation proposed to mitigate the project's impacts associated with tree clearing. C-38 C-39 C-40

Traffic and Transportation

The FEIR should review the Proponent's anticipated coordination with municipalities during the construction period. It should describe mitigation measures that will be implemented to maintain safe pedestrian, bicycle and vehicular traffic on these roads, and restore them to preconstruction conditions. The FEIR should report on any consultation with MassDOT conducted since the filing of the DEIR. C-41 C-42 C-43

Historical and Archaeological Resources

The FEIR should review findings of additional archaeological surveys conducted since the filing of the DEIR and describe any changes to the project design necessary to avoid or minimize impacts. The FEIR should the Proponent's consultation with Tribes and agencies since the filing of the DEIR. C-44 C-45

Climate Change

The FEIR should provide calculations or other information in support of the assertion that the proposed stormwater management measures will mitigate the 2070 50-year storm event. It should describe how the condition of stormwater management structures will be maintained and monitored over the life of the project to ensure they will function as intended under future conditions. For portions of the project within floodplain, the FEIR should report on the elevation of structures related to any established Base Flood Elevations (BFEs) and indicate whether efforts were made to elevate infrastructure such as structure foundations and work pads. The FEIR should describe any specific measures taken to improve resiliency of infrastructure located in the floodplain. C-46 C-47 C-48

As described above, impacts associated with tree removal will be mitigated by funding one or more of a suite of DCR programs that either directly enhance carbon storage, rates of sequestration, or support the resiliency of forest carbon storage and by supporting the preservation of carbon-rich lands acquired through Mass Audubon's 30x30 Catalyst Fund; however, no additional details were provided or calculations performed to compare the GHG benefits against project impacts. The Proponent should consult with the MEPA Office prior to finalizing these mitigation commitments, and describe the final mitigation package in the FEIR. It should describe any assistance that will be offered by the Proponent to private landowners to donate wood to wood banks or reuse it in long-lived wood projects. The FEIR should estimate the carbon sequestration benefits of the wood reuse mitigation program to be implemented by the Proponent and DCR. The FEIR should provide an estimate of the tree canopy within the ROW, and its carbon content, that will not be removed, and estimate the reduction in the DEIR's estimate of the project's carbon impacts associated with selective tree removal and pruning. To the extent feasible, the FEIR should provide an estimate of the GHG benefits of mitigation to demonstrate that impacts will be offset to the maximum extent practicable. C-49 C-50 C-51

Mitigation and Draft Section 61 Findings

The FEIR should include a separate chapter summarizing all proposed mitigation measures, including construction-period measures. This chapter should also include a comprehensive list of all commitments made by the Proponent to avoid, minimize and mitigate the environmental and related public health impacts of the project, and should include a separate section outlining mitigation commitments relative to EJ populations. The filing should contain clear commitments to implement these mitigation measures, estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation. The list of commitments should be provided in a tabular format organized by subject matter (traffic, water/wastewater, GHG, environmental justice, etc.) and identify the Agency Action or Permit associated with each category of impact. Draft Section 61 Findings should be separately included for each Agency Action to be taken on the project. The filing should clearly indicate which mitigation measures will be constructed or implemented based upon project phasing to ensure that adequate measures are in place to mitigate impacts associated with each development phase. C-52 C-53 C-54

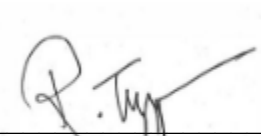
Responses to Comments

The FEIR should contain a copy of this Certificate and a copy of each comment letter received. The FEIR should contain a direct response to the scope items in this Certificate. To ensure that the issues raised by commenters are addressed, the FEIR should also include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the scope of the FEIR beyond what has been expressly identified in this certificate. C-55

Circulation

The Proponent should circulate the FEIR to each Person or Agency who previously commented on the ENF, each Agency, including DFG and the University of Massachusetts, from which the Project will seek Permits, Land Transfers or Financial Assistance, and to any other Agency or Person identified in the Scope. The Proponent may circulate copies of the FEIR to commenters other than Agencies in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the digital copy or identifying the web address of the online version of the FEIR indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The Proponent should contact public libraries in municipalities along the ROW and provide copies of the FEIR for public viewing. C-56 C-57 C-58

January 16, 2026
Date



Rebecca L. Tepper

Comments received

11/10/2025	Buckland Conservation Commission
12/05/2025	Belchertown Conservation Commission
12/10/2025	Greta Marks-Strouble
12/15/2025	Diane Jacoby
12/21/2025	Michael DeChiara
12/30/2025	Massachusetts Department of Environmental Protection (MassDEP)/Western Regional Office (WERO)
01/02/2026	Samuel Gladstone
01/05/2026	Pioneer Valley Planning Commission (PVPC)
01/06/2026	Rachel Loeffler
01/06/2026	Stacey McCullough
01/07/2026	Denise Presley
01/07/2026	Don Ogden
01/07/2026	Jacqueline Katz
01/07/2026	Janet Sinclair
01/07/2026	Jodi Rodar
01/07/2026	Josette Henschel
01/07/2026	Lynne Man
01/07/2026	Maryann Auriemma
01/07/2026	Miriam and Mike Kurland.
01/07/2026	Pam Youngquist
01/07/2026	Robert E. Seletsky
01/07/2026	Shutesbury Conservation Commission
01/07/2026	Wren Veatch
01/08/2026	Anita Ryan
01/08/2026	Brittany Gravely
01/08/2026	Massachusetts Department of Environmental Protection (MassDEP)/Western Regional Office (WERO
01/08/2026	Judith Eiseman
01/08/2026	Nancy Haver
01/09/2026	Alisa Plazonja
01/09/2026	Department of Conservation and Recreation (DCR)
01/09/2026	Massachusetts Department of Environmental Protection (MassDEP)/ Waterways Regulation Program (WRP)
01/09/2026	Elizabeth Pols
01/09/2026	Franklin Regional Council of Governments (FRCOG)
01/09/2026	Ian Buchanan
01/09/2026	Jenn Suprenant
01/09/2026	Jill Buchanan
01/09/2026	Lara Wahl, Eli Elkus, and Zuleica Booth
01/09/2026	Lenore Bryck
01/09/2026	Senator Jo Comerford, Hampshire, Franklin, Worcester District
01/09/2026	Shelley Kirkwood

01/12/2026	Natural Heritage and Endangered Species Program (NHESP)
01/14/2026	Massachusetts Department of Environmental Protection (MassDEP

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
11-10-2025

Certificate Action Date
1-9-2026

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Organization
Town of Buckland Conservation Commission

Affiliation Description
Municipality

Status
Opened

Comment Title or Subject

Topic: Comments from the Buckland Conservation Commission

Comments

Segoe UI | 10 pt | Paragraph

The Buckland Conservation Commission has reviewed the Draft Environmental Impact Report for the proposed Central to Western Massachusetts Energy Improvement Project and would like to put forth the following comment.

The work envelope and pull pad noted on page 9 of the DEIR Appendix A Plans is entirely within the inner 100 feet of Riverfront Area to the Deerfield River. Therefore, it seems impossible that this project will have zero impacts to the RFA as noted on the provided impact table in Appendix C. We would like to see this potential discrepancy addressed, and will look forward to reviewing more detailed plans for the work proposed in Buckland when available. 1-1

Attachments

Update Status

Status
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BACK TO SEARCH RESULTS

CONSERVATION COMMISSION

Lawrence Memorial Hall
2 Jabish Street, Post Office Box 670
Belchertown, Massachusetts 01007-0670
(413) 323-0405

December 5, 2025

Alex Strysky
Massachusetts Environmental Policy Act (MEPA) Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Conservation Comments – Central to Western Massachusetts Energy Improvement Project (EEA No. 16913)"

Dear Mr. Strysky,

I am writing to provide comments on the New England Power Company project **EEA#16913 Central to Western Massachusetts Energy Improvement Project** filing that are of primary concern to the Commission. While we support the New England Power Company in maintaining their transmission network, we suggest it is done with careful planning. The Commission appreciates the Draft Environmental Impact Report but still has some concerns. The provision of the following comments should enable the project proponent to provide more robust considerations of alternatives and mitigation measures.

- The Commission will require the "No Net Loss" policy outlined in our local bylaw. Applicants who propose to alter resource areas under the Commission's jurisdiction must demonstrate there is no practicable alternative, minimize impacts where they are unavoidable, and mitigate losses of wetland resource areas on at least a 2:1 basis. The Commission requires all applicants to submit an alternatives analysis, demonstrating need and justification for any work proposed within the 50' Buffer Zone.

- The Commission will require that a Notice of Intent be filed for any work (construction, removal of vegetation, grading, bank stabilization, etc.) that occurs within 100 feet of a Wetland Resource Area or within 200 feet of a Perennial Stream or River to confirm the wetland boundaries. A permit is required from the Conservation Commission for work in these regulated areas, under the MA Wetlands Protection Act and Regulations 310 CMR and the local Wetland Bylaw. While the replacement of existing structures is exempt, this does not include tree cutting or the enlargement of existing structures/conditions**.** 2-1

- The Commission, as the Stormwater Authority, will require a Stormwater permit, as this project is not exempt from the local Stormwater Management Bylaw and Regulations. Mitigation in areas where soils are classified as having severe erosion potential shall include temporary and permanent stabilization methods. Best management practices shall be used. This project shall not increase stormwater runoff to any water body, roadway or neighboring property. 2-2

- This project is not exempt from a Natural Heritage determination and care should be given to not result in a "take" of any species. 2-3

- The Conservation Commission understands the difficulty of knowing the exact tree removal that will be necessary at this point of the project and appreciates that trees that only need to be pruned will be, but the Commission looks forward to more detail being supplied at the time of the Notice of Intent.

- This project crosses through Quabbin Reservoir Watershed, a Class A surface water, Outstanding Resource Water, and Public Water Supply. The applicant should work with the landowner, DCR to make sure to project does not impair the quality of the water. 2-4

- The analysis should include a summary of the last twenty years of herbicide use for vegetation treatment and make projections for how herbicide use will increase as a result of this project. 2-5

- The project as proposed has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, this project should consider both surface and subsurface hydrology, wildlife habitat, fisheries habitat, and shading impacts. The project should highlight how any local cold-water fisheries will be affected, including thermal and sediment impacts. 2-6

- Work should be done carefully to prevent the transmission of invasive species to and from the project site. Because invasive species establish and thrive in disturbed areas, to the extent feasible, soil and vegetation disturbance should be minimized. All vehicles and equipment must be clean and free of excess soil, debris and vegetation before entering the work site. 2-7

- Vernal Pools are significant to the protection of wildlife habitat, particularly amphibian breeding habitat. The removing, dredging, or altering of a Vernal Pool or it's 100' buffer shall not be allowed. 2-8

- The Conservation Commission, as the Stormwater Authority, is happy to see the acknowledgement that a SWPPP will be obtained and the State Stormwater Standards will be met, but all Stormwater discharges must be at least 25' from wetland resource areas. 2-9

We thank you for the opportunity to review and comment.

Respectfully,

Stephanie Sansoucy
Stormwater Cordinator/ Assistant Conservation Administrator

Edward Knight
Chair

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
12-10-2025

Certificate Action Date
1-9-2026

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--

Affiliation Description
Individual

Status
Opened

Comment Title or Subject

Topic: Public Comment Opposing Clear-Cutting – National Grid Transmission Line Project – EEA#16913 (Pelham, Shutesbury, Belchertown Region)

Comments

Segoe UI | 10 pt | Paragraph

To the MEPA Office:

I am submitting this comment regarding the National Grid transmission line rebuild that passes through Shutesbury, Pelham, Belchertown, and lands bordering the Amherst Watershed.

I strongly oppose any plan that involves broad clear-cutting or expanded vegetation removal. This project corridor passes through forests containing wetlands, perennial streams, steep and erosion-prone terrain, and sensitive wildlife habitat. In addition, parts of the proposed work area lie adjacent to or near the **Quabbin Reservoir Old-Growth Management Areas (OGMAs) in Pelham and Belchertown,** which are actively managed to develop old-growth characteristics. These are among the most ecologically valuable forest stands in the region, and their protection must be a priority. 3-1

Old-Growth Management Areas are at risk

The **Quabbin Reservoir OGMAs in Pelham and Belchertown** are specifically managed for old-growth structural development, long rotational cycles, high ecological complexity, and minimal disturbance. These areas include:

• Mature canopy layers

• Intact soil profiles and deep organic horizons

• Sensitive microhabitats dependent on stable shade, moisture, and undisturbed forest floor

• Rare and specialized species reliant on interior forest conditions

Old-growth and old-growth-managed forests are exceptionally vulnerable to edge creation, canopy removal, soil compaction, and heavy machinery. Corridor expansion and clear-cutting would introduce long-term ecological degradation that cannot be reversed in any reasonable timeframe.

Key environmental concerns

• **Wetlands and drinking-water resources:** The corridor includes streams and wetland systems feeding the Atkins Reservoir and the Amherst public water supply. Clear-cutting and soil disturbance elevate risks of sedimentation, turbidity, nutrient pulses, and water-quality decline.

• **Steep slopes and erosion:** The terrain is highly susceptible to erosion. Disturbance from heavy machinery can destabilize hillslopes and generate runoff.

• **Habitat fragmentation:** Wide-scale tree removal would break up contiguous forest blocks, impair wildlife movement, and diminish interior-forest habitat quality.

• **Proximity to OGMAs:** Any clearing near the Quabbin OGMAs undermines decades of ecological management and threatens the development of future old-growth conditions.

Alternatives must be required

Upgrading transmission structures to modern monopoles **does not require** broad clear-cutting. MEPA should require National Grid to demonstrate why the following lower-impact options cannot be adopted:

• Selective trimming rather than corridor-wide clearing

• Narrower access lanes

• Temporary construction mats instead of soil disturbance

• Avoidance of OGMA-adjacent zones

• Alternative routing in sensitive segments

• Helicopter-assisted installation when feasible

• Seasonal restrictions to avoid wet periods and slope vulnerability

3-2

Requested MEPA requirements

I respectfully request that MEPA require National Grid to:

1. **Prohibit clear-cutting** in all areas near the **Quabbin Reservoir Old-Growth Management Areas (OGMAs) in Pelham and Belchertown.** 3-3
2. Conduct a complete **alternatives analysis** showing why low-impact methods cannot be used. 3-4
3. Require comprehensive **wetlands delineation** and watershed impact evaluation for all freshwater systems in the project footprint. 3-5
4. Require a robust **erosion and sediment control plan** for all steep-slope and headwater areas. 3-6
5. Require **independent environmental monitoring** throughout construction. 3-7
6. Establish **no-machinery buffer zones** around all perennial streams feeding the Atkins Reservoir and Amherst Watershed. 3-8

These forests, especially the Quabbin OGMAs, are irreplaceable ecological assets. Once damaged, their old-growth development trajectory cannot be restored. I urge MEPA to protect these sensitive landscapes and prevent unnecessary destruction.

Thank you for your attention to this matter.

Greta Marks-Strouble

Pelham MA

Attachments

Update Status

Status

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BACK TO SEARCH RESULTS

From: [MEPA 2025]
To: [Boards, Executive Office]
Subject: FW: central MA to western MA energy improvement project
Date: Monday, December 15, 2025 3:19:01 PM

From: Diane <d.jacoby.me@gmail.com>
Sent: Friday, December 12, 2025 6:07 PM
To: Michael DeChiara <mdechiara@gmail.com>; info@cmatownsaenergy.com; MEPA (EEA) <mepa@mass.gov>; responsiblegrid@gmail.com
Subject: central MA to western MA energy improvement project

Hello,

After watching a recording of the "responsible grid meeting in Pelham on 12/10/2025" I have many thoughts on this project. My perspective comes from the following lenses: 40 year resident of Shutesbury, outdoors enthusiast and woods trail user 12 months of the year, former employee of both National Grid and Eversource, licensed professional electrical engineer.

It is great that the electrical transmission system in our region is finally being upgraded. This work is very long overdue.

During this meeting, the folks from National Grid described replacing structures on the existing 69 kV line with new structures that will be roughly 5 feet from the existing line of structures. The scope of work described also included removing conductors and structures that would be made obsolete by the new work. I have observed new structures being installed considerably farther from the older structures than what was described on 12/10/25. In some areas the new structures and conductors are energized, the old structures have de-energized conductors hanging from them haphazardly and perhaps in contact with the ground. The two photographs attached happen to be the 69 kV line in Leverett MA. Note the distance between old and new line of structures, the presence of old structures and conductors, and the maturity of the vegetation along the old line of structures. There are other locations that could be included; I have not had time to photograph them yet.

During my career, I observed two philosophies of construction: 1. replace / remove; and 2. replace / abandon in place. With these projects by both National Grid and Eversource, who is responsible for being sure that the obsolete is indeed being removed and responsibly disposed of? There are locations in our region where "abandon in place" might be what is happening.

Thank you Michael DeChiara for moderating the meeting in Pelham. If there is someone in Leverett (Conservation Commission, Planning Board) that would be interested in this message, please feel free to forward.

Be well, be in peace,
Diane Jacoby
Shutesbury, MA



4-1



"When I started counting my blessings, my whole life turned around." - Willie Nelson

Jennifer Hughes, Deputy MEPA Director
Mr. Alex Strysky
MEPA Office
100 Cambridge St.
Suite 900
Boston, MA 02114

Dec. 21, 2025

RE: National Grid Central to Western Massachusetts Energy Improvement Project.

Dear Deputy Director Hughes and Mr. Skrysky,

I am commenting on the Draft Environmental Impact Report (DEIR) for National Grid's Central to Western Massachusetts Energy Improvement Project.

In reviewing the DEIR I am very concerned about permanent impacts that the project could have on the environment and local infrastructure if plans are approved without MEPA requiring adequately protective measures in its approval. I think in all ways, the intention should be to follow the mitigation hierarchy – starting with avoidance of harm and only if these cannot be avoided should minimization be considered. Mitigation is the last, rather than a first step and the DEIR should reflect this in the Certificate it provides to National Grid. 5-1

My specific concerns are below.

Tree removal

In the DEIR, coded as pink/purple cross hatching designates areas where there will be considerable clearcutting of trees. According to the DEIR, 468 linear feet of trees will be permanently removed. While National Grid representatives have stated that on-site crews would likely conduct selective cutting, as I stated at the Town's site visit, "what is in the plan is what is allowed". So if MEPA codifies extensive clearcutting in the DEIR, it gives National Grid the ability to do considerable tree removal and still comply with the DEIR. I strongly recommend that these clearcut areas be reviewed. There is no need for straight lines at the edges of the Right of Way, rather selective cutting should be limited to prevent impact on the infrastructure only. Damage caused for ease of construction will last years after the construction is completed, so must be avoided. 5-2

There are three specific reasons why I am concerned about extensive tree removal. First, this will create less stability in the soils, increasing the likelihood of erosion and sedimentation, which is especially problematic given the proximity to wetlands, streams and the Atkins Reservoir. 5-3 Second, extensive cutting will unnecessarily reduce the carbon sequestration and storage capacity of the area, undermining the Commonwealth's goals of Forests as Climate Solutions initiative. If we are to increase electrification because of climate concerns, we should not simultaneously reducing our natural decarbonization functions. 5-4 Third, this project will create increased opportunities for invasive species to populate the opened areas since cutting trees will change the local environment. 5-5

Requested Action

Require National Grid to reduce "placeholder" Clearcutting areas in the DEIR and replace with more protective, conservative estimates for Selective tree cutting that focus primarily on protection of transmission infrastructure, rather than the widening of open space within the ROW. Similarly, MEPA should the marking of trees by National Grid for potential review by local Conservation Commissions or Town Tree Wardens prior to cutting/construction 5-6 5-7

Wetlands and Waterways

The proposed construction is in close proximity to or directly crosses important and sensitive hydrologic features that impact Shutesbury and neighboring Amherst. MEPA must insist on strict adherence to protective measures and should require National Grid to avoid or minimize disturbances. 5-8

This care is critically important. The project is part of the Fort River Watershed. The project crosses two steams – Nurse Brook and Dean Brook. Dean Brook. Importantly, Nurse Brook runs into the Atkins Reservoir, a water supply for Amherst and UMass. In addition, the DEIR identifies several vernal pools and perennial streams adjacent to the proposed construction area. The project also includes ten to fifteen DEP or field-identified wetlands. Finally, the project lies within a Primary Watershed protection zone and at places is within 100 feet wetlands buffer.

Requested Action

MEPA must insist on avoidance of any disturbances. Not only is this protective but it will provide local Conservation Commission with a clear mandate for local conditions. 5-9

Priority Habitat and Endangered Species

According to the DEIR, there are two areas in the construction area that are designated as Priority and Estimated Habitats. These are north of Pratt Corner Road and west of the substation and along the transmission corridor south of Sand Hill Road. Protection of these habitat areas is important and construction should be required to minimize disturbances.

Requested Action

MEPA should require further documentation regarding the potential environmental impact to these habitats areas, with specific methods that will be taken to avoid or minimize the negative impacts. This information should be provided to the Town of Shutesbury in advance of construction. 5-10

Transportation Impacts

Pratt Corner Road and Sand Hill Road, both of which will provide access to the project site are unpaved rural roads. Both are on hills and in certain stretches of the roads are adjacent to steep slopes. Both roads are approximately 1.5 car widths, but even more narrow depending on the season when runoff and rutting reduce the width making two-way travel difficult. Pratt Corner Road is especially prone to ruts and erosion along the sides of the road which will likely be made worse by heavy machinery. In addition, these roads are primary access routes for residents in the surrounding area and for school buses 5-11

for children attending the Shutesbury and Regional schools. Emergency vehicles also require access to these roads.

Since National Grid has confirmed that the project will require the use of heavy equipment, I would suggest that this equipment that is not easily deployed on these unpaved roads. Unless significant planning and care is taken, the machinery will damage the road surface, advance erosion, and likely require temporary closing during construction. 5-11 ct'd

Finally, any permanent "improvements" that National Grid may make to the roads regarding to assist them with access to the transmission lines during construction or afterwards may also impact the fragile environment in terms of steep slopes, proximity to wetlands and streams, and on-going stormwater effects to the roadway. MEPA needs to ensure this does not occur with local and state-level consultation. 5-12

Requested Action
National Grid must consult with the Shutesbury Highway Department in the planning stage and then during construction regarding ways to maintain and protect the road This should definitely include consultation with the Select Board and Highway department regarding any possible road "improvements". 5-13

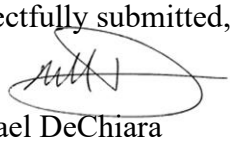
As National Grid representatives agreed, a written transportation plan is essential given that the large equipment will block use of the road to school buses, emergency vehicles, commuters and residents for daily activities. This is a huge issue that must be addressed and planned for and MEPA must require the transportation plan in advance, developed in consultation with the Town. 5-14

MEPA must also prohibit construction activities during periods when the roads are muddy or the road surface is vulnerable to damage, making future passage difficult or impossible. 5-15

Preservation of Trails
The proposed construction area is within the Walter Cowls Jones Conservation area that has established and well-used recreational trails. This vibrant trail system should be protected both during construction and afterwards.

Requested Action
Encroachment on and damage to existing trail networks should be avoided or minimized. In particular, select tree cutting should occur to maintain the integrity of the trails. If trails are temporarily closed due to construction, prior communication and coordination with the Town should occur and physical notices placed for hikers. 5-16

Respectfully submitted,



Michael DeChiara
56 Pratt Corner Road, Shutesbury, MA
mdechiara@gmail.com

Commonwealth of Massachusetts | Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Western Regional Office

Address: 436 Dwight St, Springfield, MA 01103 | **Phone**: 413-784-1100

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

December 30, 2025

Rebecca Tepper, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Alex Strysky, EEA No. 16913
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: Central to Western Massachusetts
Energy Improvement Project DEIR

Dear Secretary Tepper,

The Massachusetts Department of Environmental Protection (MassDEP) appreciates the opportunity to comment on the Draft Environmental Impact Report (DEIR) submitted for the proposed Central to Western Massachusetts Energy Improvement Project in the communities of Shelburne, Conway, Deerfield, Sunderland, Leverett, Shutesbury, Pelham, Belchertown, Ware, West Brookfield, North Brookfield, East Brookfield, Spencer, Leicester, Auburn and Millbury (EEA #16913).

MassDEP attended a Site Visit for this Project on November 20th, 2025.

I. Project Description

The Proponent, New England Power Company (NEP) is proposing asset condition refurbishment and system improvements along 67 miles of the existing E5/F6 Transmission line, as well as seven interconnecting Tap Lines. The Project Area will be predominantly located within the existing Right-of-Way (ROW) for the respective mainline and Tap Lines, ranging from 80 feet up to 200 feet in easement width. The E5/F6 mainline connects the Deerfield #4 Substation to the Milbury #305 Substation and supplies power to six additional Substations. The seven Tap Lines are located in Auburn, Leicester, East Brookfield, North Brookfield, Belchertown, Shutesbury and Shelburne. The mainline and Tap Lines provide electricity to 26 municipalities and are the sole transmission source for 12 of those communities.

The Lines are among the oldest in New England; originally constructed in the early 1900s, refurbished in 2001, and reinsulated in 2020. The Proponent states that the 711 structures and associated wires require replacement due to poor condition, poor performance and insufficient capacity to interconnect renewables to the electric grid. The Project proposes

to replace the double circuit steel, lattice tower and wood structures with a combination of steel double circuit monopole davit arm and steel single circuit monopole structures. Existing copper conductor will be replaced with 795 thousands of circular mils ACSS conductor. The existing shield wire will be replaced with two optical ground wires to provide high speed communication between substations.

Vegetation management and access improvements, including construction of new access routes, will be necessary for the project. The Proponent states that the majority of wetlands impacts are temporary and related to the use of construction matting and stabilizing material during construction. Permanent alterations are primarily tree removal. There have been changes to structure locations, access and work pad dimensions since the filing of the ENF.

There are 19 Environmental Justice Populations identified within a 1-mile radius of the Project Area. There are 158 Environmental Justice Populations identified within a 5-mile radius of the Project Area. These Populations are classified as Income, Minority, and Minority and Income.

Environmental Impacts associated with this project include:

- Total site acreage – 1,251 acres
- New acres of land altered – 248.3 acres(temporary), 318.6 acres (permanent), 566.9 acres (total)
- Acres of impervious area – 35 acres (existing), 0.25 acres (new), 35.25 acres (total)
- Acres of new bordering vegetated wetlands alteration – 42 acres (temporary), 19.9 acres (permanent),
- New other wetland alteration:
    - Bordering Land Subject to Flooding – 4.5 acres (temporary), 3.7 acres (permanent), 8.2 acres (total)
    - Riverfront Area – 31.4 acres (temporary), 29.3 acres (permanent), 60.7 acres (total)
    - Linear Feet (lf) of Bank – 6,871 lf (temporary), 9,894 lf (permanent), 16765 lf (total)
    - Land Under Water Bodies and Waterways – 1 acre (temporary), 1 acre (total)
    - Isolated Wetland – 1.5 acres (temporary), 0.6 acres (permanent), 2.1 acres (total)
- Structures maximum height – 95 feet (existing), 50 feet (new), 145 feet (total)

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands
310 CMR 10.000
314 CMR 9.00
314 CMR 4.00

Air Pollution
310 CMR 7.00
Solid Waste
310 CMR 16.00
310 CMR 19.00
Hazardous Waste
310 CMR 30.00
Bureau of Waste Site Cleanup
310 CMR 40.000

III. Permit Discussion

Bureau of Water Resources
MassDEP has no further comments. Previous comments remain valid.

Bureau of Air and Waste
MassDEP has no further comments. Previous comments remain valid.

Bureau of Waste Site Cleanup
MassDEP has no further comments. Previous comments remain valid.

IV. Other Comments/Guidance

Section 61 Findings
The proponent has presented proposed Section 61 Findings in the DEIR for this project. MassDEP has reviewed these findings and finds them to be satisfactory. However, additional assessment and/or alternative mitigation measures may be necessitated based on the submittal of detailed information as part of the permitting process. MassDEP has the authority during permitting to ensure the project will avoid, minimize or mitigate adverse impacts to the environment. 6-1

If you have any questions regarding this comment letter, please do not hesitate to contact Sean Gonsalves Sean.Gonsalves@mass.gov

Sincerely,

Sean Gonsalves, R.S. for
Michael Gorski
Regional Director

cc: MEPA File

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
1-2-2026

Certificate Action Date
1-9-2026

Reviewer
Alexander Strysky, (857)408-6957, alexander.strysky@mass.gov

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Organization
Samuel Dr Gladstone

Affiliation Description
--

Status
Opened

Comment Title or Subject

Topic: central to western mass energy improvement project

Comments

in buffam falls the transmission lines that cross the stream are high above the trees so no trees should be cut there as cutting trees there will destabilize the beautiful stream & trails & is totally unnecessary 7-1

Attachments

Update Status

Status
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SUBMIT

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BACK TO SEARCH RESULTS

Pioneer Valley Planning Commission

January 5, 2026

Ms. Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Attention: MEPA Unit

Reference: Draft Environmental Impact Report
EEA No. 16913
Central to Western Massachusetts Energy Improvement Project
Sunderland, Millbury, Leverett, North Brookfield, West Brookfield, Auburn, Spencer, Deerfield, Shelburne, Ware, Shutesbury, Belchertown, Conway, Pelham, Leicester

Dear Secretary Tepper:

The Pioneer Valley Planning Commission (PVPC) respectfully submits the following comments on the Draft Environmental Impact Report (DEIR) for the Central to Western Massachusetts Energy Improvement Project (EEA#16913). Our review identifies several critical concerns and requests for clarification, primarily focused on environmental impacts and consistency with regional planning priorities.

1. Wetlands and Resource Area Impacts

The DEIR acknowledges that the project will involve work within multiple wetland resource areas, including Bordering Vegetated Wetlands (BVW), Riverfront Areas, and Buffer Zones. Although the applicant identifies compliance with the Wetlands Protection Act and outlines a proposed suite of mitigation measures, additional documentation is requested in the Final Environmental Impact Report (FEIR) for the following areas:

Quantification of Wetland Impacts: A table is included with square footage of temporary vs. permanent impacts, but there is insufficient narrative explaining the ecological significance of affected wetlands (e.g., habitat value, connectivity, hydrology). 8-1

Avoidance and Minimization Measures: While alternative alignments are mentioned, the DEIR does not adequately explain how wetland impacts were avoided or minimized during design phases. 8-2

Hydrology: The project as proposed has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, this project should consider both surface and subsurface hydrology, wildlife habitat, fisheries habitat, and shading impacts. The FEIR should highlight how any local cold-water fisheries will be affected, including thermal and sediment impacts. 8-3

Invasive Species: Work should be done carefully to prevent the transmission of invasive species to and from the project site. Because invasive species establish and thrive in disturbed areas, to the extent feasible, soil and vegetation disturbance should be minimized. All vehicles and equipment must be clean and free of excess soil, debris and vegetation before entering the work site. 8-4

Vernal Pools: Vernal Pools are significant to the protection of wildlife habitat, particularly amphibian breeding habitat. The PVPC does not support options that include removing, dredging, or altering of a Vernal Pool or a 100' buffer. 8-5

Outstanding Water Resources: This project crosses through Quabbin Reservoir Watershed, a Class A surface water, Outstanding Resource Water, and Public Water Supply. The applicant should work with the landowner, Department of Conservation and Recreation (DCR) to make sure the project does not impair the quality of the water. 8-6

Cumulative Impacts: There is no substantive discussion of cumulative wetland loss from this and other regional energy infrastructure projects. We request that the FEIR include a narrative assessment of functional wetland impacts (e.g., wildlife support, flood mitigation) and provide a clear matrix comparing alternatives with respect to total and functional wetland impact. 8-7

2. Tree Removal and Forest Impacts

The DEIR includes estimated tree clearing for each segment, but the scope and impact of this vegetation removal is requested as part of the FEIR as follows:

Extent of Clearing: In several segments, the extent of clearing is unclear, with additional areas required for access roads and work pads. While the total acreage of impact is stated, it's unclear how much is mature forest vs. shrubland or edge habitat. PVPC understands the difficulty of knowing the exact tree removal that will be necessary at this point of the project and appreciates that trees that only need to be pruned will be treated accordingly. We look forward to more details being supplied as part of the FEIR. 8-8

Forest Fragmentation: There is no analysis of interior forest loss or fragmentation impacts, which are critical in areas of contiguous habitat. 8-9

Climate and Carbon Sequestration: The DEIR does not provide a carbon accounting analysis of forest loss or propose offsets. This information is requested as part of the FEIR. 8-10

Herbicide Use: The FEIR analysis should include a summary of the last twenty years of herbicide use for vegetation treatment and make projections for how herbicide use will increase as a result of this project. 8-11

We also recommend the FEIR include a GIS-based forest fragmentation analysis, along with mitigation strategies such as replanting, conservation easements, or carbon offsets to compensate for permanent canopy loss. 8-12

3. Stormwater Management and Erosion Control

Stormwater management is described in the DEIR in general terms, with references to MassDEP Stormwater Standards. Additional information is requested as part of the FEIR as follows:

8-13

Site-Specific BMPs: There is insufficient detail about proposed stormwater Best Management Practices (BMPs) at individual access roads, laydown yards, and construction areas.

Erosion Control Plans: For sloped or erodible areas, it is unclear whether erosion controls will be adapted seasonally or based on field conditions.

8-14

Post-Construction Hydrology: There is limited discussion of how stormwater runoff patterns will change after permanent infrastructure is installed.

8-15

Belchertown Specific Requirements under their Stormwater Bylaw: It should be noted that the Belchertown Conservation Commission will require a Stormwater permit, as this project is not exempt from the local Stormwater Management Bylaw and Regulations. Project mitigation in areas where soils are classified as having severe erosion potential should include temporary and permanent stabilization methods using BMPs. It is requested that the FEIR include information on how this project does not increase stormwater runoff to any water body, roadway or neighboring property.

8-16

We request that the FEIR include site-specific stormwater design plans for key impact areas and describe long-term inspection and maintenance responsibilities for all BMPs.

8-17

4. Open Space Conversion and Public Lands

The DEIR mentions the use of several publicly owned parcels and conservation lands, including those subject to Article 97 protections. Additional information is requested as part of the FEIR as follows:

8-18

Article 97 Review: Where access roads or utility corridors cross protected open space, the FEIR should identify parcels requiring Article 97 alienation and describe the legislative and mitigation process.

8-19

Recreational Impacts: Temporary closure of public trails is mentioned, but the DEIR lacks a clear schedule of closures, detour plans, or notification protocols. Additional information is requested as part of the FEIR.

8-20

Compensatory Mitigation: There is no quantitative proposal for open space compensation, such as land donation, trail enhancement, or conservation restrictions. The FEIR should include a parcel-level summary of open space impacts, and a formal compensatory open space mitigation plan is recommended to be included as part of the Section 61 Finding.

8-21

5. Permitting and Regulatory Coordination

The DEIR outlines required permits but does not fully demonstrate how overlapping federal, state, and local reviews will be coordinated:

8-22

MEPA / FERC / Energy Facilities Siting Board Coordination: It is unclear how these processes will align to avoid duplication or regulatory gaps. Additional information is requested as part of the FEIR. 8-22 ct'd

Wetlands and Water Quality Permits: The DEIR lists anticipated permits (e.g., Section 401, 404, Chapter 91) but does not provide a clear timeline or identify responsible parties. Additional information is requested as part of the FEIR. 8-23

Local Conservation Commission Review: PVPC encourages direct consultation with local Conservation Commissions in Belchertown, Pelham, and Ware to ensure that site-specific wetland and stormwater conditions are incorporated. The FEIR should provide a coordinated permitting timeline and matrix showing agency jurisdiction over each impact type. 8-24

6. Environmental Justice (EJ) Communities

The DEIR identifies proximity to Environmental Justice populations but does not clearly outline meaningful engagement strategies or mitigation: 8-25

EJ Mapping: EJ screening is performed using state thresholds; however, the document lacks maps showing project components in relation to specific EJ communities.

Disproportionate Impact Analysis: The FEIR should analyze whether construction impacts (noise, traffic, vegetation removal) disproportionately affect EJ neighborhoods. We recommend that the FEIR include a full demographic and health profile of nearby EJ communities and propose enhanced mitigation, such as additional vegetative buffers or community benefit agreements. 8-26

7. Historic, archeological, and cultural resources preservation

Franklin Regional Council of Government (FRCOG) commented on the ENF related to historic, archaeological, and cultural resources. The proponent responded to comments by FRCOG related to a request for the DEIR to report on the proponent's ongoing coordination with the Department of Conservation and Recreation (DCR), Massachusetts Historical Commission (MHC), and Tribes, and discuss any mitigation measures that will be implemented to avoid or minimize impacts to cultural and historic resources (C54, Section 7.3). To date, the work completed and ongoing with consultant P.A.L. includes the identification and inventory of 22 above-ground resources (19 districts and three individual resources). Additionally, 16 archaeological sites have been inventoried within or overlapping the Project Right of Way. Consultation is ongoing with the MHC along with outreach to federal and state-recognized Tribes and other stakeholders. Once the review and fieldwork by P.A.L is completed and consultation also finished with the MHC, United States Army Corps of Engineers (USACE), and federal and state-recognized Tribes, there is commitment to developing any necessary plans for archaeological site avoidance, protection plans, and associated treatment measures through the Section 106 process. Avoidance, minimization, and mitigation measures have been outlined related to 8-27

archaeological sites and stone walls (Section 7.3 and Appendix D). It is requested that status of these efforts be updated to the extent possible as part of the FEIR. 8-27 ct'd

8. Conclusion

PVPC supports infrastructure resilience and reliability but emphasizes that these goals must be balanced with environmental protection, climate adaptation, and equity. Additional information is requested in the Final EIR on the following topics:

- Expanded analysis of wetland functions and forest fragmentation.
- Detailed stormwater and erosion control design.
- Open space and Article 97 mitigation plan.
- Coordinated permitting and regulatory pathway.
- Environmental justice engagement and mitigation strategies.
- Historic, archeological, and cultural resources preservation.

We appreciate the opportunity to provide comments on the DEIR for this project.

Sincerely,

Kimberly H. Robinson, MUP
Executive Director

CC:

Julie Goldberg, BSC Group, Environmental Consultants
Alexander Strysky, Massachusetts Environmental Protection Agency
Bjorn MarKeson, PVPC Commissioner - Belchertown
Douglas Albertson, PVPC Alternate - Belchertown
Judith Eiseman, PVPC Commissioner - Pelham
Peter Wilson, PVPC Alternate – Pelham
Stuart Beckley, Town Manager - Ware
Jessie Cooley, Office of Senator Jo Comerford
Sen. Jo Comerford, Hampshire, Franklin, and Worcester, MA State House

January 6, 2026

Jennifer Hughes & Alexander Strysky
Commonwealth of Massachusetts
Jennifer.Hughes@mass.gov
alexander.strysky@mass.gov

Re: Central to Western Massachusetts Energy Improvement Project

Dear Jennifer and Alexander,

I am writing to provide public comment on the "***Central to Western Massachusetts Energy Improvement Project***," currently under review by your department.

As a resident of Amherst, I am very concerned about protecting the groundwater and water quality of our drinking water supply as well as environmentally sensitive areas associated with the Amethyst Brook and Quabbin watersheds. The protection of groundwater is essential to protecting our drinking water supply.

Having personally witnessed the detrimental impacts of extensive site disturbance to groundwater and soils associated with the "replacement" of high transmission lines near my home, I wanted to add comments to consider as part of your review. I have personally had to bear the cost of substantial repair and stabilization measures to my home and property, necessitated by the damages caused by the linear transmission line replacement project. Throughout the process of post-construction investigation and engagement with various professionals and contractors, I have learned much about the specific soils, groundwater, and risks that I continue to face from the adjacent work.

My personal experience with this matter has broadened my understanding and context of the potential massive impacts of these large linear infrastructure projects across our lands if they are built based upon general rules of thumb rather than site specific level of care, engineering, and oversight. Some of the lessons learned were procedural: how certain topics and categories of review fell between the jurisdictional boundaries at the state and local level; while others were more about the material interactions, and complexities of soil, terrain, with respect to possible impacts to the land, soil, and groundwater from construction.

It is my hope that the comments below are helpful to you in reviewing this project and others like it to prevent damage to our soils and groundwater systems.

1.Avoid significantly altering the porosity of soils below grade within the work area. Not all soils are the same structurally.

a. Prior to construction and permitting, require thorough study of soils and underlying materials in both the areas of the towers and the areas of heavy construction:
    i. Heavy trucks, repeated vibration can cause silty and or clayey soil structure to collapse like a deck of cards. The impacts can be within that 1' to 12' below grade and can form below grade dams which intercept and redirect groundwater movement across the land.
    ii. Heavily compacted and/or collapsed soils can negatively impact existing drainage infrastructure below grade as well as the capacity of soils to move water below grade.
    iii. Due to the long, linear nature of access roads, these impacts and disruptions can be much greater than the footprint of construction, as they interface and impact the larger subsurface watershed.
    iv. NRCS surficial geology may may not be sufficient data to capture the characteristics of subsurface layers. Geotechnical borings and a resultant report should be prepared for each tower location and any adjacent area where the roads are being "repaired" or built.
    v. Wood matting may not be sufficient to prevent compaction, especially in areas of high groundwater and saturated soils.

9-1

2. **Level of specificity of both existing conditions and final proposed conditions.** Drawings and plans for permitting should be developed to a level of specificity to show the proposed final contours with 1' intervals at the end of the project.
    a. If there are proposed adjustments to the terrain, the applicant must demonstrate that stormwater flows are balanced for pre and post flows, not just for the current standard but for future projected rainfall amounts as outlined by the state for the installed project's projected future life span.
    b. Stormwater reports should be peer reviewed and critically evaluated for curve numbers applied, infiltration rates claimed and model storm amounts.

9-2

3. **As built with final topography required to confirm compliance with original permit documents.** During construction, deviations are inherent with a complex project of sustained timelines and changing personal.
    a. Formalizing review and compliance with the project's initial proposal is essential to keep all parts of the effort accountable and ensure a successful project.

9-3

4. **Avoid generic approaches that engage with terrain.** Historically we have seen a practice of utility companies scraping the topsoil within the area of work and mounding it up alongside the upslope side of the maintenance road and easement, forming a linear dam above grade to protect the gravel road base and save effort of hauling topsoil offsite. 9-4
    a. The companies then have left the earthen mounds in place redistributing surface water and shoving water into lower lying areas.
    b. In previous projects mounds became 4'-6' tall and 14' to 20' wide along the full length of the road.
    c. These mounds block natural overland flow and some ephemeral streams an groundwater pond outlets.
    d. Any surface water that does not continue to flow overland, will become groundwater and can negatively impact groundwater adjacent to and downslope of the project (e.g. septic fields, homes, and other private infrastructure, and subsequent downslope groundwater resource areas).
    e. This practice can create both surface water and groundwater flooding in areas receiving the redirected stormwater.
    f. In my experience, the plans submitted for permitting review did not include proposed contours but referred to the practice as a standard procedure in another document referenced in the permit plans. This means that the footprint of the disturbance as well as its unintended consequences weren't understood by either the utility company or the permitting agencies reviewing the work.

5. **Areas with high Groundwater:** Areas with high groundwater are highly vulnerable to changes in groundwater and surface water inputs. 9-5
    a. The Commonwealth should require stricter oversight and infrastructure in areas with high groundwater and/or areas prone to groundwater flooding.
    b. Some indications of high groundwater, include areas
        i. where septic fields are raised or
        ii. areas where NRCS maps indicate groundwater may be within 8' of the surface as well as
        iii. more formalized soil evaluations by a MA certified soil evaluator.
        iv. Areas identified with high groundwater by geotechnical engineer
    c. Areas with high groundwater will be more vulnerable to modifications of soil and terrain that elevate groundwater than areas where groundwater is much deeper.
    d. Increasing groundwater depths as much as 2' can flood adjacent structures and cause septic systems to fail. For areas with public trail access or areas in

conservation, increasing groundwater can expand wetlands, flood ditches, and introduce more contaminants into drinking water.

6. **Geotechnical Engineering:** Geotechnical borings and analysis of soils can inform the design team early on about potential vulnerabilities of soil and groundwater. Require a geotechnical report for each proposed tower location. Generalized approaches may not capture site specific vulnerabilities to dynamic groundwater interactions and artesian affects. 9-6
    a. Require the utility company to address issues of artesian effects of punctured confinement layers of silt and clay by footings, and posts and the upward movement of lower layers of groundwater or aquifer introduced by the new towers.

7. **Anticipate Corrosion and High Acidity of Existing Groundwater:** Localized groundwater is fairly acidic. Tests conducted on site on my property and in upstream areas showed pH to be as low as 3.5 or 4.0. Structures submerged in highly acidic groundwater can be prone to corrosion. Review the proposed structures and materials for resistance to corrosion from highly acidic groundwater which is endemic to our area. 9-7

8. **"Restoration Plan":** The term restoration means different things within the context of utility work. In the past, utility companies have used the term "Restoration Plan" to outline their aspirational plan for restoring the easement land to a final stable condition. This differs from the wetlands definition of restoration and permitting. Which can cause confusion by various stakeholders surrounding the binding nature of the restoration plan as initially presented by the company. The utility company should review their Restoration Plan with the underlying land owners as well as the permitting agencies, and the Utility's Restoration Plan should be deed or easement recorded. This would be a mechanism to keep the utility company accountable to promises made to abutters and land owners as well as regulatory agencies. It is my understanding that in the past, the utility defined restoration plan has been scaled back significantly as budget needs changed and value engineering was applied during construction; this results in a restoration plan that was aspirational rather than binding, and very confusing for abutters to work with the permitting agencies and utility company towards resolution when promises are scaled back. 9-8

9. **No intimidation or attempt to remove private owner property rights, or attempt to discredit the character of landowners where the work is taking place:** Any approvals or negotiations between the utility company and underlying land owners should not be a mechanism for the utility company to intimidate the underlying landowner into waiving their rights and protection to their land. 9-9

10. **Repair of work:** Repairs should be made by the utility company to restore the land to its original condition or better, including subgrade and above grade conditions, drainage, and flow patterns, and type of vegetation cover. Cost of testing of issues, engineering, and permitting for repair work should not be borne by the underlying landowner. Utility companies should be held accountable for any damages and be responsible for fixing any issues they cause. In the past utility companies have pushed the burden of repair, permitting, and engineering onto the underlying land owner. If the company does not take the burden of repair upon themselves, then they should reimburse the property owner in full without requiring indemnification of past and future liabilities or requiring a reduction of underlying property rights. 9-10

11. **Better communication about the material nature of work and the final conditions of the land during and after construction:** Recommend meeting with individual property owners to walk their property affected by the work and talk through the proposed work as well as the proposed final condition of the land. Any initial letter notifications to property owners, should include detailed descriptions of the proposed work during construction as well as any requested permanent changes to terrain or surfacing of the underlying landowner's land. Any permanent changes to the land should be approved of by the landowner prior to the Utility company submitting permits. 9-11

12. **Work with the University of Massachusetts Amherst's Department of Hydrogeology to identify areas vulnerable to groundwater flooding as well as areas prone to be susceptible to groundwater flooding in the future:** David Boutt's research department at Umass Amherst has been creating maps and analyzing the Commonwealth for potential groundwater flooding risk. Working with their research may help inform the way the project considers and protects areas more vulnerable adjacent to and within the proposed work area. 9-12

13. **Maximize existing Carbon Sequestration and stormwater management by protecting soils and trees:** Unnecessary removal of trees from the land can reduce the water retention capacity of soils within the easement, 9-13

a. " The relationship between Soil Organic Carbon (SOC), soil health, and water quality holds true across land cover types. In areas dominated by impervious land cover, not only does tree planting enhance SOC, but it also has watershed benefits, even when adopted at small scales. In urban and suburban areas, a single deciduous street tree can prevent between 500 and 760 gallons of stormwater per year from becoming runoff; a mature evergreen street tree can intercept more than 4,000 gallons over the same time period (Cotrone, 2015). In agricultural systems, the interconnectedness of SOC and water quality can be seen in the forest buffers typically adopted to filter agricultural runoff. Studies in Maryland have seen nitrate reductions of up to 88 percent when agricultural runoff passes through a forest buffer (Cotrone, 2015). This BMP also has the ability to increase above and belowground carbon sequestration." - The Massachusetts Healthy Soils Action Plan pg 21 https://www.mass.gov/doc/healthy-soils-action-plan-2023/download

14. **Publicly owned lands**: Utility company to reach out to each owner of the publicly held land to confirm what department (s) or representatives need to be included on future correspondence. 9-14

15. **Engage with local public elected officials** to provide more support for members directly affected by the work. 9-15

Thank you for your time and attention in reviewing this project and others like it.

Sincerely,

Rachel

Rachel Loeffler

133 Bay Road

Amherst, MA 01002

rachelloeffler@gmail.com

From: Stacey McCullough
To: Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject: Central to Western Massachusetts Energy Improvement Project
Date: Tuesday, January 6, 2026 2:38:52 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To Whom It May Concern:

I'm concerned that National Grid's plan calls for indiscriminate clear-cutting throughout their project, rather than exercising due care to limit damage. I ask that you require National Grid to limit their project's damage to only the amount that's truly necessary to meet their project's goals. 10-1

Throughout the mapset, National Grid's map legends have color-coding for Selective Tree Removal and Pruning as well as for Tree Removal -- i.e., clear-cutting. However, the actual mapped zones in the corridor are universally assigned to the Tree Removal category. The more selective codes are only applied to a few areas outside of their ROW (e.g., on access roads). I don't find it credible that every single zone in their ROW that needs to be managed at all needs to be completely clear-cut. To me, the universal application of the clear-cutting category within their ROW indicates that National Grid has not exercised sufficient care to distinguish areas that need to be clear-cut from those that don't. National Grid should be assiduous about managing via Selective Tree Removal or Pruning everywhere they can, and especially in areas that are priority habitats, water supplies, wetlands/streams/vernal pools, hiking areas, and otherwise sensitive. 10-2

A final note comes from my viewing of the video from the December 10, 2025 community meeting that National Grid held. It seems to me that National Grid is being disingenuous or intentionally ambiguous or both about the intended clear-cutting. They're saying: *"We're not widening the ROW"* and letting people think it means: *"We're not widening the cleared corridor."* Those two statements are not equivalent! Per National Grid's maps, they absolutely are widening the cleared corridor, albeit within their 125' ROW. The natural environment has value whether it falls on one side or the other of their property line, and National Grid should protect it wherever possible. 10-3

Thank you,
Stacey McCullough
26 N Valley Rd., Pelham
StaceyYMcCullough@gmail.com

From:	Denise Presley
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Wednesday, January 7, 2026 11:08:12 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns such as where I live- So Hadley.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 11-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 11-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 11-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid’s December 11-4

presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

11-4 ct'd

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clear cutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

11-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Denise Presley

PO Box 352

South Hadley, MA 01075

Comment for wrong project

From: Enviro Show
To: Strysky, Alexander (EEA)
Subject: Re: EEA#16570 WT-11 Transmission Right-of-Way Reliability Project
Date: Wednesday, January 7, 2026 5:24:35 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

We strongly believe MEPA should require Eversource to revise their new cutting plan. It does not minimize harm as required by law. Eversource seems not to value what forests provide for the climate, the wildlife and society in general. Their plan does not distinguish between trees that pose a risk to the power lines and those that do not. There is no need to remove trees that will never impact the power lines.

Eversource submitted a very similar plan previously and the EEA "expressed concern for endangered species and wildlife habitat, sensitive wetland areas including drinking water supplies and cold water fisheries, and the future use of herbicides on the newly cut areas… [as well as for] protected open spaces." Eversource's present plan ignores those concerns while proposing to clear-cut 278 acres of trees which drawdown CO2 emissions from the overburdened atmosphere and store carbon for the life of the forest for free, 24/7/365 in the midst of the Climate Crisis. Trees that help mitigate increasing heat waves that actually threaten powerlines. Trees that help in preventing flooding and washouts at a time when storms are becoming much stronger. Trees that provide food and shelter for wildlife.

It is our belief that Eversource needs to return to the drawing board and come up with a more realistic and responsible plan for expanding their power lines if, indeed such an expansion is needed at all.

Don Ogden, Co-host
The Enviro Show
WXOJ/WMCB/WMNB
140 Pine Street
Florence, MA 01062

From:	Jacqueline Katz
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Wednesday, January 7, 2026 10:06:43 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 12-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 12-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its

Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

12-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

12-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

12-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

12-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Jacqueline Katz
170 West Pelham Rd
Shutesbury, MA 01072

From: Janet Sinclair
To: Hughes, Jennifer (EEA); Strysky, Alexander (EEA)
Subject: Concerns About Impact of Utility Clearcutting -- Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date: Wednesday, January 7, 2026 10:01:25 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To: The Massachusetts Environmental Policy Act (MEPA)

Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 13-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 13-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 13-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 13-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets. 13-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Janet Sinclair
Co-founder, Save Massachusetts Forests
Buckland, MA

From:	Jodi Rodar
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	National Grid Transmission Line Project
Date:	Wednesday, January 7, 2026 10:54:34 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To: Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Dear Alexander Strysky and Jennifer Hughes,

I am writing to express my deep and urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 14-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. 14-2
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero

2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

14-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

14-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

14-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

14-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Thank you.

Sincerely,

Jodi Rodar
North Valley Road
MA 01002

223
Pelham,

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
1-7-2026

Certificate Action Date
1-9-2026

Reviewer
Alexander Strysky, (857)408-6957, alexander.strysky@mass.gov

First Name
JOSETTE

Last Name
Henschel

Phone
--

Email
josette.henschel@gmail.com

Address Line 1
579 North Gulf Road

Address Line 2
--

State
MASSACHUSETTS

Zip Code
01007

Organization
--

Affiliation Description
Individual

Status
Opened

Comment Title or Subject

Topic: A Thoughtful, environmentally sound National Grid Transmission line project thru townships in Mass.

Comments

Please, please rethink this project. We need every tree possible. I support improvement of the electric grid; I appreciate all that National Grid does to keep the energy flowing. This plan requires thoughtful planning and cutting to take into consideration the environment, the wildlife corridors, flooding, erosion, protection of this "green" legacy upon which we are dependent for tourism, beauty, oxygen, erosion protection, and on and on. PLEASE DON'T LET US DOWN!!

15-1

Attachments

Update Status

Status
Opened

SUBMIT

Share Comment

SHARE WITH A REGISTERED USER

BACK TO SEARCH RESULTS

From:	Lynne Man
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Cc:	Scarsdale, Margaret - Rep. (HOU); John Cronin
Subject:	Regional Impact of Utility Clearcutting in Western MA
Date:	Wednesday, January 7, 2026 9:51:07 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Directors,

My name is Lynne Man and I live in Lunenburg, which is Central Massachusetts. I am also the Co-Leader of the Massachusetts Sierra Club Forest Protection Team and active with the Wildlands Campaign of Climate Action Now, Western Massachusetts. I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns and beyond.

While I support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 16-1

While I do not live in Western MA, I believe that these practices impact our entire state and make our climate and biodiversity goals harder to achieve. I reiterate and support the collective concerns of Responsible Grid:

1. The Regional Loss of Ecological Services: The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. 16-2
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors: The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys 16-3

the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

16-3 ct'd

3. Economic Devaluation of Our Rural Character: The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

16-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

16-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. I am in full support of their requests.

Sincerely,

Lynne Man

463 Burrage Street, Lunenburg, MA 01462

From: M. Auriemma
To: Hughes, Jennifer (EEA); Strysky, Alexander (EEA)
Subject: Regional Impact of Utility Clearcutting
Date: Wednesday, January 7, 2026 11:26:04 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Hello:

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 17-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 17-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

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3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 17-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets. 17-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Maryann Auriemma

802 Pine Meadow Road

Northfield

From: Kim, Tori (EEA)
To: Strysky, Alexander (EEA)
Subject: FW: MEPA
Date: Wednesday, January 14, 2026 12:15:05 PM

FYI

Tori T. Kim
Assistant Secretary / MEPA Director
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114
Tel: (857) 207-2996 (mobile)

NEW!! MEPA has proposed amendments to its regulations at 301 CMR 11.00 to streamline housing and ecological restoration projects. More information is available here.

From: Miriam <mimbck@yahoo.com>
Sent: Wednesday, January 7, 2026 8:12 PM
To: MEPA-regs (EEA) <MEPA-regs@mass.gov>
Subject: MEPA

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

To: Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management

18-1

plans.

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

18-2

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

18-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

18-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

18-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Miriam and Mike Kurland mimbck@yahoo.com 566 East St.
Williamsburg, MA 01096

From:	Pam Youngquist
To:	Kim, Tori (EEA); Hughes, Jennifer (EEA); Harson, Kate (EEA); Strysky, Alexander (EEA)
Cc:	Leigh Davis; Mark, Paul (SEN)
Subject:	Re:Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities on Regional Impact of Utility Clearcutting
Date:	Wednesday, January 7, 2026 6:38:49 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Director Kim, Deputy Director Hughes, Ms. Harson, and Mr. Strysky,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 19-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services - the removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 19-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors - the clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 19-3

3. Economic Devaluation of Our Rural Characte - the rural character of our region is a primary driver of our local economies and property values. National Grid’s 19-4

December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

19-4 ct'd

4. Request for a Comprehensive Environmental Impact Report (EIR) - given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

19-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners.

We from surrounding towns and counties are deeply concerned allies, standing beside these residents echoing these requests for urgent attention to this matter.

I look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Pam Youngquist

163 Hillsdale Road

South Egremont, MA

(413) 229-9013

kali1111@bellsouth.net

From: Robert E. Seletsky
To: Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject: Re: Regional Impact of Utility Clearcutting
Date: Wednesday, January 7, 2026 1:14:57 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Dear Mr. Strysky and Ms. Hughes,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 20-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 20-2

* Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.

* Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 20-3

3. Economic Devaluation of Our Rural Character The rural character of 20-4

our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

20-4 ct'd

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

20-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Robert E. Seletsky
231 Baker Road
Shutesbury, MA 01072

Jennifer Hughes, Deputy MEPA Director
Mr. Alex Strysky
MEPA Office
100 Cambridge St.
Suite 900
Boston, MA 02114

Submitted via Comment Portal

January 7, 2025

RE: National Grid Central to Western Massachusetts Energy Improvement Project.

Dear Deputy Director Hughes and Mr. Skrysky,

The Town of Shutesbury hereby submits comments on the Draft Environmental Impact Report (DEIR) for National Grid's Central to Western Massachusetts Energy Improvement Project. These comments are intended to avoid, minimize or mitigate the environmental and other local impacts and potential harms that the project design may have within the Town of Shutesbury.

In reviewing the DEIR submitted by National Grid, the Town is concerned about permanent impacts that the project could cause. Please see below for specific concerns and suggested mitigations that MEPA could require.

ENVIRONMENTAL IMPACTS

Wetlands and Waterways
The proposed construction is in close proximity to hydrologic features. This includes ten to fifteen DEP or field-identified wetlands. The project also crosses two steams – Nurse Brook and Dean Brook. Dean Brook runs northeast-southwest and crosses the proposed construction area south of Sand Hill Road. It is part of the Fort River Watershed. Nurse Brook runs north-south roughly parallel to the west of Pratt Corner Road. It feeds into the Atkins Reservoir. In addition, the DEIR identifies several vernal pools and perennial streams adjacent to the proposed construction area. Finally, the project lies within a Primary Watershed protection zone and at places is within 100 feet wetlands buffer.

In addition to providing essential ecosystem services, these water systems feed into the Atkins Reservoir, a source of drinking water for Amherst and the University of Massachusetts.

Proposed Mitigation:
While the Shutesbury Conservation Commission will be involved with local permitting for this project, MEPA mitigation requirements for conservation-oriented offsets within the Town are suggested:

- *Conservation and protective measures for the impacted streams and wetlands in Shutesbury*

21-1

- *Funding for or direct acquisition of conservation land in Shutesbury*
- *Conservation and protective measures for Lake Wyola*

21-1 ct'd

Tree removal
The DEIR indicates areas throughout the entire construction area where there will be considerable clearcutting of trees. According to the DEIR, 468 linear feet of trees will be permanently removed.

While National Grid representatives have indicated field teams will make the final decisions and that National Grid would not clearcut as much as indicated in the plan, the extent of clearcutting codified in the DEIR is significant and concerning. The Town of Shutesbury asks that MEPA require more accurate documentation in the approved plan with a preference for Selective Cutting. While the Town recognizes that trees will need to be cut both for protection of the new transmission lines and for access/construction, we feel selective cutting is the proper way to proceed. This should be reflected in the DEIR rather than clearcutting. Clearcutting will result in significant and unnecessary reduction of trees.

There are three specific impacts resulting from indiscriminate tree cutting. First, this will create less stability in the soils, increasing the likelihood of erosion and sedimentation, which is especially problematic given the proximity to wetlands, streams and the Atkins Reservoir. Second, this create increased opportunities for invasive species to populate the opened areas. Third, indiscriminate cutting will notably reduce the carbon sequestration and storage capacity of the area, undermining the Commonwealth's goals of Forests as Climate Solutions initiative.

Proposed Mitigation:

- *Changes in the maps to reduce allowed Clearcutting areas.*
- *Selective cutting that maintains trees that are below the height of the transmission wires or at a sufficient distance from them that they do not pose a danger to the electrical infrastructure and electrical transmission lines*
- *MEPA to require marking of trees prior to cutting/construction in consultation with the Town's Tree Warden.*

21-2

21-3

Priority Habitat and Endangered Species
According to the DEIR, there are two areas in the construction area that are designated as Priority and Estimated Habitats. These are north of Pratt Corner Road and west of the substation and along the transmission corridor south of Sand Hill Road.

Proposed Mitigation:
MEPA should require further documentation regarding the potential environmental impact to these habitats areas, with specific methods that will be taken to avoid or minimize the negative impacts. This information should be provided to the Town in advance of construction.

21-4

Invasive species
The DEIR indicates that there will be conversion of vegetative cover following the cutting of trees and general construction on the site. This will alter the local ecosystem and likely create

opportunities for invasive species and less stable soils. A non-chemical approach to minimizing invasive species should be required by MEPA.

Proposed Mitigation:
Selective tree cutting and constrained removal of native brush will support an approach that promotes avoidance or minimization of invasive species. In all cases, alternatives for the application of herbicides should be required, especially given the proximity of wetlands, streams and drinking water reservoir.

21-5

Transportation Impacts

Road Integrity

Pratt Corner Road and Sand Hill Road, both of which will provide access to the project site are unpaved rural roads. Both are on hills and at places are adjacent to steep slopes. Both roads are approximately 1.5 car widths, at certain places even more narrow depending on the season. Pratt Corner Road is especially prone to ruts and erosion along the sides of the road which can be made worse by heavy machinery. In addition, these roads are primary access routes for residents in the surrounding area and for school buses for children attending the Shutesbury and Regional schools. Emergency vehicles also require access to these roads.

21-6

As noted, the project will require use of heavy equipment that is not compatible with these unpaved roads. The machinery will damage the road surface, further erosion, and like require temporary closing during construction.

Any permanent "improvements" to the roads regarding access to the transmission lines may also impact the fragile environment in terms of steep slopes, proximity to wetlands and streams, and on-going stormwater effects to the roadway.

Proposed Mitigation:

- *Prior consultation with the Town of Shutesbury, including with the Highway Department, on ways to maintain and protect the road before, during and after construction. This may include consultation with the Select Board and Highway department regarding possible road improvements to enhance road width and stability.*
- *Prior consultation with the Town of Shutesbury, including the Police and Fire Departments, on ways to ensure access for emergency services. This may include consultation with the Town of Amherst which assists Shutesbury with emergency service responses.*
- *Prior consultation with the Town of Shutesbury and the Amherst-Pelham Regional Schools regarding transportation of students.*
- *Prohibition of construction during periods when the roadway is muddy or the road surface is vulnerable to damage, making future passage difficult or impossible.*

21-6 ct'd

21-7

Preservation of Trails

The proposed construction area is within the Walter Cowls Jones Conservation area that has established and well-used recreational trails. The trails are primarily located south of the substation west of Pratt Corner Road.

21-8

Proposed Mitigation:
Encroachment on existing trail networks should be avoided or minimized. In particular, select tree cutting should occur to maintain the integrity of the trails. If trails are temporarily closed due to construction, prior communication and coordination with the Town should occur and physical notices placed for hikers.

21-8 ct'd

Respectfully submitted,

X Beth Willson Beth Willson - Chair
Shutesbury Conservation Commission

X Scott B. Kahan - Scott Kahan - Commissioner
Shutesbury Conservation Commission

X Robert Douglas Commissioner (E)
Shutesbury Conservation Commission

X
Shutesbury Conservation Commission

From:	Wren Veatch
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Wednesday, January 7, 2026 2:03:03 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 22-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 22-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero

2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

22-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

22-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

22-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

22-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Wren Veatch

30 Jenks St, Amherst, MA, 01002[

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
1-8-2026

Certificate Action Date
1-9-2026

Reviewer
Alexander Strysky, (857)408-6957, alexander.strysky@mass.gov

First Name
Anita

Last Name
Ryan

Phone
--

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abapooji@hotmail.com

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37 BAKER HILL DR

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--

State
MASSACHUSETTS

Zip Code
02043

Organization
--

Affiliation Description
Individual

Status
Opened

Comment Title or Subject

Topic: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Comments

Segoe UI | 10 pt | Paragraph

Dear Director,

Thank you for the opportunity to submit comments as a resident of the Commonwealth. I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While I support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. I want a better future environment in the Commonwealth for my children, not one that is degraded and deforested. 23-1

My concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to: 23-2

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

23-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

23-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

23-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

23-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. I look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Anita Bapooji Ryan

37 Baker Hill Drive

Hingham, MA 02043

Attachments

Update Status

Status

Opened

SUBMIT

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BACK TO SEARCH RESULTS

From:	Brittany Gravely
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Thursday, January 8, 2026 5:39:27 PM

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Dear Directors,

I am writing to express concern regarding the planned excessive clearcutting currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns. I echo the sentiments of my fellow citizens and environmental experts.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 24-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

24-2

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 24-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 24-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional 24-5

vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

24-5 ct'd

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Thank you for listening to our concerns.

Sincerely,

Brittany Gravely, 98 Sheridan St. #2, Jamaica Plain, MA

From: Kasper-Dunne, JoAnne (DEP)
To: Strysky, Alexander (EEA)
Subject: 16913-Central to Western DEIR
Date: Thursday, January 8, 2026 9:39:53 AM

Hello, Alex. MassDEP Central Regional Office Bureau of Waste Site Cleanup and Wetlands staff have reviewed the DEIR for the New England Power Central to Western Massachusetts Energy Improvement Project and have no additional comments. Please let me know if you have any questions. Thank you and have a good day. 25-1

JoAnne

JoAnne Kasper-Dunne | Environmental Analyst
Massachusetts Department of Environmental Protection
Mobile: 781-531-3990

From:	Judith Eiseman
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Cc:	Jo.Comerford; Saunders, Aaron - Rep. (HOU)
Subject:	Central to Western Massachusetts Energy Improvement Project
Date:	Thursday, January 8, 2026 12:58:44 PM
Importance:	High

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To Whom it May Concern:

Because I believe that this project represents a potential for large scale damage to wetlands, wildlife habitat, as well as intrusion into protected or private backland areas in multiple communities, I want to express concern about the actual reasons and plans for carrying out this project.

Granted, the towers are old and in need of extensive update work, but insisting that the portion of the right of way currently being used or cleared be enlarged seems overkill. Apparently work "needed" will be determined by whichever employee is on site and decides that cutting or clearing is necessary. This is unacceptable and since some of the work is in "sensitive" areas but others not, the Conservation Commissions and citizens of each town may not have an opportunity to weigh in or know how to object in advance. MEPA should intervene and fully review management plans to ensure that understory habitat is not damaged and that disturbed soils are not left to be replaced with invasive species or simply covered with traprock. That will undermine various species requirements and usefulness so actual soil should be replaced or not disturbed in the first place. 26-1

It is unacceptable for National Grid to avoid adopting an Integrated Vegetation Management plan—no doubt to save money for them while damaging private and public resources here to increase potential electricity capacity for data centers and electrical uses elsewhere. Again, these uses do not necessarily benefit residents of our region but may increase profits for energy corporations even as flooding and loss of carbon sequestration increases to challenge the region's budgets. Property lines may be real legally and profitable to maintain in the short term, but showing a bit more concern for the actual land and its intrinsic values for water supply and environmental integrity would be appreciated and is a necessity in the longer term. 26-2

Judith Eiseman, Chair
Pelham Planning Board
88 Arnold Road, Pelham, MA 01002
Phone: 413-230-9771
Email: planning@pelhamma.gov

From: Nancy Haver
To: Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject: Regional impact of National Grid/utility clearcutting—Pelham, Belchertown, Shutesbury and surrounding communities
Date: Thursday, January 8, 2026 2:53:54 PM

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Dear Director,

I urge you to require National Grid to complete a comprehensive EIR for their management plan. Also, I ask that MEPA make the transition from clearcutting in favor of IVM forestry practices. Please—we want a balance to ensure both grid safety and preservation of our irreplaceable natural assets. To not do this seems wasteful and short-sighted. I pray we will not destroy what we have, but instead act as stewards for future generations. 27-1 27-2

Thank you for all that you do to protect our wild habitats.

With appreciation,

Nancy Haver
Amherst
413-230-4772

www.nancyhaver.com

https://sagaprints.com/artists/nancy-haver/

January 9, 2026

Jennifer Hughes
Deputy MEPA Director
MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114
(Via Email)

Re: EEA# 16913 Central to Western Massachusetts Energy Improvement Project

Esteemed Deputy Director Hughes:

As a resident and voter in Massachusetts, I am writing to express urgent concern about the excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While maintaining a reliable electrical grid is essential, National Grid needs conduct its business in a manner that respects the critical role that our tree canopy plays in our Commonwealth's ecosystem resilience and overall environmental health by providing carbon sequestration and storage, absorbing stormwater to reduce runoff and the pollution of our watersheds, protecting against erosion and invasive species, and serving as wildlife habitat. Because our tree canopy is so essential to our wellbeing, rather than approving wholesale clearcutting within their right of way, MEPA should require National Grid to submit a comprehensive Environmental Impact Report and should also require that National Grid adopt an Integrated Vegetation Management plan that prioritizes selective cutting and pruning that would balance grid integrity with the preservation of our Commonwealth's critical green infrastructure. 28-1

Clear cutting is a drastic measure that should only be used when absolutely necessary, and by emphasizing clear cutting, Eversource's proposed plan would cause substantial, avoidable harm to the environment, people, and the planet. I therefore ask that you exercise your authority to see that they adopt a more targeted plan that does not unnecessarily remove trees that pose no realistic or near-term danger to the grid. 28-1

Sincerely,

Alisa Plazonja
152 Naples Rd.
Brookline, MA 02446

The Commonwealth of Massachusetts
Department of Conservation and Recreation

State Transportation Building | 10 Park Plaza | Suite 6620 | Boston, MA 02116
www.Mass.gov/DCR | **Tel:** (617) 626-1250

Maura T. Healey	Kimberley Driscoll	Rebecca L. Tepper	Nicole LaChapelle
Governor	***Lieutenant Governor***	***Secretary***	***Commissioner***

January 9, 2026

Secretary Rebecca L. Tepper
Executive Office of Energy and Environmental Affairs
Attn: Alexander Strysky, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EEA#16913 Central to Western Massachusetts Energy Improvement Project DEIR

Dear Secretary Tepper:

The Department of Conservation and Recreation ("DCR" or "the Department") is pleased to submit the following comments in response to the Draft Environmental Impact Report ("DEIR") filed by BSC Group, Inc. on behalf of New England Power Company ("NEP" or the "Proponent") for the proposed Central to Western Massachusetts Energy Improvement Project (the "Project") from Millbury to Conway.

NEP currently has a right-of-way ("ROW") which passes through South River State Forest in Conway, Connecticut River Greenway State Park in Deerfield, Division of Water Supply Protection ("DWSP") lands in Pelham, Belchertown and Ware, West Brookfield State Forest, and Spencer State Forest, all under the care and control of DCR, as well as land owned by New England Forestry Foundation on the Pocumtuck Range in Deerfield and land owned by Great River Hydro along the Deerfield River subject to conservation restrictions ("CRs") held by DCR. The ROW intersects with and follows a section of the Midstate Trail in Spencer State Forest. The Midstate Trail is a 92-mile hiking trail in Central Massachusetts managed by the Appalachian Mountain Club ("AMC"), stretching from Rhode Island to New Hampshire. The DEIR indicates that the ROW also intersects with the New England Trail and the Mahican Mohawk Trail, both long distance hiking trails.

NEP is proposing asset condition refurbishment of overhead electric transmission lines for the existing E5/F6 mainline and seven interconnecting Tap Lines, replacing structures and wires within the ROW to address poor asset conditions. The Project proposes vegetation removal along the entire span, up to 125 feet in width within NEP's ROW. Since the ENF filing, refinements to the Project's design have resulted in changes to structure locations, access and work pad dimensions.

Related to DCR land, the DEIR indicates that all Project work is contained within existing NEP ROWs and along historically utilized accessways. The DEIR indicates that tree pruning and temporary improvements to existing off-ROW access roads will be required within state forest and watershed lands, and tree clearing will be necessary in Spencer State Forest outside the existing ROW.

Temporary access to DCR State Parks for Project work activities and mitigation requirements will be guided by a Construction and Access Permit ("CAP"). Temporary access and mitigation within the Quabbin Watershed lands will be reviewed and guided through the Watershed Protection Act review process and via a DWSP Construction and Access Permit, and a Short-term and Vehicle Access to Quabbin and Ware River Watershed System Permit.

Impacts to DCR Land

DCR's review of proposed activities in public watershed lands and state parks lands is critical to the Department's ongoing stewardship of public watershed, natural, cultural and recreational resources. DCR requests that the Proponent continue to coordinate with DCR staff to avoid and minimize temporary and permanent impacts to sensitive resources, avoid accidental discharge of hazardous materials in the public water supply lands, reduce the threat of invasive species, minimize clearing of trees, and identify restoration and mitigation opportunities for loss or conversion of wetlands, rare species habitat, forest, and recreational resources resulting from Project work activities. 29-1

The Proponent is directed to coordinate with DCR-DWSP-Quabbin staff regarding protocols for enhanced vigilance and care by contractors to avoid or immediately report spills. 29-2 DCR notes that vehicles are not permitted in the Quabbin Watershed during mud season. 29-3 DCR also requests continued coordination with DCR's Ecology and Management Forestry staff prior to and during the permitting process to implement measures to avoid, minimize, or mitigate adverse effects to significant natural resources, and for final review of flagged work limits to reduce clearing and construction impacts to sensitive resources. 29-4 DCR similarly requests that the Proponent coordinate with DCR Management Forestry before work is conducted to ensure that work on DCR land is consistent with DCR's mission and policies related to effective forest management. 29-5

The Proponent should coordinate with DCR Forestry, Ecology and Watershed staff to ensure that appropriate drainage measures to prevent erosion and future degradation are in place and implemented to the satisfaction of DCR at the end of this Project. NEP indicates they will coordinate with DCR staff to identify locations where gates will be required to secure any access roads that remain in place post construction. 29-6 We look forward to further consultation and detailed construction and access plans that will inform required mitigation and restoration of these access roads and other components of this Project.

DWSP and DCR State Parks staff appreciate the opportunities to meet and consult with the Proponent during the summer and fall of 2025. 29-7 DCR also appreciates the Proponent's offer to coordinate additional field visits as the Project progresses. The Department stands ready to continue coordinated Project review with NEP. Where applications for environmental or other permits for work activities on DCR land must be signed by the Department as 'Owner', DCR requires that the Proponent provide applications and corresponding documents to DCR at least 45 days prior to submission to regulatory agencies. 29-8

Watershed Protection Act

The Watershed Protection Act (M.G.L. c. 92A ½, §§1 et seq.) and regulations promulgated thereunder (313 CMR 11.00), defines an area of regulatory control around water resources in the Quabbin Reservoir watershed. While the regulations contain exemptions for utility work (*see* 313 CMR 11.05(11) and (12)), the Project must be reviewed by DCR to determine that such maintenance, repair or expansion activities, structures, or facilities do not materially impair the quality of water in the public water supply watersheds as determined by DWSP after consultation with the Department of Environmental Protection. DCR will initiate review of the Project only after the Proponent has filed a Watershed Request for Determination of Applicability, along with all required documentation. 29-9

Tree Clearing Mitigation

The DEIR indicates that the ROW covers a total of 167 acres within DCR properties. Quantification of tree removal from the DCR properties has not been provided. DCR's Management Forestry staff requests coordination with NEP regarding mitigation for tree clearing and other activities proposed for this Project. DCR has identified a suite of practices that can be applied to forests, natural and working lands, and urban forests, that benefit forest adaptation to climate change and resiliency and enhance carbon storage and sequestration in ecosystems and harvested wood products. NEP has expressed support for the proposed mitigation strategies. DCR looks forward to coordinating with EEA, NEP's staff, and contractors to ensure trees are used to the fullest extent possible including as long-lived wood products storing carbon for long periods of time and, for lower-quality logs, as firewood for community wood banks, helping to displace the use of fossil fuels. The scope and location for these practices will be included in the CAP. 29-10 29-11

Recreational Trails and Illegal Off Highway Vehicle ("OHV") Use

Multiple DCR trails cross and/or meander along the utility ROW at South River, West Brookfield, and Spencer State Forests, including a segment of the Midstate Trail, a priority long distance hiking trail. DCR requests that NEP develop a trail safety and closure plan for all trails affected during construction. Such plan, which should be submitted for DCR's review and approval, should identify safe routes, when possible, and trail closures, when safe bypass routes are unavailable. The Department requests that the trails be posted with project information at least 30 days in advance of the initiation of any Project activity. DCR will review the information and provide posting locations. The same information will be posted on the DCR Parks website, and the Midstate Trail website. 29-12

DCR notes that several trails within the Quabbin watershed coincide with the Proponent's activities along access roads. DWSP requests coordination prior to any activities that may impact Quabbin walking trails. In addition to construction impacts to the trails, DCR is concerned that the Project may result in increased OHV access to the state forests, potentially causing further degradation of natural, cultural, and recreational_resources. DCR requests that the Proponent continue to coordinate with DCR Trails and Operations staff to develop and implement strategies to deter unauthorized motorized trail use, including the installation of gates or boulders at strategic locations identified by DCR. Conditions to minimize impacts to public trails and to ensure the safety of trail users will be further developed and included in a CAP. 29-13 29-14

Cultural Resources
DCR's Staff Archaeologist will continue to coordinate with the Proponent and their cultural resource consultant via the CAP process to implement measures to avoid, minimize, or mitigate adverse effects to significant historic and archaeological resources within DCR property.

Off ROW Access Roads and Article 97
The proposed Project includes the ongoing use and improvement of access roads, woods roads and trails outside of the ROW to enable access through DCR State Parks and Watershed lands to the NEP ROW for Project activities. Proposed work for the access roads and trails includes tree clearing, widening, grading and installation of drainage structures, and placing gravel to support heavy equipment, which in several locations will result in permanent impacts to the state forests and watershed lands. DCR will continue to evaluate NEP plans to determine if the proposed off-ROW activities and associated impacts and use amount to a change in use or control under Article 97 of the Amendments to the Constitution of the Commonwealth. Such change in use or control would require the Proponent to meet the requirements, including obtaining easements, set forth in the Open Space Act (M.G.L. c. 3, § 5A; the "OSA") and the Executive Office of Energy and Environmental Affairs' Article 97 Land Disposition Policy (the "Policy") to ensure no net loss of lands protected under Article 97. 29-15

DCR's Assessment of Proposed Off-ROW Access Sites on State Parks Land
NEP has provided opportunities for field visits to areas where work activities will occur off-ROW on DCR land. DCR appreciates this opportunity and the time of NEP staff.

Based on these site visits, DCR determined that there are generally three types of proposed access roads: areas that are more like trails and include sensitive resources, and that would need significant widening and additional work to support the heavy equipment needed for construction (Type 1); areas that are existing roads but need a fair amount of upgrading to support NEP's proposed use (Type 2); and areas where the roads are basically in place, may have been previously developed by NEP, and need some upgrading (Type 3). There may be overlap between Types 2 and 3 depending on specific work activities which, presumably, will be set forth in the Proponent's detailed construction plans. DCR requests copies of these construction plans as soon as available. In addition, some of these roads will be used primarily by NEP for the Project and for ongoing maintenance, while others will also benefit DCR and the public. DCR would like to discuss cooperative use of those roads that are beneficial to both parties. 29-16 29-17

Conversely, some off-ROW areas may not be needed beyond construction or will not function as permanent roads when the temporary matting used to traverse wetlands are pulled, leaving these sensitive areas vulnerable to unauthorized vehicular traffic and further degradation. DCR prefers restoration of these roads and sensitive resources in accordance with a restoration plan approved by DCR. 29-18

The following are DCR's observations and initial recommendations for each proposed off-ROW access Area:

DCR State Parks

- South River State Forest, Conway: The main stem of the access route is an established dirt road that will need some improvements which DCR views as a Type 2 road as described above, including regrading, filling in ruts, and possible replacement of culverts. There are three spurs leading off this road that appear to be less established and more consistent with a path or trail. Current plans call for widening, grading and graveling these areas. Further discussion is needed to determine the appropriate final outcome and use for these sections of the off-ROW area. 29-19
- Connecticut River Greenway, Deerfield: Additional ownership information is needed for Steam Mill Road in Deerfield where access rights are a mixture of NEP, DCR and private ownership. DCR requests that NEP continue to research ownership of the road and share that information with DCR when complete. DCR also notes that the outcome of a pending court case involving a section of Steam Mill Road in Deerfield may impact DCR ownership in this area and necessitate additional consultation and review of work proposed at this location. It is difficult to provide feedback on this section of the off-ROW area without this information. For the area beyond Steam Mill Road, specifically the east-west off-ROW access route to reach structure 423 shown on the Map on pages 43 and 44 in the DEIR, DCR views this as an unofficial trail not intended for public use. Given this, DCR requests full restoration of this portion of the off-ROW area. 29-20
- Spencer State Forest: This entire off-ROW area appears to be a trail or woods road which overlaps with the Midstate Trail. DCR requests that it is fully restored after work is completed. Further discussion and coordination with DCR Trails Staff and AMC is needed regarding impacts to the Midstate Trail and how to mitigate impacts to public use during the construction period as noted in Recreational and OHV use section above. 29-21

DCR Division of Water Supply Protection

- Quabbin Reservoir Watershed, Pelham, Belchertown and Ware: Access routes across DWSP land vary widely in their existing condition, ranging from established internal management roads, to woods roads in fair to poor condition, to less-defined trails or paths. In less-established areas, such as the access route west of Gate PL6 and between Structures 345 and 346, DCR requests that temporary matting be used, and that these areas be fully restored after work is completed. 29-22 DCR notes that vehicle access is not permitted within the Quabbin Watershed during mud season, and that Gate 5 should not be utilized by the Proponent or its contractors. The timing of any use of off-ROW access routes, particularly in areas closest to the reservoir, should be coordinated with DCR to minimize impacts to management roads and to address erosion and water quality protection concerns. Additional discussion will be needed to determine the appropriate long-term treatment and use of each segment of the off-ROW area. 29-23

In all cases, DCR requests that the Proponent continue to coordinate with DCR regarding more specific plans and details concerning the above.

The DEIR indicates that NEP will provide DCR with copies of any easement documents that grant access over DCR land in these properties. Easement documents have been provided for DWSP. DCR requests that NEP provide these documents for the State Parks portions of the Project as soon as feasible. NEP has offered to coordinate field visits with DCR staff to all proposed off-ROW work areas on DCR land to better understand proposed work, potential impacts it may have, and whether such impacts are permanent or temporary. 29-24

Thank you for the opportunity to comment on the DEIR. The Proponent is directed to contact Director of Land Protection Jennifer Howard at jennifer.howard@mass.gov, DWSP Land Protection Coordinator Felicia Bakaj at felicia.bakaj@mass.gov, Ecologist Jennifer McGuinness at Jennifer.McGuinness@mass.gov, Forester Bill VanDoren at William.VanDoren@mass.gov, and Trails and Greenways Planner Ale Echandi at Alexandra.Echandi2@mass.gov with questions related to their subject expertise. If you have any additional questions regarding these comments, or to request information and coordination with DCR, please contact DCR's MEPA Review Coordinator andy.backman@mass.gov.

Sincerely,

Nicole LaChapelle

Nicole LaChapelle
Commissioner

cc: Priscilla Geigis, Patrice Kish, Bob Fitzgerald, Jennifer Howard, Felicia Bakaj, Nick Rossi, Jennifer McGuinness, Jonathan Patton, Sean Casey, Dwayne Ericson, Kevin Hollenbeck, Tom Brule, Bill VanDoren, Jennifer McGuiness, Jennifer Stowe, Katherine Preissler, Daniel Harris

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Department of Environmental Protection
Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey Governor | **Kim Driscoll** Lieutenant Governor | **Rebecca Tepper** Secretary | **Bonnie Heiple** Commissioner

Memorandum

To: Alexander Strysky, Environmental Analyst, MEPA

From: Don Giard, Waterways Regulation Program, MassDEP

cc: Daniel J. Padien, Program Chief, Waterways Regulation Program, MassDEP

Re: Comments from the Chapter 91 Waterways Regulation Program
EEA #16913 – Draft Environmental Impact Report, Central to Western Massachusetts Energy Improvement Project, Auburn, Belchertown, Conway, Deerfield, East Brookfield, Leicester, Leverett, Millbury, North Brookfield, Pelham, Shelburne, Shutesbury, Spencer, Sunderland, Ware, and West Brookfield

Date: January 9, 2026

The Department of Environmental Protection Waterways Regulation Program (the "Department") has reviewed the Draft Environmental Impact Report (DEIR) #16913 submitted by New England Power Company (NEP) (the "Proponent") for improvements to an overhead transmission line. The project includes work within waterways and crossings of waterways that are jurisdictional pursuant to Chapter 91 and the regulations at 310 CMR 9.00.

Chapter 91 Jurisdiction

The project includes work within waterways (temporary placement of fill and/or structures associated with construction matting) and crossings of waterways (Overhead Transmission Line) that are jurisdictional pursuant to Chapter 91 and the regulations at 310 CMR 9.00.

Regulatory Review

The DEIR states *"No new licensing will be required for the Project and all of the jurisdictional crossings can be addressed through applicable exemptions in 310 CMR 9.05 and the notice of minor modification provisions in 310 CMR 9.22."* However, based on the information available at this time, certain scopes of the project may be subject to Chapter 91 licensing. The Department agrees that certain other scopes of the project may be exempt from licensing or eligible for authorization through

30-1

an administrative review and approval, but at this time the filing does not include evidence to support such determinations by the Department.

30-1 ct'd

The Department reiterates its recommendation that the Proponent consult with the Department, and suggests this coordination should occur prior to preparation and submittal of the FEIR to ensure the filing includes adequate information about the scope of work as it relates to Chapter 91. If there are any questions regarding the Department's comments, please contact Don Giard at Donald.e.giard@mass.gov.

Elizabeth Pols
44 North Street | Belchertown, MA 01007

January 9, 2026

Ms. Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Attention: MEPA Unit
Reference: DEIR EAA No. 16913
Central to Western Massachusetts Energy Improvement Project
Sunderland, Millbury, Leverett, North Brookfield, West Brookfield, Auburn, Spencer, Deerfield, Shelburne, Ware, Shutesbury, Belchertown, Conway, Pelham, Leicester

Dear Secretary Tepper,

I write to you with comments regarding the proposed Central to Western Massachusetts Energy Improvement Project (EAA No 16913). As a fifty-year resident of Belchertown, I have particular interest and concerns about this project. Rest assured that I do understand the need for resilient and reliable infrastructure — Belchertown has suffered more than its share of extended power outages, most notably during the infamous 2011 Halloween northeaster when my family was without power for ten days. The physical and financial costs of that storm were undeniably high.

But my concerns are that this project poses equally serious environmental risks.

I currently serve as vice-chair on Belchertown's Planning Board and have also served as a commissioner on the Pioneer Valley Planning Commission. I have reviewed the PVPC's comments to you on this DEIR and fully endorse both its careful scrutiny of the proposal and the resulting risk assessments the Commission has vis a vis Wetlands and resource impacts; Forest impacts; Stormwater and Erosion impacts; Open space and Article 97 impacts, as well as Historic, Archaeological and Cultural resource impacts.

Here in Belchertown we have carefully crafted robust Stormwater bylaws, and as the PVPC observed, our Conservation Commission would have to permit this work. Belchertown also takes the protection of our cold water fisheries very seriously when considering permitting land-use changes. It is concerning that proposed work in Pelham's Cadwell Forest risks a cold water fishery largely in Belchertown, but with its headwaters in the middle of the Cadwell Forest. 31-1 31-2

In the interest of mitigating forest fragmentation and loss, Belchertown has thoughtfully acquired and conserved land with our CPA monies. But even as we celebrate the recent acquisition of more than 1,000 acres of unfragmented forest (critical to completing the wildlife corridor between the Holyoke range and the Quabbin reservoir) we face uncertain and unquantified forest loss with this aggressively extended ROW clearing. 31-3

That some of this clearing will be executed on conserved and public land, on land thought to be protected by Article 97 will be a crippling disincentive to future land conservation. Having worked with land owners willing to put their land in conservation, I know that permanent conservation is key to their gifts. Please take any land protected by Article 97 out of consideration of this project. There is no mitigation that would compensate for the abuse, even the use, of parcels subject to Article 97. 31-4

I add my voice to those of the current Pioneer Valley Planning Commissioners and ask you to listen to and respect their well reasoned comments. 31-5

Thank you,
Elizabeth Pols
Belchertown Planning Board

Franklin Regional Council of Governments

January 9, 2026

Attn: MEPA Office, Alexander Strysky
Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Boston, MA 0211

Submitted by email to: alexander.strysky@mass.gov

Re: **EEA Project 16913**
Draft Environmental Impact Report (DEIR) for Central to Western Massachusetts Energy improvement Project

Dear Ms. Tepper,

The Franklin Regional Council of Governments (FRCOG) hereby submits comments on the Draft Environmental Impact Report (DEIR) for EEA Project 16913. FRCOG is a regional service organization serving the 26 municipalities of Franklin County. We advocate on behalf of our communities and the county at the federal, state and regional levels. Our Planning Department serves as the Regional Planning Agency for the 26 communities in Franklin County. We provide planning technical assistance to our member towns for projects related to climate change resiliency, natural resource protection, land use, economic development and transportation. This proposed project will include activities in the towns of Buckland, Shelburne, Conway, Deerfield, Sunderland, Leverett, and Shutesbury in Franklin County.

About this Project

New England Power Company d/b/a National Grid ("NEP") is proposing this refurbishment and system improvement project along the E5/F6 transmission lines that run for 67 miles between Buckland and Millbury in central Massachusetts. The project includes the temporary alteration of 248.3 acres and the permanent alteration of 318.6 acres of land to maintain and replace 711 power line support structures and replacing lines, switches, and tap lines; perform vegetation management; and upgrade or create new access into the line. The new support structures will allow for future conversion of the 69 kV line to a 115 kV line, and in the meantime, the proposed project will provide increased capacity by upgrading the 69 kV line. This line serves power to residents and is also connected to the substations for the Deerfield No. 2, 3, and 4 hydropower projects along the Deerfield River.

Project Need

Having a resilient power transmission system with adequate capacity for growth is important to Franklin County communities. The FRCOG works with municipalities in Franklin County to reduce their

energy use, primarily through efficiency and decarbonization projects, with funding from the Green Communities program. Although these projects will aid towns in reducing greenhouse gas emissions, they often result in an increased demand for electricity. In addition, we are aware that Great River Hydro has plans to install a 7 MW battery storage facility at the Deerfield No. 3 hydropower station in Buckland, which would tie into this line, and that this transmission corridor has no capacity for additional projects beyond this one, according to Great River Hydro.

Comments on the DEIR

In our comments on the ENF, we expressed interest in understanding impacts by town. Appendix C of the DEIR provides impact tables by municipality, but the table is limited to a summary of impacts to wetland resources and, where relevant, impact to Department of Conservation Resources (DCR) properties. It would be good to see permanent and temporary "new land altered" numbers (as provided in Table 1-3) broken down by town as well as other statistics. Perhaps a fact sheet for each town could be made that summarizes pertinent impacts by town. 32-1

In Table 4-2: Under Buckland, the Gardner Falls Recreation Area is not owned by Western Massachusetts Electric Company. It is owned by CRP MA Gardner Falls LLC (a subsidiary of Patriot Hydro LLC which is a subsidiary of something else) and "Veterans Memorial Field" is now called "Cricket Field" and the Town of Buckland owns this park, so it is a public ("local") park. Under Leverett, Rattlesnake Gutter Trust might be best categorized as a land trust. Under Shelburne, "Bradwell Farms CR" should be spelled "Bardwell Farms CR" (this is an error in MassGIS). 32-2

Table 4-3 summarizes the locations where the project intersects DCR properties. It would be helpful to understand the comparative size (acres) of impact on each DCR property. The information might be in Appendix C, but the name of each DCR state forest or park is not provided in Appendix C. 32-3

Trail impacts

Pages 30-35 in the Environmental Resources Maps in Attachment A shows that the Mohican-Mohawk Trail corresponds with Type S access and pruning activities. As explained in section 4.3.2.1, Type S access is a permanent change and involves widening an existing access to provide a 16-ft travel surface through addition of stone and gravel. In other words, the proposed project will permanently impact this segment of the Mohican-Mohawk Trail, which is already heavily impacted by the aesthetics of the power line. We recommend that DCR and National Grid seek to re-route the trail corridor away from the impacted area so that hikers can hike in forest. 32-4

FRCOG staff hiking along Conway section of the Mohican-Mohawk trail in 2025 observed Oriental bittersweet proliferating along the power line and spreading into the forest in this area. Widening of the corridor will encourage the further spread of bittersweet, which tends to grow best in forest edge areas. FRCOG recommends that the proponent commit to manually pull young plants and cut mature bittersweet in this area and within a 100-foot swath from the corridor as a regular maintenance activity. 32-5

Page 45 of the Environmental Resources Map in Attachment A has a “hiking trail” label on the map but the map shows no marked hiking trail. This is the Pocumtuck Ridge Trail on DCR property in this area. This trail is not identified in section 4.3 where other trails and unpaved roads are listed. 32-6

FRCOG requests that, prior to construction, the proponent contact local outdoor organizations (Appalachian Mountain Club, Northeast Mountain Bike Association, etc.) and municipalities to let them know of upcoming recreational trail impacts. Additionally, during construction, trailhead kiosks/signs and trail crossings should have temporary signage installed to offer wayfinding on the trail through the construction zone (see photo below showing need for signage during these types of projects). 32-7



Spruce Hill Trail in Monroe State Forest during New England Power's E131 refurbishment project, May 2025. The trail was muddy from construction vehicles and there was no indication that the trail continued across the construction zone.

Scenic byway impacts

FRCOG’s comment letter on the Environmental Notification Form (ENF) dated February 27, 2025 expressed concerns about mitigating visual impacts to two nationally-designated scenic byways, the Connecticut River Byway on Route 47 in Sunderland and the Mohawk Trail Scenic Byway on Route 2 in Shelburne. On page 13-18, the proponent’s response referred to Section 11 for impacts and planned efforts to avoid, minimize, and mitigate impacts. *However, we were unable to find any reference to avoid, minimize, and mitigate impacts to scenic byways.* 32-8

Historic impacts

Section 5.3.1.2 outlines the construction best management practices (BMPs) for vernal pools. FRCOG recommends that BMPs for vernal pools also include the BMPs listed in section 5.3.1.1 for wetlands. 32-9

Section 8.1.2: FRCOG supports offering wood to landowners and community wood banks, along with leaving felled trees and snags to decompose where possible, to create habitat. 32-10

Thank you for the opportunity to comment on this DEIR. Please feel free to reach me at jatwood@frcog.org or 413-774-3167 x. 123, or contact Beth Giannini, Transportation Program Manager, at giannini@frcog.org or x.125.

Sincerely,



Jessica Atwood
Director of Planning

From:	Ian Buchanan
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Friday, January 9, 2026 11:12:49 AM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Director,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns.

While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 33-1

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. 33-2
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate

policy. 33-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 33-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 33-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets. 33-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Ian Buchanan, 541 W Pelham Rd, Shutesbury

Energy & Environmental Affairs
Public Comments Portal

alexander.strysky@mass.gov

View Comment

Comment Details

EEA #/MEPA ID
16913

Comments Submit Date
1-9-2026

Certificate Action Date
1-9-2026

Reviewer
Alexander Strysky, (857)408-6957, alexander.strysky@mass.gov

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Jenn

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Suprenant

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jennsuprenant@gmail.com

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--

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Zip Code
01072-9754

Organization
--

Affiliation Description
Individual

Status
Opened

Comment Title or Subject

Topic: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Comments

Dear Director,

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While we support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 34-1

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Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns.

Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy. 34-2 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 34-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 34-4

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The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Jenn Suprenant

137 Wendell Rd

Shutesbury MA 01072

Attachments

Update Status

Status

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SUBMIT

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BACK TO SEARCH RESULTS

From:	JILL BUCHANAN
To:	Strysky, Alexander (EEA); Hughes, Jennifer (EEA)
Subject:	Concerns over Impact of Utility Clearcutting in Shutesbury and nearby towns
Date:	Friday, January 9, 2026 9:16:21 AM

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Dear Directors,

I am writing to express urgent concern regarding the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Shutesbury, Pelham, Belchertown, and neighboring towns.

While I support the necessity of a reliable electrical grid, the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning. If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. Selective cutting and pruning should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans. 35-1

My concerns across these municipalities include:

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by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

35-3 ct'd

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35-4

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35-5

Please adjust your management strategy to one that respects the science of forestry and the rights of the landowners. I look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Jill Buchanan
541 West Pelham Road
Shutesbury, MA 01072
978-491-1105

From:	You Are ABuddha
To:	Hughes, Jennifer (EEA); Strysky, Alexander (EEA)
Subject:	Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities
Date:	Friday, January 9, 2026 7:20:41 PM

CAUTION: This email originated from a sender outside of the Commonwealth of Massachusetts mail system. Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, and Surrounding Communities

Dear Director,

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- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. 36-2
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil. 36-3

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county. 36-4

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets. 36-5

The residents of these interconnected communities are calling for a management strategy that respects the science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Sincerely,

Lara Wahl

Eli Elkus

(Elielkus@gmail.com)

Zuleica Booth

Lovinlary@hotmail.com

All three of us residing at:

305 Montague Rd

Shutesbury, Ma

413 559 8556

Thank you and please Reply that you have received and registered these public comments from us.

January 7, 2026

Re: Regional Impact of Utility Clearcutting -- Collective Concerns from Pelham, Belchertown, Shutesbury, Amherst and Surrounding Communities

Dear Directors,

I've been active as an eco-climate organizer with various environmental organizations including Climate Action Now, WMass, for many years and have witnessed how gaps in knowledge, understanding, and systems thinking plus inadequate collaboration between industry, governmental bodies, and citizenry have negatively impacted our region. Colleagues and residents, myself included are deeply concerned about the planned excessive clearcutting practices currently proposed by National Grid across several municipalities in Western Massachusetts, including Pelham, Belchertown, Shutesbury, and neighboring towns. We are not assured that necessary measures are being taken to protect the ecosystems that will be deleteriously affected. In this time of multiple climate, biodiversity and health crisis', much more care and foresight are required to restore and sustain our fragile environment.

If the Draft Environmental Impact Report is approved "as is", it will codify the unnecessary removal of trees, leaving it up to crews on the ground to remove at their convenience. These decisions should not be made by employees that do not have the scientific expertise or holistic ecological perspective to understand the circumstances of their actions. Have experts such as forest ecologists, wildlife biologists, climate scientists, and hydrologists been consulted? 37-1

We understand and support the necessity of a reliable electrical grid, but the planned tree cutting strategy seems to allow for considerable clearcutting rather than selective cutting or pruning, which should be the strong preference to maintain ecosystem resilience, carbon sequestration and storage, and to protect against erosion and invasive species. 37-2

National Grid's regional approach of extensive clearcutting represents a significant environmental impact that warrants immediate MEPA intervention and a more rigorous review of utility management plans.

Our collective concerns across these municipalities include:

1. The Regional Loss of Ecological Services The removal of thousands of mature trees across multiple town lines creates a cumulative ecological deficit. Using USDA Forest Service i-Tree metrics, the loss of this "green infrastructure" translates to:

- Increased Regional Flooding: The destruction of mature root systems across the region significantly increases stormwater runoff, threatening the integrity of local culverts and roadways that connect our towns. 37-3
- Loss of Carbon Sinks: As Massachusetts strives to meet its Net Zero 2050 goals, the widespread removal of mature carbon-sequestering trees by utilities works in direct opposition to Commonwealth climate policy.
- Wetlands and Waterways: The project crosses steams that provide essential ecosystem services. These streams also feed into the Atkins Reservoir, a

source of drinking water for Amherst (my town) and the University of Massachusetts.

37-3 ct'd

2. Impact on Biodiversity and Wildlife Corridors The clearcutting in our region is not happening in a vacuum; it is fracturing critical wildlife corridors that span our town borders. The "scorched earth" approach currently utilized by National Grid destroys the understory habitat necessary for local pollinators and migratory species, replacing complex ecosystems with invasive-prone disturbed soil.

37-4

3. Economic Devaluation of Our Rural Character The rural character of our region is a primary driver of our local economies and property values. National Grid's December presentations (such as the one held in Pelham) have failed to offer residents a middle ground. By refusing to adopt Integrated Vegetation Management (IVM)—which focuses on the selective removal of tall-growing species while preserving compatible low-growth vegetation—the utility is unnecessarily scarring our landscape and devaluing private and public lands across the county.

37-5

4. Request for a Comprehensive Environmental Impact Report (EIR) Given that these clearcutting operations span multiple towns and affect significant acreage of protected or sensitive land, we request that MEPA require National Grid to submit a comprehensive Environmental Impact Report for their regional vegetation management plan. We ask that MEPA mandate a transition away from clearcutting in favor of IVM practices that balance grid safety with the preservation of our natural assets.

37-6

The residents of these interconnected communities are calling for a management strategy that respects the current science of forestry and the rights of the landowners. We look forward to your response regarding how MEPA will address this escalating regional issue.

Lenore Bryck

255 Strong St Amherst MA

From: Comerford, Joanne (SEN)
To: Strysky, Alexander (EEA)
Subject: Re: Central to Western Massachusetts Energy Improvement Project (EEA #16913)
Date: Friday, January 9, 2026 6:32:12 PM
Attachments: EEA16913 Cen-WMA Energy Improvement Project FRCOG comments DEIR 01-09-26.pdf

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Adding here the comments submitted today by the Franklin Regional Council of Governments, which I'd like to endorse as well. 38-1

Thank you again for your consideration and wishing you a good weekend ahead.

Warmly,

Jo

Hampshire, Franklin, Worcester district
SenatorJoComerford.org
@Jo_Comerford
she/her

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From: Strysky, Alexander (EEA) <alexander.strysky@mass.gov>
Sent: Friday, January 9, 2026 5:05 PM
To: Comerford, Joanne (SEN) <Jo.Comerford@masenate.gov>
Subject: RE: Central to Western Massachusetts Energy Improvement Project (EEA #16913)

Thank you.

Alex Strysky
MEPA Office
100 Cambridge Street
Boston, MA 02114
Cell: (857) 408-6957

NEW!! MEPA has proposed amendments to its regulations at 301 CMR 11.00 to streamline housing and ecological restoration projects. More information is available here.

From: Comerford, Joanne (SEN) <Jo.Comerford@masenate.gov>
Sent: Friday, January 9, 2026 3:49 PM
To: Strysky, Alexander (EEA) <alexander.strysky@mass.gov>

Subject: Central to Western Massachusetts Energy Improvement Project (EEA #16913)

Dear Secretary Tepper and Mr. Strysky,

Please find attached the comment submission from the Pioneer Valley Planning Commission (PVPC) regarding the Central to Western Massachusetts Energy Improvement Project. Addionally, I have attached the letter from Franklin Regional Council of Governments (FRCOG) sent in February 2025 with comments on the Environmental Notification Form (ENF) for this same project.

I endorse the comments and share the concerns submitted by our regional planning agencies. Thank you for your consideration and please feel free to contact me with any questions.

Warmly,

Jo

Hampshire, Franklin, Worcester district
SenatorJoComerford.org
@Jo_Comerford
she/her

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DUPLICATE COMMENT LETTER

Pioneer Valley Planning Commission

January 5, 2026

Ms. Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Attention: MEPA Unit

Reference: Draft Environmental Impact Report
EEA No. 16913
Central to Western Massachusetts Energy Improvement Project
Sunderland, Millbury, Leverett, North Brookfield, West Brookfield, Auburn, Spencer, Deerfield, Shelburne, Ware, Shutesbury, Belchertown, Conway, Pelham, Leicester

Dear Secretary Tepper:

The Pioneer Valley Planning Commission (PVPC) respectfully submits the following comments on the Draft Environmental Impact Report (DEIR) for the Central to Western Massachusetts Energy Improvement Project (EEA#16913). Our review identifies several critical concerns and requests for clarification, primarily focused on environmental impacts and consistency with regional planning priorities.

1. Wetlands and Resource Area Impacts

The DEIR acknowledges that the project will involve work within multiple wetland resource areas, including Bordering Vegetated Wetlands (BVW), Riverfront Areas, and Buffer Zones. Although the applicant identifies compliance with the Wetlands Protection Act and outlines a proposed suite of mitigation measures, additional documentation is requested in the Final Environmental Impact Report (FEIR) for the following areas:

Quantification of Wetland Impacts: A table is included with square footage of temporary vs. permanent impacts, but there is insufficient narrative explaining the ecological significance of affected wetlands (e.g., habitat value, connectivity, hydrology).

Avoidance and Minimization Measures: While alternative alignments are mentioned, the DEIR does not adequately explain how wetland impacts were avoided or minimized during design phases.

Hydrology: The project as proposed has the potential to result in significant changes to the hydrology of the affected resource areas and downstream reaches. Therefore, this project should consider both surface and subsurface hydrology, wildlife habitat, fisheries habitat, and shading impacts. The FEIR should highlight how any local cold-water fisheries will be affected, including thermal and sediment impacts.

Invasive Species: Work should be done carefully to prevent the transmission of invasive species to and from the project site. Because invasive species establish and thrive in disturbed areas, to the extent feasible, soil and vegetation disturbance should be minimized. All vehicles and equipment must be clean and free of excess soil, debris and vegetation before entering the work site.
Vernal Pools: Vernal Pools are significant to the protection of wildlife habitat, particularly amphibian breeding habitat. The PVPC does not support options that include removing, dredging, or altering of a Vernal Pool or a 100' buffer.
Outstanding Water Resources: This project crosses through Quabbin Reservoir Watershed, a Class A surface water, Outstanding Resource Water, and Public Water Supply. The applicant should work with the landowner, Department of Conservation and Recreation (DCR) to make sure the project does not impair the quality of the water.
Cumulative Impacts: There is no substantive discussion of cumulative wetland loss from this and other regional energy infrastructure projects. We request that the FEIR include a narrative assessment of functional wetland impacts (e.g., wildlife support, flood mitigation) and provide a clear matrix comparing alternatives with respect to total and functional wetland impact.

2. Tree Removal and Forest Impacts

The DEIR includes estimated tree clearing for each segment, but the scope and impact of this vegetation removal is requested as part of the FEIR as follows:
Extent of Clearing: In several segments, the extent of clearing is unclear, with additional areas required for access roads and work pads. While the total acreage of impact is stated, it's unclear how much is mature forest vs. shrubland or edge habitat. PVPC understands the difficulty of knowing the exact tree removal that will be necessary at this point of the project and appreciates that trees that only need to be pruned will be treated accordingly. We look forward to more details being supplied as part of the FEIR.
Forest Fragmentation: There is no analysis of interior forest loss or fragmentation impacts, which are critical in areas of contiguous habitat.
Climate and Carbon Sequestration: The DEIR does not provide a carbon accounting analysis of forest loss or propose offsets. This information is requested as part of the FEIR.
Herbicide Use: The FEIR analysis should include a summary of the last twenty years of herbicide use for vegetation treatment and make projections for how herbicide use will increase as a result of this project.

We also recommend the FEIR include a GIS-based forest fragmentation analysis, along with mitigation strategies such as replanting, conservation easements, or carbon offsets to compensate for permanent canopy loss.

3. Stormwater Management and Erosion Control

Stormwater management is described in the DEIR in general terms, with references to MassDEP Stormwater Standards. Additional information is requested as part of the FEIR as follows:

Site-Specific BMPs: There is insufficient detail about proposed stormwater Best Management Practices (BMPs) at individual access roads, laydown yards, and construction areas.

Erosion Control Plans: For sloped or erodible areas, it is unclear whether erosion controls will be adapted seasonally or based on field conditions.

Post-Construction Hydrology: There is limited discussion of how stormwater runoff patterns will change after permanent infrastructure is installed.

Belchertown Specific Requirements under their Stormwater Bylaw: It should be noted that the Belchertown Conservation Commission will require a Stormwater permit, as this project is not exempt from the local Stormwater Management Bylaw and Regulations. Project mitigation in areas where soils are classified as having severe erosion potential should include temporary and permanent stabilization methods using BMPs. It is requested that the FEIR include information on how this project does not increase stormwater runoff to any water body, roadway or neighboring property.

We request that the FEIR include site-specific stormwater design plans for key impact areas and describe long-term inspection and maintenance responsibilities for all BMPs.

4. Open Space Conversion and Public Lands

The DEIR mentions the use of several publicly owned parcels and conservation lands, including those subject to Article 97 protections. Additional information is requested as part of the FEIR as follows:

Article 97 Review: Where access roads or utility corridors cross protected open space, the FEIR should identify parcels requiring Article 97 alienation and describe the legislative and mitigation process.

Recreational Impacts: Temporary closure of public trails is mentioned, but the DEIR lacks a clear schedule of closures, detour plans, or notification protocols. Additional information is requested as part of the FEIR.

Compensatory Mitigation: There is no quantitative proposal for open space compensation, such as land donation, trail enhancement, or conservation restrictions. The FEIR should include a parcel-level summary of open space impacts, and a formal compensatory open space mitigation plan is recommended to be included as part of the Section 61 Finding.

5. Permitting and Regulatory Coordination

The DEIR outlines required permits but does not fully demonstrate how overlapping federal, state, and local reviews will be coordinated:

MEPA / FERC / Energy Facilities Siting Board Coordination: It is unclear how these processes will align to avoid duplication or regulatory gaps. Additional information is requested as part of the FEIR.
Wetlands and Water Quality Permits: The DEIR lists anticipated permits (e.g., Section 401, 404, Chapter 91) but does not provide a clear timeline or identify responsible parties. Additional information is requested as part of the FEIR.
Local Conservation Commission Review: PVPC encourages direct consultation with local Conservation Commissions in Belchertown, Pelham, and Ware to ensure that site-specific wetland and stormwater conditions are incorporated. The FEIR should provide a coordinated permitting timeline and matrix showing agency jurisdiction over each impact type.

6. Environmental Justice (EJ) Communities

The DEIR identifies proximity to Environmental Justice populations but does not clearly outline meaningful engagement strategies or mitigation:
EJ Mapping: EJ screening is performed using state thresholds; however, the document lacks maps showing project components in relation to specific EJ communities.
Disproportionate Impact Analysis: The FEIR should analyze whether construction impacts (noise, traffic, vegetation removal) disproportionately affect EJ neighborhoods. We recommend that the FEIR include a full demographic and health profile of nearby EJ communities and propose enhanced mitigation, such as additional vegetative buffers or community benefit agreements.

7. Historic, archeological, and cultural resources preservation

Franklin Regional Council of Government (FRCOG) commented on the ENF related to historic, archaeological, and cultural resources. The proponent responded to comments by FRCOG related to a request for the DEIR to report on the proponent's ongoing coordination with the Department of Conservation and Recreation (DCR), Massachusetts Historical Commission (MHC), and Tribes, and discuss any mitigation measures that will be implemented to avoid or minimize impacts to cultural and historic resources (C54, Section 7.3). To date, the work completed and ongoing with consultant P.A.L. includes the identification and inventory of 22 above-ground resources (19 districts and three individual resources). Additionally, 16 archaeological sites have been inventoried within or overlapping the Project Right of Way. Consultation is ongoing with the MHC along with outreach to federal and state-recognized Tribes and other stakeholders. Once the review and fieldwork by P.A.L is completed and consultation also finished with the MHC, United States Army Corps of Engineers (USACE), and federal and state-recognized Tribes, there is commitment to developing any necessary plans for archaeological site avoidance, protection plans, and associated treatment measures through the Section 106 process. Avoidance, minimization, and mitigation measures have been outlined related to

archaeological sites and stone walls (Section 7.3 and Appendix D). It is requested that status of these efforts be updated to the extent possible as part of the FEIR.

8. Conclusion

PVPC supports infrastructure resilience and reliability but emphasizes that these goals must be balanced with environmental protection, climate adaptation, and equity. Additional information is requested in the Final EIR on the following topics:

- Expanded analysis of wetland functions and forest fragmentation.
- Detailed stormwater and erosion control design.
- Open space and Article 97 mitigation plan.
- Coordinated permitting and regulatory pathway.
- Environmental justice engagement and mitigation strategies.
- Historic, archeological, and cultural resources preservation.

We appreciate the opportunity to provide comments on the DEIR for this project.

Sincerely,

Kimberly H. Robinson, MUP
Executive Director

CC:

Julie Goldberg, BSC Group, Environmental Consultants
Alexander Strysky, Massachusetts Environmental Protection Agency
Bjorn MarKeson, PVPC Commissioner - Belchertown
Douglas Albertson, PVPC Alternate - Belchertown
Judith Eiseman, PVPC Commissioner - Pelham
Peter Wilson, PVPC Alternate – Pelham
Stuart Beckley, Town Manager - Ware
Jessie Cooley, Office of Senator Jo Comerford
Sen. Jo Comerford, Hampshire, Franklin, and Worcester, MA State House

DUPLICATE COMMENT LETTER

Franklin Regional Council of Governments

January 9, 2026

Attn: MEPA Office, Alexander Strysky
Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Boston, MA 0211

Submitted by email to: alexander.strysky@mass.gov

Re: **EEA Project 16913**
Draft Environmental Impact Report (DEIR) for Central to Western Massachusetts Energy improvement Project

Dear Ms. Tepper,

The Franklin Regional Council of Governments (FRCOG) hereby submits comments on the Draft Environmental Impact Report (DEIR) for EEA Project 16913. FRCOG is a regional service organization serving the 26 municipalities of Franklin County. We advocate on behalf of our communities and the county at the federal, state and regional levels. Our Planning Department serves as the Regional Planning Agency for the 26 communities in Franklin County. We provide planning technical assistance to our member towns for projects related to climate change resiliency, natural resource protection, land use, economic development and transportation. This proposed project will include activities in the towns of Buckland, Shelburne, Conway, Deerfield, Sunderland, Leverett, and Shutesbury in Franklin County.

About this Project

New England Power Company d/b/a National Grid ("NEP") is proposing this refurbishment and system improvement project along the E5/F6 transmission lines that run for 67 miles between Buckland and Millbury in central Massachusetts. The project includes the temporary alteration of 248.3 acres and the permanent alteration of 318.6 acres of land to maintain and replace 711 power line support structures and replacing lines, switches, and tap lines; perform vegetation management; and upgrade or create new access into the line. The new support structures will allow for future conversion of the 69 kV line to a 115 kV line, and in the meantime, the proposed project will provide increased capacity by upgrading the 69 kV line. This line serves power to residents and is also connected to the substations for the Deerfield No. 2, 3, and 4 hydropower projects along the Deerfield River.

Project Need

Having a resilient power transmission system with adequate capacity for growth is important to Franklin County communities. The FRCOG works with municipalities in Franklin County to reduce their

energy use, primarily through efficiency and decarbonization projects, with funding from the Green Communities program. Although these projects will aid towns in reducing greenhouse gas emissions, they often result in an increased demand for electricity. In addition, we are aware that Great River Hydro has plans to install a 7 MW battery storage facility at the Deerfield No. 3 hydropower station in Buckland, which would tie into this line, and that this transmission corridor has no capacity for additional projects beyond this one, according to Great River Hydro.

Comments on the DEIR

In our comments on the ENF, we expressed interest in understanding impacts by town. Appendix C of the DEIR provides impact tables by municipality, but the table is limited to a summary of impacts to wetland resources and, where relevant, impact to Department of Conservation Resources (DCR) properties. It would be good to see permanent and temporary "new land altered" numbers (as provided in Table 1-3) broken down by town as well as other statistics. Perhaps a fact sheet for each town could be made that summarizes pertinent impacts by town.

In Table 4-2: Under Buckland, the Gardner Falls Recreation Area is not owned by Western Massachusetts Electric Company. It is owned by CRP MA Gardner Falls LLC (a subsidiary of Patriot Hydro LLC which is a subsidiary of something else) and "Veterans Memorial Field" is now called "Cricket Field" and the Town of Buckland owns this park, so it is a public ("local") park. Under Leverett, Rattlesnake Gutter Trust might be best categorized as a land trust. Under Shelburne, "Bradwell Farms CR" should be spelled "Bardwell Farms CR" (this is an error in MassGIS).

Table 4-3 summarizes the locations where the project intersects DCR properties. It would be helpful to understand the comparative size (acres) of impact on each DCR property. The information might be in Appendix C, but the name of each DCR state forest or park is not provided in Appendix C.

Trail impacts

Pages 30-35 in the Environmental Resources Maps in Attachment A shows that the Mohican-Mohawk Trail corresponds with Type S access and pruning activities. As explained in section 4.3.2.1, Type S access is a permanent change and involves widening an existing access to provide a 16-ft travel surface through addition of stone and gravel. In other words, the proposed project will permanently impact this segment of the Mohican-Mohawk Trail, which is already heavily impacted by the aesthetics of the power line. We recommend that DCR and National Grid seek to re-route the trail corridor away from the impacted area so that hikers can hike in forest.

FRCOG staff hiking along Conway section of the Mohican-Mohawk trail in 2025 observed Oriental bittersweet proliferating along the power line and spreading into the forest in this area. Widening of the corridor will encourage the further spread of bittersweet, which tends to grow best in forest edge areas. FRCOG recommends that the proponent commit to manually pull young plants and cut mature bittersweet in this area and within a 100-foot swath from the corridor as a regular maintenance activity.

Page 45 of the Environmental Resources Map in Attachment A has a “hiking trail” label on the map but the map shows no marked hiking trail. This is the Pocumtuck Ridge Trail on DCR property in this area. This trail is not identified in section 4.3 where other trails and unpaved roads are listed.

FRCOG requests that, prior to construction, the proponent contact local outdoor organizations (Appalachian Mountain Club, Northeast Mountain Bike Association, etc.) and municipalities to let them know of upcoming recreational trail impacts. Additionally, during construction, trailhead kiosks/signs and trail crossings should have temporary signage installed to offer wayfinding on the trail through the construction zone (see photo below showing need for signage during these types of projects).



Spruce Hill Trail in Monroe State Forest during New England Power's E131 refurbishment project, May 2025. The trail was muddy from construction vehicles and there was no indication that the trail continued across the construction zone.

Scenic byway impacts

FRCOG’s comment letter on the Environmental Notification Form (ENF) dated February 27, 2025 expressed concerns about mitigating visual impacts to two nationally-designated scenic byways, the Connecticut River Byway on Route 47 in Sunderland and the Mohawk Trail Scenic Byway on Route 2 in Shelburne. On page 13-18, the proponent’s response referred to Section 11 for impacts and planned efforts to avoid, minimize, and mitigate impacts. *However, we were unable to find any reference to avoid, minimize, and mitigate impacts to scenic byways.*

Historic impacts

Section 5.3.1.2 outlines the construction best management practices (BMPs) for vernal pools. FRCOG recommends that BMPs for vernal pools also include the BMPs listed in section 5.3.1.1 for wetlands.

Section 8.1.2: FRCOG supports offering wood to landowners and community wood banks, along with leaving felled trees and snags to decompose where possible, to create habitat.

Thank you for the opportunity to comment on this DEIR. Please feel free to reach me at jatwood@frcog.org or 413-774-3167 x. 123, or contact Beth Giannini, Transportation Program Manager, at giannini@frcog.org or x.125.

Sincerely,



Jessica Atwood
Director of Planning

ENF COMMENT LETTER

Franklin Regional Council of Governments

February 27, 2025

Attn: MEPA Office, Alexander Strysky
Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
100 Cambridge St, Suite 900
Boston, MA 0211

Submitted by email to: alexander.strysky@mass.gov

Re: **EEA Project 16913**
Environmental Notification Form (ENF) for Central to Western Massachusetts Energy improvement Project

Dear Ms. Tepper,

The Franklin Regional Council of Governments (FRCOG) hereby submits comments on the Environmental Notification Form (ENF) for EEA Project 16913. FRCOG is a regional service organization serving the 26 municipalities of Franklin County. We advocate on behalf of our communities and the county at the federal, state and regional levels. Our Planning Department serves as the Regional Planning Agency for the 26 communities in Franklin County. We provide planning technical assistance to our member towns for projects related to climate change resiliency, natural resource protection, land use, economic development and transportation. This proposed project will include activities in the towns of Shelburne, Conway, Deerfield, Sunderland, Leverett, and Shutesbury in Franklin County.

About this Project

New England Power Company d/b/a National Grid ("NEP") is proposing this refurbishment and system improvement project along the E5/F6 transmission lines that run for 67 miles between Shelburne and Millbury in central Massachusetts. The project includes the alteration of 561 acres of land to replace power line support structures (538 lattice towers, 75 steel poles, and 98 wood poles); replacing lines, switches, and tap lines; performing vegetation management; and upgrading or creating new access into the line. The new support structures will allow for future conversion of the 69 kV line to a 115 kV line, and in the meantime, the proposed project will provide increased capacity by upgrading the 69 kV line. This line serves power to residents and is also connected to the substations for the Deerfield No. 2, 3, and 4 hydropower projects along the Deerfield River.

Project Need

Having a resilient power transmission system with adequate capacity for growth is important to Franklin County communities. The FRCOG works with municipalities in Franklin County to reduce their energy use, primarily through efficiency and decarbonization projects, with funding from the Green Communities program. Although

these projects will aid towns in reducing greenhouse gas emissions, they will result in an increased demand for electricity. In addition, we are aware that Great River Hydro has plans to install a 7 MW battery storage facility at the Deerfield No. 3 hydropower station in Buckland, which would tie into this line, and that this transmission corridor has no capacity for additional projects beyond this one, according to Great River Hydro.

Project Impacts

This is the fourth MEPA project on transmission lines in Franklin County we have reviewed in the past three years. Given the frequency of these projects, and the likelihood that they will continue, it would be helpful to project proponents and stakeholders if MEPA could develop some standard guidelines for the content of these types of filings. In addition to understanding total project effects, understand impacts by municipality is important.

In order to review impacts of the project within our region, FRCOG requests the following elements to be included in the Draft Environmental Impact Report (DEIR).

1. Describe the activity and impacts of replacing Tap Lines.
2. Describe the activity and impacts of installing "direct embed" or "concrete caisson" structure bases. Explain what site conditions each are used, and how they withstand effects of different climate hazards, such as floods, earthquakes, tornadoes, and ice storms.
3. Describe the activity and impacts of "pull pads."
4. Describe the activity and impacts of removing and installing new support structures.
5. Describe and identify which access routes to the lines will be new vs. pre-existing. Describe attempts to minimize impacts within steeply sloped areas.
6. Please describe and summarize project activities and natural resource, historical, indigenous, and viewshed impacts by town.
7. Describe any impacts and planned efforts to avoid, minimize, and mitigate impacts to the Mohican-Mohawk Trail, the Pocumtuck Ridge Trail, and any other publicly accessible trails.
8. Describe any impacts and planned efforts to avoid, minimize, and mitigate impacts within permanently conserved lands, public and private.
9. The project will cross two nationally designated scenic byways, the **Connecticut River Byway** on Route 47 in Sunderland, and the **Mohawk Trail Scenic Byway** on Route 2 in Shelburne. Please describe any impacts and planned efforts to avoid, minimize, and mitigate impacts to these scenic byways. This includes choice of towers, visual impact of the height change of the towers, tree removal, and any access routes into the transmission corridor.
10. The project crosses many wetlands and coldwater streams, as well as the Deerfield River four times, the South River once, and the Connecticut River once. Describe any impacts and planned efforts to avoid, minimize, and mitigate impacts to wetlands and waterways, including state-listed species and floodplains (including forested floodplains), prime agricultural lands, and Indigenous artifacts and traditional gathering places adjacent to these waters.
11. Describe long-term maintenance of the right of way, including pesticides used. If any pesticide use is planned, provide information about public and private drinking water wells, and how these will be marked in the field.

12. Review local stormwater and wetlands bylaws and identify in the DEIR which towns in the project area have local bylaws that will need to be considered as the project moves forward.
13. Describe any impacts and planned efforts to avoid, minimize, and mitigate impacts to state-listed species by species type (birds, plants, etc.) and habitat (terrestrial, aquatic, etc.).
14. Describe any impacts and planned efforts to identify and then avoid, minimize, and mitigate historical resources such as stone walls, cellar holes, places of importance to indigenous cultures.
15. Section III(A) on page 28 of the ENF form identifies towns that have comprehensive (or master) plans. Please note that this section is missing reference to the following documents: Buckland-Shelburne Master Plan (1999), Conway Master Plan (2013), Sunderland Master Plan (2014), and Leverett Comprehensive Plan (2024). Please include summaries of compliance with these plans.
16. The FRCOG recently completed a regional pollinator plan with funding from an EEA Planning Assistance Grant. The project included plans for four the towns in the project area, Shelburne, Conway, Deerfield, and Shutesbury. The report documents can be found here https://frcog.org/publications/regional-and-local-pollinator-plans /. FRCOG's regional pollinator plan describes utility rights of way (ROWs) as areas that cover a variety of landscapes and sometimes contain greater plant diversity than adjacent lands, which might make them excellent pollinator forage and nesting habitat. Where utility corridors cross open wetlands, the pollinator habitat value could be even greater. ROWs create a linear open space that is generally free of major disturbances and protected from future development. While these conditions could create highly valuable connected corridors of high-quality habitat, the use of herbicides to manage vegetation in these areas can negate their value as habitat. The FRCOG requests that NEP consult the Regional Pollinator Plan and other documents such as EPRI's "Overview of Power Companies and Pollinators" published in 2018, and EPRI's "Conservation Actions for Electric Power Companies to Support Monarch Butterflies" published in 2019. Notwithstanding the project impacts, this project also represents an opportunity that should not be lost.

Thank you for the opportunity to comment on this ENF. Please feel free to reach me at jatwood@frcog.org or 413-774-3167 x. 123, or contact Beth Giannini, Transportation Program Manager, at giannini@frcog.org or x.125.

Sincerely,



Jessica Atwood
Director of Planning

From: Shelley Kirkwood
To: Strysky, Alexander (EEA); jenniferhughes@mass.gov
Subject: National Grid Transmission Line opposition statement
Date: Friday, January 9, 2026 7:47:44 PM

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Hello and good evening.

I am a resident of Pelham Mass. I am reaching out to express my deep concern about the National Grid project and its impact on some of the most beautiful woodlands in western Mass. I live and work in Buffam Falls area. As a nature photographer, I have spent a more than a average amount of time in deep observation within the territories you have selected for tree clearing and habitat destruction. Buffam Falls in particular is a unique watershed, a place where two rivers merge, surrounded by ancient slate cliffs and terraces of ferns and birch.It is a haven for play and a peaceful, shady refuge for so many families each year. This area is home to a wide array of wildlife, including bear, coyote, moose, deer rabbit, songbirds, birds of prey, and many species of endangered plants.

It is unique in the there are miles of uninterrupted woodland, which is unusual in this particular area. It is also in extremely close proximity to our drinking water. Consider that your project will likely impact clean water for the region and that you will be held liable if this occurs. 39-1

Much of my work in recent years has been inspired by the awe I have found in these natural spaces. Please take a moment to review my work at shelleykirkwood.com

This project, if it proceeds will represent yet another devastating loss for our collective natural spaces, all of which are deeply in need of protection in this moment. I urge you to reconsider this endeavor as we witness the undoing of so many environmental protections in our country. Please protect this very special forestland. 39-2

Sincerely,
Shelley Kirkwood

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

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

January 12, 2026

Rebecca Tepper, Secretary
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Alexander Strysky, EEA No. 16913
100 Cambridge St.
Boston, Massachusetts 02114

Project Name:	*Central to Western Massachusetts Energy Improvement Project*
Proponent:	*New England Power Company d/b/a National Grid (NEP)*
Location:	*Existing Right-of-Way in Sunderland, Millbury, Leverett, North Brookfield, West Brookfield, Auburn, Spencer, Deerfield, Shelburne, Ware, Shutesbury, Belchertown, Conway, Pelham, Leicester*
Document Reviewed:	*Draft Environmental Impact Report (DEIR)*
EEA No.:	*16913*
NHESP No.:	*23-10890*

Dear Secretary Tepper:

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries & Wildlife (the Division) has reviewed the Draft Environmental Impact Report (DEIR) for the "*Central to Western Massachusetts Energy Improvement Project*" (the Project) and would like to offer the following comments regarding state-listed species and their habitats.

Project Description

The Project is described as the asset condition refurbishment ("ACR") of the existing transmission lines which includes the removal of existing double circuit towers, conductors, shield wire and related transmission components and the rebuilding of the E5/F6 Lines and interconnecting tap lines within the existing Right-of-Way (ROW). The proposed activities include replacement and upgrade of existing transmission structures, establishment and improvement of work pads and access routes, and vegetation clearing within the existing 67-mile ROW. The Proponent is proactively consulting with the Division to address concerns for rare species that may result from habitat loss, alteration, and risk of mortality to individual state-listed species.

State-Listed Species

As indicated in the *Massachusetts Natural Heritage Atlas* (15th Edition), portions of the Project site are within areas mapped as Priority Habitat for several rare species, including but not limited to, Eastern Box Turtle (*Terrapene carolina*, Special Concern), Wood Turtle (*Glyptemys insculpta*, Special Concern), Marbled Salamander (*Ambystoma opacum*, Special Concern), American Bittersweet (*Celastrus scandens*, Threatened), Muskflower (*Erythranthe moschata,* Threatened) and Variable Sedge (*Carex polymorpha*, Endangered). These species and their habitats are protected pursuant to the Massachusetts Endangered

Species Act (MGL c.131A) and its implementing regulations (MESA; 321 CMR 10.00). All projects or activities proposed within Priority Habitat, which are not otherwise exempt pursuant to 321 CMR 10.14, require prior review through a direct filing with the Division for compliance with the MESA Regulations (321 CMR 10.18).

MA Endangered Species Act (MESA)

In response to the ENF, the Division recommended that the Proponent continue to consult with the Division to minimize and mitigate impacts to state-listed species, conduct habitat assessments and surveys for state-listed species, revise impact calculations, and propose post-construction habitat restoration measures. The Proponent has continued consultations with the Division and progress was made on assessment of state-listed reptile habitat and reduction of permanent work pad size within Priority Habitat. Based on with the information in the DEIR, the Division's ongoing consultations with the Proponent, and in advance of a formal MESA filing, we continue to anticipate that the Project is likely to result in a Take of American Bittersweet (*Celastrus scandens*; Threatened*)*, Muskflower (*Erythranthe moschata;* Threatened), and a Data-sensitive species.

The Division anticipates, based on ongoing consultations with the Proponent, and in advance of a formal MESA filing that the project can be sufficiently conditioned to avoid a prohibited Take (321 CMR 10.18(2)(b)) of Variable Sedge (*Carex polymorpha;* Endangered), Eastern Whip-poor-will (*Antrostomus vociferus*; Special Concern), American Bittern (*Botaurus lentiginosus*; Endangered) and Pied Bill Grebe (*Podilymbus Podiceps*; Endangered).

The Division cannot yet determine whether the Project can be sufficiently conditioned to avoid a prohibited Take (321 CMR 10.18(2)(b)) of additional state-listed species habitat. If the Division determines the project will result in a Take of state-listed species, then the project may only be permitted if they meet the performance standards for 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. 40-1

The Division recommends that the Proponent continue to work proactively with the Division to address development of stringent protection measures during construction, and restoration measures post-construction for state-listed species habitat. The Division anticipates being able to address these issues through the MESA review process and looks forward to continued consultation with the Proponent. 40-2

The Division will not render a final decision until the MEPA review process and its associated public comment period is complete and until all required MESA filing materials are submitted by the proponent to the Division. As the MESA review process is not complete, no alteration to the soil, surface, or vegetation associated with the proposed Project shall occur until the Division has made a final determination.

If you have any questions about this letter, please contact Lauren Glorioso, Endangered Species Review Biologist, at (508) 389-6361 or lauren.glorioso@mass.gov. We appreciate the opportunity to comment on the Project.

Sincerely,



Jesse Leddick
Assistant Director

cc: Julie Goldberg, BSC Group, Inc.
Mike Tyrell, National Grid
MassDEP Western Regional Office
MassDEP Central Regional Office
Town of Millbury Board of Selectmen
Town of Millbury Planning Board
Town of Millbury Conservation Commission
Town of Auburn Board of Selectmen
Town of Auburn Planning Board
Town of Auburn Conservation Commission
Town of Leicester Board of Selectmen
Town of Leicester Planning Board
Town of Leicester Conservation Commission
Town of Spencer Board of Selectmen
Town of Spencer Planning Board
Town of Spencer Conservation Commission
Town of East Brookfield Board of Selectmen
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Town of West Brookfield Conservation Commission
Town of Ware Board of Selectmen
Town of Ware Planning Board
Town of Ware Conservation Commission
Town of Belchertown Board of Selectmen
Town of Belchertown Planning Board
Town of Belchertown Conservation Commission
Town of Pelham Board of Selectmen
Town of Pelham Planning Board
Town of Pelham Conservation Commission
Town of Shutesbury Board of Selectmen
Town of Shutesbury Planning Board

Town of Shutesbury Conservation Commission
Town of Leverett Board of Selectmen
Town of Leverett Planning Board
Town of Leverett Conservation Commission
Town of Sunderland Board of Selectmen
Town of Sunderland Planning Board
Town of Sunderland Conservation Commission
Town of Deerfield Board of Selectmen
Town of Deerfield Planning Board
Town of Deerfield Conservation Commission
Town of Conway Board of Selectmen
Town of Conway Planning Board
Town of Conway Conservation Commission
Town of Shelburne Board of Selectmen
Town of Shelburne Planning Board
Town of Shelburne Conservation Commission

From:	Stefanik, Elizabeth A (DEP)
To:	Strysky, Alexander (EEA)
Cc:	Rhodes, Lisa (DEP); Wu, Christina Y (DEP)
Subject:	EEA# 16913 Central to Wester MA Energy Improvement Project (National Grid) DEIR
Date:	Wednesday, January 14, 2026 10:36:36 AM

Greetings Alex,

MassDEP Wetlands has reviewed the DEIR for the EEA# 16913 Central to Wester MA Energy Improvement Project (National Grid), we also reviewed our ENF comments (2/27/25) to ensure that all comments/questions were properly addressed by the project proponent in their DEIR (October 2025)

MassDEP Wetlands provides the following comments on the DEIR:

- In the FEIR, MassDEP Wetlands requests that New England Power Company (NEP) provide more detailed information on the project specific "proposed mitigation for tree removal." NEP states that they look forward to continuing the partnership with both DCR and Mass Audubon on this mitigation package and that they will provide an update on the mitigation package and additional details in the FEIR. 41-1

- The following ENF comment, provided by MassDEP Wetlands- Central Region was not fully addressed: "*The ENF does not provide descriptions for compensatory storage for other activities which will occur within BLSF including the placement of utility structures and roadway improvements. The Proponent must provide compensatory storage for any fill of BLSF resource*." NEP's response is as follows: "*NEP is not proposing any compensatory flood storage. Where NEP is proposing to improve or construct work areas and access within BLSF, these areas will be over-excavated (cut) and will not result in the loss of flood storage area. New structures in BLSF will result in minimal amounts of permanent fill relative to the total extent of resource areas in the Project Area. Structure replacements will not result in a significant increase in fill/change in conditions within BLSF so as to contribute to flood flows. Activities within BLSF will not result in demonstratable loss of flood storage capacity. Refer to Section 2.3.2.5 and Section 11.3.3 for further discussion*." 41-2

  <u>Under Section 11.3.3 Compensatory Flood Storage, NEP states:</u>

  "The Project will result in de minimis impacts within BLSF, as the amount of permanent fill associated with structures is minimal relative to the total extent of the resource areas in the Project Area. Activities within BLSF will not result in demonstratable loss of flood storage capacity. Furthermore, the proposed work is located within the managed portions of the existing ROW and will not result in significant land use changes to current conditions. Therefore, NEP is not proposing compensatory storage for BLSF."

MassDEP requires Applicants to provide justification that the "activities within BLSF will not result in demonstratable loss of flood storage capacity."

41-3

Per *310 CMR 10.57(4)(a)1.*, Compensatory storage shall mean a volume not previously used for flood storage and shall be incrementally equal to the theoretical volume of flood water at each elevation, up to and including the 100-year flood elevation, which would be displaced by the proposed project.

We appreciate the additional review time that you provided to us for this DEIR review.

Thank you,
Elizabeth

Elizabeth Stefanik
Environmental Analyst
MassDEP Wetlands Program
Major Projects and Policy Unit (MPPU)
100 Cambridge Street, Suite 900
Boston, MA 02114
(617) 947-7835
elizabeth.a.stefanik@mass.gov

Appendix D – Agency Correspondence

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

August 6, 2026

Michael Tyrrell, New England Power
c/o T.J. Roskelly, Anderson Kreiger LLP
50 Milk Street, 21st Floor
Boston, MA 02109

Re: New England Power Central to Western Massachusetts Energy Improvement Project
Non-tidal Rivers and Stream Jurisdictional Review / BSC Memo – July 8, 2026
EEA 16913

Mr. Tyrrell,

The Department has reviewed the referenced BSC memorandum submitted on behalf of New England Power Company documenting a virtual meeting I attended on June 30, 2026 with the project team for the purpose of reviewing the 22 perennial non-tidal river and streams proposed to be crossed using temporary timber mats during the construction phase of the Central to Western Massachusetts Energy Improvement Project.

The memorandum accurately describes the meeting, the materials reviewed on-screen, and the Department's conclusion that none of the perennial streams for which temporary construction-phase crossings are proposed are navigable as such term is used in the Massachusetts Waterways Regulations at 310 CMR 9.04. Therefore, the Department has determined that none 22 non-tidal river or stream crossings are proposed within any geographic area subject to Chapter 91 jurisdiction. No further review or approval of the proposed work is required under G.L. c.91 or the Waterways Regulations.

Please do not hesitate to contact me by email at Daniel.Padien@mass.gov if you have any further questions in this matter.

Sincerely,

Daniel Padien
Waterways Program Chief

CC: Theresa Portante, BSC Group

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Appendix D – Agency Correspondence

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs

Department of Environmental Protection

Address: 100 Cambridge Street, Suite 900, Boston MA 02114 | **Phone**: 617-292-5500

Maura T. Healey	**Kim Driscoll**	**Rebecca Tepper**	**Bonnie Heiple**
Governor	Lieutenant Governor	Secretary	Commissioner

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Please do not hesitate to contact me by email at Daniel.Padien@mass.gov if you have any further questions in this matter.

Sincerely,

Daniel Padien
Waterways Program Chief

CC: Theresa Portante, BSC Group

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Appendix E – Impact Tables by Municipality

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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Shelburne

Resource Areas[1]	Temporary Impacts[2]			Permanent Impacts[3]		Permanent Alteration[4]	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)][5]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	1.9	0	0	<0.1 [287 sf]	0	0.9	**2.8**
IVW (acres)	0.4	0	0	<0.1 [79 sf]	0	0.3	**0.7**
LUWW (acres)	0	0	0	0	0	0.2	**0.2**
Inland Bank (lf)	1,535	0	0	0	0	1,323	**2,858**
Buffer Zone (acres)	6.1	7.5	0	<0.1 [1,353 sf]	1.6	11.2	**26.4**
BLSF (acres)	0.2	<0.1	0	0	0	0.1	**0.3**
RA (acres)	1.2	4.2	0	0.2 [566 sf]	<0.1	2.9	**8.5**

Buckland

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	0	0	0	0	0	0	**0**
IVW (acres)	0	0	0	0	0	0	**0**
LUWW (acres)	0	0	0	0	0	0	**0**
Inland Bank (lf)	0	0	0	0	0	0	**0**
Buffer Zone (acres)	0	0	0	0.4	0	0	**0.4**
BLSF (acres)	0	0	0	0	0	0	**0**
RA (acres)	0	0	0	0.4	0	0	**0.4**

Note: Sums within the tables may be off by 0.1 sf or 1 lf due to rounding. The following definitions and clarifications apply to all tables in this appendix.

1 **Resource Area Abbreviations**: BVW: Bordering Vegetated Wetland; IVW: Isolated Vegetated Wetland; LUWW: Land Under Water; Inland Bank: Inland Bank (measured in Linear Feet); Buffer Zone: Buffer Zone; BLSF: Bordering Land Subject to Flooding; RA: Riverfront Area; sf: square feet.

2 **Temporary impacts** are associated with placement of construction matting within wetlands and waterways. Where upland access is not available, access across wetlands and streams will be accomplished by the temporary placement of construction mats which will be removed following completion of construction, and areas will be restored.

3 **Permanent impact** includes installation of structure and access. Under the Clean Water Act, the construction of new or replacement structures within wetlands is considered a 'permanent impact,' These impacts are classified as "permanent" because they involve the discharge of fill material or conversion of land.

4 **Structure Impacts**: Structure impacts overlap with work areas, and thus are depicted in square feet within brackets as a subsect of the Permanent Work Areas column.

5 **Permanent alteration** includes access improvements, grading, and conversion of vegetative cover type associated with tree removal. Access improvements and grading are proposed only in upland resource areas and are considered "alteration" as efforts have been made to utilize historic access routes within the maintained Right-of-Way (ROW). Similarly, while tree removal will not result in permanent loss of BVW, this activity is considered permanent wetland alteration and will result in a change in community type from palustrine forested ("PFO") wetland to palustrine scrub-shrub ("PSS") or palustrine emergent ("PEM"). For context and clarity in this DEIR, impacts such as tree removal, access improvements, and grading have been grouped under the category of "permanent alteration."

Conway

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	1.3	0	0	<0.1 [208 sf]	0	0.6	**1.9**
IVW (acres)	0.3	<0.1	0	0	0	0.1	**0.4**
LUWW (acres)	0	0	0	0	0	0.2	**0.2**
Inland Bank (lf)	160	<0.1	0	0	0	872	**1,032**
Buffer Zone (acres)	1.7	2.8	<0.1	1.6 [795 sf]	0.3	5.3	**11.7**
BLSF (acres)	<0.1	0.2	0	0	0	0.1	**0.3**
RA (acres)	0.4	2.1	0	0.3 [258 sf]	<0.1	1.6	**4.4**

Deerfield

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	4.5	0	0	<0.1 [408 sf]	0	1.4	**5.9**
IVW (acres)	<0.1	0	0	0	0	<0.1	**<0.1**
LUWW (acres)	0	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	253	0	0	0	0	459	**712**
Buffer Zone (acres)	4.3	3.0	<0.1	0.4 [608 sf]	0.3	7.1	**15.1**
BLSF (acres)	0	0.3	0	<0.1 [50 sf]	0.1	0.3	**0.7**
RA (acres)	1.5	1.3	0	<0.1 [250 sf]	<0.1	2.1	**4.9**

Sunderland

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	1.6	0	0	<0.1 [100 sf]	0	0.8	**2.4**
IVW (acres)	<0.1	0	0	0	0	<0.1	**0.1**
LUWW (acres)	0	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	216	0	0	0	0	580	**796**
Buffer Zone (acres)	1.0	2.4	0	0.2 [587 sf]	0.4	4.7	**8.7**
BLSF (acres)	0.3	<0.1	0	<0.1 [79 sf]	0	0.1	**0.4**
RA (acres)	0.5	1.4	0	0.3 [258 sf]	0.2	0.8	**3.2**

Leverett

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	2.9	0	0	<0.1 [158 sf]	0	0.9	**3.8**
IVW (acres)	<0.1	0	0	0	0	<0.1	**0.1**
LUWW (acres)	0	0	0	0	0	<0.1	**<0.1**
Inland Bank (lf)	173	0	0	0	0	270	**443**
Buffer Zone (acres)	3.1	1.3	0	0.3 [458 sf]	0.8	3.5	**9.0**
BLSF (acres)	0.2	0	0	0	0	0.2	**0.4**
RA (acres)	1.2	0.3	0	<0.1 [179 sf]	<0.1	0.4	**2.0**

Shutesbury

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	0.7	0	0	0	0	0.2	**0.9**
IVW (acres)	<0.1	0	0	0	0	<0.1	**<0.1**
LUWW (acres)	0	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	524	0	0	0	0	468	**992**
Buffer Zone (acres)	1.1	0.6	0	1.0 [595 sf]	0.2	1.5	**4.4**
BLSF (acres)	0	0	0	0	0	0	**0**
RA (acres)	0.7	0.2	0	0.7 [179 sf]	0.1	0.9	**2.6**

Pelham

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	5.9	0	0	<0.1 [429 sf]	0	3.1	**9.0**
IVW (acres)	0.1	0	0	0	0	<0.1	**0.1**
LUWW (acres)	<0.1	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	822	0	0	0	0	1,253	**2,075**
Buffer Zone (acres)	5.7	2.9	0	1.0 [1,079 sf]	0.3	6.3	**16.2**
BLSF (acres)	0	0	0	0	0	0	**0**
RA (acres)	3.4	1.3	0	0.9 [608 sf]	0.1	3.4	**9.1**

Belchertown							
Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	3.9	0	0	<0.1 [637 sf]	0	2.2	**6.1**
IVW (acres)	0	0	0	0	0	0	**0**
LUWW (acres)	0	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	36	0	0	0	0	403	**439**
Buffer Zone (acres)	4.3	1.3	0	0.9 [1,082 sf]	0.3	3.5	**10.3**
BLSF (acres)	0.2	<0.1	0	0	0	0.2	**0.4**
RA (acres)	1.0	0.3	0	0.8 [179 sf]	0.1	1.2	**3.4**

Ware							
Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	6.8	0	0	<0.1 [387 sf]	0	1.7	**8.5**
IVW (acres)	0.2	0	0	0	0	0	**0.2**
LUWW (acres)	<0.1	0	0	0	0	<0.1	**0.1**
Inland Bank (lf)	983	0	0	0	0	206	**1,189**
Buffer Zone (acres)	4.8	4.1	0	1.5 [1,037 sf]	0.6	3.8	**14.8**
BLSF (acres)	0.2	0.3	0	<0.1 [79 sf]	0	0.1	**0.6**
RA (acres)	3.0	3.3	0	0.8 [774 sf]	0.1	2.1	**9.3**

West Brookfield

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	1.3	0	0	<0.1 [79 sf]	0	0.8	2.1
IVW (acres)	<0.1	0	0	0	0	<0.1	<0.1
LUWW (acres)	<0.1	0	0	0	0	0.1	0.1
Inland Bank (lf)	673	0	0	0	0	755	1,428
Buffer Zone (acres)	1.5	2.0	<0.1	0.3 [300 sf]	0.6	2.9	7.3
BLSF (acres)	0.2	<0.1	0	<0.1 [50 sf]	0	<0.1	0.2
RA (acres)	1.5	0.5	0	<0.1 [179 sf]	0	0.7	2.7

North Brookfield

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	2.9	0	0	<0.1 [50 sf]	0	1.1	4.0
IVW (acres)	0	0	0	0	0	0	0
LUWW (acres)	0	0	0	0	0	<0.1	<0.1
Inland Bank (lf)	604	0	0	0	0	191	795
Buffer Zone (acres)	2.3	1.4	<0.1	0.6 [1,053 sf]	0.2	2.2	6.7
BLSF (acres)	0.3	<0.1	0	0.1 [179 sf]	0	<0.1	0.5
RA (acres)	2.9	0.2	<0.1	0.4 [516 sf]	<0.1	0.7	4.2

East Brookfield

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	0.1	0	0	0	0	<0.1	0.1
IVW (acres)	0	0	0	0	0	0	0
LUWW (acres)	0	0	0	0	0	0	0
Inland Bank (lf)	0	0	0	0	0	0	0
Buffer Zone (acres)	0.3	1.1	<0.1	0.2 [179 sf]	0	0	1.6
BLSF (acres)	0	0	0	0	0	0	0
RA (acres)	0	0	0	0	0	0	0

Spencer

Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	2.2	0	0	<0.1 [100 sf]	0	1.4	3.6
IVW (acres)	0.1	0	0	<0.1 [50 sf]	0	<0.1	0.1
LUWW (acres)	0	0	0	0	0	0.1	0.1
Inland Bank (lf)	27	0	0	0	0	564	591
Buffer Zone (acres)	2.1	1.4	<0.1	1.6 [587 sf]	0.5	5.0	10.6
BLSF (acres)	0.4	0.5	0	<0.1 [129 sf]	<0.1	0.2	1.1
RA (acres)	0.9	0.8	0	<0.1 [258 sf]	<0.1	0.4	2.2

Leicester							
Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	2.5	0	0	<0.1 [129 sf]	0	2.0	**4.5**
IVW (acres)	0.2	0	0	0	0	0	**0.2**
LUWW (acres)	0.2	0	0	0	0	0.1	**0.3**
Inland Bank (lf)	536	0	0	0	0	815	**1,351**
Buffer Zone (acres)	3.0	1.4	0	1.8 [1,690 sf]	0.3	6.1	**12.6**
BLSF (acres)	0.1	<0.1	0	0	0	0.2	**0.3**
RA (acres)	2.3	0.4	0	0.4 [458 sf]	0.1	2.0	**5.2**

Auburn							
Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	1.4	0	0	<0.1 [129 sf]	0	1.0	**2.4**
IVW (acres)	0	0	0	0	0	0	**0**
LUWW (acres)	0	0	0	0	0	0.2	**0.2**
Inland Bank (lf)	0	0	0	0	0	591	**591**
Buffer Zone (acres)	2.1	1.3	0	0.3 [1,011 sf]	0.1	3.5	**7.3**
BLSF (acres)	<0.1	0	0	0	0	<0.1	**<0.1**
RA (acres)	0.7	0.6	0	0.3 [179 sf]	0.1	1.8	**3.5**

Millbury							
Resource Areas	Temporary Impacts			Permanent Impacts		Permanent Alteration	Resource Area Impact Total
	Construction Matting	Work Areas	Access Improvement	Work Areas [Structures (sf)]	Access Improvement	Vegetative Cover Type Conversion	
BVW (acres)	2.7	0	0	<0.1 [129 sf]	0	1.4	**4.1**
IVW (acres)	0.1	0	0	0	0	<0.1	**0.1**
LUWW (acres)	<0.1	0	0	0	0	0.1	**0.1**
Inland Bank (lf)	479	0	0	0	0	895	**1,374**
Buffer Zone (acres)	3.5	2.4	0	0.8 [982 sf]	0.4	3.4	**10.5**
BLSF (acres)	1.9	0	0	1.1 [474 sf]	0	0.7	**3.7**
RA (acres)	1.2	0	0	0.6 [208 sf]	0	0.3	**2.1**

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Appendix F – Analysis Responding to Comment C-46: Calculations and Assessment of the 2070 50-year Storm Event

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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MEMORANDUM

BSC GROUP

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To:	Mike Tyrrell, National Grid	**Date:**	August 7, 2026
From:	Bryan Wentworth, P.E.	**Proj. No.:**	89599.46
Re:	Comment C-46 Response: Calculations and Assessment of the 2070 50-year Storm Event		
cc:			

At the request of National Grid, BSC previously performed a study of the hydrologic effects imposed by the replacement of new transmission line structures and construction of gravel access and work areas by evaluating four different watersheds along rights-of-way (ROWs) similar to the E5/F6 ROW with varying terrain and soil conditions. The results indicate that impact to hydrological conditions along the ROWs is marginal and does not pose a significant change from existing conditions. Additionally, the natural revegetation of access and work areas will further diminish the marginal changes to hydrology over time. Measures that would be required to mitigate these minor runoff increases would be more impactful than beneficial to the ROW likely requiring the construction of larger detention or infiltration stormwater control measures (SCMs) which would eliminate a significant area of pollinator and wildlife habitat prevalent along the ROWs. In response to Comment C-46 from the Secretary's Certificate on the Draft Environmental Impact Report (DEIR), we are providing calculations and an assessment of hydrological conditions along typical transmission line ROWs specifically assessing relative impacts from the 2070 50-year storm event. The following provides a summary of the hydrological assessment that BSC has performed for similar projects:

BSC modeled four watersheds from similar transmission line projects to assess the hydrological impacts from the replacement of transmission line structures, tree removals, and construction of gravel access and work areas associated with the projects. Hydrologic models were prepared using HydroCAD Stormwater Modeling Software (version 10.20) and rainfall data from NOAA Atlas 14 for the 2, 10, and 100-year design storm events. Herein, the rainfall data associated with the 2070 50-year storm event has been added in comparison to the results previously modeled. The watersheds that were chosen from projects along the A1/B2, E131, and O15N transmission line ROWs which generally have steeper terrain making the assessment inherently more conservative from a hydrological perspective (i.e., would generate more runoff than more gentle terrain). These projects include improvements that are generally reflective of those proposed by the E5/F6 lines ACR project.

Comparison of Peak Discharge Rates

For each watershed selected, BSC prepared hydrologic models of the existing (or pre-construction) conditions and proposed (or post-construction) conditions based on the current access designs along the lines. Pre-construction models include existing compacted dirt/gravel access (if present), shrub vegetated areas, and forested woodlands surrounding the ROW, and post-construction models include the proposed structures, tree removals, and gravel access improvements and work areas.

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The following areas were selected to be modeled along the O15N, E131, and A1/B2 transmission line ROWs:

- O15N – Structures 22 to 24 – Includes areas where swales or plunge pools were not included in the design as determined not warranted to support drainage in these areas. Refer to attached Figure O15N-1 for a depiction of the limits of the watershed.
- E131 – Structures 52 to 53 – E131 line generally contains very steep terrain leading to considerable cut and fill to create level work areas. The area selected contains wetland resource areas along the steep ROW and within the proposed work pad areas. Refer to attached Figure E131-1 for a depiction of the limits of the watershed.
- A1/B2-1 – Structures 169 to 170 – Area is located within Department of Conservation and Recreation (DCR) land and near a delineated vernal pool. Access requires off-ROW on DCR land to avoid steep terrain. Refer to attached Figure A1/B2-1-1 for a depiction of the limits of the watershed.
- A1/B2-2 – Structures 351 to 352 – Well-draining soils prevalent. Close proximity to wetlands. Not particularly steep or challenging terrain. Refer to attached Figure A1/B2-1-2 for a depiction of the limits of the watershed.

The above watersheds along the ROWs were modeled for existing and proposed conditions based on the applicable civil designs for these projects, which, where necessary, include swales, check dams, water bars, and plunge pools to control erosion and prevent washouts of the access.

The following tables report the peak discharge rate within each watershed for each design storm and the 2070 50-year projected storm event as well as the difference between pre- and post-construction conditions.

O15N Watershed – Structures 22 to 24 8.8 Acres, Hydrologic Soil Group "D"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	10.28	11.43	1.15
10-year	22.40	23.86	1.46
100-year	42.87	44.44	1.57
2070 50-year	53.56	55.12	1.56

E131 Watershed – Structures 52 to 53 19.2 Acres, Hydrologic Soil Group "C"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	11.02	13.20	2.18
10-year	25.93	28.33	2.40
100-year	53.55	55.22	1.67
2070 50-year	77.20	77.70	0.50

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A1/B2 Watershed 1 – Structures 169 to 170 5.6 Acres, Hydrologic Soil Group "B"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.41	1.10	0.69
10-year	2.56	4.11	1.55
100-year	8.35	10.63	2.28
2070 50-year	12.77	15.31	2.54

A1/B2 Watershed 2 – Structures 351 to 352 4.8 Acres, Hydrologic Soil Group "A"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.00	0.01	0.01
10-year	0.07	0.40	0.33
100-year	1.53	3.06	1.53
2070 50-year	4.17	6.35	2.18

As shown in the tables above, the peak discharge rates vary considerably based on the size of the watershed and hydrologic soil group showing the varied hydrologic conditions that are encountered among the watersheds along transmission line ROWs. The largest increase in peak discharge rate among the scenarios was 2.54 cfs and most results show an increase of approximately 1 to 2 cfs.

BSC also evaluated the scenario where work pads along the ROW that are constructed for structure replacement are actively revegetated to reduce the post-construction gravel remaining. This involved leaving a 12-foot wide access through the area of the work pad and adding loam and seed to revegetate the remaining areas of the work pad. The change reduces the increases to peak discharge rates post-construction. Work areas and access generally will revegetate over time; therefore, the changes in hydrology will be diminished year after year following construction. The results for peak discharge rates for the example watersheds assuming that work pads are revegetated following construction are presented below:

O15N Watershed – Structures 22 to 24 8.8 Acres, Hydrologic Soil Group "D" (Restored Work Pads)			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	10.28	10.85	0.57
10-year	22.40	23.13	0.73
100-year	42.87	43.67	0.80
2070 50-year	53.56	54.35	0.79

E131 Watershed – Structures 52 to 53 19.2 Acres, Hydrologic Soil Group "C" (Restored Work Pads)			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	11.02	12.51	1.49
10-year	25.93	27.43	1.50
100-year	53.55	54.22	0.67
2070 50-year	77.20	76.70	-0.50

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A1/B2 Watershed 1 – Structures 169 to 170 5.6 Acres, Hydrologic Soil Group "B" (Restored Work Pads)			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.41	0.83	0.42
10-year	2.56	3.49	0.93
100-year	8.35	9.68	1.33
2070 50-year	12.77	14.22	1.45

A1/B2 Watershed 2 – Structures 351 to 352 4.8 Acres, Hydrologic Soil Group "A" (Restored Work Pads)			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.00	0.00	0.00
10-year	0.07	0.11	0.04
100-year	1.53	1.64	0.11
2070 50-year	4.17	4.19	0.02

For comparison to a more typical development project, BSC modeled various scenarios of single-family residential developments with up to four house lots each. The residential developments included ½ acre and 1-acre lots in HSG type A and C soils. Under the Commonwealth of Massachusetts Wetland Protection Act ("WPA"), "Housing development and redevelopment projects comprised of detached single-family dwellings on four or fewer lots" are exempt from compliance with the Stormwater Standards (310 CMR 10.05(6)(l)2). The increase in peak discharge rates from the single-family developments from pre- to post-development were generally in the range of 1 to 5 cfs. The peak discharge rate increases from the Project example watersheds were similar, and for most design storm events, lower than the results from the single-family residential developments modeled. The results for the single-family residential developments are included in the Table 4 below:

HSG type A and C soils for ½ and 1 acre lots (Using 7.80" for 2070 50-year storm event):

Single-Family Development 4 x ½ acre lots (total 2 acres), HSG "A"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.00	0.11	0.11
10-year	0.00	0.89	0.89
100-year	0.08	3.41	3.33
2070 50-year	0.35	4.91	4.56

Single-Family Development 4 x ½ acre lots (total 2 acres), HSG "C"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	1.50	2.53	1.03
10-year	3.54	4.92	1.38
100-year	7.30	8.97	1.67
2070 50-year	9.26	11.00	1.74

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Single-Family Development 4 x 1-acre lots (total 4 acres), HSG "A"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	0.00	0.06	0.06
10-year	0.00	1.11	1.11
100-year	0.15	5.57	5.42
2070 50-year	0.70	8.36	7.66

Single-Family Development 4 x 1-acre lots (total 4 acres), HSG "C"			
Storm Event	Existing Conditions (cfs)	Proposed Conditions (cfs)	Increase (cfs)
2-year	3.00	4.78	1.78
10-year	7.08	9.49	2.41
100-year	14.61	17.55	2.94
2070 50-year	18.52	21.59	3.07

Comparatively, larger industrial and commercial development would present a significant increase in runoff and change in hydrology and warrants mitigation of runoff volumes and discharge rates, conservation of groundwater recharge, and treatment of runoff water quality. The strategy that National Grid employs with respect to construction of gravel access and control of stormwater focuses on sedimentation and erosion control including reducing the potential for washouts during storm events. The BMPs and SCMs utilized to stabilize access are appropriate measures for the nature of the work and level of disturbance within the watersheds. Based on our model results, the projected 2070 50-year storm event will not have a significant impact on the hydrology of the ROW above and beyond current conditions. Calculations from the HydroCAD models for each of the scenarios discussed herein are attached to this memorandum for review and consideration.

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Appendix G – Updated Carbon Analysis

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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To:	Mike Tyrrell, New England Power Company and Theresa Portante, BSC Group	**Date:**	August 19, 2026
From:	Sebastian Gutwein, Regenerative Design Group	**Proj. No.**	0100181.02
Re:	Estimation of GHG Emissions from Land Alteration		

Background

As part of the Central to Western Massachusetts Energy Improvement Project (EEA # 16913), and because the project exceeds the 50-acre threshold of land alteration, an estimate of the carbon impact of the land and soil disturbance was required. On behalf of New England Power Company (NEP), BSC Group, Inc. (BSC) provided GIS polygons to Regenerative Design Group (RDG) showing the location and type of the disturbance. RDG was also provided with the utility corridor right-of-way (ROW) boundaries. With these polygons, RDG used desktop GIS software to estimate the current above and below ground carbon stocks and the impact of the disturbance on these stocks and sequestration potential losses with a 30-year time horizon.

This analysis updates the carbon assessment prepared for the Draft Environmental Impact Report (DEIR) to reflect refined Project design and vegetation-management information developed since the DEIR filing. The updated analysis retains the general carbon-accounting methodology used for the DEIR, while incorporating more recent LiDAR data and refined mapping of areas where trees will be removed, selectively removed, pruned, or retained. It also evaluates existing carbon stocks across the Project area and separately identifies tree canopy within the ROW that will remain unaffected. These refinements reduce the area modeled as full tree removal and provide a more representative estimate of the Project's anticipated effects on existing carbon stocks and future sequestration potential.

Results

Current Carbon Stocks

Using the polygons provided by BSC and the methods described below, RDG estimated that the 1,251.8 acres in the project area are estimated to currently contain a total of 114,082 metric tons of carbon.

Table 1. Current Carbon Stocks (metric tons of carbon) in ROW and Access Routes.[1]

	Acres	Current Non-Soil Carbon	Current Soil Carbon	Total Current Carbon
Off ROW	86.3 ac	3,873 mt	5,271 mt	9,144 mt
On ROW	1,165.4 ac	38,495 mt	66,442 mt	104,938 mt
Total:	**1,251.8 ac**	**42,368 mt**	**71,713 mt**	**114,082 mt**

[1] **Sums within the table may be off by 1 due to rounding.**

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Project Carbon Impacts

The project would result in a one-time loss of 12,548 metric tons of carbon from the removal of trees and the short-term effects of that removal on soil and forest floor carbon. Reducing the carbon stocks from 113,984 metric tons to 101,463 results in an 11% reduction. Over the next 30 years, the impact area is expected to recover 2,260 metric tons of carbon through sequestration, resulting in an estimated net loss of 10,288 metric tons of carbon. Additionally, the removal of trees and maintenance of much of the impact area as shrubland will result in a 30-year loss in sequestration potential of 5,368 metric tons of carbon. Therefore, within the combined 217-acre footprint (Table 2) where tree removals are proposed, we estimate that up to 15,656 metric tons of carbon would be released or not sequestered over the next 30 years.

Non-Soil Carbon

At the time of vegetative cover conversion, the impact on non-soil carbon stocks includes removal of above ground live and dead trees on 181.2 acres along the right of way, as well as 36.5 acres off the right of way. This results in the removal of 9,568 metric tons of carbon. Over the next 30 years, as the converted area transitions to and is maintained as a shrub dominated landscape, this will result in the sequestration of 2,269 metric tons of carbon. If the area along the ROW were to remain as trees, an additional 4,557 metric tons of carbon would be sequestered.

Soil Carbon

The change from forested to shrubland land cover in the 181.2 acres to be removed along the right of way, as well as the 36.5 acres off the right of way, will result in a reduction of 3,001 metric tons of soil carbon. This change will also result in a loss of the soil carbon sequestration potential over a 30-year period of 814 metric tons of carbon.

Table 2. Proposed Land Conversion (acres) and Associated Carbon Flux (metric tons of carbon). Red numbers highlight the values that are gains rather than losses.[2]

	Off ROW	On ROW	Grand Total
Area of Impact (Acres)	36.5 ac	181.2 ac	217.7 ac
Non-Soil Carbon One -Time Loss	1,280 mt	8,288 mt	9,568 mt
Non-Soil Carbon Sequestration 30 Year Loss	482 mt	4,075 mt	4,557 mt
Non-Soil Carbon 30 Year Recovery	955 mt	1,313 mt	2,269 mt
Non-Soil Carbon Total 30 Year Loss	**807 mt**	**11,050 mt**	**11,857 mt**
Soil Carbon One -Time Loss	0 mt	3,001 mt	3,001 mt
Soil Carbon Sequestration 30 Year Loss	0 mt	814 mt	814 mt
Soil Carbon Total 30 Year Loss	**0 mt**	**3,815 mt**	**3,815 mt**
Total Carbon 30 Year Loss	**807 mt**	**14,865 mt**	**15,672 mt**

[2] **Sums within the table may be off by 1 due to rounding.**

Areas to Remain

There are 240.5 acres of treed area within the ROW, 59.5 treed acres within the ROW were identified as being able to remain treed. This represents 7,243 metric tons of carbon and 25% of the treed area.

Table 3. Proposed treed areas (acres) to remain within the ROW and Associated Carbon (metric tons of carbon).[2]

	Acres	Current Non-Soil Carbon to Remain	Current Soil Carbon to Remain	Total Carbon to Remain
On ROW	59.5 ac	2,823 mt	4,420 mt	7,243 mt

Of the 181 acres to be removed within the ROW, New England Power has estimated that 25% will not be removed entirely, only pruned. If this is the case, then we can estimate a reduction in the total 30 year carbon loss impact of roughly 3,716 metric tons of carbon bringing the total loss from 15,672 to 11,956. These estimates are not included in the total project carbon impacts reported above and in Table 2.

Table 4. Potential reduction of impact within the ROW assuming a tree removal of 75% of the area currently estimated as full tree removal.[3]

	No Intervention	Tree Removal and Conversion to Shrubland	Grand Total
Off ROW Area (acres)	984.2 ac	131.8 ac	1,165.4 ac
Total Current Carbon	83,277 mt	15,751 mt	104,938 mt
Total Carbon 30 Year Loss	0 mt	10,789 mt	14,865 mt
Estimated Actual Percent Removal	0%	75%	NA
Less Impact if Only Estimated Tree Removal Happened	0 mt	2,697 mt	3,716 mt

The access routes and other areas off the ROW, totaling 86 acres, have also been evaluated to limit carbon losses. These acres were categorized according to whether they require total tree removal, selective tree removal, pruning, or no intervention (Table 5).

For the 25 acres of selective tree removal, the tree removal rate was estimated as 50% of the area (11.5 acres). This assumption was incorporated into the total project carbon impacts reported above and in Table 2, but if that entire area were to be 100% removed and allowed to regrow we could expect an additional 433 metric tons of carbon loss.

The 15 acres requiring only pruning were assessed as having a negligible 30-year carbon impact. These 15 acres were not included in the area of impact and are not included in the total project carbon impacts reported above and in Table 2. However, if the entire 15 acres were to be removed, rather than pruned, and allowed to regrow we could expect an additional 462 metric tons of carbon loss after 30 years.

[3] **Sums within the table may be off by 1 due to rounding.**

Table 5. Impact outside of the ROW if more tree removal were assumed.[3]

	No Intervention	Pruning	Selective Tree Removal with Regrowth	Tree Removal with Regrowth	Grand Total
Off ROW Area (acres)	34.5 ac	15.4 ac	25.1 ac	11.4 ac	86.3 ac
Total Current Carbon	2,835 mt	1,820 mt	3,031 mt	1,457 mt	9,144 mt
Total Carbon 30 Year Loss	0 mt	0 mt	433 mt	373 mt	807 mt
Assumed Percent of Area Cut	0%	0%	50%	100%	NA
Additional 30 Year Cabon Impact if 100% Were Removed and Allowed to Regrow	624 mt	462 mt	433 mt	0 mt	1,520 mt

Sources and Methods

Non-soil Carbon Estimates

The above-ground carbon estimation methodology utilized data from the US Forest Service's *Methods for Calculating Forest Ecosystem and Harvested Carbon with Standard Estimates for Forest Types of the United States* (USFS paper) which provides above ground carbon estimates based on forest type and age. The USFS forest type and age for each GIS polygon of proposed tree removal were determined using the following high-level steps:

1. Determine the USFS forest type of the proposed areas of tree removal using the USFS forest type layer in GIS.

2. Determine the age of the forest in the proposed areas of tree removal. The tree heights were determined from 2024 and 2021 LiDAR acquired from the National Map. Age was then determined using the USFS site index curve data which correlates individual tree species heights to their age.

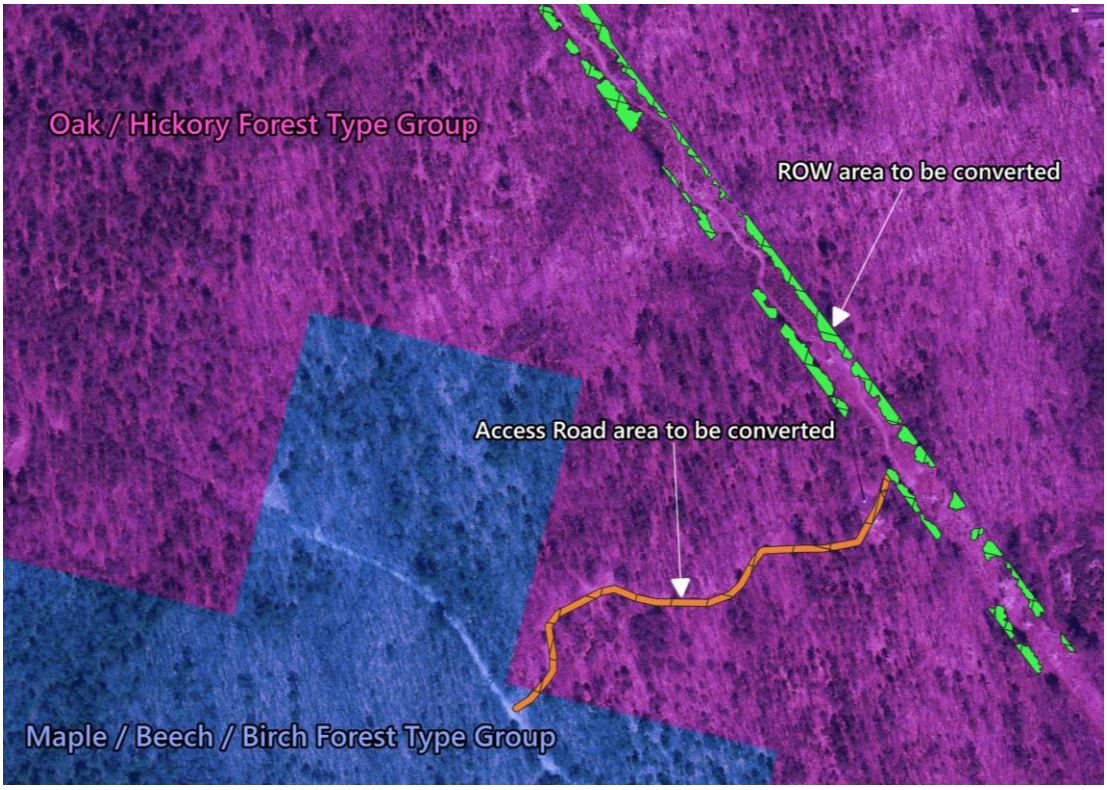


Figure 1. Map showing the USFS Forest Type Groups (in blue and purple) with ROW polygons (in green) and the Access Route polygons (in orange) that have been divided by the Forest Type Group pixels.

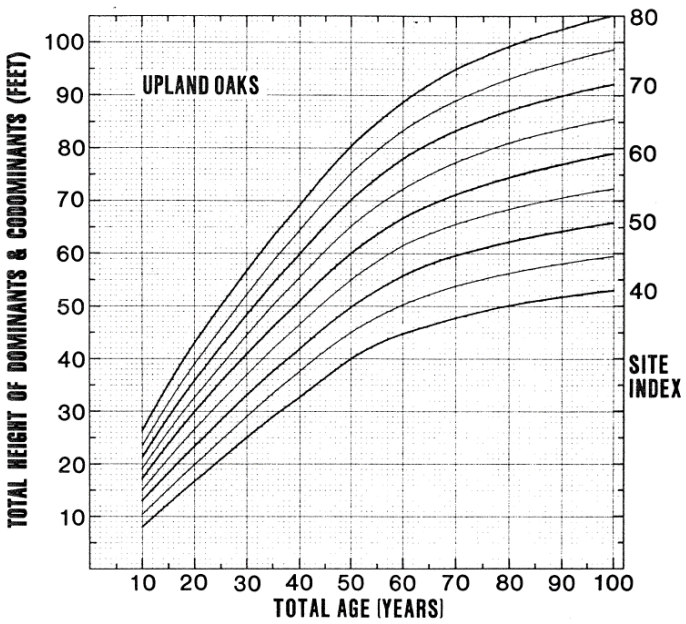


Figure 2. Example USFS site index curve data for Upland Oaks. Values were taken from the median site index, or the site indexes where that data were available.

With both the forest type and age determined, current non-soil carbon stocks were estimated, both in the forest areas slated for vegetative cover type conversion, as well as the carbon stocks expected at the end of the 30-year horizon (if the forested area had remained and continued to sequester carbon). The USFS paper provides estimates of metric tons of non-soil carbon per acre for specific forest types (e.g., Oak-Pine) in 5-year age increments. Non-soil carbon includes the categories *live tree, dead standing tree, under-story, down dead wood*, and *forest floor*. Using a lookup table that provided a carbon amount in metric tons per acre for each forest type and age combination, the metric tons of carbon was calculated for each GIS polygon for the current year and 30 years from now.

Table 6. Example USFS carbon stock table for oak-pine forest type.

A4.— Regional estimates of timber volume and carbon stocks for oak-pine stands on forest land after clearcut harvest in the Northeast

Age	Mean volume	Mean carbon density						
		Live tree	Standing dead tree	Under-story	Down dead wood	Forest floor	Soil organic	Total nonsoil
years	*ft³/acre*	*tonnes carbon/acre*						
0	0	0.0	0.0	1.7	12.1	12.0	27.1	25.9
5	0	2.5	0.3	1.7	9.3	8.2	27.1	22.0
15	522	10.9	1.1	1.3	5.9	6.2	27.1	25.4
25	1,013	19.7	1.3	1.2	4.2	6.9	27.1	33.3
35	1,473	27.5	1.5	1.1	3.4	8.2	27.1	41.7
45	1,902	34.3	1.6	1.0	3.1	9.6	27.1	49.5
55	2,300	40.1	1.7	1.0	3.0	10.8	27.1	56.6
65	2,668	45.7	1.8	0.9	3.1	11.8	27.1	63.4
75	3,004	50.0	1.8	0.9	3.2	12.8	27.1	68.8
85	3,309	53.9	1.9	0.9	3.4	13.6	27.1	73.7
95	3,584	57.3	1.9	0.9	3.6	14.3	27.1	78.1
105	3,828	60.4	2.0	0.9	3.7	15.0	27.1	82.0
115	4,040	63.0	2.0	0.9	3.9	15.6	27.1	85.4
125	4,222	65.3	2.1	0.9	4.0	16.1	27.1	88.3

The change in above ground carbon sequestration was estimated by modifying these values across a 30-year time horizon to account for the removal of the live trees, the removal of standing dead and down wood, and the reduction of the forest floor carbon over time. It was assumed that the initial tree removal will occur and then maintenance cutting will occur every 5 years to prevent the recovery of the live tree carbon but maintain the understory and some of the forest floor carbon. Therefore, the year 5 yearly carbon amounts were used for "Live Tree" and "Understory." For "Forest Floor" the year with the lowest value was used assuming that the forest floor carbon would not replenish at the same rate as a forest.

Additional discussion for Deadwood and Roots:

- Carbon Stored as Above Ground Deadwood/Litter: We assumed that above ground deadwood consists of standing dead trees, woody debris found on the forest floor, and other accumulated litter in the primary data source used for calculating biomass carbon in this analysis, the USDA A4 table shown above, these are accounted for in the Standing Dead Tree, Down Dead Wood, and Forest Floor pools. RDG calculates that the majority of that carbon in these pools would be lost over a 30-year period following cutting. Without continuous contribution by living trees to these pools, the processes of decomposition (oxidation and respiration) over 30 years will inevitably reduce these pools. While some fraction of the carbon exiting these pools will enter the SOC pool, that fraction is accounted for in our projections, which are based on the difference between the starting carbon stocks in all pools at cutting and the carbon stocks in all pools 30 years after cutting.
- Carbon Stored as Below Ground Biomass (i.e. roots): As discussed in the above section, decomposition of organic matter without continuous contributions to a carbon pool from living trees results in a decrease in stocks. Live roots are included in the Live Tree pool and dead roots and stumps are accounted for in the Down Dead Wood pool. In upland soils there is no reason to believe that the fate of stumps and roots would be any different than the fate of down dead wood on the surface and would also break down and be transferred to the atmosphere and soil carbon pools at similar rates. Like carbon in dead down wood on the surface, a small fraction of the below ground biomass undergoes the humification process and is transferred to the soil organic pool. If we look at Table A4 again we see that the Down Dead Wood pool is quite high (12.1 mt/ac) right after tree removal (year 0). This represents the stumps, roots, and slash remaining after the harvest. By the time we get to year 35 we have returned to a much lower value (3.4 mt/ac). This reduction represents the breakdown of that Down Dead Wood carbon, including stumps and roots breaking down over that 35-year period. Therefore, even if the stumps are not removed we should count them as lost over the 30-year period.

Table 7. USFS Forest Type Coverage with the Average Non-Soil Carbon and Tree Species Used for Calculations

Forest Type Group Code	USFS Forest Type	Acres	Non-Soil Carbon per Acre	Average Age	Tree Species Tables Used
100	White-Red-Jack Pine	13.7 ac	38.7 mt/ac	50.0	White pine, Red pine, Hemlock

120	Spruce-Fir	1.5 ac	36.7 mt/ac	41.3	Spruce, Balsam Fir, Red Maple
400	Oak-Pine	2.3 ac	52.0 mt/ac	53.3	Upland Oaks, Eastern White Pine, Red Pine, Hemlock
500	Oak-Hickory	132.8 ac	44.8 mt/ac	36.0	Upland oaks, Hickories, yellow-poplar, red maple
700	Elm-Ash-Cottonwood	2.8 ac	24.5 mt/ac	38.5	Red maple, American Beech, Ash, Cottonwood
800	Maple-Beech-Birch	63.7 ac	54.3 mt/ac	50.4	Sugar Maple, Red Maple, Yellow Birch, Paper Birch, American Beech, Hemlock

Soil Carbon Estimates

Soil organic carbon (SOC) is a measurable component of soil organic matter. Like other pools of carbon found in forests, it is constantly in flux as contributions of new soil carbon from humification balance against losses from respiration, chemical, and physical weathering. Our approach to estimating flux from the proposed E5/F6 project looks at the differential between land cover types to predict changes to the SOC pool due to the project.

Soil carbon impact was determined by first estimating the starting SOC density in metric tons per acre at 1 meter depth, then the impact tree removal would be expected to have as a percentage reduction and finally calculating the expected SOC value after 30 years.

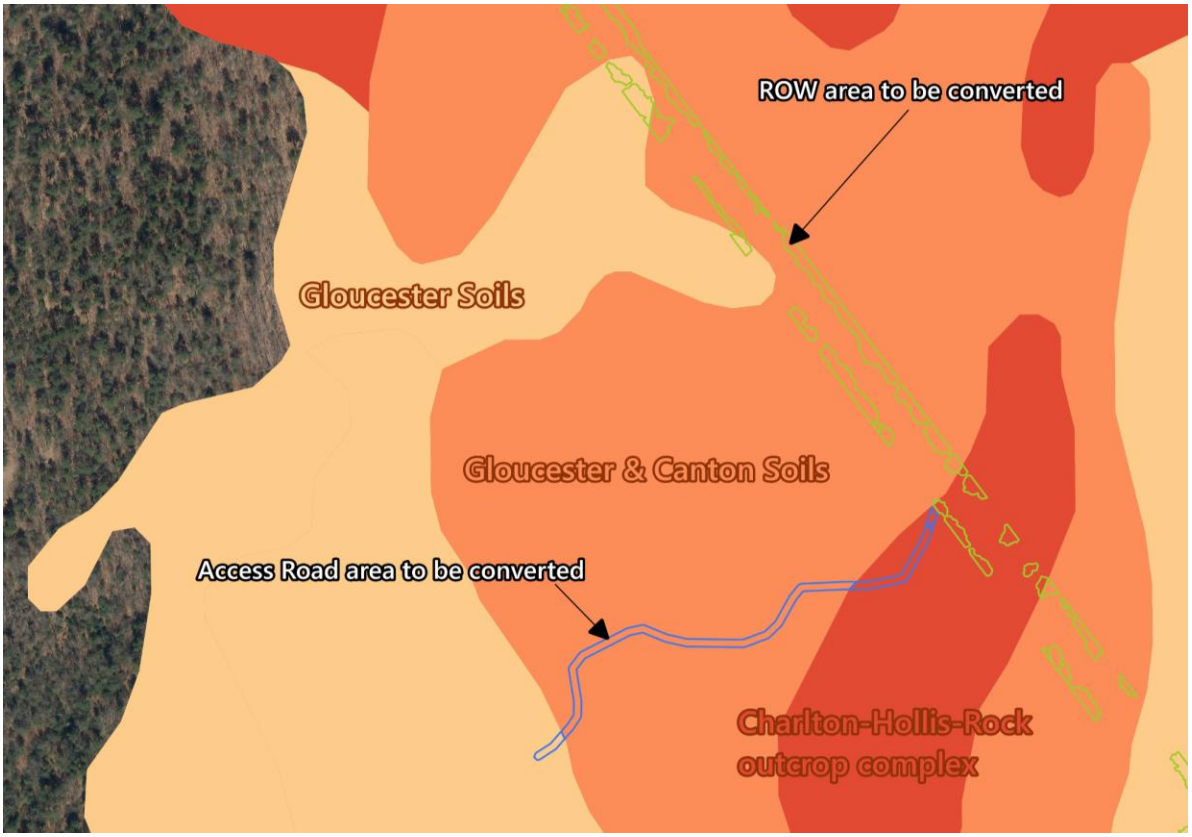


Figure 4: Map showing the SSURGO soil polygons (solid browns) with the darker values representing soils with more SOC when forested and ROW polygons (in green) and the Access Route polygons (in blue) that have been divided by the SSURGO soil polygons.

SOC density was calculated using land cover-adjusted SOC estimates developed by Regenerative Design Group as part of the Soil Organic Carbon Mapping project for the Massachusetts Healthy Soils Action Plan Challenge Grants program. This project uses the USDA Soil Survey Geographic Database (SSURGO) and the Massachusetts 2016 Land Cover/Land Use dataset to estimate SOC values for every land cover class for every SSURGO mapunit (with the exception of coastal land cover types for inland mapunits). The rationale for this project is that, while land cover is a critical factor in determining SOC, the SSURGO database typically contains SOC values for a single land cover type for most mapunits. At the

same time, overlaying the SSURGO soils map with the 2016 Land Cover/Land Use map shows that the average mapunit contains more than 12 land covers.

The Soil Organic Carbon Mapping project fills in the gaps in landcover-specific SOC values in several ways:

1. For most vegetated upland land covers, baseline land cover SOC values were identified, when available, for each mapunit. Proportional differences in SOC between land cover types were calculated at the state level, and these proportions were used to estimate missing land cover SOC values for each mapunit, as proportions of the previously established baseline.
2. When no suitable baseline data was available for a given mapunit, an SOC value for forest was estimated and used as a baseline. Forest SOC was estimated using a progressive, hierarchical search based on soil characteristics. For this process, average forest SOC values were calculated for every combination of parent material, deposit type, texture, and drainage class, across a hierarchy from detailed to generalized attributes. The SOC values for the most similar soils for which data was available (those with shared characteristics at the lowest, most detailed level of the hierarchy possible) were used to estimate forest baselines.
3. There is almost no data for upland shrub cover in the SSURGO database for Massachusetts, as it is a rare and understudied landcover type in the northeastern United States. Therefore, SOC values for shrubland were estimated for each mapunit as the mean of the values for dominant woody and herbaceous land cover types (forest and pasture/hay) for that location.

Impact of vegetative cover type conversion on SOC density was calculated as the difference between the value for forest cover and for shrub cover at each location. Density (metric tons /acre) was then multiplied by acres to get metric tons of impact on SOC for each polygon, and then summed for total impact overall.

To determine lost potential sequestration for soil carbon the acreages to be removed were multiplied by .15 metric tons per acre per year based on (Hawken 2017, Catanzaro nd). It was assumed that there was no recovery of soil carbon over the 30 year period.

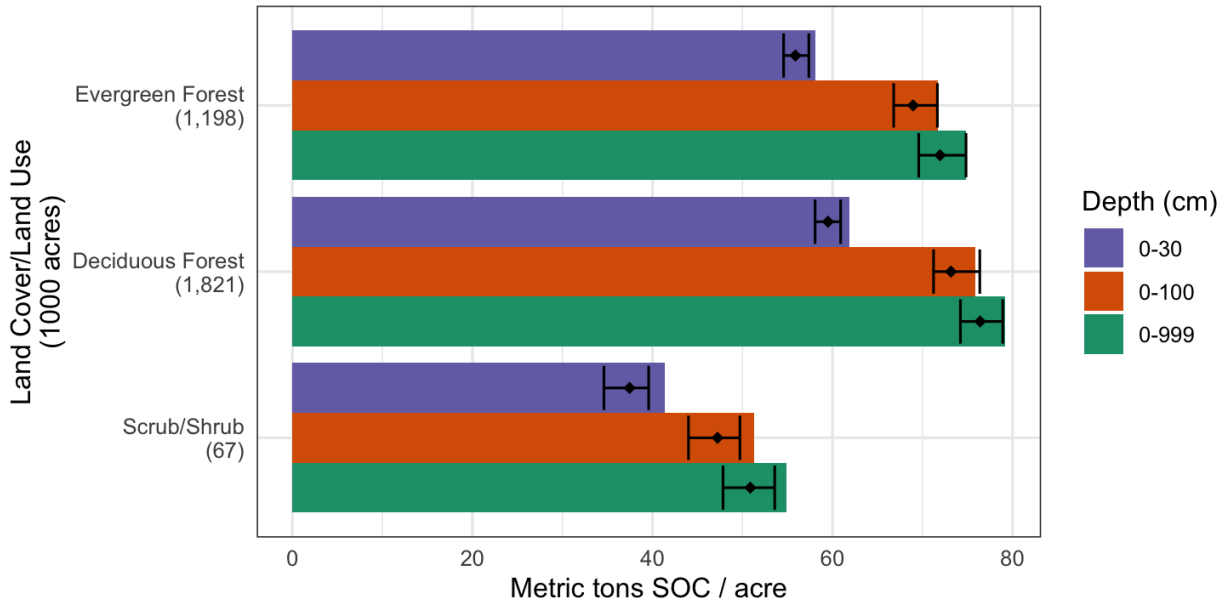


Figure 4. Statewide Estimated Carbon Density Across Forest Cover Types and Shrub Cover. Bars show the statewide arithmetic mean for each land cover (total metric tons / total acres). Points show a bootstrapped geometric mean, which is resistant to outliers and therefore may be a better reflection of typical values. Error bars are 95% confidence intervals around the geometric mean.

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Appendix H – Best Management Practices

Final Environmental Impact Report

Central to Western Massachusetts Energy Improvement Project

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1. PURPOSE: This guidance document provides instructions for general employees and Westboro Dispatch staff in reporting a release/spill of oil or any other chemical to the environment.

2. SCOPE: This guidance document covers oil and chemical releases to the environment in Massachusetts.

3. DEFINITIONS:

a. **Oil** – means oil of any kind, including petroleum and mineral oil in electrical equipment, motor oil, fuel oil, hydraulic fluid, diesel fuel, etc.
b. **PCB Contaminated Oil** – means oil containing PCBs in the quantity ranging from 50-499 ppm.
c. **PCB Oil –** means oil containing PCBs in a concentration at or greater than 500 ppm.
d. **Release** – means any spilling, leaking pumping, pouring, emitting, emptying, or a substance to the environment.
e. **Reportable Quantity (RQ) –** means that quantity of a material released to the environment as defined in 40 CFR Part 117 and 40 CFR Part 302.

4. RESPONSIBILITIES:

a. **Any Employee** – All employees are responsible to report any release of oil or chemical to their supervisor or Westboro Dispatch.
b. **Divisional Engineer** – Responsible for determining whether or not a chemical has exceeded the Reportable Quantity, and follow up notification and reporting as required in EP-5. Responsible for two hour notification to the Massachusetts Department of Environmental Protection, Local Emergency Planning Coordinator (LEPC) and notification to the National Response Center, if required.

5. PROCEDURE

5.1 GENERAL EMPLOYEES:

a. Upon discovery of any oil or chemical spill, immediately notify your supervisor and/or the Trouble Center.

Trouble Center: 1.888.367.7693

NOTE: ALL OIL SPILLS ARE REQUIRED TO BE CALLED IN TO YOUR SUPERVISOR, NO MATTER WHAT THE VOLUME.

b. Provide as much information as possible including:
- location of release(including pole number)
- what the material was released/spilled
- when the spill was discovered

- estimated amount spilled
- what caused the release
- a description of the spill area
- any other pertinent information

c. Contact Environmental Engineer directly or call the Trouble Center to determine on-call environmental engineer.

5.2 Trouble Center – For After Hours Spills

a. Upon notification from the field of a release, gather information from the caller as to substance spilled, volume, cause, date and time of spill, etc.
b. Contact on-call environmental engineer or designated representative and relay appropriate information.

5.3 DIVISIONAL ENVIRONMENTAL ENGINEER

a. Determine if release is reportable and contact Massachusetts Department of Environmental Protection / Massachusetts Emergency Management Agency (MEMA) within two hours if it is. Call the 888.304.1133 number and you will be routed to correct DEP Regional Office.
b. In addition, report oil spills to water and PCB oil spills (see definition section) to the National Response Center at 1-800-424-8802.
c. Provide assistance in deploying spill clean up resources (equipment, contractors) when requested.
d. Complete Spill Report form.
e. Report spill to other required agencies per EP-5, as required.
f. Provide assistance to clean up crews in making arrangements for clean up debris disposal.
g. Categorize the spill as a Category 1 or Category 2 spill.
h. Confirm clean up.
i. Provide additional information to state agency to close out the spill.

RELEASE INFORMATION

Location of Release: _____
Town / City: _____
County: _____
District / Region:_____
Spill Number (NY): _____

Date of Release: _____
Time of Release:_____
Weather Conditions:_____
NG Employee Reporting Release: _____
Telephone Number: _____

Material Released: _____
Quantity Released: _____
Source of Release: _____

Cause and Brief Description: _____
_____
_____
_____
_____
_____
_____

Non-PCB Label? ☐ Yes ☐ No ☐ Unknown

Material Released To:

☐ LAND ☐ WATER ☐ AIR
- ☐ soil ☐ lake/pond
- ☐ street ☐ stream/river
- ☐ farmland/grazing land ☐ wetland
- ☐ vegetable garden ☐ catch basin/drain

☐ OTHER _____

NOTIFICATION INFORMATION

Agency Notified	Person Contacted	Date Reported	Time Reported	Agency Report #
In-house Only				
State Environmental Agency				
State Emergency Response Commission				
Local Emergency Response Commission				
Local Sewer/Water Authority				
National Response Center (NRC)				
Environmental Protection Agency (EPA)				
Other				
Other				

.

DIELECTRIC FLUID INFORMATION

PCB Concentration of Fluid:	**Based On:**
☐ No PCBs (<2 ppm)	☐ Nameplate Information or manufacturer's label
☐ Non-PCB (<50 ppm)	☐ Clor-N-Oil® Test
☐ PCB Contaminated (50-499 ppm)	☐ Lab Test
☐ PCB (≥500 ppm)	☐ Assumed 50-499 ppm*

**** If equipment was manufactured prior to July 2, 1979 and/or not labeled, and a Clor-N-Oil® Test cannot be conducted, then the oil must be considered "PCB Contaminated."***

***** Clor-N-Oil® test results are to be used for interim handling only. All wastes from unlabeled transformers requires laboratory analysis by gas chromatography prior to disposal. Field screening tests such as Clor-n-Oil tests cannot be used to determine PCB content for ultimate waste disposal purposes.***

SOURCE OF RELEASE

Source of Release (type of equipment): _____
Manufacturer: _____
Size: _____
Serial or Badge # (if available): _____

RELEASE RESPONSE INFORMATION

In-house crews used ☐
Contractor used: _____

Consultant used: _____

Describe nature of cleanup: _____
_____
_____
_____
_____
_____
_____
_____
_____

IN-HOUSE NOTIFICATION INFORMATION

Copies of Release Report Sent To:

☐ NY or NE Manager of Environmental Compliance
☐ Spill Database Updated / Release Report kept in local file

CERTIFICATION

Completed By:_____

Date:_____

INCIDENT CATEGORY
(to be completed by NG Division Environmental Engineer)

☐ Category 1 – Significant Incident
☐ Category 2 – Non Significant Incident
☐ Near Miss Incident

ADDITIONAL COMMENTS / INFORMATION

_____
_____
_____
_____
_____
_____
_____
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_____
_____
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_____

.

SPILL RESPONSE PROCEDURES & NOTIFICATIONS

Below is a summary of procedures to follow and notifications to make in the event of a spill. **Please note that the EG-501 series details steps to take in the immediate moments after a spill. This document supplements those activities, as well as those activities in EP-5 that further guide the actions of the Environmental Scientist/Engineer.**

SPILLS TO WATER

Oil spills to water are Category 1 classified in accordance with National Grid Environmental Procedure No. 15, if they are likely to result in an enforcement action from a regulatory agency.

If any quantity of oil, regardless of PCB content or other hazardous material, is released to water (*wetlands, streams, lakes, ponds, storm or sanitary sewer*) contact:

DEP	ASAP (No later than 2 hours)
NRC	Within 2 hours
LEPC	Within 2 hours
Local Fire Dept.	Within 2 hours
Clean-up Contractor	ASAP

If any quantity of oil with concentrations of PCBs ≥50 ppm or greater additionally notify:

EPA	Within 24 hours

SPILLS TO GROUND

Spills of over 250 gallons or containing 1 pound or PCBs ≥ 500 ppm are Category 1 classified in accordance with National Grid Environmental Procedure No. 15.

If 10 or more gallons of transformer oil with PCBs ≥2 ppm, or any other oil (e.g., hydraulic fluid, motor oil, etc.), are released to ground (soil, pavement) contact:

DEP	ASAP (No later than 2 hours)
Local Fire Dept.	Within 2 hours
Clean-up Contractor	ASAP

If PCB concentrations are ≥50 ppm or unknown, additionally notify:

LEPC	Within 2 hours

If ***any quantity*** of oil is released to ground with concentrations of ***PCBs ≥500 ppm*** contact:

DEP	ASAP (No later than 2 hours)
LEPC	Within 2 hours

Local Fire Dept.	Within 2 hours
Clean-up Contractor	ASAP

If PCB concentrations are between *50-499 ppm and over 2,700 gallons* are released or PCB concentrations are ≥*500 ppm , and 270 gallons* are released, *additionally notify*:

EPA	Within 24 hours

If 25 or more gallons of transformer oil, with PCBs < 2 ppm are released to ground (soil, pavement) contact:

DEP	ASAP (No later than 2 hours)
Local Fire Dept.	Within 2 hours
Clean-up Contractor	ASAP

SPILLS TO VEGETABLE GARDENS, FARM LAND, GRAZING LAND

If any quantity of oil with detectable levels of PCBs is released to gardens, farms, or grazing land, contact:

DEP	ASAP (No later than 2 hours)
Local Fire Dept.	ASAP
Clean-up Contractor	ASAP
Environmental Engineer/Scientist	ASAP

If concentrations of PCBs are ≥**50 ppm**, additionally contact:

EPA	Within 24 hours
LEPC	Within 2 hours

AGENCY TELEPHONE NUMBERS

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION (MA DEP)
MASSACHUSETTS EMERGENCY MANAGEMENT AGENCY (MEMA)

MA DEP / MEMA 24 hours per day	**888.304.1133**

NOTE: THE MEMA DISPATCHER WILL ROUTE CALL TO APPROPRIATE MA DEP REGION.

NATIONAL RESPONSE CENTER (NRC)	**800.424.8802**
ENVIRONMENTAL PROTECTION AGENCY (EPA)	**617.223.7265**

LOCAL EMERGENCY PLANNING COMMITTEES (LEPCs)

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Abington	Chief David Majenski	(781) 878-3232
Acton	Chief Robert Craig	(978) 264-9645
Adams	John Morocco	(413) 662-3102
Alford	Doreen Hutchinson	(413) 528-0790 x3031
Amesbury	Chief James Broderick	(978) 388-8185
Andover	Jeff Coco/James Michitson	(978) 682-5212
Arlington	Chief William Middlemiss	(781) 862-0272
Ashburnham	James Wright	(978) 249-8275
Athol	James Wright	(978) 249-8275
Attleboro	Bob McDonald	(508) 223-2220
Auburn	Chief William Whynot	(508) 832-7800
Avon	Carl S. Fisher	(508) 583-5361
Ayer	William Shute	(978) 804-2084
Barnstable	Chief George Baker	(508) 375-6618
Barre	James Wright	(978) 249-8275
Bedford	Chief William Middlemiss	(781) 862-0272
Belchertown	Lt. Mike Spanknebel	(413) 584-0883
Bellingham	James Haughey	(508) 928-1007
Belmont	Chief William Middlemiss	(781) 862-0272
Berlin	Chief John T. Fleck	(978) 365-3502
Beverly	Dep. Chief James Coughlin	(978) 531-3447
Billerica	Mark Boldrighini	(978) 459-5552
Blackstone	Chief Michael Sweeney	(508) 883-1030
Bolton	Chief John T. Fleck	(978) 365-3502
Boston	Captain James Bruuynell	(617) 343-2116
Bourne	Chief George Baker	(508) 375-6618
Braintree	Chief Kenneth McHugh	(781) 843-3602 x4405
Brewster	Chief George Baker	(508) 375-6618
Boylston	Bruce Baker	(978) 422-6253
Boxborough	Chief Geoffrey Neagle	(978) 263-1116
Boxford	Robert Hazelwood	(978) 887-3135
Bridgewater	Herb Lemon	(508) 697-6191
Brimfield	Robert Corry	(413) 245-7334
Brockton	Morton Schleffer	(508) 588-7871
Brookfield	Joe Gadbois	(508) 867-6420

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Brookline	Chief William Middlemiss	(781) 862-0272
Burlington	Chief William Middlemiss	(781) 862-0272
Carlisle	Chief David Flannery	(978) 369-2888
Charlemont	John Taylor	(413) 774-3167
Charlton	John Hart	(508) 765-9771
Chatham	Chief George Baker	(508) 375-6618
Chelmsford	Mark Boldrighini	(978) 459-5552
Chelsea	Captain Richard Tustin	(781) 729-1802
Cheshire	John Morocco	(413) 662-3102
Clarksburg	John Morocco	(413) 662-3102
Clinton	Chief John T. Fleck	(978) 365-3502
Cohasset	Chief Robert Silvia	(781) 383-0616
Concord	Chief Kenneth MacLean	(978) 443-2239
Danvers	Dep. Chief James Coughlin	(978) 531-3447
Dennis	Chief George Baker	(508) 375-6618
Dighton	Jeffrey Allie	(508) 669-6611
Douglas	Pauline Labrecque	(508) 476-2267
Dracut	Mark Boldrighini	(978) 459-5552
Dudley	John Hart	(508) 765-9771
Dunstable	William Shute	(978) 804-2084
East Bridgewater	Deputy Fairburn	(508) 378-2071
East Brookfield	Jason Messenger	(508) 867-6575
East Longmeadow	Brian Falk	(413) 525-5400 x 420
Eastham	Chief George Baker	(508) 375-6618
Easthampton	Lt. Mike Spanknebel	(413) 584-0883
Easton	Thomas Stone	(508)230-0750
Egremont	Doreen Hutchinson	(413) 528-0790 x3031
Erving	John Taylor	(413) 774-3167
Essex	Dep. Chief James Coughlin	(978) 531-3447
Everett	Captain Richard Tustin	(781) 729-1802
Fall River	Richard Aquiar	(508) 324-2733
Falmouth	Chief Paul D. Brodeur	(508) 495-2517
Florida	John Morocco	(413) 662-3102
Foxborough	Gerald McNamara Sr.	(508) 543-1230
Franklin	Chief Gary McCarraher	(508) 528-2323
Gardner	James Wright	(978) 249-8275
Georgetown	Chief Albert B. Beardsley	(978) 352-5757
Gloucester	Dep. Chief James Coughlin	(978) 531-3447

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Goshen	Lt. Mike Spanknebel	(413) 584-0883
Grafton	Katharine Cederberg	(508) 826-0740
Granby	Lt. Mike Spanknebel	(413) 584-0883
Great Barrington	Doreen Hutchinson	(413) 528-0790 x3031
Groton	William Shute	(978) 804-2084
Groveland	Jeff Coco/James Michitson	(978) 682-5212
Halifax	Chief David Rich	(781) 585-2633
Hamilton	Jeff Coco/James Michitson	(978) 682-5212
Hampden	Doug Mellis	(413) 566-8011
Hancock	Chief Robert Czerwinski	(413) 448-9764
Hanover	James Purcell	(781) 826-3001
Hanson	Allen Hoyte	(781) 293-9571
Hardwick	James Wright	(978) 249-8275
Harwich	Chief George Baker	(508) 375-6618
Harvard	William Shute	(978) 804-2084
Haverhill	Jeff Coco/James Michitson	(978) 682-5212
Hawley	John Taylor	(413) 774-3167
Heath	John Taylor	(413) 774-3167
Hingham	Chief Mark J. Duff	(781) 741-1480
Holbrook	James Reichert	(781) 767-4312
Holland	James Gagne	(413) 245-9733
Hopedale	Chief Tom Daige	(508) 473-1050
Hubbardston	James Wright	(978) 249-8275
Hull	Chief Jane Walsh	(781) 925-8111
Ipswich	Jeff Coco/James Michitson	(978) 682-5212
Lancaster	Chief John T. Fleck	(978) 365-3502
Lawrence	Jeff Coco/James Michitson	(978) 682-5212
Leicester	Robert Wilson	(508) 892-7022
Lenox	Chief Robert Czerwinski	(413) 448-9764
Leominster	Charles Coggins	(978) 534-7580
Lexington	Chief William Middlemiss	(781) 862-0272
Lincoln	Chief Kenneth MacLean	(978) 443-2239
Littleton	William Shute	(978) 804-2084
Lowell	Mark Boldrighini	(978) 459-5552
Lynn	Dep. Chief James Coughlin	(978) 531-3447
Lynnfield	Paul Romano	(617) 334-3132
Malden	Captain Richard Tustin	(781) 729-1802
Manchester by the Sea	Dep. Chief James Coughlin	(978) 531-3447

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Marblehead	Dep. Chief James Coughlin	(978) 531-3447
Marlborough	Donald P. Cusson	(508) 481-1933
Mashpee	Chief George Baker	(508) 375-6618
Medford	Captain Richard Tustin	(781) 729-1802
Melrose	Captain Richard Tustin	(781) 729-1802
Mendon	Chief John Touhey	(508) 473-5330
Merrimac	Chief James Broderick	(978) 388-8185
Methuen	Jeff Coco/James Michitson	(978) 682-5212
Middleton	Jeff Coco/James Michitson	(978) 682-5212
Milford	Chief John Touhey	(508) 473-1214
Millbury	Robert Beausoleil	(508) 865-6957
Millville	Chief John Mullaly	(508) 883-4740
Milton	Mark Williams	(617) 821-1659
Monroe	John Taylor	(413) 774-3167
Monson	Jeremy Bedson	(413) 267-4128
Monterey	Doreen Hutchinson	(413) 528-0790 x3031
Mount Washington	Doreen Hutchinson	(413) 528-0790 x3031
Nahant	Dep. Chief James Coughlin	(978) 531-3447
Nantucket	Chief George Baker	(508) 375-6618
New Braintree	James Wright	(978) 249-8275
New Salem	John Taylor	(413) 774-3167
New Marlborough	Doreen Hutchinson	(413) 528-0790 x3031
Newbury	Chief James Broderick	(978) 388-8185
Newburyport	Chief Steven Cutter	(978) 465-4427
Newton	Chief Joseph LaCroix	(617) 796-2201
North Adams	John Morocco	(413) 662-3102
North Andover	Jeff Coco/James Michitson	(978) 682-5212
North Attleboro	Chief Peter Lamb	(508) 699-0140
North Brookfield	Douglas Blood	(508) 867-0206
North Reading	Captain Richard Tustin	(781) 729-1802
Northampton	Lt. Mike Spanknebel	(413) 584-0883
Northborough	Chief David Durgin/Brad Newman	(508) 393-1537
Northbridge	Chief Gary Nestor	(508) 234-8448
Norton	Chief Richard Gomes	(508) 285-0240
Norwell	Chief Paul Rosebach	(781) 659-8158
Norwood	Dan Matthews	(781) 461-6159
Oakham	James Wright	(978) 249-8275
Orange	John Taylor	(413) 774-3167

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Orleans	Chief George Baker	(508) 375-6618
Oxford	Jeff Wilson	(508) 987-6009
Palmer	Chief Alan J. Roy	(413) 283-3861
Peabody	Dep. Chief James Coughlin	(978) 531-3447
Pembroke	Jim Neenan	(781) 293-5414
Pepperell	William Shute	(978) 804-2084
Petersham	James Wright	(978) 249-8275
Phillipston	James Wright	(978) 249-8275
Plainville	Chief Merrick	(508) 695-7115
Quincy	Tom Gorman	(617) 376-1105
Randolph	Chief Charles D. Foley, Jr.	(781) 961-0992
Reading	Captain Richard Tustin	(781) 729-1802
Rehoboth	William Maiorano	(508) 252-6415
Revere	Captain Richard Tustin	(781) 729-1802
Rockland	Robert Bowles	(781) 878-5025
Rockport	Dep. Chief James Coughlin	(978) 531-3447
Rowe	John Taylor	(413) 774-3167
Rowley	Chief James Broderick	(978) 388-8185
Royalston	James Wright	(978) 249-8275
Rutland	James Wright	(978) 249-8275
Salem	Dep. Chief James Coughlin	(978) 531-3447
Salisbury	Chief James Broderick	(978) 388-8185
Sandwich	Chief George Baker	(508) 375-6618
Saugus	Captain Richard Tustin	(781) 729-1802
Scituate	Chief Edward Hurley	(781) 545-8748
Seekonk	Allan Jack	(508) 336-8510
Sheffield	Doreen Hutchinson	(413) 528-0790 x3031
Shrewsbury	Don Filiere	(508) 841-8422
Shirley	William Shute	(978) 804-2084
Shutesbury	John Taylor	(413) 774-3167
Somerset	Chief Steven J. Rivard	(508) 646-2810
Sterling	Bruce Baker	(978) 422-6253
Southborough	Neal Aspesi	(508) 485-3235
Southbridge	John Hart	(508) 765-9771
Spencer	Robert Parsons	(508) 885-3555
Stockbridge	Arthur Dutil	(413) 298-3691
Stoneham	Captain Richard Tustin	(781) 729-1802
Stoughton	David Jarden and Doug Campbell	(781) 344-3132

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Sturbridge	Chief Thomas Ford	(508) 347-2500
Sudbury	Chief Kenneth MacLean	(978) 443-2239
Sutton	Paul Maynard	(508) 865-8737
Swampscott	Dep. Chief James Coughlin	(978) 531-3447
Swansea	Chief Peter J. Burke	(508) 672-4305
Templeton	James Wright	(978) 249-8275
Tewksbury	Mark Boldrighini	(978) 459-5552
Topsfield	Charles Denault	(978) 887-5148
Tyngsboro	Wes Russell	(978) 649-7504
Upton	Chief Michael J.. Bradford, Sr.	(508) 529-3421
Uxbridge	Sgt. Peter Emerick	(508) 278-7755
Wakefield	Captain Richard Tustin	(781) 729-1802
Wales	Hank DeCoteau	(413) 245-7571
Waltham	Lt. Randy Mullin	(617) 421-0280
Ware	Lt. Mike Spanknebel	(413) 584-0883
Wareham	Chief Robert McDuffy	(508) 295-2973
Warren	Joe Laflower	(413) 436-9595
Warwick	John Taylor	(413) 774-3167
Watertown	Chief William Middlemiss	(781) 862-0272
Wayland	Chief Kenneth MacLean	(978) 443-2239
Webster	Chris Jolda	(508) 949-3840
Wellesley	Chief Kevin Rooney	(781) 235-1300
Wendell	John Taylor	(413) 774-3167
Wenham	Chief Robert A. Blanchard	(978) 468-5508
West Boylston	Bruce Baker	(978) 422-6253
West Bridgewater	Leonard T. Hunt	(508) 586-3232
West Brookfield	Bryce Lesily	(508) 867-1405
West Newbury	Chief James Broderick	(978) 388-8185
West Stockbridge	Doreen Hutchinson	(413) 528-0790 x3031
Westborough	Lt. Robert Rand	(508) 366-3040
Westford	William Shute	(978) 804-2084
Weston	Chief Kenneth MacLean	(978) 443-2239
Westminster	Brenton MacAloney	(978) 874-2313
Westport	Charlene Wood	(508) 636-1110
Weymouth	John Mulveyhill	(781) 340-5048
Whitman	Robert Schmidt	(781) 447-7677
Wilmington	Mark Boldrighini	(978) 459-5552
Winchendon	James Wright	(978) 249-8275

MUNICIPALITY	CHAIRPERSON	PHONE NUMBER
Winchester	Captain Richard Tustin	(781) 729-1802
Winthrop	Captain Richard Tustin	(781) 729-1802
Wilbraham	Nick Yarmac	(413) 596-3122
Williamsburg	Lt. Mike Spanknebel	(413) 584-0883
Williamstown	Chief Robert Czerwinski	(413) 448-9764
Winchendon	Captain Richard Tustin	(781) 729-1802
Woburn	Captain Richard Tustin	(781) 729-1802
Worcester	Thomas Gingras	(508) 799-1840
Wrentham	Joseph Heck	(508) 384-5400
Yarmouth	Chief George Baker	(508) 375-6618

During non-business hours, or if a LEPC member cannot be reached, inform the local fire department.

COMPANY CONTACTS

IMPORTANT: On-call Environmental Engineers switch on-call every other week for nights/weekends; therefore, please obtain assistance from Environmental Engineer through the Electric or Gas Dispatch.

Environmental Engineers/Scientists

New England North Division

Beverly Auxford-Paiva (Bay State North)
508.922.6309 (mobile)
781.388.5244 (office)

Joanne Lupa (Bay State West)
508.328.5635 (mobile)
508.860.6484 (office)

New England South Division

Deborah Blanch (Bay State South)
617.908.8881 (mobile)
508.897.5520 (office)

William Howard (Ocean State)
401.255.2888 (mobile)
401.784.7490 (office)

Environmental Manager

Peter Harley
401.255.5195 (mobile)
781-907-3701 (office)

Gas Dispatch: 877-304-1203
Central Electric Dispatch: 877-247-3608
MV & Granite Electric Dispatch: 877-247-3607
North Shore Electric Dispatch: 877-247-3606
Southeast Electric Dispatch: 866-411-3812
South Shore Electric Dispatch: 866-411-5599
Western Electric Dispatch: 877-247-3609

ENVIRONMENTAL CONSULTANT AND CLEAN UP CONTRACTOR CONTACTS

CLEAN HARBORS **800.645.8265**
(Clean up Contractor) (1-800 OIL TANK)

CONECO ENGINEERS AND SCIENTISTS **508.312.0090**
(Environmental Consultant)
After using pager number above, wait for call back. If page not returned within 10 to 15 minutes, try the mobile phone numbers, below:

Brian Klingler - **508.962.6277** (mobile)
John Aevazelis - **508.962.7423** (mobile)

TIGHE & BOND
(Environmental Consultant)
For Spills in Central MA area, contact Ken Gendron at **508.479.2924** (mobile)
For Spills in Western MA area, contact ER Pager at **413.263.0957**

ENVIRONMENTAL SPILL RESPONSE PROCEDURES

In the immediate moments following any spill event, the procedures outlined in the EG-501 series must be followed. As described in EG-501, it is the responsibility of the Environmental Scientist/Engineer to assume responsibility for directing the cleanup. In addition to those actions outlined in the applicable section of the EG-501 series, the Environmental Scientist/Engineer should consult EP-5 for more specific guidance.

Record of Change		
Date of Review/Revision:		
Revision	**Date**	**Description**
0	04/01/06	New EG for MA.
1	06/01/09	Updated to reflect changes in assignments of Environmental Engineers and telephone information for spill notifications. Also, combined three previous EG's (EG-502MA-BSN, EG-502MA-BSS, & EG-502MA-BSW).
2	12/28/09	Updated Environmental Engineer contact information.
3	09/30/10	Update contacts and phone numbers.
4	01/04/2012	Updates due to organizational changes
5	05/03/13	Updated to reflect current roles and responsibilities of personnel involved in spill response and procedures relative to the content of EG-501MA, updated section on Environmental Spill Response Procedures.

SUBJECT	REFERENCE
Excess Soil Management from Construction Projects on Rights-of-Way	**EP No. 17 – Construction Projects**

PURPOSE: To document the procedure to appropriately manage excess soils generated during construction projects conducted on rights-of-way (ROWs) in Massachusetts.

SCOPE: This guidance document applies to all construction projects conducted by National Grid employees or contractors on National Grid ROWs in Massachusetts.

RESPONSIBILITIES: It is the responsibility of the person managing the excess soils, usually a National Grid Project Manager or Contractor Project Manager, to ensure that this guidance is followed.

PROCEDURE: The table incorporated into this guidance document shall be used to determine appropriate methods of disposal for excess soil generated from construction projects on ROWs.

SUBJECT	REFERENCE
Excess Soil Management from Construction Projects on Rights-of-Way	**EP No. 17 – Construction Projects**

Guidance for Disposal of Excess Soil from Construction Projects on ROWs

		Origin of Excess Soil		
		From Greenfields Site[1]	*From Around Base of Existing Structure*	
			Wood Pole	*Metal Structure*
Disposal Options	***Ship Off Site***	No sampling required – **Ship off site to sand & gravel operation. Does not require National Grid Environmental Department approval**	**Sample prior to disposal at National Grid-approved facility**[2]	**Sample prior to disposal at National Grid-approved facility**[3]
	Lose on Site in Appropriate Location[4]	**Yes, with prior approval of National Grid Environmental Department**	If stained soil exists around base of pole – **Yes, if in immediate vicinity of existing structure. Requires prior approval of National Grid Environmental Department**[5] If no stained soil is present around base of pole – **Yes, with prior approval of National Grid Environmental Department**[5]	**Yes, with prior approval of National Grid Environmental Department**[5]

Notes:

1) **"Greenfields Site" -** Defined as previously undeveloped land within a National Grid ROW and land in ROW outside of the boundary of the original footprint of existing structures.
2) See National Grid Approved Disposal Facilities List. Samples will be collected from the top six inches of soil around the base of the pole and will be analyzed for parameters required by the disposal facility. Soil samples will be collected at an appropriate frequency from around representative poles. Sampling plan must be approved by the National Grid Environmental Department before samples are collected.
3) See National Grid Approved Disposal Facilities List. Sampling around metal structures will be collected from the top six inches of soil around base of structure. Samples around base of structure will be composited into one sample and analyzed for Pb, PCBs, Cr, and Cd and any other parameter required by the disposal facility prior to disposal at a National Grid-approved facility or sand and gravel operation. Soil samples will be collected at an appropriate frequency from around representative structures. Sampling plan must be approved by the National Grid Environmental Department before samples are collected.
4) **"Appropriate Location" -** Defined as <u>not</u> located within a floodplain, buffer zone, wetlands, priority habitat, Area of Critical Environmental Concern, or at an archaeologically sensitive site. Additionally, the grade of the site must be relatively flat and the placement of the soil must not create any safety clearance violation or a "moonscape" appearance. The soil must be free of invasive vegetation. The proximity of abutters or other nearby residents/land owners must be considered. The soil placement must be entirely within the ROW and approved by the National Grid Environmental Department. Placement of material in an existing ROW road for repair of potholes should be prioritized. As warranted, the area should be re-seeded and mulched for stabilization.
5) Approval shall be documented in written form such as an e-mail and may be location-specific or general for the entire project.

Record of Change		
Date of Review/Revision:		
Revision	**Date**	**Description**
0	01/27/10	Initial issue.

SUBJECT	REFERENCE
ROW Access, Maintenance and Construction Best Management Practices for New England	EP-3; Natural Resource Protection

PURPOSE/OBJECTIVE:

This document provides National Grid personnel, consultants and contractors with Best Management Practices (BMPs) for conducting work on electric and natural gas transmission and distribution rights-of-ways (ROWs) and substations in New England.

WHO:

These BMPs are to be followed by all personnel conducting work on Company electric and gas ROWs and substations in New England. These BMPs do not apply to Company employees and contractors performing routine vegetation management activities that are not a part of construction or re-construction projects. Employees and contractors maintaining vegetation on Company ROWs and substations must follow the National Grid ROW Vegetation and Substation Vegetation Management Plans.

DEFINITIONS:

Refer to **Glossary** in **Appendix 1** and **Acronyms** in **Appendix 2**.

WHAT TO DO:

1.0 Project Planning

Prior to the start of any project (proposed new facilities or maintenance of existing facilities), the Project Engineer or other project planner shall determine whether any environmental permits or approvals are required, per the state-specific EG-301 environmental checklists. Any questions regarding which activities may be conducted in regulated areas or within environmentally sensitive areas shall be referred to the National Grid Environmental Scientist or Project Environmental Consultant.

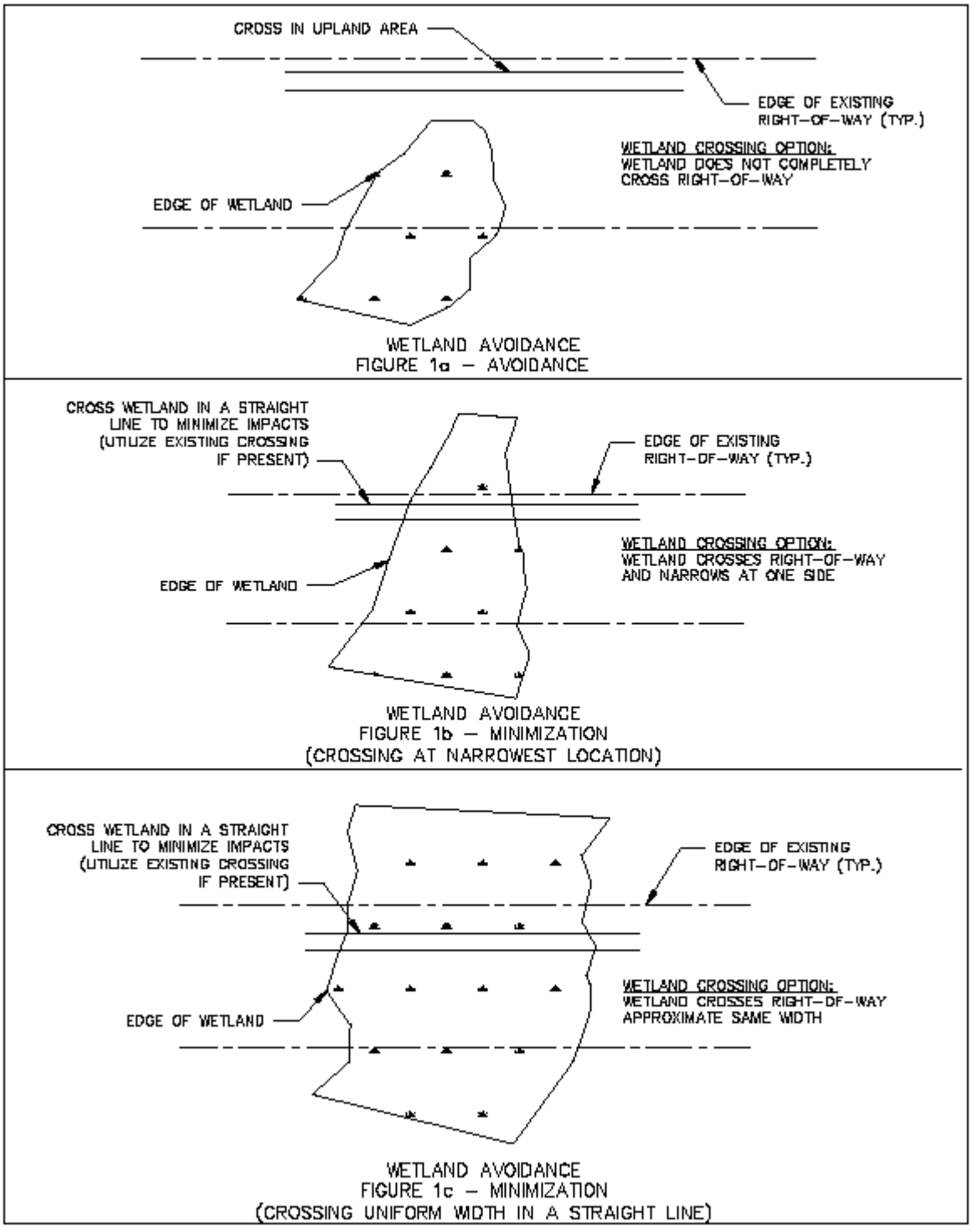
All new construction and maintenance projects shall follow clear and enforceable environmental performance standards, which is the purpose for which these BMPs have been compiled.

1.1 Avoidance and Minimization

Measures shall always be taken to avoid impacts to wetlands, waterways, rare species habitats, known below and above ground historical/archeological resources and other environmentally sensitive areas. If avoidance is not possible, then measures shall be taken to minimize the extent of impacts. Alternate access routes or staging areas shall always be considered. Below is a list of methods that shall be considered where impacts are unavoidable:

- Use existing ROW access where available. Keep to approved routes and roads without deviating from them or making them wider.
- Off-ROW access shall never be assumed and shall be coordinated through National Grid Real Estate before being implemented.
- Where no existing ROW access is present, avoid wetlands and if a wetland crossing is necessary, cross wetlands at the most narrow point possible or at the location of a previously used crossing (if evident). Figure 1 below illustrates this minimization technique.

- Avoid and minimize stream crossings.
- Minimize the width of typical access roads through wetlands to a maximum width of 16 feet.
- Conduct work manually (without using motorized equipment) in wetlands, wherever possible.
- Use construction mats in wetlands to minimize soil disturbance and rutting when crossing or working within wetlands. When not using mats for access, standard vehicles shall not be allowed to drive across wetlands without the prior approval of the National Grid Environmental Scientist. Use of a low ground pressure (LGP) vehicle may be a feasible alternative to mats provided that such LGP vehicle use has been reviewed and approved by the National Grid Environmental Scientist. See Section 7.0.
- Coordinate the timing of work to cause the least impacts during the regulatory low-flow period under normal conditions, when water/ground is frozen, after the spring songbird nesting season, and, outside of the anticipated amphibian migration window (mid-February to mid-June). Refer to the United States Army Corps of Engineers (USACE) state-specific General Permit for the definition of the low-flow period in each state at: http://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/. A summary table is provided in Section 7.0.
- Seek alternative routes or work methods to minimize impact.


CROSS IN UPLAND AREA
EDGE OF EXISTING RIGHT-OF-WAY (TYP.)
WETLAND CROSSING OPTION:
WETLAND DOES NOT COMPLETELY CROSS RIGHT-OF-WAY
EDGE OF WETLAND
WETLAND AVOIDANCE
FIGURE 1a – AVOIDANCE
CROSS WETLAND IN A STRAIGHT LINE TO MINIMIZE IMPACTS (UTILIZE EXISTING CROSSING IF PRESENT)
EDGE OF EXISTING RIGHT-OF-WAY (TYP.)
WETLAND CROSSING OPTION:
WETLAND CROSSES RIGHT-OF-WAY AND NARROWS AT ONE SIDE
EDGE OF WETLAND
WETLAND AVOIDANCE
FIGURE 1b – MINIMIZATION
(CROSSING AT NARROWEST LOCATION)
CROSS WETLAND IN A STRAIGHT LINE TO MINIMIZE IMPACTS (UTILIZE EXISTING CROSSING IF PRESENT)
EDGE OF EXISTING RIGHT-OF-WAY (TYP.)
WETLAND CROSSING OPTION:
WETLAND CROSSES RIGHT-OF-WAY APPROXIMATE SAME WIDTH
EDGE OF WETLAND
WETLAND AVOIDANCE
FIGURE 1c – MINIMIZATION
(CROSSING UNIFORM WIDTH IN A STRAIGHT LINE)

Appı

1.2 Historically Significant Areas

Areas that have been identified as historically and/or culturally significant shall be avoided in accordance with site-specific avoidance plans, as applicable. Refer to the project-specific Environmental Field Issue (EFI) for any applicable avoidance plans or consult with the National Grid Environmental Scientist. Demarcation of these areas to be avoided shall use staked orange snow fencing or an equivalent physical barrier (not just ribbon flagging) and signage. Refer to Section 14.0 for signage guidance.

1.3 Rare Species Habitat

Work within areas that have been identified as mapped rare species habitat shall follow site-specific requirements, as applicable. In Massachusetts, maintenance activities within mapped habitat (known as Priority Habitat of Rare Species) shall follow the BMPs outlined in the Natural Heritage Endangered Species Program (NHESP)-approved National Grid Operation and Maintenance Plan. Work in mapped rare species habitat may require, at a minimum, turtle training for crews and sweeps of work areas for turtles, botanist identification of rare plant locations and avoidance of these locations, and protection of vernal pools, all prior to the start of work. Demarcation of these areas to be avoided (e.g., rare plant populations, overwintering turtles, nests) shall use staked orange snow fencing or an equivalent physical barrier (not just ribbon flagging) and signage. Refer to Section 14.0 for signage guidance.

Where new substations are being constructed or existing substations are undergoing a rebuild or expansion, and the substations are located in mapped rare turtle habitat, project team members should consider fenceline improvements or measures needed to prevent/eliminate turtle entrance into the substation or allow multiple points for easy egress such that turtles are not trapped within the substation fenceline.

Other requirements may apply in NH, VT and RI. Refer to the project-specific EFI for any applicable measures or consult with the National Grid Environmental Scientist.

1.4 Meetings

Pre-permitting meetings shall take place early in the project development process to determine what permits are triggered by the proposed work and the timeline required for permitting. During these meetings, the team shall develop access plans and BMPs to be used during construction of the project.

Field / Constructability review meetings shall take place on-site to evaluate construction site access and job site set-up, to ensure that the project can proceed as permitted. It is at this point in time where work areas, pulling locations, laydown areas, parking areas, and equipment storage areas are evaluated and located. Off-ROW areas under consideration should be included in this discussion.

Prior to submitting permit plans to regulatory authorities, the construction group (contractor or National Grid) shall review the plans for final sign off.

Pre-construction meetings are typically held prior to the commencement of all work to appoint responsible parties, discuss timing of work, and further consider options to avoid and/or minimize impacts to sensitive areas. These meetings can occur on- or off-site and shall include all the willing and available stakeholders (i.e., utility employees, contractors, consultants, inspectors, and/or monitors, and regulatory personnel). Training of crews and supervisors of the EFI, Stormwater Pollution Prevention Plan (SWPPP), rare species, and other permit requirements shall be conducted at a pre-construction meeting.

Pre-job briefings shall be conducted daily or otherwise routinely scheduled meetings shall be conducted on-site with the work crew throughout the duration of the work. These meetings are a way of keeping everyone up to date, confirming there is consensus on work methods and responsibilities, and ensuring that tasks are being fulfilled with as little impact to the environment as possible.

The Project Environmental Scientist/Monitor and Construction Project Manager shall communicate regularly (e.g. weekly or bi-weekly meetings or phone conversations) to discuss the work completed since last communication (i.e. work locations, wetland impacts, equipment used, and unexpected delays or work conditions). These meetings or calls shall include the expected schedule of construction for the upcoming week, the long term construction plans, and planned methods for working near/in wetlands. Both the Project Environmental Scientist/Monitor and Construction Project Manager shall work together so the Project complies with all environmental permits and regulations. When changes to the Project scope or agreed work plan are proposed they shall be done so with the final approval of the National Grid Environmental Scientist.

1.5 Communication of Project Specific Environmental Requirements

Project specific environmental concerns, to include sensitive resources, permits, approved access and time-of-year or other restrictions, shall be communicated to the project team and be included as part of the Pre-Bid and Pre-Construction Meetings. Project specific requirements shall be communicated to the project manager/construction manager/engineering group using the following guidelines:

Environmental Field Issue – The EFI will be a full document consisting of narrative, project permits, access and matting plans. A table summarizing pertinent (but not all) permit conditions and the responsible party for those conditions shall be included in the EFI. Copies of all permits should be included as attachments. This will be prepared for most projects with multiple permits or large, complex projects (siting board, Section 404, 401 WQC, SWPPP). There shall be EFI training at the pre-construction meeting. The National Grid EFI template is located in **EI-303NE**.

Simplified Environmental Field Issue – The Simplified EFI is a memorandum containing environmental resources present, project permit(s), access and matting plans and a table summarizing relevant permit conditions and responsible party for those conditions. Copies of all permits should be included as attachments. The Simplified EFI will be prepared for most projects with 1 or 2 permits (Order of Conditions, S404 Cat 1). The Simplified EFI should also be provided for projects that have environmental resources present, but the scope of the project does not trigger environmental permitting (e.g., the scope of work qualifies for maintenance exemption(s)). The resources present

shall be discussed at the Pre-Bid and Pre-Construction meetings and any changes in scope will require additional review by the National Grid project team.

E-mail delivery of Permit and any Sediment/Erosion control or BMP plan – For those projects with only one permit (eg., MA Order of Conditions, RI DEM permit, RI CRMC permit, NH Utility Notification) or projects with a sediment & erosion control plan (local town requirement or for exempt maintenance work), a copy of the permit and any applicable plan will be emailed to the Project Manager (and the project team where deemed necessary) to be incorporated into the Construction Field Issue.

STORMS work management system input – For STORMS work, no EFI is prepared unless multiple permits are required for the project (see guidance above). If only a MA Order of Conditions, MA Determination of Applicability, RI DEM permit, RI CRMC permit, RI SESC Approval, or NH Utility Notification is required, then the permit is attached in the Documents tab and conditions noted in Remarks/Comments section. Standard STORMS boilerplate language is located in **EI-303NE**.

1.6 Timing of Work

Regulatory authorities may place seasonal or time-of-year restrictions on project construction elements. These time-of-year restrictions may be state or permit-specific, and shall be adhered to.

Work during frozen conditions. Activities conducted once wetland areas are frozen sufficient to minimize rutting and other impacts to the surrounding environment may be authorized by the National Grid Environmental Scientist. Work during this time also generally reduces disturbance of aquatic and terrestrial wildlife movement by avoiding sensitive breeding and nesting seasons. When not using mats for access, vehicles shall not be allowed to drive across wetlands without the prior approval of the National Grid Environmental Scientist.

Work during the regulatory low-flow period. Conducting work during the low-flow period can reduce impacts to surface water and generally avoids spawning and breeding seasons of aquatic organisms. If the water is above normal seasonal levels, adjustments to work activities and methods are required.

1.7 Alternate Access

1.7.1 Manual Access

In some cases such as for smaller projects, work areas can be accessed manually. This includes access on foot through upland and shallow wetland areas, access by boat through open water or ponded areas, and climbing of structures where possible. Smaller projects, such as repair of individual structures, or parts of structures, that do not categorically require the use of heavy machinery, shall be accessed manually to the greatest extent practicable.

1.7.2 Use of Overhead/Aerial Access

Using helicopters can be expensive and is not always feasible, but it may be appropriate in some situations in order to get workers and equipment to a site that otherwise may be very difficult to access. The use of overhead and/or aerial equipment may be beneficial for work in areas where larger water bodies, deep crevices, or mountainous areas hinder ground access. The landing area for

helicopters shall be reviewed for environmentally sensitive resources. Use of helicopters requires Project Manager and Senior Management approval.

2.0 Inspection, Monitoring and Maintenance

All construction practices and controls shall be inspected on a regular basis and in accordance with all applicable permits and local, state, and federal regulations to avoid and correct ANY damage to sensitive areas.

The construction crews shall be responsible for completing daily inspections, and IMMEDIATELY bring any **damage or observed erosion, or failed erosion controls** to the attention of the Person-In-Charge and the National Grid Environmental Scientist. Where applicable and/or as directed by environmental permits issued for the project, the Project Environmental Consultant shall conduct weekly (at a minimum) inspections of the project work areas and shall document their inspection using the Stormwater, Wetlands & Priority Habitat Environmental Compliance Site Inspection / Monitoring Report form found in **Appendix 3** and issue the report within 24 hours. The Person-in-Charge shall work with the National Grid Environmental Scientist and the Project Environmental Consultant to determine when and how the repairs shall be made.

Project-specific Action Logs and Long-Term Restoration Logs are prepared as needed by the National Grid Environmental Scientist or the Project Environmental Consultant to track issues and/or repairs and assign responsible parties.

3.0 Best Management Practices

The BMP sections presented in this EG address access, construction, snow and ice management, structures in wetlands, access road maintenance and repair, clean-up and restoration standards, ROW gates, field refueling and maintenance operations, management of spills/releases, and a summary of key construction BMPs.

Note that BMPs shown on any permit drawings for a specific project may need to be revised and or supplemented during the execution of a project based on unforeseen or unexpected factors such as extreme weather or unknown subsurface conditions. It is the responsibility of the Contractor to work with the National Grid Environmental Scientist and/or the Project Environmental Consultant to identify necessary changes and to ensure that construction-related impacts to wetlands, water bodies and other environmentally sensitive areas are avoided.

Any deviation from the approved BMPs shown in the EFI and/or SWPPP plans shall be communicated immediately to the National Grid Environmental Scientist as it may require additional permitting or could result in a permit violation.

3.1 Wetland Boundary Demarcation

Prior to the start of any activity conducted under an environmental permit, wetland boundaries shall be reviewed. Flagging for wetland boundaries, stream banks and other resource areas shall be

refreshed as needed. This may become particularly important when the original flagging was placed in previous seasons and now may have become obscured.

3.2 Sedimentation and Erosion Controls

Appropriate sedimentation and erosion control devices shall be installed at work sites, in accordance with permit conditions and/or regulatory approvals, and as needed to prevent adverse impacts to water resources and adjacent properties.

The overall purpose of such controls is to prevent and control the movement of disturbed soil and sediment from work sites to adjacent, undisturbed areas, and particularly to water resources, public roads and adjacent properties. All proprietary controls shall be installed per manufacturer's recommendations and specifications.

Appropriate sedimentation and erosion control devices include but are not limited to: silt fencing, straw bales, wood chip bags, straw wattles, compost socks, erosion control blankets, mulch, slope interruption practices, flocculent powder/blocks and storm drain/catch basin inlet protection. Such controls shall be installed between the work area and environmentally sensitive areas such as wetlands, streams, drainage courses, roads and adjacent property when work activities shall disturb soils and result in a potential for causing sedimentation and erosion.

In Massachusetts, use of monofilament-encased wattles shall be avoided in mapped Priority Habitat for snakes and amphibians. For projects with work within mapped Priority Habitat for snakes and amphibians, wattles that are encased in a sock, hemp, fiber, or movable jute netting are required to prevent entrapment. Also, "wildlife gaps" should occur every 50 feet, if possible, given wetland permit conditions. This spacing of the wattles allows snakes and amphibians to move across the ROW. Refer to the Amphibian and Reptile BMPs in **Appendix 4**.

Staked straw bales often serve as the demarcation of the limits of work and/or sensitive areas to be avoided. Work shall never be conducted outside the limit of erosion controls without prior approval from the National Grid Environmental Scientist.

Project plans depict proposed erosion controls, however field conditions may warrant additional practices be implemented (e.g., wet conditions, frozen conditions, poorly drained soils, steep slopes, materials used for work pads, transition areas to construction mats, number of trips across work areas, etc.).

Any deviation from the approved erosion controls shown in the EFI and/or SWPPP plans needs to be communicated immediately to the National Grid Environmental Scientist as it may require additional permitting or result in a permit violation.

Appendix 4 provides typical sketches of common sedimentation and erosion controls. If a SWPPP is required for the project, maintenance and inspection of erosion controls shall follow the SWPPP requirements. Sedimentation and erosion controls shall be properly maintained and inspected on a

periodic basis, until work sites are properly stabilized and restored. Inspections shall be documented using the Inspection Form "Storm Water, Wetlands & Priority Habitat Environmental Compliance Site Inspection/Monitoring Report" (**Appendix 3**).

The sequence and timing of the installation of sedimentation and erosion control measures is critical to their success. Sedimentation and erosion controls shall be installed prior to commencing construction activities that may result in any soil disturbance or cause otherwise polluted site runoff. Inspection of these devices may be required by the National Grid Environmental Scientist or by regulators prior to the start of work. The installation of water bars and other erosion control measures shall be installed shortly thereafter.

3.3 Concrete Wash Outs

Concrete wash outs shall be used for management of concrete waste. Concrete and concrete washout water shall not be deposited or discharged directly on the ground, in wetlands or waterbodies, or in catch basins or other drainage structures. Where possible, concrete washouts shall be located away from wetlands or other sensitive areas. Consult the National Grid Environmental Scientist on proposed concrete wash out locations prior to their use. Following the completion of concrete pouring operations, the wash outs shall be disposed of off-site with other construction debris. Refer to BMPs in **Appendix 4**.

3.4 Construction Activities in Standing Water

The use of silt curtains or turbidity barriers may be required when working in or adjacent to standing water such as ponds, reservoirs, low flowing rivers/streams, or coastal areas. Silt curtains and turbidity barriers prevent sediment from migrating beyond the immediate work area into the resource areas.

Coffer dams constructed using sheet piling or large sandbags (Trade names such as "the Big Bag" or "DamItDams") may be used to temporarily isolate and contain a work area in standing water.

When working in standing water, an oil absorbent boom, in addition to a silt curtain or other temporary barrier, shall be placed around the work area for spill prevention.

Work in drinking water reservoirs or other waters may require extensive regulatory agency review, even for maintenance work, which could result in additional time required for permitting, review and material procurement prior to the start of work.

3.5 Dewatering

Where excavations require the need for dewatering of groundwater or accumulated stormwater, the water shall be treated before discharge. Appropriate controls include dewatering basins, flocculent blocks, filter bags, filter socks, or weir tanks. Schematics of these BMPs are included in **Appendix 4**. Water trucks or fractionation tanks may be utilized if watertight containers are desired for controlled on-site discharge or for off-site discharge into an approved dewatering area when site restrictions make it difficult to utilize other dewatering methods on-site. Dewatering discharge water shall never be directed into wetlands, streams/rivers, other sensitive resource areas, catch basins, other

stormwater devices, or substation Trenwa trenches. Dewatering flow shall be controlled so that it does not cause scouring or erosion through the use of a dewatering basin, filter sock, or equivalent. If it is determined that the chosen controls are not appropriately filtering the fine sediment from the dewatering pumpate then the National Grid Environmental Scientist shall be notified immediately and the controls shall be revised or supplemented.

When establishing a dewatering basin, consideration should be given to the anticipated volume of water and rate of pumping in determining the size of the dewatering basin. Dewatering basins shall be constructed on level ground. Once pumping commences, the basin shall be monitored frequently to assure that the rate of water delivery to the structure is low enough to prevent water from flowing, unfiltered, over the top of the basin walls. The basin shall be monitored throughout the dewatering process because the rate of filtration shall decrease as sediment clogs the filter fabric. If the basin is not appropriately filtering the fine sediment from the dewatering pumpate then the basin may need to be supplemented with a flocculent block. Field conditions shall dictate how often the basin should be inspected.

Distance to sensitive areas, direction of flow (toward or away from protected, or sensitive areas, such as wetlands, ponds, or streams), amount of vegetative ground cover between the basin and nearby sensitive areas, ground conditions (ledge, frozen, etc.), volume of water being pumped, and pump-rate, are some of the factors to be considered when determining an inspection frequency. Clogged filter fabric shall be replaced and accumulated sediment shall be removed as necessary from the basins to maintain efficacy.

Any new dewatering location (not previously reviewed and approved by the National Grid Environmental Scientist during project planning or permitting) shall be reviewed and the discharge location approved by the National Grid Environmental Scientist before use.

Complex projects that require large scale dewatering shall require individual review by the National Grid Environmental Scientist and may trigger additional permitting.

Dewatering in areas of known chemical contamination may require a separate NPDES permit, or other approval, and treatment or containment system. Consult with the National Grid Environmental Scientist.

3.5.1 Overnight Dewatering

Some projects may necessitate 24-hour dewatering for on-site construction activities. Overnight dewatering will be evaluated on a case-by-case basis by the National Grid Environmental Department.

If it is necessary to conduct overnight dewatering on a project, a dewatering plan must be submitted to the Environmental Department for review and approval **5 business days prior to beginning dewatering activities**. Sufficient knowledge of flow, discharge, and re-infiltration rate of water must be obtained and submitted for review. The Environmental Department

may require monitored dewatering for a period of time in order to provide this data in support of a request for 24-hour dewatering. The dewatering plan must include at a minimum:

1. Location of dewatering system, system components (basin, frac tank, etc), and materials.
2. Location of discharge and distance from closest wetland.
3. Location of erosion controls. A secondary perimeter of erosion controls will be required around the dewatering system for overnight dewatering.
4. Peak flow, discharge rate and re-infiltration rates.
5. Visual monitoring plan for discharge. Expected duration of dewatering.
6. Emergency provisions if overnight, unattended dewatering is proposed.

3.5.2 Dewatering Clean Up/Restoration

Basins shall be cleaned and removed as soon as dewatering is complete. Sediment removed from the dewatering basin shall be allowed to dry before being disposed of by evenly spreading it over unvegetated upland areas where erosion is not a concern if clean or removing it from the site for proper disposal. Off-site trucking of wet soils is prohibited. The sediment disposal area shall be approved by the National Grid Environmental Scientist or the Project Environmental Consultant prior to use. Stabilization measures shall also need to implemented and approved by the National Grid Environmental Scientist or the Project Environmental Consultant. Soils/sediments shall be dewatered and dried to the point practicable for either on-Site reuse or off-Site transport.

3.6 Check Dams

Check dams are a porous physical barrier installed perpendicular to concentrated storm water flow. They are used to reduce erosion in a swale by reducing runoff energy (velocity), while filtering storm water, thereby aiding in the removal of suspended solids.

Check dams should only be used in small drainage swales that shall not be overtopped by flow once the dams are constructed. These dams should not be placed in streams. Check dams are typically installed in ROWs or on other construction sites prior to the start of soil disturbing work. Per the Rhode Island Soil Erosion and Sediment Control Handbook, no formal design is required for a check dam if the contributing drainage area is 2 acres or less and its intended use is shorter than 6 months; however, the following criteria should be adhered to when specifying check dams.

- The drainage area of the ditch or swale being protected should not exceed 10 acres.
- The maximum height of the check dam should be 2 feet.
- The center of the check dam must be at least 6 inches lower than the outer edges.
- The maximum spacing between the dams should be such that the toe at the upstream dam is at the same elevation as the top of the downstream dam.

Per the NHDES stormwater manual, the use of check dams should be limited to swales with longitudinal slopes that range between 2 to 5 percent that convey drainage from an area less than 1 acre. Existing conditions that exceed these limitations should be assessed in the field and discussed

with the National Grid Environmental Scientist to determine the viability of this BMP for the specific application. Check dams are often comprised of stone, straw bales, sand bags, or compost/silt socks. Use of check dams should be coordinated with the National Grid Environmental Scientist to ensure that the material selection, spacing and construction method are appropriate for the site. Check dams composed of biodegradable materials (e.g. straw bales or wattles, wood chip bags) may require periodic replacement for continued proper functioning[1]. Refer to BMPs in **Appendix 4**.

3.7 Water Bars

Water bars should be used on sloping ROWs to divert storm water runoff from unstabilized or active access roads when needed to prevent erosion. Surface disturbance and tire compaction promote gully formation by increasing the concentration and velocity of runoff. Water bars are constructed by forming a ridge or ridge and channel diagonally across the sloping ROW. Each outlet should be stable. The height and side slopes of the ridge and channel are designed to divert water and to allow vehicles to cross. When siting water bars, consideration shall be given to the sensitivity of the area receiving the diverted runoff. For example, runoff should not be directed into a wetland, waterbody, other environmentally sensitive areas, or to private property or public roadways. Refer to BMPs in **Appendix 4**.

3.8 Retaining Walls

In some situations, retaining walls comprised of concrete blocks, gabions, boulders or other comparable materials may be required to stabilize the shoulder of existing access roads and/or supplement required erosion controls. Installation of such measures shall not be allowed as a maintenance activity. Should these controls be considered for a project, it shall be reviewed by the National Grid Environmental Scientist, as design and additional permitting may be required.

3.9 Slope Stabilization

Temporary slope stabilization practices help to keep exposed, erodible soils stabilized while vegetation is becoming established. Acceptable temporary slope stabilization practices may include the use of erosion control blankets, or hydraulic erosion control. Erosion control blankets, often comprised of natural fibers (e.g., jute, straw, coconut, or other degradable materials) are a useful slope stabilization, erosion control and vegetation establishment practice for ditches or steep slopes. Blankets are typically installed after final grading and seeding for temporary or permanent seeding applications. Hydraulic erosion control practices, including Bonded Fiber Matrix or hydroseed with a soil stabilizer (e.g., tackifier and/or mulch) may be an acceptable or desirable alternative form of temporary slope stabilization. For all practices, manufacturer's specifications should be followed for installation depending on slope and other field conditions. Consult the National Grid Environmental Scientist prior to selecting and installing any slope stabilization practices. Refer to BMPs in **Appendix 4**.

3.10 Maintenance of Sedimentation and Erosion Controls

[1] Grass growth on a biodegradable type check dam is evidence that the material is decomposing. While this doesn't mean it is no longer functioning, it means it may be in a weakened condition and could potentially fail under high flow velocity. It is acceptable for grass to be growing on a stone check dam.

Sedimentation and erosion controls shall be maintained in good operational condition during the course of the work. This includes, but is not limited to, replacing straw bales that are no longer in good condition, re-staking straw bales, replacing or re-staking silt fence, and removing accumulated sediment. Remove sediment before it has accumulated to one half the height of any exposed silt fence fabric, straw bales, other filter berm, check dams or water bars. Accumulated sediment shall be removed from sedimentation basins to maintain their efficacy. Manage the removed sediment by evenly spreading it over unvegetated upland areas where erosion is not a concern, by stockpiling and stabilizing, or by disposing of off-site. Stabilization measures shall also need to be implemented and approved by the National Grid Environmental Scientist or the Project Environmental Consultant. Where a SWPPP has been prepared for a specific site, the guidelines documented therein shall govern the management of sediment.

4.0 Right-of-Way (ROW) Access

Whenever possible, access shall be gained along existing access routes or roads within the ROW. However, in some cases there is no existing access. In many cases, temporary access can be utilized. The following practices provide general guidance on accessing a ROW. Check with a National Grid Environmental Scientist to determine if any environmental permitting is required before utilizing a temporary access.

Note that the building of new roads or enlargement of existing roads is **prohibited** unless this activity is allowed by a project-specific permit, and the new roads appear on the Site Plans that were authorized in the regulatory approvals.

4.1 Off-ROW Access

Off-ROW access shall be evaluated for wetlands, rare species, cultural resources and other potential sensitive receptors, as applicable. National Grid Real Estate and Stakeholder Relations shall also be contacted as soon as possible once off-ROW access is determined to be needed.

4.2 Stabilized Construction Entrance/Exit for Access to ROWs from Public or Private Roads

A suitable (minimum 15-foot wide by 50-foot long) construction entrance/exit shall be installed at the intersection of the ROW access road/route with public/private paved roads, or other such locations where equipment could track mud or soil onto paved roads. The construction entrance/exit should be comprised of clean stone installed over a geotextile fabric. Geotextile fabric may be omitted for permanent construction entrances/exits on a case-by-case basis with the approval of the National Grid Environmental Scientist. Refer to BMPs in **Appendix 4**.

Construction entrance areas shall be monitored and maintained to ensure that stone or other material is not deposited onto the roadway, causing a safety concern. Where track-out of sediment has occurred onto a roadway, it shall be swept off the road by the end of that same work day.

If a construction entrance/exit is clogged with sediment and no longer functions, the sediment and stone may require removal and replacement with additional clean stone (clean stone refreshment) to

ensure this tracking pad is performing its intended function adequately. Heavier traffic use may require this clean stone refreshment multiple times throughout a project. Reinforcement of these stabilized construction entrance/exits with asphalt binder or asphalt millings is not likely to be considered "maintenance" and may trigger additional permitting requirements[2]. In some cases, heavily used construction entrances/exits may benefit from the installation of a 5-15 foot strip of asphalt binder or asphalt millings closest to the paved roadway to capture any stone that is tracked from the stone apron. Such cases shall be evaluated on an individual basis with the National Grid Environmental Scientist.

Once work is complete, the construction entrance/exit shall either be removed or retained, depending upon future maintenance-related access needs, property ownership, and/or project-specific approvals. If removed, the area shall be graded, seeded (if adequate root and seed stock are absent) and mulched. Proper approvals for leaving access roads in place shall be obtained; contact the National Grid Environmental Scientist and Property Legal.

4.3 Maintenance of Existing Access Roads

In many cases, the existing access road may need to be maintained to allow passage of the heavy equipment required for scheduled maintenance work. Access roads cannot deviate from the approved and permitted access plans. Maintenance of these roads may include adding clean gravel or clean crushed stone to fill depressions and eroded areas. This activity shall be conducted only within the width of the existing access road footprint and does not include widening existing access roads

If gravel begins to migrate onto the existing vegetated road shoulder, this gravel shall be removed during the project and/or after the completion of use of the road to ensure the road fill is not spreading into adjacent resource areas, or resulting in the road becoming much wider than its pre-existing or permitted condition. In some areas of mapped rare species habitat or other sensitive areas where project-specific permit conditions require the prevention of the migration of sediments into adjacent resources, an engineered stabilization system (e.g., GeoWeb or similar) may be suitable to prevent sedimentation while allowing for unrestricted wildlife migration.

In Massachusetts, any proposed widening of access roads in turtle Priority Habitat would require individual consultation with NHESP and, depending on the level of impact proposed, may require a Project Review filing. The limited filling of ruts or potholes is compatible with the National Grid Operation and Maintenance Plan approved by NHESP under the Massachusetts Endangered Species Act, however, severely rutted access roads in turtle Priority Habitat that require extensive linear feet of stone for safe passage will require individual consultation with NHESP.

Major reconstruction projects may require multiple permits. In all cases, the fill to be used for existing access roads shall be clean and free of construction debris, trash or woody debris. Use of processed

[2] Depending on the road, use of an asphalt binder or asphalt millings as a construction entrance/exit may trigger state or local permit requirements.

gravel may be approved by the Person-In-Charge and the National Grid Environmental Scientist, on a case-by-case basis. If clean stone is used then addition of more erosion controls may not be necessary.

4.5 Maintenance of Existing Culverts

Damaged culverts may not be repaired or replaced without consulting with the National Grid Environmental Scientist to determine if a permit is required. For functioning culverts, care shall be taken to protect adjacent wetlands and watercourses by installing appropriate sedimentation and erosion controls around the downstream end of the culvert. Culverts shall be repaired/replaced in kind and shall not be changed in size unless approval has been obtained from the National Grid Environmental Scientist. In-kind replacement is replacement using the same material, functional inverts, diameter and length as the existing culvert. Changes to any of these characteristics shall require permitting. Installation of any **new** culvert is not allowed without obtaining all necessary permits first. Refer to BMPs in **Appendix 4**.

If, at the time of anticipated replacement, there is heavy flow through the culvert, the Person-In-Charge shall consult with the National Grid Environmental Scientist, to verify whether the culvert shall be replaced at that time. Water may need to be temporarily diverted during culvert repair/replacement. There typically are seasonal restrictions limiting both the replacement of existing culverts as well as installation of new culverts to the low-flow period. The low-flow period can vary from state to state. If any unexpected conditions are encountered during culvert replacement, the National Grid Environmental Scientist shall be contacted immediately prior to the work being completed for additional consultation.

4.6 Temporary Construction Access over Drainage Ditch or Swale

In some situations, construction access from paved roads onto ROWs may require the crossing of drainage ditches or swales along the road shoulder. In these situations, the installation of construction mats, mat bridges or temporary culverts may facilitate construction access over the ditches or swales. These culverts shall be temporary only, sized for peak flow, and shall be removed after construction is complete. Consult with the National Grid Environmental Scientist prior to installation. In addition, if access over existing culverts may require extending the culvert, consult with the National Grid Environmental Scientist. Refer to BMPs in **Appendix 4**.

4.7 Construction Material along ROW

After preparing a site by clearing and/or installing any necessary erosion and sediment controls and prior to the start of construction, material such as poles, cross-arms, cable, insulators, stone and other engineered backfill materials may be placed along the ROW, as part of the project. The stockpiling of stone and other unconsolidated material on construction mats shall be avoided, if determined necessary due to access and work pad constraints, the material must be placed on a geotextile fabric and be properly contained with a sedimentation barrier such as straw wattle. No construction material shall be placed in wetlands or other sensitive resource areas unless authorized by the National Grid Environmental Scientist or Project Environmental Consultant.

5.0 Winter Conditions

5.1 Snow Management

Refer to **Appendix 6** for the current Snow Disposal Guidelines.

5.2 De-Icing

Where allowed, calcium chloride is preferred as a de-icing agent when applied according to manufacturer's guidelines in upland areas. Sand shall be used on construction mats through wetland areas.

Consult with the National Grid Environmental Scientist on de-icing agents when working in a facility or substation close to resource areas. Many municipalities have specific requirements for de-icing agents allowed within 100 feet of wetland resources and other sensitive areas.

5.3 Snow and Ice Management on Construction Mats

Proper snow removal on construction mats shall avoid the formation of ice. To avoid the formation of ice, snow shall be removed from construction mats before applying sand. Prior to their removal from wetlands, sand shall be collected from the construction mats and disposed of in an upland area. A round street sweeping brush mounted on the front of a truck may be an effective way to remove snow from construction mats. Propane heaters may also be suitable solutions for snow removal and/or de-icing of construction mats.

Once construction mats are removed, wetlands shall be inspected for build up of sand that may have fallen through construction mats. Care shall be taken to inspect wetland crossings as each mat is removed to ensure sand is properly removed and disposed of off-site.

6.0 Construction Mats

The use of construction mats allows for heavy equipment access within wetland areas. The use of construction mats minimizes the need to remove vegetation beneath the access way and helps to reduce the degree of soil disturbance and rutting in soft wetland soils. Construction mats most often used by National Grid are wooden timbers bolted together typically into 4-ft by 16-ft sections, wooden lattice mats, or composite mats. In some cases, construction mats or other mats are used for staging or access in upland areas based on site conditions (e.g., agricultural field access). Refer to BMPs in **Appendix 4**.

Typically construction mats may be installed on top of the existing vegetation, however in some instances cutting large woody vegetation may be required. Check with National Grid Environmental Scientist prior to cutting or clearing vegetation for construction mat placement.

Where an extended period of time has lapsed since wetland delineation and start of construction, and new vegetative growth has concealed wetland flagging or flagging is simply no longer obviously visible, wetland boundaries should be re-flagged where necessary prior to the installation of matting.

Follow the approved plans in the EFI for construction mat installation and do not deviate from the plans. **Any deviation from the approved plans needs to be communicated immediately to the National Grid Environmental Scientist as it may require additional permitting, require stopping the project or result in a permit violation or revocation.**

6.1 Construction Mats and Mowing

Close coordination with the mowing contractor shall be required to ensure that access plans are followed, and construction mats are utilized when necessary. Sometimes mowing contractors may have to work off the leading edge of a construction mat to mow in order to lay the next construction mat and continue further into the wetland. Under no circumstances shall trees or shrubs be allowed to be pulled out of the wetland by the root ball. The root ball of trees and shrubs shall remain intact. Chipping debris and excessive amounts of slash shall not be placed in wetlands or other resource areas. In some instances, it may be beneficial to pile a reasonable amount of slash within a nearby upland area to create habitat for wildlife. This activity shall be approved by the National Grid Environmental Scientist.

6.2 Stream Crossings and Stream Bank Stabilization

Stream crossings shall be bridged with construction mats or other temporary minimally-intrusive measures unless fording is acceptable for the site and is authorized by the National Grid Environmental Scientist. Care shall be taken when installing a construction mat bridge to insure that the stream bed and banks are not damaged during installation and removal and that stream flow is not unduly restricted. Where stream width allows, construction mats shall be installed to span the watercourse in its entirety without stringer placement in the water or any restriction of stream flow. Environmental permits may be required to cross or disturb protected waters, depending upon state-specific regulatory requirements. Refer to BMPs in **Appendix 4**. Immediately following construction mat removal, all stream banks shall be stabilized and restored to prevent sedimentation and erosion.

6.3 Cleaning of Construction Mats

Mats shall be certified clean by the vendor prior to installation. The vendor shall use the certification form provided as **Appendix 5** to document compliance. Clean is defined as being free of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials prior to being brought to the project site. Any equipment or timber mats that have been placed or used within areas containing invasive species within the project site shall be cleaned of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the project site to prevent the spread of invasive species from one area to another[3]. **Mats shall be cleaned prior to being removed at the completion of the project: exceptions to this requirement may be made on a case-by-case basis.** Consult with the National Grid Environmental Scientist prior to discharging or disposing of any waste water or waste material from the cleaning of construction mats.

[3] On ROW projects where multiple wetlands may be dominated by the same invasive species, cleaning may not be required for movement along the ROW. Check with the National Grid Environmental scientist for guidance.

6.4 Stone Removal for Construction Mat Placement

For situations where the matting contractor determines that stones or boulders must be removed or relocated within wetland areas in order to install safe and level structure work pads or access roads the boulders shall be moved in a manner which does not result in significant soil disturbance (i.e., pushing with a bull dozer is not allowed). The boulders shall not be placed on any existing vegetated areas within wetlands or within vernal pools. When numerous boulders shall be removed from a wetland area, they shall be deposited in an upland area outside of the flagged wetland limits, outside of any cultural resource areas and outside of any RTE species populations. Any boulders that shall be placed within buffers (In MA, the 100-foot buffer zone, and in RI, the 50-foot Perimeter Wetland, 100-foot or 200-foot Riverbank Wetlands) shall be placed to avoid causing soil disturbance and they shall be within an approved limit of work. When there is a significant number of boulders that need to be removed, the National Grid Environmental Scientist shall be consulted for guidance.

6.5 Transition onto Mats

Erosion controls and stone or wood chip ramps shall be installed to promote a smooth transition to and minimize sediment tracking onto construction mats. Geotextile may be added beneath stone or wood chip transitions to facilitate removal, as necessitated by site or permit conditions. Mat transitions shall be removed once construction mats have been removed and during restoration. Refer to BMPs in **Appendix 4**.

6.6 Construction Material on Mats

The stockpiling of stone, drill spoils and other unconsolidated material on construction mats shall be avoided unless determined necessary due to access and work pad constraints. Additional controls, such as watertight mud boxes and geotextile/filter fabric over or between construction mats shall be considered for stockpile management. If material is placed on construction mats and falls through into wetlands, the material must be removed by hand. Saturated soils shall be allowed to dewater prior to off-site transport for sufficient time to ensure that water/sediment is not deposited onto construction mats or public roads during transport.

6.7 Mat Anchoring

The National Grid Environmental Scientist and Project environmental consultant shall indicate to the project team when mat anchoring may or shall be necessary. The matting contractor will propose the method of mat anchoring, which will be approved by the National Grid Environmental Scientist and the National Grid Construction Supervisor. The need for anchoring should be noted in the project EFI, on the project access and matting plans, and in the scope of the bid document (if externally sourced).

Anchoring of construction mats should be considered when any of the following conditions are presented at a project work location:

Location	Considerations
Stream crossings Shorelines of Ponds/Lakes Wetlands Floodplains	When located in a mapped flood area (A). When mapped 100-year flood elevations (AE) are greater than 2 ft above existing grades. Where past flash flood events have occurred. Where steep terrain is present or surrounds the project location When mats will be in place during hurricane season for greater than 2 weeks.
Tidal areas	When located in a Velocity (V or VE) Zone. When mats will be in place during a moon tide cycle. When mats will be in place during hurricane season for greater than 2 weeks.

Examples of mat anchoring are provided below, but the implementation methods for anchoring mats are not limited to these examples. Where anchoring is determined to be necessary, the matting contractor should propose a method suitable based on field conditions and that takes crew safety, slip/trip/fall hazards, size of matting footprint, and other project and site-specific factors into consideration. Refer to BMPs in **Appendix 4**.

Limited sets of mats

- Cable or rope in chain pockets and run linearly, or
- Linear ropes anchored using helical screws, manta ray anchors, or posts.

Larger sets of mats or those without chain pockets

- Chain link fence posts or other posts driven in along mat edge every 3-4 feet and ropes then laced across mats between opposing posts before storm event, or
- Anchor bolts added to mats, then cable is laced between bolts and tied to helical or manta ray anchor.

6.8 Corduroy Roads

Corduroy roads are a wetland crossing method where logs are cut from the immediate area and used as a road bed to prevent rutting from equipment crossing. This technique is designed to be used in areas of wetland crossings where there is no defined channel or stream flow and should never be used in streams. Corduroy logs shall be placed in the narrowest area practicable for crossing with the logs placed perpendicular to the direction of travel across wet area. The use of corduroy logs shall only be in emergencies when approved by the National Grid Environmental Scientist or when they have been specifically permitted as part of a project. Refer to BMPs in **Appendix 4**.

6.9 Construction Mat Removal

Once construction mats are removed, wetlands shall be inspected for build up of sand or other materials that may have fallen through construction mats. Care shall be taken to inspect wetland

crossings as each mat is removed to ensure any materials are properly removed and disposed of off-site.

6.10 Utility Air Bridging

In ROWs where other utility facilities (including but not limited to gas, oil, fiber optic, electric, water, and sewer) are co-located within the transmission ROW, bridging may be required to cross those facilities. The project team shall coordinate with the respective utility company prior to determining if bridging or permanent crossings are required.

7.0 LGP Equipment Use

Only when approved by the National Grid Environmental Scientist on a case-by-case basis shall equipment with a LGP **psi that meets the state-specific USACE General Permit requirement when loaded** be allowed to access through wetlands. Refer to the state-specific General Permit for the definition of LGP in each state at: http://www.nae.usace.army.mil/Missions/Regulatory/State-General-Permits/, or to the summary table provided below. The National Grid Environmental Scientist's approval of the use of LGP equipment through wetlands depends on several criteria including:

- Time of year. LGP equipment use may be allowed if weather and field conditions at the time of construction are suitable to eliminate/minimize the concern of rutting or other impacts. Frozen, frozen snow pack, low flow, drought conditions, or unsaturated surface soil conditions are typically acceptable conditions. Spring and fall construction, due to the typical higher precipitation, are not suitable times of year for LGP equipment use.
- Number of trips. Multiple trips through a wetland have shown to increase the potential for damage and require matting. LGP equipment use shall likely only be approved if trips are limited to one trip in and one trip out.
- Type of wetland system. Some wetlands have harder soils/substrate, and may be passable without causing significant damage. Some of the wetlands along National Grid ROWs have existing hard bottom roads that have been vegetated over time and may be traversed with LGP equipment without construction mats.
- Emergencies. LGP equipment use may be allowed during emergency or storm conditions for outage restoration.
- State-specific USACE General Permit Performance Standards. The standard is for no impact to the wetland, which may be obtained by using LGP equipment **when loaded**). "*Where construction requires heavy equipment operation in wetlands, the equipment shall either have low ground pressure (as specified in the USACE GP), or shall not be located directly on wetland soils and vegetation; it shall be placed on construction mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation*."
- Local bylaws. Municipal wetland bylaws, where applicable, shall be reviewed for prohibitive conditions or applicable performance standards.

LGP equipment is prohibited in the following resources areas:

- Stream crossings
- State listed-species habitat
- Outstanding Resource Waters (ORWs)
- Vernal pools
- Archaeological sensitive areas

Where LGP equipment use is desired in lieu of construction mats, the construction supervisor should identify these areas on marked-up access plans. A site visit with the Project Environmental Monitor should be scheduled to assess if the proposed locations are potential candidates. The Project Environmental Monitor will document potentially suitable locations and dismiss others as unsuitable.

ACOE New England District General Permit Requirements

State	Restrictions	Maximum PSI (when loaded) for Use without Mats	Reference
MA	*One of the following must apply:* Equipment operated within wetlands shall: a) Have low ground pressure; b) Be placed on timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) Equipment must be operated on adequately dry or frozen conditions such that shear pressure does not cause subsidence of the wetlands immediately beneath equipment and upheaval of adjacent wetlands.	3 psi	MA General Permit, General Condition 13
NH	*One of the following must apply:* Equipment operated within wetlands shall: a) Have low ground pressure; b) Be placed on timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) Be operated on frozen wetlands.	4 psi	NH General Permit, General Condition 17
VT	*One of the following must apply:* Equipment operated within wetlands shall: a) Have low ground pressure; b) Be placed on timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) Be operated on frozen wetlands such that shear pressure does not cause subsidence of the wetlands immediately beneath equipment and upheaval of adjacent wetlands. Note: Written authorization from the Corps required to waive the use of mats during frozen or dry conditions.	3 psi	Vermont General Permit, General Condition 14
RI	*One of the following must apply:* Equipment operated within wetlands shall: a) Have low ground pressure; b) Be placed on timber mats that are adequate to support the equipment in such a way as to minimize disturbance of wetland soil and vegetation; or c) Be operated on frozen wetlands such that shear pressure does not cause subsidence of the wetlands immediately beneath	6 psi	Rhode Island General Permit, General Condition 15

State	Restrictions	Maximum PSI (when loaded) for Use without Mats	Reference
	equipment and upheaval of adjacent wetlands. Note: Written authorization from the Corps required to waive the use of mats during frozen or dry conditions.		

Due to the fact that ground conditions may change between the time of the evaluation and construction, LGP equipment approval is required **at the time of construction for each wetland crossing** and shall be dependent upon the above conditions. In addition, LGP equipment use and approval shall be assessed by the National Grid Environmental Scientist or Project Environmental Monitor during construction on a continuing basis

Once a location is approved for the use of LGP equipment:

- The Construction Supervisor must check-in with the Project Environmental Monitor at least two weeks before construction begins to ensure conditions remain suitable for LGP equipment use, and weather conditions are favorable.
- The Project Environmental Monitor must observe the equipment when in use.
- LGP equipment use shall cease immediately if field conditions are found to be unsuitable (i.e. soil rutting greater than six inches or the destruction of vegetation root systems beyond the capacity of natural revegetation).
- **If wetlands damage occurs, the use of the LGP equipment shall be suspended, and the wetlands be restored.**
- Any LGP equipment used within areas containing invasive species within the project site shall be cleaned of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the project site to prevent the spread of invasive species from one area to another.

8.0 Soil Disturbing Activities

8.1 Dust Control

Cutting activities shall be conducted to minimize the impacts of dust on the surrounding areas. Dust suppression is an important consideration. Water or application of calcium chloride or other National Grid approved equivalent in accordance with the manufacturer's guidelines may be used for dust control along ROWs in upland areas. During application of water for dust control, care shall be taken to ensure that water does not create run-off or erosion issues. Refer to BMPs in **Appendix 4.**

8.2 Clearing

Clearing is not allowed without specific permission as it constitutes soil disturbance under several regulatory programs and may trigger permitting by increasing the project's footprint of disturbance. If

clearing is required for a project, the limit of clearing shall be established with flagging or construction fencing and/or erosion controls. Clearing shall be done in accordance with project specific permits. Following the completion of clearing, the limits of work shall be re-established. Refer to BMPs in **Appendix 4**.

8.3 Grubbing

Grubbing is not allowed without specific permission as it constitutes soil disturbance under several regulatory programs and likely triggers permitting by increasing the project's footprint of disturbance. If grubbing is required for a project, the limit of grubbing shall be re-established after clearing has been completed. The area of grubbing shall be identified with flagging or construction fencing and/or erosion controls. Grubbing shall be conducted in accordance with project-specific permits.

8.4 Blasting, Noise and Vibration Control

If blasting is anticipated, the project team, including the National Grid Environmental Scientist, shall be consulted. If possible, plan work in residential areas to avoid noisy activities at night, weekends or during evenings. Emergency work in residential areas should be carried out in such a way as to keep noise to a minimum at night and weekends. Equipment should be maintained as per the manufacturer's guidance to minimize noise and vibration.

Work plans must consider local noise ordinances and provide specific controls to ensure noise levels are maintained within specified limitations.

8.5 Site Grading

The work site shall not be graded other than in accordance with project permits. Any proposed grading shall be reviewed by the National Grid Environmental Scientist for wetlands, rare species habitat, areas of cultural and historical significance, and other environmentally sensitive areas prior to start of work. In some cases, additional testing for cultural or historical resources may be triggered by proposed grading; alternatives to grading may be sought due to protracted time frame of obtaining the permit associated with testing and performing the testing. Grading outside of a regulated area shall be kept to the minimum extent necessary for safe and efficient operations and shall comply with the project permit plans.

Grading shall be performed in a manner which does not increase the erosion potential at the Site (e.g., terraces or slope interruptions shall be utilized). Graded sites shall be promptly stabilized by applying a National Grid approved seed mix (if adequate root and seed stock are absent), and mulching with hay, straw or cellulose (use straw or cellulose hydromulch where the potential introduction of invasive plant species is of concern) to reduce erosion and visual impact, as soon as possible following completion of work at the site. Grading within a regulated area shall be subject to the review and approval of the National Grid Environmental Scientist.

In some municipalities, site grading activities require the prior approval of the Town Engineer, Building and Zoning Official, or Public Works Director. Local ordinances or bylaws should be reviewed for applicable restrictions and permitting thresholds

8.6 Grounding Wells

The installation of grounding wells shall require erosion controls and proper soil management. Due to the typical depth required for grounding wells (typically 50 to 200 feet or more), erosion controls shall be installed around the proposed well location when working in buffer zone, in proximity to sensitive resources or near slopes. Also, dewatering basins may be required for the proper management of groundwater. The National Grid Environmental Scientist shall be consulted for the disposal of any excess soil.

8.7 Counterpoise and Cathodic Protection

The installation of counterpoise or cathodic protection shall require erosion controls and proper soil management. The National Grid Environmental Scientist shall be consulted for the disposal of any excess soil.

8.8 Work Pads

When work pads are being constructed, only clean material shall be used in their construction. Work pads shall only be constructed in areas approved by the National Grid Environmental Scientist and shown on the approved permit access plans.

8.9 Site Staging and Parking

During the project planning and permitting process, locations shall be identified for designated crew parking areas, material storage, and staging areas. Where possible, these areas should be located outside of buffer zones, watershed protection areas, and other environmentally sensitive areas. Any proposed locations shall be evaluated for all sensitive receptors and for new projects requiring permitting, shall be incorporated onto permitting and access plans.

8.10 Soil Stockpiling

Soil stockpiles shall be located in upland areas and, if in close proximity to wetlands and wetland buffers, shall be enclosed by staked straw bales or another erosion control barrier. The stockpiling of stone, drill spoils and other unconsolidated material on construction mats shall be avoided unless determined necessary due to access and work pad constraints. Additional controls, such as watertight mud boxes and geotextile/filter fabric over or between construction mats shall be considered for stockpile management. If material is placed on construction mats and falls through into wetlands, the material must be removed by hand. Saturated soils shall be allowed to dewater prior to off-site transport for sufficient time to ensure that water/sediment is not deposited onto construction mats or public roads during transport.

8.11 Top Soil/High Organic Content Soil

When the work site requires excavation and grading, the top soil shall be stockpiled separately from the material excavated. This top soil shall be spread as a top dressing over the disturbed area during restoration of the site.

In some instances where work is occurring within wetlands, high organic content soil may be displaced. Such high organic content soil shall be segregated from other excavated materials and stockpiled for use in wetland restoration areas. Care shall be taken to minimize the handling of high organic content soil. Preferably, the soil shall be stockpiled in one location until it is moved to the restoration area.

9.0 Stone Wall Dismantling and Re-building

Removal or alteration of stonewalls shall be avoided, whenever possible. As appropriate, some stonewalls removed or breached by construction activities shall be repaired or rebuilt. Rebuilt stone walls shall be placed on the same alignment that existed prior to temporary removal, to the extent that it shall not interfere with operations. The removal and rebuilding of stone walls requires approval from the National Grid Environmental Scientist and Property Legal, and may require several weeks lead time for coordination. Note that not all states allow this technique and that dismantling may not be allowed at all due to quality or significance of the wall. Once a stone wall has been identified as requiring dismantling, the following procedures shall be followed:

- Identify stone wall that is required to be temporarily dismantled and notify project team that a site visit is warranted to review the stone wall.
- The National Grid Environmental Scientist, with support from Property Legal and/or cultural/historical consultant, shall determine if permitting or additional permissions are required prior to dismantling stone wall.
- Once permit or permissions have been received, full documentation of wall dimensions (measurements and photographs) shall be submitted to the National Grid Environmental Scientist. Documentation of the wall dimensions shall be marked onto a copy of the applicable EFI access plan (or equivalent plan) with a useful reference for future locating such as GPS coordinates and/or measurement from a permanent reference point (closest structure location or closest cross street, etc.). The wall shall be photographed from all sides with a written description of the photograph (i.e. southern side of wall looking north). In addition, documentation of the length of wall to be dismantled shall be recorded. Take special care to note if granite property bounds (or other marker) are located within the wall so additional survey can be accomplished prior to dismantling in cases where the stone wall represents a property boundary. Site visits by project team (which shall include the National Grid Environmental Scientist) are a mandatory requirement prior to dismantling.
- No dismantling shall take place until documentation has been submitted to the National Grid Environmental Scientist and approved as sufficient documentation.
- Stones from the wall shall be removed from the work area and temporarily stored in nearby location, away from wetlands; buffer zones; rare species habitat and other historical/archeological concerns.
- Avoid dismantling via the “bulldozer” method when possible as this method makes it nearly impossible to rebuild the wall in the same alignment due to its uncontrolled nature. Dismantling shall be conducted either by hand, with stones stacked as they are removed, or on

less "sensitive" walls to use an excavator with a thumb to grab each stone and build a stockpile. Significant ground disturbance below the wall shall be avoided.

- Once construction and access in the area has been completed, the wall shall be rebuilt to pre-dismantled conditions or better. If rebuilding a stone wall can not be placed on the same alignment that existed prior to temporary removal, approval from the National Grid Environmental Scientist and Property Legal is required. **Note that if the wall represents a legal property boundary or is historically or culturally significant (or was previously determined to be in a very high quality condition), a professional stone masonry company may be required to document wall alignment, and conduct the dismantling and rebuilding.**

10.0 Avian Nest Removal

Avian nest removal shall be done in accordance with EG-304. Consult the National Grid Environmental Scientist prior to removing any nests. There are seasonal restrictions of the removal of avian nests and federal or state permits may be necessary prior to removal.

11.0 Drilling Fluids and Additives

When installing subsurface structures, Contractors shall take all necessary steps to prevent potential adverse effects on drinking water aquifers and groundwater quality. Efforts should be made to utilize natural bentonite clay type slurries, in place of polymer based slurries. If polymer based slurries are deemed required by the Contractor, the Contractor shall provide all the necessary information regarding the proposed product to be used to National Grid as part of their *initial* bid package.

Polymer based slurries and additives may only be used when approved by the Environmental Department and the applicable state environmental regulating authorities governing the state in which the work will be completed. Contractors are responsible for securing a written determination for use from all applicable environmental regulatory agencies prior to utilizing a polymer based slurry and/or additive. Documented proof of the regulatory approval/determination for each project must be provided to the National Grid Environmental Department upon its approval and prior to its use. Approvals may vary by state.

If a polymer based slurry is approved for use, Contractor will designate a qualified individual who will confirm/verify and document the specific use of polymer and/or additives at each location, including add-mix ratios, surface area treated, volume of water within excavation, volumes/weight of additives used, and any other measurements specified by the manufacturer. No mixing will be allowed in the drilled shaft excavation. The Contractor is solely responsible for neutralizing all slurries and additives in accordance with the manufacturer's specifications. This shall be performed following removal from the excavation and while held in holding tanks. A qualified person shall be designated by the Contractor who will confirm/verify and document the appropriate neutralization of additives at each location, as necessary.

The Contractor is solely responsible for properly treating, containerizing, testing, transporting and disposing of any/all slurries and additive-containing fluids and solids generated during their activities. Relevant documentation shall be maintained by the Contractor, and shall include volume of material treated and disposed and the location/facility at which it was disposed.

The activities detailed above shall be documented by the contractor and the information provided to National Grid project manager for document retention. Soils that may have come into contact with polymers and associated additive wastes will not be disposed of on National Grid properties, discharged to the ground surface or subsurface, or placed on 3rd party properties. National Grid will not be identified as the disposal generator for any polymer based slurry waste or additives generated by Contractor activities. All wastes must be disposed of in accordance with federal and state regulations.

The Contractor assumes full responsibility for the safe storage of all polymers and additives during use and also assumes full responsibility for improper use and application of said polymers and additives that are deemed to have contravened aquifer and/or groundwater quality. Contractor assumes responsibility to ensure that all polymer and additive use is completed in strict adherence with the management, storage, mixing, transporting, disposing and any other requirements of state and federal regulatory approvals and permits, as applicable.

National Grid reserves the right to refuse and terminate the use of a specific polymer based slurry or additive at any time.

12.0 Water Withdrawal for Geotechnical Investigations

The use of water during geotechnical drilling operations may be required, and is most common during the “drive and wash” drilling technique, where 4- or 6-inch diameter casing is driven into the ground, and the soil inside the casing is washed out using a pump and hollow rods. Soil samples are generally collected at periodic intervals using a split spoon sampler (e.g., every 5 vertical feet).

The National Grid Environmental Scientist and/or Project Environmental Monitor may approve withdrawals from wetlands and waterways on a case-by-case basis should the geotechnical team advise no other options are available. Generally, the amount of water required for withdrawal is between 100 and 200 gallons, and the water is then recycled continuously in the drilling process. Certain scenarios may require additional water usage if water is lost down the boring (e.g., lost due to bedrock fractures during rock coring). The following general guidance should be adhered to when determining whether water withdrawals may be allowed during geotechnical investigations on the ROW. Approval from the National Grid Environmental Scientist and/or Project Environmental Monitor is required prior to initiating water withdrawals during geotechnical investigations.

- Withdrawals from perennial streams, ponds, lakes and large wetlands systems are preferred over small isolated wetlands to ensure the water level, water table, and hydroperiod are not affected.

Prior to start of work, the Contractor shall identify which water source they prefer to withdraw from. The National Grid Environmental Scientist and/or the Project Environmental Monitor will confirm whether these sources are appropriate.

- Care should be taken to avoid alteration of wetlands or the beds and banks of surface waters. Examples of alterations include, but are not limited to, the following:

  (a) the changing of pre-existing drainage characteristics, flushing characteristics, salinity distribution, sedimentation patterns, flow patterns and flood retention areas;

  (b) the lowering of the water level or water table;

  (c) the destruction of vegetation; and

  (d) the changing of water temperature, biochemical oxygen demand (BOD), and other physical, biological or chemical characteristics of receiving waters.

- Wetlands and waterways providing habitat for rare species should be avoided unless all other options are exhausted. Under no circumstances should water be withdrawn from a Vernal Pool.
- Withdrawal pipes or stingers should be elevated off the bottom of wetlands and streams during the duration of pumping. Additionally, fabric or screening should be covering the withdrawal pipes to eliminate inadvertent harm to wildlife.
- Withdrawals should be performed in a manner that does not damage vegetation, disturb sediment, or result in the release of temporary or permanent fill material (e.g., sediment, spoils, or turbid water) into the wetland/waterway. Additional detail from geotechnical experts may be required to solidify BMP recommendations.
- Any water used for geotechnical drilling operations (including water withdrawn from surface water, brought on-site, or from other sources) shall be discharged into the open borehole or to an upland area such that the water infiltrates to the ground and is not discharged to a wetland or surface water resource area. Consultation with the National Grid Environmental Scientist and/or the Project Environmental Monitor is required if this is not feasible. At no time should water withdrawals result in a temporary or permanent fill/discharge of material (e.g. sediment, spoils, or turbid water) into the wetland or waterway.
- If water sourcing options is not determined prior to mobilization, necessary water shall be brought in by tank truck. Should withdrawal from surface water sources become necessary during soil boring work, the National Grid Environmental Scientist and/or the Project Environmental Monitor shall be notified prior to beginning withdrawal. If initial withdrawal from surface water is approved by the National Grid Environmental Scientist and/or the Project Environmental Monitor, the driller may withdraw from the surface water, as long as the above criteria are met.
- If excessive water withdrawal is necessary, the National Grid Environmental Scientist and/or the Project Environmental Monitor shall be consulted to determine whether the water source is appropriate for withdrawal.
- In New Hampshire, withdrawals made from state-owned property require written permission from the agency with primary responsibility for monitoring and/or maintaining the site.

13.0 Gates

When not in use, gates shall be locked with a company-approved lock or double locked with the property owner's lock. New gates may be installed during a project, however, installation of a gate requires permission from the property owner, and may require environmental permitting. Consult with National Grid Real Estate and the National Grid Environmental Scientist prior to installing a new gate, as well as with the appropriate engineering department for the current company gate specifications. Refer to BMPs in **Appendix 4**. Installation of ROW access restrictions (e.g., stone, bollards, other) at road crossings also require consultation with the National Grid Environmental Scientist and Property Legal.

14.0 Signage

Specific signage may be required by permits or be specified in the EFI to limit access in certain sensitive areas. Signs shall be used to clarify allowed access and sensitive areas, such as:

- "No snow stockpiling beyond this point";
- "Approved access (to structures A-F)";
- "Do not cross this area until construction mats are in place";
- "No vehicle crossing";
- "Areas to avoid"; and
- "Environmentally Sensitive Area – Keep Out."

Signs shall be used in conjunction with snow fencing or other physical barriers as demarcation for sensitive areas (e.g., rare species areas, sensitive archeological locations, etc.) that need to be protected and avoided by construction activities. In addition, permit signs required by the regulatory agencies shall be present (i.e. MADEP, RIDEM, EPA (SWPPP), ACOE, etc) at construction sites and/or ROW access points. Construction signage shall be installed and maintained by the contractor performing the work during the project. Absence of signage does not eliminate the need to comply with access plans, permit conditions, and other regulatory requirements. Refer to BMPs in **Appendix 4**.

15.0 Refueling and Maintenance Operations

15.1 Spill Prevention and Response Plan

Spill controls shall be provided on every field vehicle. Bulk storage of fuels (55 gallons or greater) shall be approved by the National Grid Environmental Scientist prior to being brought on site. The need for a field spill plan shall be evaluated specific to the project for regulatory requirements under SPCC regulations or local ordinances. A field spill plan would include information on fuels and oils being used, approximate amounts in each container or type of equipment, location, fueling location, secondary containment, response and notification procedures, including contact phone numbers, etc. All personnel shall be briefed on spill prevention and response prior to the commencement of construction. The state-specific EG-501 and EG-502 shall be followed in the event of a spill.

Typical construction activities do not require the use or storage of large quantities of oil or hazardous materials (i.e., greater than 55 gallons). However, oil and/or hazardous materials (OHM) may be required in limited quantities to support construction or vehicle operations. Best practices shall be followed in the use and storage of OHM which include but are not limited to: storage and refueling greater than 100 feet from resource areas; maintenance of spill response equipment at work locations sufficient to handle incidental releases from operating equipment; general training for on-site personnel for spill clean up response for incidental releases of OHM; and contracting with an on-call spill response contractor that is capable of managing incidental and significant releases of OHM. There may situations that additional precautions shall be required for the storage or use of OHM (i.e., within wellhead protection areas, GA/GAA areas, Zone IIs). Storage of OHM shall be done in accordance with any applicable regulatory requirements.

15.2 Field Refueling

Small equipment such as pumps and generators shall be placed in small swimming pools or on absorbent blankets/pads, to contain any accidental fuel spills. Small swimming pools with absorbent blankets/pads, and/or other secondary containment, shall be used for refueling of fixed equipment in wetlands and should be maintained to prevent accumulation of precipitation.

15.3 Grease, Oil, and Filter Changes

Routine vehicle maintenance shall not be conducted on project sites.

15.4 Other Field Maintenance Operations

When other vehicle or equipment maintenance operations (such as emergency repairs) occur, company personnel or contractors at field locations shall bring vehicles or equipment to an access location a minimum of 100 feet away from environmentally sensitive areas (e.g., wetlands or drinking water sources). A paved area, such as a parking lot or roadway, is a preferred field maintenance location to minimize the possibility of spills or releases to the environment.

Crews shall take all usual and reasonable environmental precautions during repair or maintenance operations. Occasionally, it is infeasible to move the affected vehicle or equipment from an environmentally sensitive area to a suitable access area. When this situation occurs, precautions shall be taken to prevent oil or hazardous material release to the environment. These precautions include (but are not limited to) deployment of portable basins or similar secondary containment devices, use of ground covers, such as plastic tarpaulins, and precautionary placement of floating booms on nearby surface water bodies.

15.5 Tools and Equipment

Cleaning of tools and equipment shall be conducted away from environmentally sensitive areas (such as wetlands, buffer zones or drinking water sources) to the maximum extent possible. A paved area such as a parking lot or roadway is preferred, to minimize the possibility of spill or release to the environment. Crews shall wipe up all minor drips or spills of grease and oil at field locations.

16.0 Stabilization Deadlines for Projects Subject to EPA Construction General Permit

16.1 Deadlines to Initiate Stabilization Activities (Permanent and Temporary)

Soil stabilization measures shall be implemented immediately whenever earth-disturbing activities have permanently or temporarily ceased on any portion of the project. The following are some examples of activities that constitute initiation of stabilization:

- Preparing the soil for vegetative or non-vegetative stabilization;
- Applying mulch or other non-vegetative product to the exposed area;
- Seeding or planting the exposed area;
- Finalizing the arrangements to have stabilization product fully installed in compliance with the deadlines to complete stabilization in Section 15.2 below.

16.2 Deadlines to Complete Stabilization Activities (Permanent and Temporary)

As soon as practicable, but no later than 14 calendar days or 7 calendar days (for areas discharging to a sensitive water) after the initiation of soil stabilization measures commence the following should be completed:

- For vegetative stabilization, all activities necessary to initially seed or plant the area to be stabilized; and
- For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

16.3 Vegetative Stabilization (all except for arid, semi-arid, or on agricultural lands)

- Provide established uniform vegetation (e.g., evenly distributed without large bare areas), which provides 70% or more of the density of coverage that was provided by vegetation prior to commencing earth-disturbing activities. Avoid the use of invasive species as cover.
- For final stabilization, vegetative cover must be perennial; and
- Immediately after seeding or planting a disturbed area to be vegetatively stabilized, a non-vegetative erosion control must be implemented to the area while the vegetation is becoming established. Examples include; mulch and rolled erosion control products.

16.4 Vegetative Stabilization (Agricultural Lands)

- Disturbed areas on land used for agricultural purposes that are restored to their pre-construction agricultural use are not subject to vegetative stabilization standards.

16.5 Non-Vegetative Stabilization

If using non-vegetative controls to stabilize exposed portions of your site, or if you are using such controls to temporarily protect areas that are being vegetatively stabilized, you must provide effective non-vegetative cover to stabilize any such exposed portions of the site. Examples of non-vegetative stabilization techniques include, but are not limited to, rip-rap, gabions, and geotextiles.

17.0 Clean-up and Restoration Standards

The following steps shall be taken once construction has been completed at each location along the ROW or within the project site. The following are minimum guidelines for clean-up and stabilization standards. Please refer to permit conditions for project-specific related standards. Refer to the EFI for applicable permit requirements and to determine if the site needs to be reviewed and approved by the permitting authorities prior to removal of erosion controls.

17.1 Removal of Sedimentation and Erosion Controls

After all work has been satisfactorily completed and vegetation has been re-established to a minimum of 75% cover, and upon approval by the National Grid Environmental Scientist, all non-biodegradable materials (e.g., siltation fencing, straw bale strings, stakes, straw wattle mesh casing, etc.) shall be disposed of properly off-site.

Dependent on permit requirements, sedimentation and erosion controls may not be allowed to be removed until after inspection and approval by one or more permitting authority. In most cases, removed straw bales may be used to mulch disturbed areas. Remaining straw bales that do not block the flow of water may be left in place unless they are required to be removed pursuant to permit conditions. Straw bales that block the flow of water shall be removed.

Prior to project construction being completed, the project team will develop post-construction inspection intervals to ensure timely removal of temporary BMPs. BMPs will be removed when the area is stabilized, which typically occurs when the area has either naturally stabilized (75% cover), or seed and mulch that was installed has achieved 75% cover.

17.2 In-Situ Restoration

Unless otherwise specified in permits or prescribed by the National Grid Environmental Scientist or the Project Environmental Consultant, all disturbed areas, including stream banks, wetlands and access routes, shall be restored following the completion of work. When the work is completed and construction mats have been removed, the National Grid Environmental Scientist or Project Environmental Consultant shall conduct an inspection. Wetlands shall be inspected for build up of sand or other materials that may have fallen through construction mats. Care shall be taken to inspect wetland crossings carefully after construction mat removal to ensure any materials are properly removed and disposed of off-site.

Restoration of Soil Compaction. If rutting or soil compaction following construction mat removal is observed, the area shall be returned to pre-existing conditions, and comparable to the surrounding area, by light hand raking or by back-blading with machinery. Restoration shall be overseen by the Project Environmental Consultant or National Grid Environmental Scientist. Deep ruts (>12”) shall be filled in using available, loose soil from the work area.

Seeding and Mulching. If adequate root and seed stock are absent and have been stripped from the area, graded sites shall be promptly stabilized by applying an approved seed mix and mulching with straw to reduce erosion and visual impact. Seeding and mulching shall be completed as soon as possible following completion of work at the site. For some wetland areas, natural re-vegetation may be more appropriate than seeding disturbed sites. Wetland areas where adequate root and seed stock are absent will be

seeded using an approved wetland native seed mix. For some wetland areas, natural re-vegetation may be more appropriate than seeding disturbed sites. Refer to BMPs in **Appendix 4** for seed mix tables and mulch ratio tables.

If needed, the import of quality topsoil onto the ROW will be required. Topsoil should be tested, and approved by the Project Environmental Consultant or National Grid Environmental Scientist to determine its suitability for site conditions. Fertilizers will be approved on a case-by-case basis.

For upland areas, the disturbed vegetation and soil shall be restored and stabilized[4] by regrading the area to pre-existing conditions, if needed, seeding (if adequate root and seed stock are absent) and mulching the exposed soil, and removing strings and stakes from straw bales and using broken up straw bales for the mulch. Siltation fencing, strings and stakes shall be removed for disposal as ordinary waste. Refer to BMPs in **Appendix 4** for seed mix tables and mulch ratio tables.

For sites with excess boulders, additional boulders could be used at proposed and existing gate locations to use on either side of the gates as a deterrent for unauthorized vehicle access or be placed along the edges of work pads where steep slopes are present for safety purposes. The final placement of boulders should be reviewed prior to installation with Real Estate and the National Grid Environmental Scientist or Project Environmental Consultant.

Unless otherwise specified in Project-specific permit conditions, the National Grid Environmental Scientist or Project Environmental Consultant shall develop an inspection frequency to monitor restored areas for stabilization, germination and successful revegetation.

17.3 Invasive Species

All equipment shall be certified clean[5] utilizing the attached form (**Appendix 5**) or equivalent as approved by the vendor prior to mobilization to the work site. The vendor shall use the certification from provided as **Appendix 5** to document compliance with invasive species management BMPs. Clean is defined as being free of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials prior to being brought to the project site. Any equipment that has been placed or used within areas containing invasive species within the project site shall be cleaned of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials at the site of the invasive species prior to being moved to other areas on the project site to prevent the spread of invasive species from one area to another[6]. **Equipment shall be cleaned prior to being removed at the completion of the project: exceptions to this requirement shall be determined on a case-by-case basis.** Consult with the National Grid Environmental Scientist prior to discharging or disposing of any waste water or waste material from the cleaning of equipment.

[4] For projects subject to the 2012 CGP, stabilization is required within 14 days, or within 7 days for sensitive areas.

[5] The **Appendix 5** certification form (or equivalent as approved by National Grid Environmental Scientist) shall be used to document the clean certification

[6] On ROW projects where multiple wetlands may be dominated by the same invasive species, cleaning may not be required for movement along the ROW. Check with the National Grid Environmental Scientist for guidance.

17.4 Cleaning of Equipment

At the completion of the project, equipment shall be cleaned prior to being de-mobilized to prevent tracking of material onto roads and causing safety issues. Consult with the National Grid Environmental Scientist prior to discharging or disposing of any waste water or waste material from the cleaning of equipment.

17.5 Access Roads

Constructed gravel roads shall be left in place following project completion unless permit conditions require their removal. Refer to the specific permit conditions for these provisions. If the road is to be removed, the crushed stone and geotextile fabric shall be removed from the work site. Seeding and/or mulching of gravel roads is generally not required, unless necessary to prevent erosion. Pre-existing sandy soils within mapped rare turtle habitat shall not be seeded unless directed by the National Grid Environmental Scientist so as to not alter nesting habitat.

17.6 Stone Work Pads

Unless permit conditions or property owner's require the removal of constructed stone work pads following project completion, constructed work pads shall be left in place. Refer to the specific permit conditions for these provisions.

17.7 Construction Materials on ROWs

As soon as the structure work has been completed, all used parts and trash are to be picked up and removed from the project site. Retired poles shall be removed in accordance with National Grid Engineering Standard SP.06.01.301. In some cases, the used material from structure work may be temporarily stored at the work area by placing it out of the wetlands or other sensitive resource area until work in the adjacent areas has been completed. However, treated wood poles shall never be stored in standing water or in wetlands. If the project is cancelled, all material shall be removed from the project site. Excess material brought to the project site shall be removed upon project completion. Consult with the National Grid Environmental Scientist on whether the work site shall be restored in addition to the measures outlined above

17.8 Improved Areas

Yards, lawns, agricultural areas, and other improved areas shall be returned to a condition at least equal to that which existed at the start of the project. Off-ROW access shall never be assumed and shall be coordinated through Real Estate before being implemented. Depending on the access point, construction matting or other BMPs may be required to prevent ruts, lawn damage, or other property damage. Restoration following the completion of work and any use of improved areas shall be conducted in accordance with the measures outlined above.

17.9 Property Damage

All damage to property occurring as a result of a project shall be immediately repaired or replaced. In some locations, it may be desirable to document pre-existing damage prior to work commencing in that area in order to demonstrate afterwards that the damage did not result from the project. Work crews, the

Project Environmental Consultant or the National Grid Environmental Scientist shall document repairs that were performed in response to damage from unauthorized vehicle use.

17.10 Overall Work Site

Upon satisfactory completion of work, the construction personnel shall remove all work-related trailers, buildings, rubbish, waste soil, temporary structures, and unused materials belonging to them or used under their direction during construction, or waste materials from previous construction and maintenance operations. All areas shall be left clean, without any litter or equipment (wire, pole butts, anchors, insulators, cross-arms, cardboard, coffee cups, water bottles, etc.) and restored to a stable condition and as near as possible to its original condition, where feasible. Debris and spent equipment shall be returned to the operating facility or contractor staging area for disposal or recycling (cardboard) as appropriate in accordance with EI-111.

17.11 Material Storage/Staging and Parking Areas

Upon completion of all work, all material storage yards, staging areas, and parking areas shall be completely cleared of all waste and debris. Unless otherwise directed or unless other arrangements have been made with an off ROW or off-property owner, material storage yards and staging areas shall be returned to the condition that existed prior to the installation of the material storage yard or staging area. Regardless of arrangements made with a landowner, all areas shall be restored to their pre-construction condition or better. Also any temporary structures erected by the construction personnel, including fences, shall be removed by the construction personnel and the area restored as near as possible to its original condition, including seeding and mulching as needed.

18.0 Notification of Emergency Work

Because it is sometimes difficult to identify wetlands and other sensitive environmental areas, the National Grid Environmental Scientist shall be notified within 24 hours or by the next working day whenever emergency off-road repair work takes place. Although the routine maintenance and emergency repair work is generally allowed, due to site conditions or the scope of the project, notification to the regulating agencies may be required.

19.0 Appendices

APPENDIX 1:	Glossary
APPENDIX 2:	Acronyms
APPENDIX 3:	Storm Water, Wetlands & Priority Habitat Environmental Compliance Site Inspection / Monitoring Report Form
APPENDIX 4:	BMP Drawings and Guidelines
APPENDIX 5:	Certification Sheet for Invasive Species Control
APPENDIX 6:	Snow Disposal Guidelines

Appendix 1 – Glossary

Access Road – An existing, periodically maintained road often consisting of gravel and/or exposed soils or vegetated with grasses but devoid of woody vegetation, that is visible on aerial photography and shown on ROW T-sheets. May include newly permitted permanent roads (i.e., roads to be constructed in accordance with a project-specific permit).

Access Route - A pathway previously used or proposed to be used by crews for access along the ROW. Routes may be shown on ROW T-sheets or previous project access plans but are not improved as maintained gravel/exposed soil roads. Access routes may be mown and can consist of trails utilized by recreational vehicles.

Action Logs – Project-specific log used to document action items required for permit compliance. The log identifies timeframes for completion and responsible parties. The log is typically updated by the Project Environmental Consultant or the National Grid Environment Scientist and circulated to the project team on a weekly, or more frequent, basis.

Bank – The transitional slope immediately adjacent to the edge of a surface water body, the upper limit of which is usually defined by a break in slope, or, for a wetland, where a line delineated in accordance with applicable state and federal regulations that indicates a change from wetland to upland.

BMP – Best Management Practice. Individual engineered constructions or operating procedures intended to minimize and mitigate soil disturbance, erosion, sedimentation, turbid discharges, and/or impacts to sensitive receptors.

Clean - Free of plant matter (stems, flowers, roots, etc), soil, or other deleterious materials prior to being brought to the project site.

Clean Gravel – Gravel is a type of coarse-grained soil that consists of small stones and other mineral particles. Clean Gravel shall meet the requirements in accordance with National Grid Standard Construction Specification for Electric Stations (Engineering Standard SP.08.00.001) Clean Gravel will not have fine materials that could lead to a turbid discharge.

Clean Stone (Crushed Stone) – Clean Stone (Crushed Stone) shall meet the requirements in accordance with National Grid Standard Construction Specification for Electric Stations (Engineering Standard SP.08.00.001). Clean Stone will not have fine materials that could lead to a turbid discharge.

Clearing – The cutting of trees and large bushes by hand and/or mechanical means.

Compost Socks – Tubular devices comprised of non-degradable, photodegradable, or biodegradable mesh tubing containing organic compost matrix. Compost socks are effective for intercepting site runoff, trapping

sediment, and treating for soluble pollutants by filtering stormwater runoff. . Compost socks are a useful sedimentation control device along construction site perimeters, as check dams in drainage channels, as a slope interruption practice on long and/or steep slopes, and around drain or street curb inlets.

Construction Mats - **C**onstruction, swamp, and timber mats ("construction mats") are generic terms used to describe structures that distribute equipment weight to minimize disturbance to wetland soil and vegetation while facilitating passage and providing work platforms for workers and equipment. They are comprised of sheets or mats made from a variety of materials in various sizes.

Corduroy Road – Corduroy roads are cut trees and/or saplings with the crowns and branches removed, and the trunks lined up next to one another.

Dewatering Basin – An established containment area for saturated materials and pumped discharges. This measure is used for the purpose of de-watering soils prior to transport off site or for use in another location on site, and for allowing suspended sediment to settle out of pumped discharges.

Detention/Retention Basin – A detention/retention basin is designed for the purpose of detaining or retaining water. A dewatering basin is a form of detention basin

Dewatering – Use of a system of pumps, pipes and temporary holding dams to drain or divert waterways or wetlands, or lower the groundwater table before and during excavation activities.

Drainage Ditch or Swale – A clearly noticeable channel that is typically dry, except after precipitation events. Intermittent and perennial streams and rivers are not included in this definition.

Dredge – To dig, excavate, or otherwise disturb the contour or integrity of sediments in the bank or bed of a wetland, a surface water body, or other area within the regulating bodies' jurisdiction.

Dredge Spoils – Material removed as the result of dredging.

Embankment – A protective bank constructed of mounded earth or fill materials located between a roadway (or rail bed) and a seasonal stream or other wetland.

Environmental Field Issue – Document that contains copies of all project-specific environmental permits and summarizes all environmental permit conditions. The EFI is prepared by the Project Environmental Consultant or the National Grid Environment Scientist and copies are provided to the Project Manager, Construction Supervisor(s), and other team members as appropriate.

Environmental Monitoring Records – Examples of checklists and/or monitoring reports suggested for use by the Company Environmental Engineer to document conformance of the project with this Environmental Guidance and or project specific permit/license conditions.

Environmental Scientist – Formerly Environmental Engineer. The National Grid Environmental Department representative for the project or the territory where the work is located. For a map of Environmental Department staff territories, refer to the Environmental page of the National Grid infonet.

Environmentally Sensitive Areas – Examples of environmentally sensitive areas that may be found on National Grid properties are rivers, streams, ponds, lakes, wetlands, bogs, swamps, salt marshes, rare species habitat, wellhead protection areas, cultural sites, parks, preserves, schools and as otherwise defined by Federal, State or local regulations. Refer to EG-301.

Erosion Controls – The utilization of methods to prevent soil detachment and minimize displacement or washing down slopes by rainfall or run-off. Common practices include, but are not limited to:

(a) Temporary and Permanent Seeding.

(b) Mulching, Soil Binders, Tackifiers.

(c) Erosion Control Blankets.

(d) Hydraulic Erosion Control.

Excavate/Excavation – To dig, remove, or form a cavity or a hole in an area within the department's jurisdiction.

Fill (n.) – Any rock, soil, gravel, sand or other such material that has been deposited or caused to be deposited by human activity.

Fill (v.) – To place or deposit materials in or on a wetland, surface water body, bank or otherwise in or on an area within the jurisdiction of the department.

Flats – Relatively level landforms composed of unconsolidated mineral and organic sediments usually mud or sand, that are alternately flooded and exposed by the tides and that usually are continuous with the shore.

Frozen Condition – Field conditions when the upper portion of the ground surface freezes or when areas of standing water freeze solid such that vehicle passage over these areas is supported without any resulting soil disturbance. The frozen conditions must have been affected by severe cold (maximum daily temperatures less than 32 degrees F) for a continuous 2-week period.

GAA – Rhode Island groundwater classification, groundwater resources that are known, or presumed to be suitable for drinking water use without treatment, and are located in one of the three areas described below.

a) The state's major stratified drift aquifers that are capable of serving as a significant source for a public water supply ("groundwater reservoirs") and the critical portion of their recharge area as delineated by DEM;

b) The wellhead protection area for each public water system community water supply well. Community water supply wells are those that serve resident populations and have at least 15 service

connections or serve at least 25 individuals, e. g. municipal wells and wells serving nursing homes, condominiums, mobile home parks, etc.; and

c) Groundwater dependent areas that are physically isolated from reasonable alternative water supplies and where existing groundwater warrants the highest level of protection. At present only Block Island has been designated as meeting this criterion.

GA – Rhode Island groundwater classification, groundwater resources that are known, or presumed to be suitable for drinking water use without treatment. However, groundwater classified by GA does not fall within any of the three priority areas described under the GAA classification.

Grade/Grading – The movement of soil and fill material to change the elevation of the land. The term refers to the combined actions of excavating and filling to change elevation or shape.

Grubbing – The removal of stumps/roots by mechanical means during site preparation activities.

Immediately - As soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

In-kind Replacement - Replacement using the same material, functional inverts, diameter and length as the existing item. In-kind replacement includes the substitution of a structure with a similar structure in approximately the same location as is practicable, and is approximately the same in design. The design may be altered to meet applicable utility standards, and may include alternate materials designed to prolong the life of that service.

Intermittent Stream – A stream that flows for sufficient time to develop and maintain a defined channel, but which might not flow during dry portions of the year.

In the Dry – Work done either during periods of low water or behind temporary diversions, such as Earth Dike / Drainage Swale and Lined Ditches designed and installed in accordance with best management practices.

Limit of Work/Disturbance – The approved project limits within regulated areas. All project related activities in regulated areas must be conducted within the approved limit of work/disturbance. The limit of work/disturbance shall be depicted on the approved permit site plans and in the EFI plans. Where it is warranted National Grid may require that these limits be identified in the field by flagging, construction fencing, and/or perimeter erosion controls.

Long-Term Restoration Logs - Project-specific log used to document restoration required following the completion of construction or as areas of the project have been completed (i.e., segments of ROW for a multi-mile project). The log is typically updated by the Project Environmental Consultant or the National Grid Environment Scientist and circulated to the project team on a weekly basis.

Low Flow Conditions – Low water flow that generally occurs during the summer, as a result of decreased precipitation and the removal of water by increased evaporation and evapotranspiration by vegetation. Work done under low-flow conditions minimizes the potential for environmental damage. The USACE defines the calendar dates for low flow conditions in its New England state-specific Programmatic General Permits.

Low Ground Pressure – Equipment that meets the USACE GP state-specific defined Pounds per Square Inch (PSI) ground pressure when loaded. Use of LGP equipment ***requires approval*** from the National Grid Environmental Scientist.

Marsh – A wetland:

a) That is distinguished by the absence of trees and shrubs;

b) Dominated by soft-stemmed herbaceous plants such as grasses, reeds, and sedges; and

c) Where the water table is at or above the surface throughout the year, but can fluctuate seasonally.

Methods – Are the construction practices and procedures that take place through choosing the proper equipment, trucks and labor to execute the earth moving activities based on the existing conditions and implementing creative and sensitive scheduling for the daily activities.

NHESP - Natural Heritage Endangered Species Program; a department within the Massachusetts Division of Fisheries and Wildlife that is responsible for protecting the 176 species of vertebrate and invertebrate animals and 259 species of native plants that are officially listed as Endangered, Threatened or of Special Concern in Massachusetts.

Perennial – A stream that contains water at all times except during extreme drought.

Permanently Ceased – Is applicable to earth disturbance activities when clearing and excavation within any area of the Project that will not include permanent structures has been completed.

Person-in-Charge – A National Grid Project Engineer, Manager, Supervisor, Field Construction Coordinator or equivalent Contractor personnel assigned to oversee and coordinate work activities.

Processed Gravel – Processed Gravel shall meet the requirements in accordance with National Grid Standard Construction Specification for Electric Stations (Engineering Standard SP.08.00.001). Processed Gravel will not have fine materials that could lead to a turbid discharge. Gravel consisting of inert material that is hard, durable stone and is free from loam and clay, surface coatings and deleterious materials.

Regulating Body – Federal, State, or local authority that has jurisdiction over resource areas that may be impacted by company operations

Regulated Wetland Area – Those areas that are subject to federal, state or local wetland regulation, including certain buffer or adjacent areas.

Repair – The restoring of an existing legal structure by partial replacement of work, or broken, or unsound parts (Env-Wt 101.73).

Replacement – The substitution of a new structure for an existing legal structure with no change in size, dimensions, location, configuration, construction, or which conforms in all material aspects to the original structure

Right-of-Way – A corridor of land where National Grid has legal rights (either fee ownership, lease or easement) to construct, operate, and maintain an electric power line and/or natural gas pipeline and may include work on customer owned properties.

River – A watercourse that is larger than a perennial stream and flows all year long.

Routine Utility Rights-of-Way Maintenance Activity – Includes but is not limited to vegetation management and repair or replacement of existing utility structures.

Sedimentation Controls – Silt fences, straw bales, compost socks/berms and other barrier devices strategically placed to intercept and treat sediment-laden site runoff.

Sensitive Water - Includes any sediment or nutrient impaired water or a water that is identified by the state, tribe or EPA as Tier 2, 2.5 or Tier 3 for antidegradation purposes.

Siltation Curtain – An impervious barrier erected to prevent silt and sand and/or fines from being washed into a wetland, surface water body or other area of concern.

Surface Water Body or Surface Waters – Those portions of waters which have standing or flowing water at or on the surface of the ground.

Spill Prevention, Control and Countermeasure Plans – Required for site operations that involve the storage of 1,320 gallons or greater of fuel and oils, both in storage containers and stored in equipment. Response actions to spills and releases are specified in these plans.

Stormwater Pollution Prevention Plan – A site-specific, written document that, among other things: (1) identifies potential sources of stormwater pollution at a construction site; (2) describes stormwater control measures to reduce or eliminate pollutants in stormwater discharge from a construction site; and (3) identifies procedures the operator will implement to comply with the terms and conditions of EPA NPDES Construction General Permit (CGP). SWPPPs must be prepared, maintained on-site, and amended as necessary in order to obtain NPDES permit coverage for specific construction site stormwater discharges under the EPA NPDES CGP.

Temporarily Ceased - Is applicable when there are earth disturbance activities such as clearing, grading, and/or excavation that are not complete, but will be idle in one area for a period of up to 14 or more calendar days, and which will resume in the future. The 14 calendar day timeframe begins as soon as you now that construction work on a portion of the Project will be left incomplete and idle. In circumstances where there are unanticipated delays and you do not know at first how long the work stoppage will continue, the requirement to immediately initiate stabilization is triggered as soon as you know with reasonable certainty that work will be stopped for 14 or more additional calendar days.

Tidal Wetlands – A wetland whose vegetation, hydrology or soils are influenced by periodic inundation or tidal waters.

Topsoil – The uppermost part of the soil, ordinarily moved in tillage, or its equivalent in uncultivated soils and ranging in depth from 2 to 10 inches.

Turbidity – The condition in which solid particles suspended in water make the water cloudy or even opaque in extreme cases.

United States Geological Survey Topographic Map – A map that uses contour lines to represent the three-dimensional features of a landscape on a two-dimensional surface. These maps use a line and symbol representation of natural and artificially created features in an area.

Wetland – An area that is inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal conditions does support, a prevalence of vegetation (more than 50 percent) typically adapted for life in saturated soil conditions (hydric soils). Wetlands include but are not limited to swamps, marshes, bogs, and similar areas.

Work Site – An area where work is performed.

Worker – Company employee, contractor, consultant working on site.

Zone II - Massachusetts - That area of an aquifer which contributes water to a well under the most severe pumping and recharge conditions that can be realistically anticipated (180 days of pumping at safe yield, with no recharge from precipitation). It is bounded by the groundwater divides which result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases, Zone IIs shall extend up gradient to its point of intersection with prevailing hydrogeologic boundaries (a groundwater flow divide, a contact with till or bedrock , or a recharge boundary).

Appendix 2 – Acronyms

ASTM	American Society for Testing and Materials
BMP	Best Management Practices
EFI	Environmental Field Issue
EG	Environmental Guidance
EPA	Environmental Protection Agency
GA/GAA	Rhode Island Groundwater Classifications – see glossary
LGP	Low Ground Pressure
MA	Massachusetts
MA DEP	Massachusetts Department of Environmental Protection
MassDOT	Massachusetts Department of Transportation
NE	New England
NH	New Hampshire
NH DES	New Hampshire Department of Environmental Services
NHESP	Natural Heritage Endangered Species Program
NPDES	National Pollutant Discharge Elimination System
OHM	Oil and/or Hazardous Materials
PSI	Pounds per square inch
RI	Rhode Island
RI DEM	Rhode Island Department of Environmental Management
RI CRMC	Rhode Island Coastal Resources Management Council
RI SESC	Rhode Island soil erosion and sediment control
ROW	Right-of-Way
RTE	Rare, Threatened or Endangered
SPCC	Spill Prevention, Control and Countermeasure
SWPPP	Storm Water Pollution Prevention Plan
TOY	Time-of-Year
USACE	United States Army Corps of Engineers
USGS	United States Geological Survey
VT	Vermont

VT DEC	Vermont Department of Environmental Conservation
Zone II	Massachusetts Groundwater Protection district – see glossary

Appendix 3

See EG303NE_Appendix3_Reporting Form published separately

National Grid
Storm Water, Wetlands & Priority Habitat Environmental Compliance
Site Inspection / Monitoring Report

Project Name:		**Date:**	
City / Town:		**Time:**	
WO / WR #			

IHC or Contractor? (Company Name):

Current Weather Conditions:

Precipitation Since Last Inspection (Date, Est. Duration and Est. Amount from Each Storm):

Activities / Structures / Locations Inspected:

Identify Locations / Activities / Structures within Designated Priority Habitat (Identify Rare species Observations, if any) and Mitigation / Restoration Measures Implemented:

Any Significant Discharges of Sediment to Water Bodies or Wetlands? (If "yes", state locations):

National Grid
Storm Water, Wetlands & Priority Habitat Environmental Compliance
Site Inspection / Monitoring Report

Compliance with SWPPP Storm Water Controls, O&M Plan, Order of Conditions or Other Applicable Environmental Requirements? (Explain if "no" for any feature inspected):

Additional BMPs or Other Corrective Action Needed and, if so, Where?

Compliance with Previous Observations?

National Grid
Storm Water, Wetlands & Priority Habitat Environmental Compliance
Site Inspection / Monitoring Report

Are Spill Control Supplies Available	**Yes**	**No**
Are Oil and / or Hazardous Materials Stored On Site?	**Yes**	**No**
If So, Are they Properly Labeled and Managed?	**Yes**	**No**
Are Wastes Stored On Site?	**Yes**	**No**
If So, Are they Properly Managed?	**Yes**	**No**

Miscellaneous (e.g., dumping?):

Comments:

Inspection Completed by (Name, Title, Company):

Inspector's Signature for Certification:

National Grid Environmental Dept. Representative - Signature for Certification:

Date:

Appendix 4 – BMPs

See EG303NE_Form1 for a list of BMPS

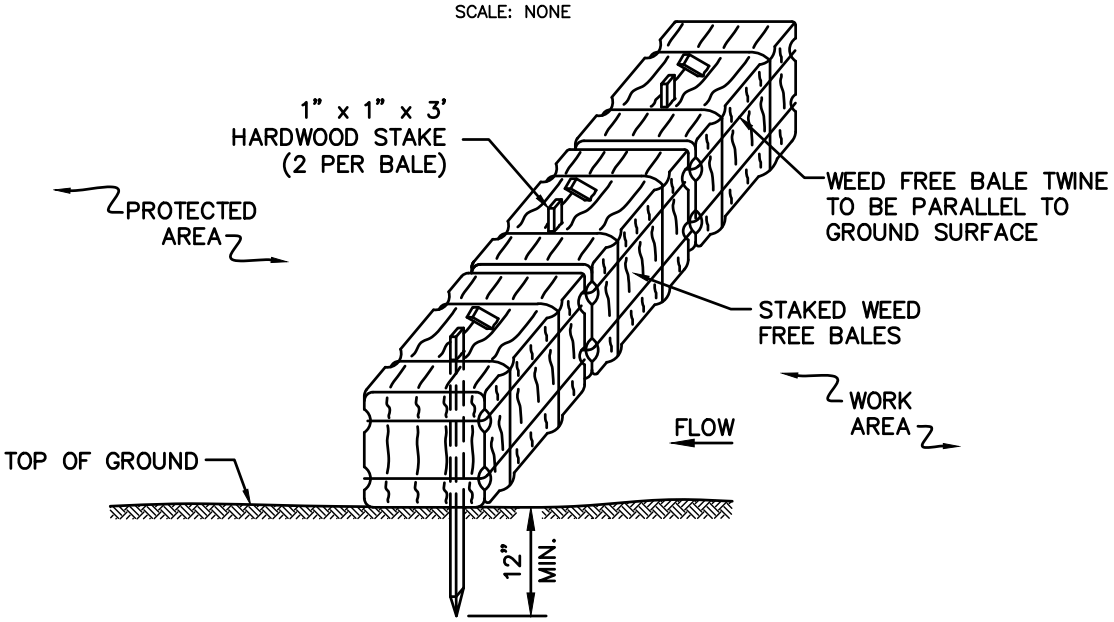
See EG303NE_Form2 for BMP details

	BMP #	Measure
Sediment & Erosion Controls	SEC-1	Weed free bale barrier
	SEC-2	Sediment control fence
	SEC-3	Silt fence / weed free barrier
	SEC-4	Silt Soxx
	SEC-5	Straw Wattle
	SEC-6	Erosion Control Blanket - Ditch
	SEC-7	Erosion Control Blanket - Slope
	SEC-8	Hydroseeding with Tackifier (slope stabilization)
	SEC-9	Mulch materials, rates and uses (from NY)
	SEC-10	Seeding options - Upland Seed Mixes
	SEC-11	Seeding options - Wetland Seed Mix
	SEC-12	Distribution Pole Erosion Control
Crossing Measures	CM-1	Prefabricated mats
	CM-2	Construction mat bridge
	CM-3	Construction mat layout (with transition)
	CM-4	Construction mat layout (with transition & BMPs)
	CM-5	Construction mat - Air Bridge
	CM-6	Corduroy road
	CM-7	Rock Ford
	CM-8	Temporary construction entrance / exit
	CM-9	Temporary construction culvert
	CM-10	Access way stabilization
	CM-11	Construction signage
	CM-12	Construction Mat Anchoring
Advanced Applications	AA-1	Reinforced silt fence
	AA-2	Sediment filter
	AA-3	Stone check dams
	AA-4	Straw / haybale check dam
	AA-5	Waterbar
	AA-6	Sandbag check dam
	AA-7	Earth dike
	AA-8	Drainage swale and lined ditch
	AA-9	Sedimentation basin
	AA-10	Dewatering basin - Small scale
	AA-11	Dewatering basin - Large scale
	AA-12	Dirtbag
	AA-13	Concrete waste sump

	AA-14	Outpak concrete washout
Advanced Applications	AA-15	Barrier fence (construction fence)
	AA-16	ROW gates / fences
	AA-17	Bollard
	AA-18	Dust control
	AA-19	Catch Basin Inlet Protection
	AA-20	Silt Sack
	AA-21	Turbidity Curtain
	AA-22	Siltsoxx Amphibian & Reptile Crossing #1
	AA-23	Siltsoxx Amphibian & Reptile Crossing #2
	AA-24	Siltsoxx Amphibian & Reptile Crossing #3
	AA-25	Cultural Avoidance

BMP DETAIL

SCALE: NONE



NOTES:

1. THE GROUND SHALL BE PREPARED TO PROVIDE COMPLETE CONTACT WITH THE BALES.

BMP PICTURE



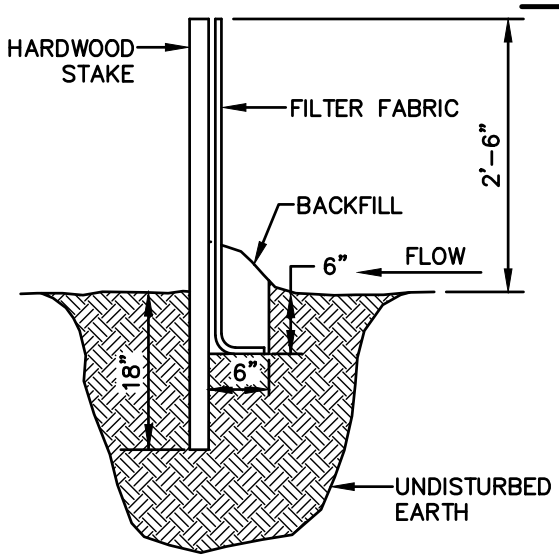
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SEC-1
WEED FREE BALE BARRIER

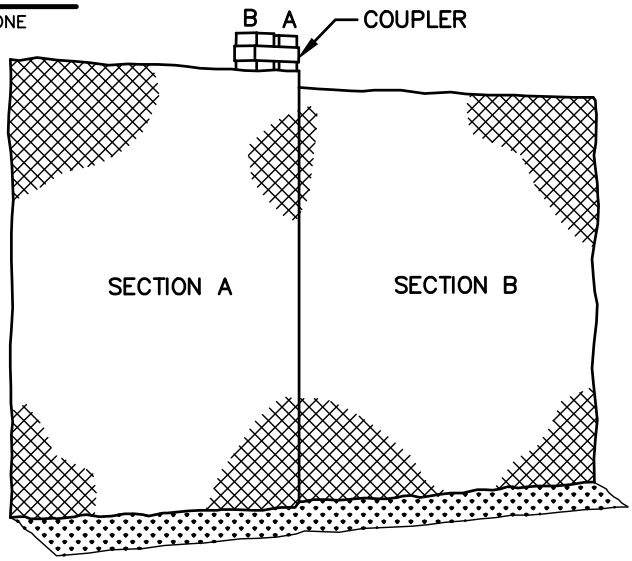
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BMP DETAIL

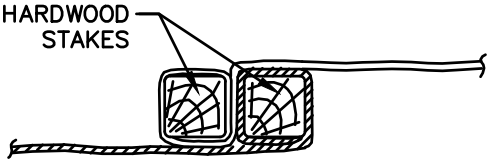
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PROFILE



SECTION



PLAN

BMP PICTURE

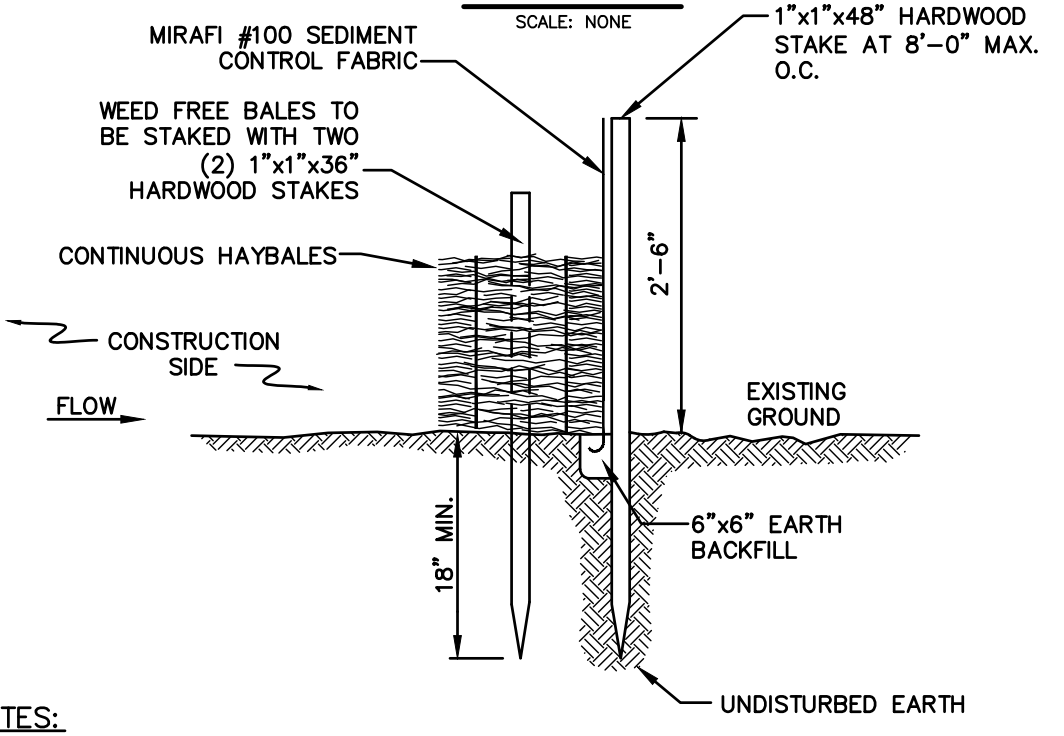


SEC-2
SEDIMENT CONTROL FENCE

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BMP DETAIL

SCALE: NONE



NOTES:

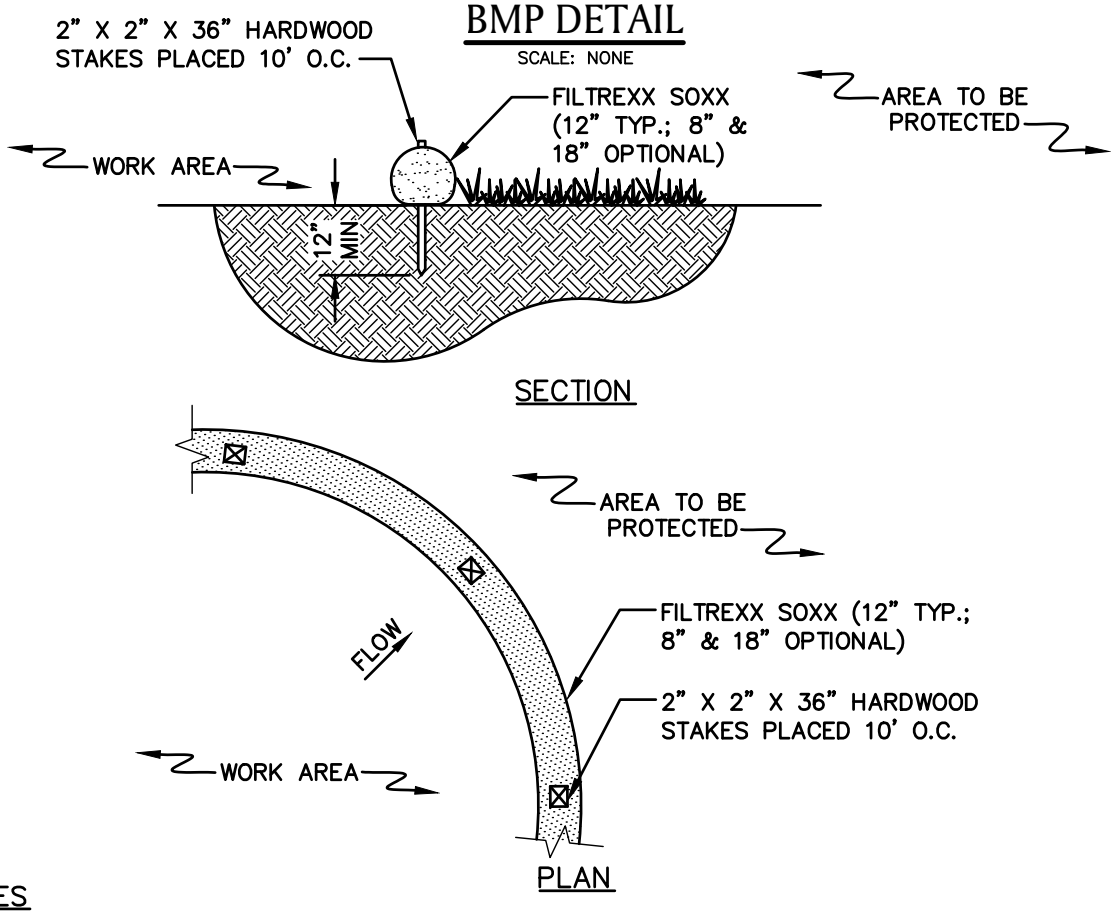
1. BALES SHALL BE PLACED IN A ROW WITH THE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO (2) 1"X1"X36" HARDWOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. BALES SHALL BE REMOVED AND REPLACED WHEN THEY BECOME FILLED WITH SEDIMENT AND BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
5. BALES SHALL BE REMOVED WHEN THE EMBANKMENTS STABILIZE.
6. BALES TO BE TWINE BOUND.

BMP PICTURE



BMP DETAIL

SCALE: NONE



NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. MESH CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 3/8".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE



*** PICTURE AND DETAIL PROVIDED BY FILTREXX LAND IMPROVEMENT SYSTEMS**

APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES

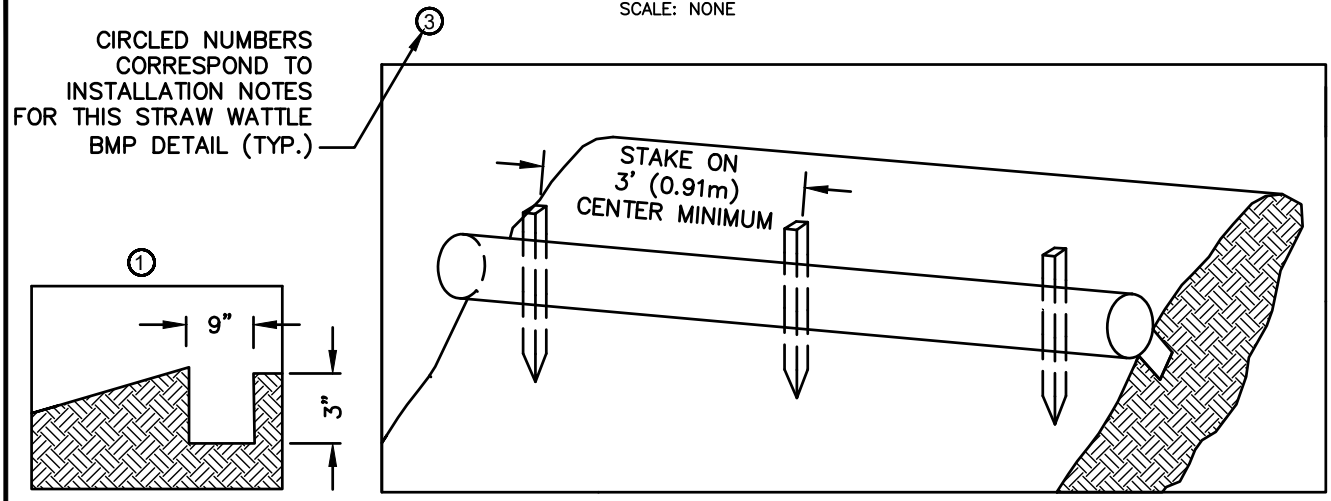
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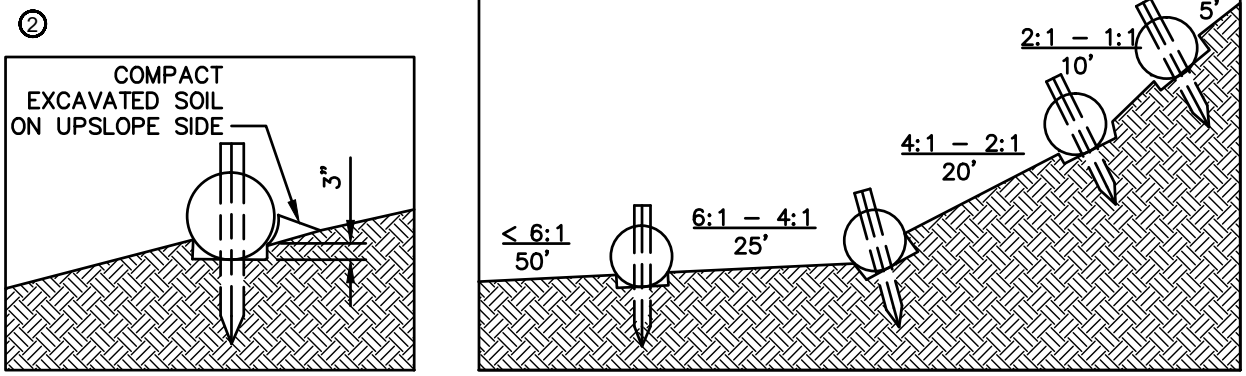
SEC-4
SILT SOXX *

File: SiltSOXX.dwg

BMP DETAIL

SCALE: NONE





TYPICAL WATTLE SPACING DETAIL

NOTES:

1. PRODUCT TO BE TENSAR NORTH AMERICAN GREEN STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. TYPICAL WATTLE SPACING BASED ON SLOPE GRADIENT. COORDINATE SPACING AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
3. MINIMUM 12" DIAMETER WATTLES SHOULD BE USED FOR HIGHLY DISTURBED AREAS (I.E., HEAVILY USED ACCESS ROAD WITH ADJACENT WETLAND) AND MINIMUM 9–10" WATTLES SHOULD BE USED FOR LESS DISTURBED SOILS.

INSTALLATION NOTES:

1. BEGIN AT THE LOCATION WHERE THE WATTLE IS TO BE INSTALLED BY EXCAVATING A 2–3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
2. PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
3. SECURE THE WATTLE WITH 18–24" HARDWOOD STAKES EVERY 3–4' AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2–3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

*** DETAIL AND PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN**

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SEC-5

STRAW WATTLE * (1 OF 2)

File: Straw_Wattle.dwg

BMP PICTURE



STRAW WATTLE – SHALLOW SLOPE (≤4:1)
(ALTERNATE STAKING)

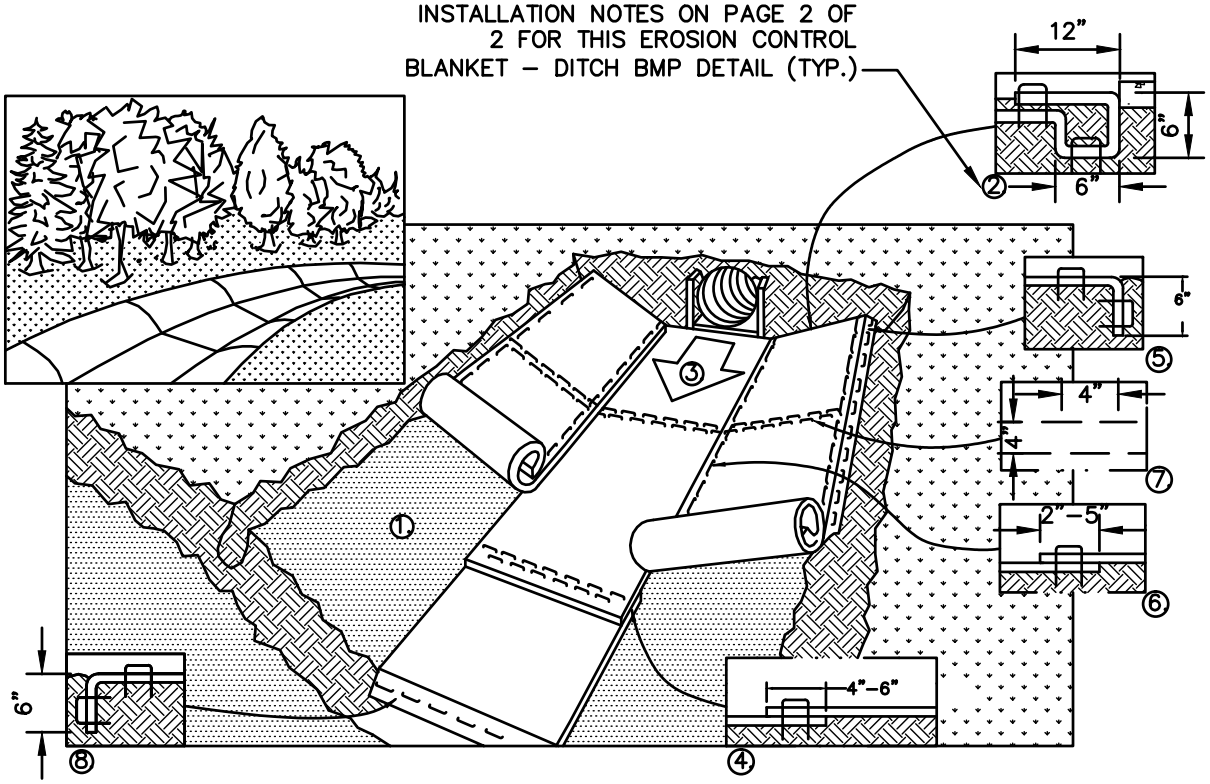
ALTERNATE STAKING INSTALLATION NOTES:

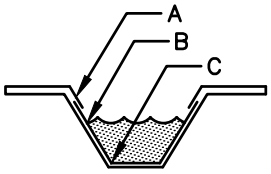
1. ON SHALLOW SLOPES (≤4:1), STRAW WATTLE MAY BE SECURED WITH 18–24" HARDWOOD STAKES DRIVEN AGAINST THE SIDES OF THE WATTLE INSTEAD OF THROUGH. STAKES SHALL ALTERNATE SIDES, AND BE SPACED 3–4' MAX.
2. TWINE SHALL BE TIED FROM STAKE TO STAKE, CRISS–CROSSING THE STRAW WATTLE. TIE TWINE TO STAKES BELOW THE HEIGHT OF THE WATTLE.

BMP DETAIL

SCALE: NONE

CIRCLED NUMBERS CORRESPOND TO INSTALLATION NOTES ON PAGE 2 OF 2 FOR THIS EROSION CONTROL BLANKET – DITCH BMP DETAIL (TYP.)





CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

NOTES:

1. PRODUCT TO BE NORTH AMERICAN GREEN EROSION CONTROL BLANKET OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.
3. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE ROLLED EROSION CONTROL PRODUCTS (RECP's).

BMP DETAIL

INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE CHANNEL BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMAPCT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) ACROSS THE WIDTH OF THE RECP's.
3. ROLL CENTER RECP's IN DIRECTION OF WATER FLOW IN BOTTOM OF CHANNEL. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. ™ WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. PLACE CONSECUTIVE RECP's END OVER END (SHINGLE STYLE) WITH A 4" – 6" (10 CM –15 CM) OVERLAP. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER TO SECURE RECP's.
5. FULL LENGTH EDGE OF RECP's AT TOP OF SIDE SLOPES MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ADJACENT RECP's MUST BE OVERLAPPED APPROXIMATELY 2" – 5" (5 CM –12.5 CM) (DEPENDING ON RECP's TYPE) AND STAPLED.
7. IN HIGH FLOW CHANNEL APPLICATIONS, A STAPLE CHECK SLOT IS RECOMMENDED AT 30 TO 40 FOOT (9 M – 12 M) INTERVALS. USE A DOUBLE ROW OF STAPLES STAGGERED 4" (10 CM) APART AND 4" (10 CM) ON CENTER OVER ENTIRE WIDTH OF THE CHANNEL.
8. THE TERMINAL END OF THE RECP's MUST BE ANCHORED WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.

BMP PICTURE



*** PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN**
APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES

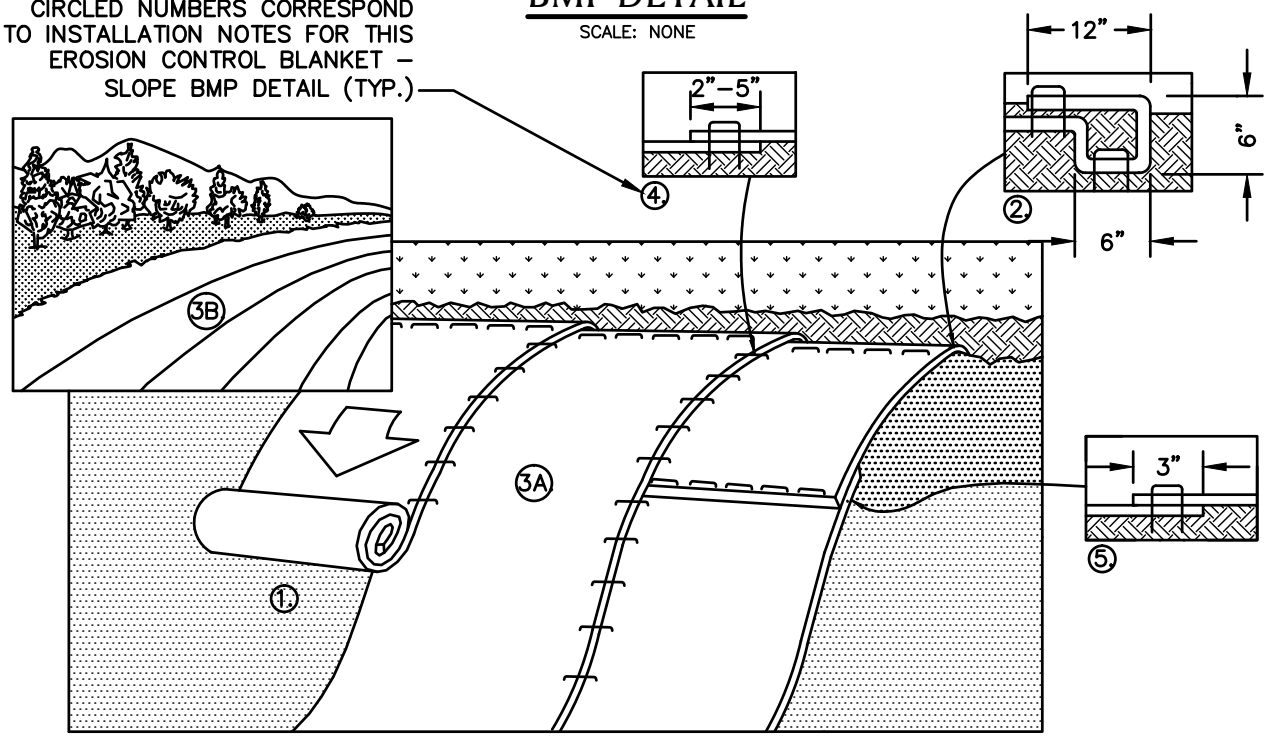
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SEC-6
EROSION CONTROL BLANKET - DITCH * (2 OF 2)

File: Erosion_Blanket_Ditch.dwg

BMP DETAIL

SCALE: NONE



NOTES:

1. PRODUCT TO BE NORTH AMERICAN GREEN EROSION CONTROL BLANKET OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLES OR STAKE LENGTHS GREATER THAN 6" (15 CM) MAY BE NECESSARY TO PROPERLY SECURE THE RECP's.

INSTALLATION NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP's), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL–O–SEED DO NOT SEED PREPARED AREA. CELL–O–SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP's IN A 6" (15 CM) DEEP X 6" (15 CM) WIDE TRENCH WITH APPROXIMATELY 12" (30 CM) OF RECP's EXTENDED BEYOND THE UP–SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP's WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" (30 CM) APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" (30 CM) PORTION OF RECP's BACK OVER SEED AND COMPACTED SOIL. SECURE RECP's OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" (30 CM) APART ACROSS THE WIDTH OF THE RECP's.
3. ROLL THE RECP's (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP's WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP's MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM , STAPLES/STAKES SHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP's MUST BE STAPLED WITH APPROXIMATELY 2" – 5" (5 CM – 12.5 CM) OVERLAP DEPENDING ON RECP's TYPE.
5. CONSECUTIVE RECP's SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" (7.5 CM) OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" (30 CM) APART ACROSS ENTIRE RECP's WIDTH.

*** PICTURE AND DETAIL PROVIDED BY TENSAR NORTH AMERICAN GREEN**

SEC-7
EROSION CONTROL BLANKET - SLOPE * (1 OF 2)

File: Erosion_Blanket_Slope.dwg

BMP PICTURE



File: Erosion_Blanket_Slope.dwg

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SEC-7
EROSION CONTROL BLANKET - SLOPE * (2 OF 2)

BMP PICTURE



NOTES:

1. COORDINATE MIXTURE TYPE AND APPLICATION AREAS WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST PRIOR TO CONSTRUCTION.
2. A MINIMUM OF 1500 LBS. PER ACRE OF A PAPER/CORN FIBER OR EQUIVALENT WITH NATURAL TACKIFIERS WILL BE USED ON SLOPES LESS THAN 3:1.
3. A BFM (BONDED FIBER MATRIX) WILL BE USED ON SLOPES GREATER THAN 2:1.
4. A FGM (FLEXIBLE GROWTH MATRIX) OR ESM (EXTREME SLOPE MATRIX) WILL BE USED ON SLOPES GREATER THAN 1:1.
5. REFER TO BMP #10 FOR SEED MIXTURE OPTIONS.

*** PICTURE PROVIDED BY TENSAR NORTH AMERICAN GREEN**
*** TACKIFIER INFORMATION PROVIDED BY FILTREXX LAND IMPROVEMENT SYSTEMS AND TENSAR NORTH AMERICAN GREEN**

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SEC-8
HYDROSEEDING WITH TACKIFIER
(SLOPE STABILIZATION) *

File: Hydroseeding.dwg

BMP

Definition

Applying coarse plant residue or chips, or other suitable materials, to cover the soil surface.

Purpose

The primary purpose is to provide initial erosion control while a seeding or shrub planting is establishing. Mulch will conserve moisture and modify the surface soil temperature and reduce fluctuation of both. Mulch will prevent soil surface crusting and aid in weed control. Mulch is also used alone for temporary stabilization in non-growing months.

Conditions Where Practice Applies

On soils subject to erosion and on new seedings and shrub plantings. Mulch is useful on soils with low infiltration rates by retarding runoff.

Criteria

Site preparation prior to mulching requires the installation of necessary erosion control or water management practices and drainage systems.

Slope, grade and smooth the site to fit needs of selected mulch products.

Remove all undesirable stones and other debris to meet the needs of the anticipated land use and maintenance required.

Apply mulch after soil amendments and planting is accomplished or simultaneously if hydroseeding is used.

Select appropriate mulch material and application rate or material needs. Determine local availability.

Select appropriate mulch anchoring material.

NOTE: The best combination for grass/legume establishment is straw (cereal grain) mulch applied at 2 ton/acre (90 lbs./1000sq.ft.) and anchored with wood fiber mulch (hydromulch) at 500 – 750 lbs./acre (11 – 17 lbs./1000 sq. ft.). The wood fiber mulch must be applied through a hydroseeder immediately after mulching.



NOTE:

1. PICTURE DEPICTS STRAW MULCH APPLICATION (FROM MULCH SPREADER) ON STEEP SLOPE WITH AN IMPROVED DRAINAGE SWALE.
2. COORDINATE MULCH MATERIALS AND RATES WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html

SEC-9
MULCH MATERIALS, RATES AND USES (FROM NY) *

File: Mulch_Materials.dwg

UPLAND ROW RESTORATION MIX – GENERAL

Species Composition Options:

- Andropogon gerardii; Niagra Big Bluestem
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Elymus virginicus; Virginia Wildrye
- Lolium multiflorum; Annual Ryegrass
- Sorghastrum nutans; Indiangrass
- Chamaecrista fasciculate; Partridge Pea
- Desmodium canadense; Showy Tick Trefoil
- Helioposis helianthoides; Ox–Eye Sunflower
- Panicum virgatum; Switchgrass
- Rudbeckia hirta; Black Eyed Susan
- Poa palustris; Fowl Bluegrass
- Agrostis perennans; Upland Bentgrass
- Agrostis alba; Redtop
- Festuca rubra; Red Fescue
- Lotus corniculatus; Birds–Foot Trefoil
- Chrysanthemum leucanthem; Ox–Eye Daisy
- Aster novae–angliae; New England Aster

Example Seed Mixes:

1. Native Upland wildlife forage and Cover Meadow Mix – Ernst Conservation Seeds (ERNMX–123)
2. Eastern Ecotype Native Grass Mix– Ernst Conservation Seeds (ERNMX–177)
3. New England Native Warm Season Grass Mix – New England Wetland Plants, Inc.
4. New England Logging Road Mix – New England Wetland Plants, Inc.
5. Northeast Upland Wildflower/Restoration Erosion Mix – Southern Tier Consulting (STCMX–2)

UPLAND ROW RESTORATION MIX – DRY/ROCKY SITES

Species Composition Options:

- Festuca rubra; Red Fescue
- Schizachyrium scoparium; Little Bluestem
- Elymus Canadensis; Canada Wild Rye
- Bouteloua gracillis; Blue Grama
- Lolium multiflorum; Annual Ryegrass
- Lolium perenne; Perennial Ryegrass
- Agrostics scabra; Rough Bentgrass
- Agrostis perennans; Upland Bentgrass
- Sorghastrum nutans; Indiangrass

Example Seed Mixes:

1. New England Erosion Control/ Restoration Mix for Dry Sites – New England Wetland Plants, Inc.
2. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

WETLAND ROW RESTORATION MIX

Species Composition Options:

- Agrostis stolonifera; Creeping Bentgrass
- Poa trivialis; Rough Bluegrass
- Alopecurus arundinaceus; Creeping Meadow Foxtail
- Lolium multiflorum; Annual Ryegrass
- Festuca rubra; Creeping Red Fescue
- Elymus virginicus; Virginia Wildrye
- Schizachyrium scoparium; Little Bluestem
- Andropogon gerardii; Niagra Big Bluestem
- Carex vulpinoidea; Fox sedge
- Panicum virgatum; Switchgrass
- Agrostis scabra; Rough Bentgrass
- Aster novae–angliae; New England Aster
- Eupatorium perfoliatum; Boneset
- Euthamia graminifolia; Grass Leaved Goldenrod
- Scirpus atrovirens; Green Bulrush
- Verbene hastate; Blue Vervain
- Juncus effusus; Soft Rush
- Scirpus cyperinus; Wool Grass
- Panicum clandestinum; Deertongue

Example Seed Mixes

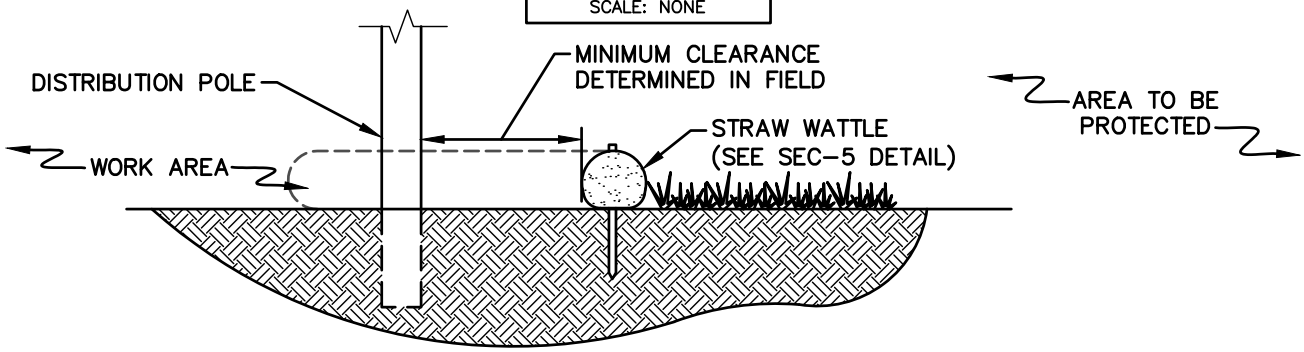
1. New England Erosion Control/Restoration Mix for Detention Basins and Moist Sites – New England Wetland Plants, Inc.
2. Northeast Wetland Grass Seed Mix – Southern Tier Consulting (STCMX–7)
3. Ernst Conservation Seeds and similar companies can create a custom seed mix matching the composition above (with site specific additions if necessary).

GERNERAL NOTES:

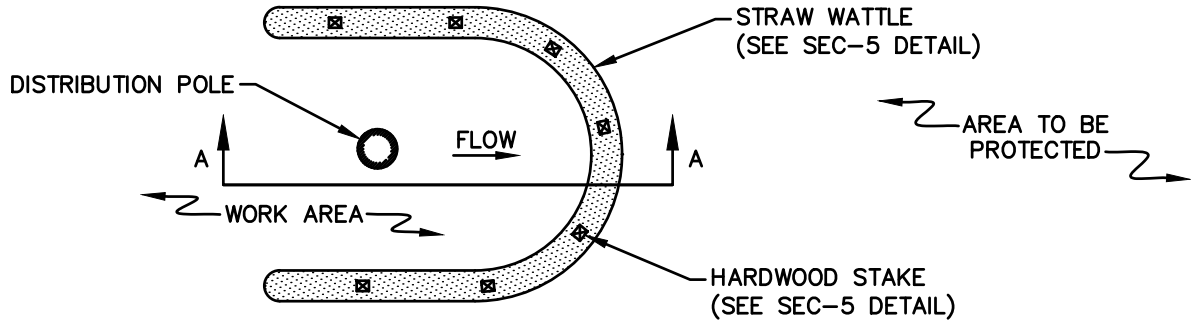
1. Seed mixes described herein are intended to cover a variety of typical new england landscapes. However, site specific seed mixes will need to be evaluated in coastal or mountainous regions.
2. Seed mixes described herein are intended for general ROW restoration. Site specific wetland seed mixes may be required by local, state and/or federal regulators for certain impacts to wetlands.
3. All seed mixes are to be approved by National Grid Environmental Scientist prior to construction and must conform with all project permits.
4. Seedbed preparation and maintenance as well as temporary erosion and sediment controls are crucial to the establishment of newly seeded areas. Coordinate with National Grid Environmental Scientist on seed bed preparation and maintenance as well as temporary erosion and sediment controls prior to construction.

BMP DETAIL

SCALE: NONE



SECTION A–A



PLAN

NOTES

1. PRODUCT TO BE STRAW WATTLE OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST (SEE SEC–5 BMP DETAIL).
2. STRAW BALE BARRIER PER SEC–1 BMP DETAIL TO BE AN AVAILABLE ALTERNATE DEPENDING ON SITE CONDITIONS AT THE DIRECTION OF NATIONAL GRID ENVIRONMENTAL SCIENTIST (SEE FIGURE 2).
3. MINIMUM CLEARANCE BETWEEN POLE AND EROSION CONTROL TO BE DETERMINED BY CONDITIONS OF POLE INSTALLATION/REPLACEMENT WORK AND ASSOCIATED DISTURBANCE.

BMP PICTURE



FIGURE 1: TYP. STRAW WATTLE APPLICATION



FIGURE 2: ALT. STRAW BALE APPLICATION

BMP PICTURE

SCALE: NONE

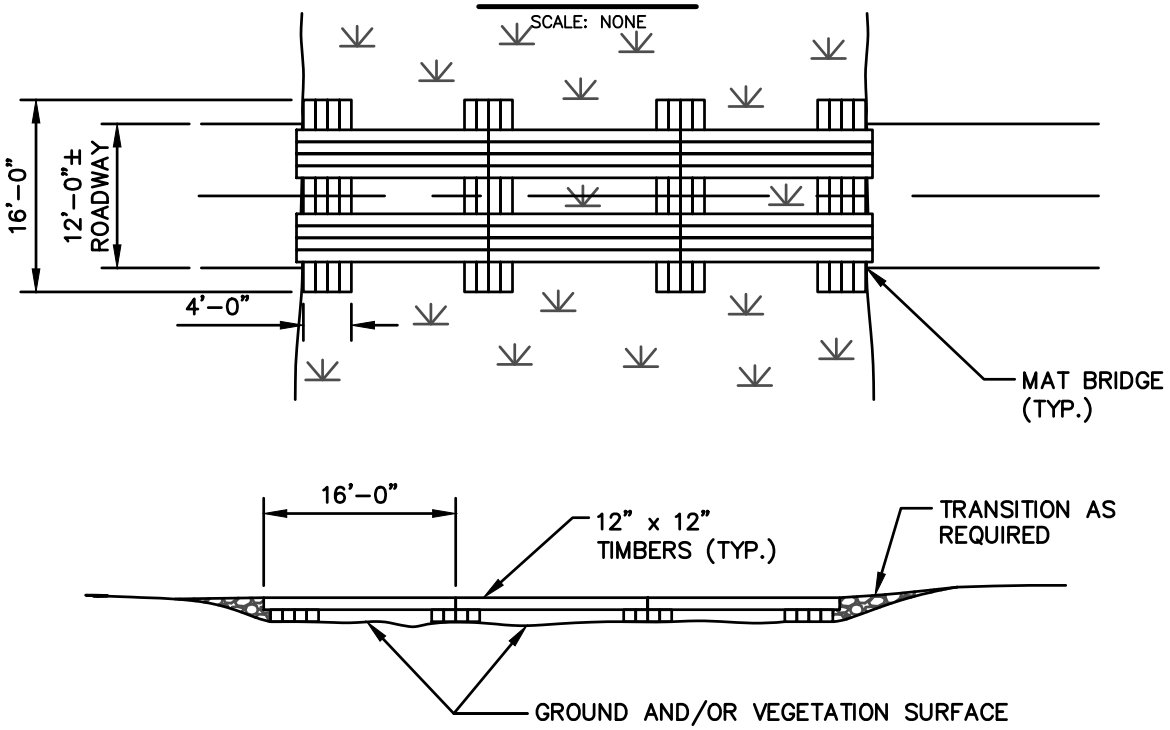


NOTES:

1. PRODUCT TO BE ALTURNAMATS' PREFABRICATED MATS OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. PRODUCT AVAILABLE IN 4X8' UNITS.
3. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

BMP DETAIL

SCALE: NONE



NOTES:

1. IF MATS ARE INSTALLED IN A WETLAND AREA, INSTALL EROSION CONTROLS TO CONTAIN MATERIAL UTILIZED IN THE MAT TRANSITIONS.

BMP PICTURE



CM-2
CONSTRUCTION MAT BRIDGE
(1 OF 2)

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File: Mat_Bridge.dwg

BMP PICTURE - SINGLE SPAN

SCALE: NONE





NOTES:

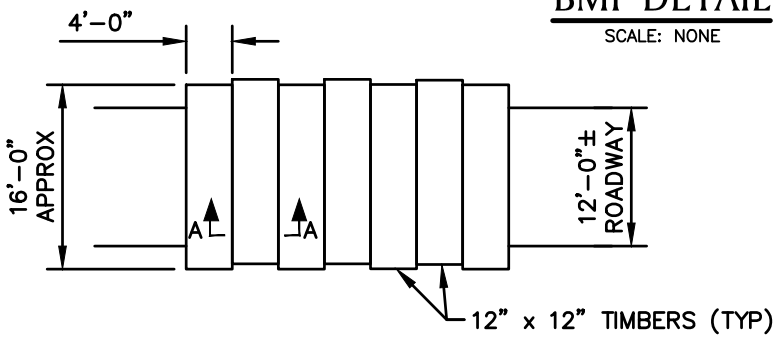
1. WHERE STREAM WIDTH ALLOWS, INSTALL CONSTRUCTION MATS TO SPAN THE WATERCOURSE IN ITS ENTIRETY WITHOUT STRINGER PLACEMENT IN THE WATER OR ANY RESTRICTION OF STREAM FLOW.

2. INSTALLATION OF THE CONSTRUCTION MAT BRIDGE SHALL NOT DAMAGE THE STREAM BED AND BANKS. WHERE POSSIBLE, FOOTERS SHALL BE PLACED PARALLEL TO THE TOP OF THE STREAM BANKS, WITH ACCESS MATTING PLACED ACROSS THE TOP OF THE STRINGERS DISTRIBUTING THE WEIGHT OF THE CONSTRUCTION EQUIPMENT.

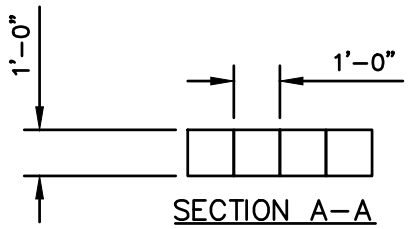
3. AT STREAM CROSSINGS THAT CANNOT BE SPANNED BY A SINGLE SECTION OF CONSTRUCTION MATTING, AND WHERE PERMITS ALLOW, STRINGERS SHALL BE PLACED ATOP THE STREAM BED PARALLEL TO THE FLOW OF WATER.

BMP DETAIL

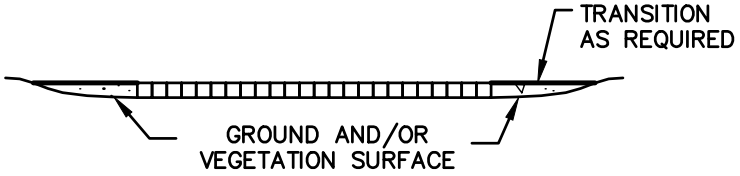
SCALE: NONE



TYPICAL PLAN VIEW



SECTION A–A
TYPICAL MAT SECTION
BOLTED TOGETHER



TYPICAL SECTION VIEW

NOTES:

1. TO BE INSTALLED IF NECESSARY TO PREVENT RUTTING, TO ACCESS STRUCTURES.
2. THIS DETAIL SHOWS TYPICAL DIMENSIONS. SOME CONTRACTOR'S CONSTRUCTION MATS ARE DIMENSIONALLY DIFFERENT FROM WHAT IS SHOWN HERE.
3. DEPENDENT ON SITE CONDITIONS, MULTIPLE LAYERS OF CONSTRUCTION MATS MAY BE INSTALLED.

BMP PICTURE



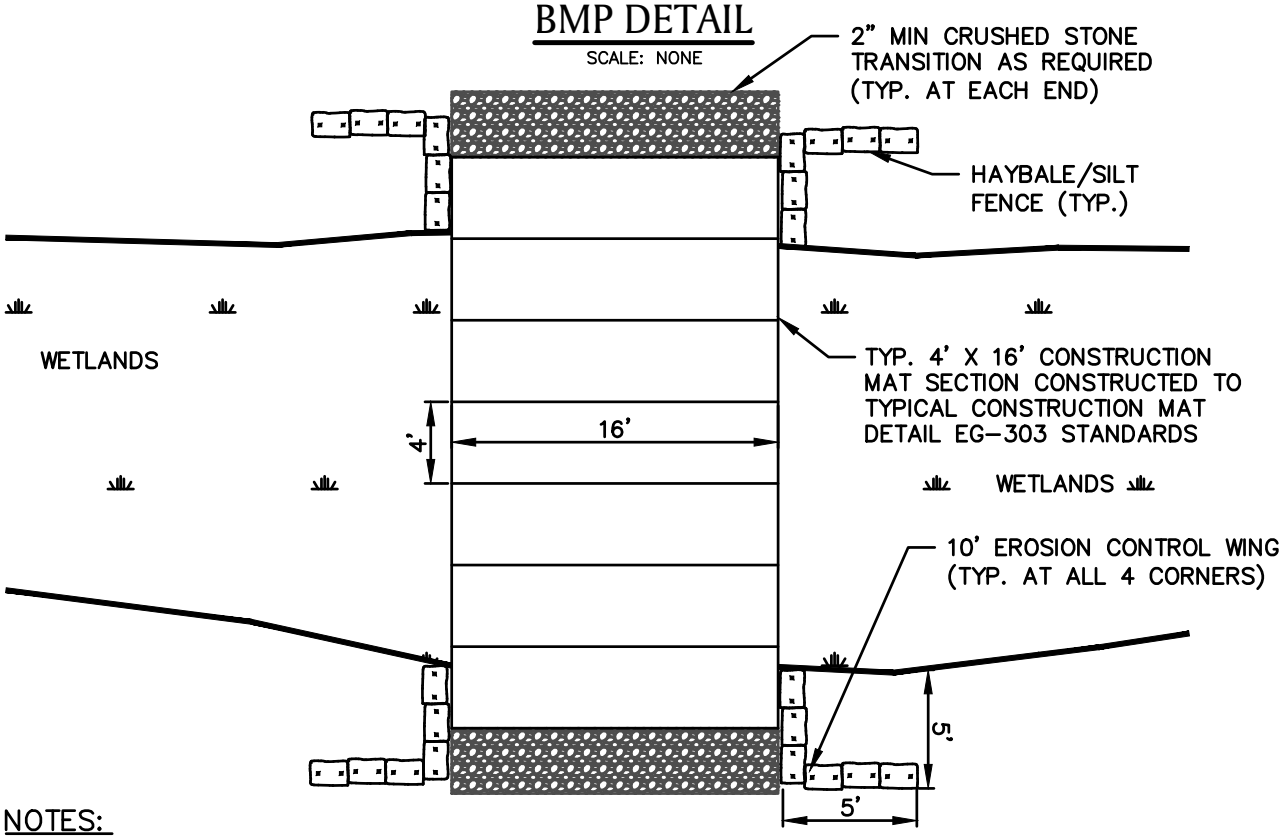
CM-3
CONSTRUCTION MAT LAYOUT
(WITH TRANSITION)

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File: Swamp_Mat_Layout.dwg

BMP DETAIL

SCALE: NONE



NOTES:

1. ADD FILTER FABRIC AS NEEDED UNDER STONE TRANSITION RAMPS.
2. ALL MEASUREMENTS AND LOCATIONS ARE APPROXIMATE.

BMP PICTURE



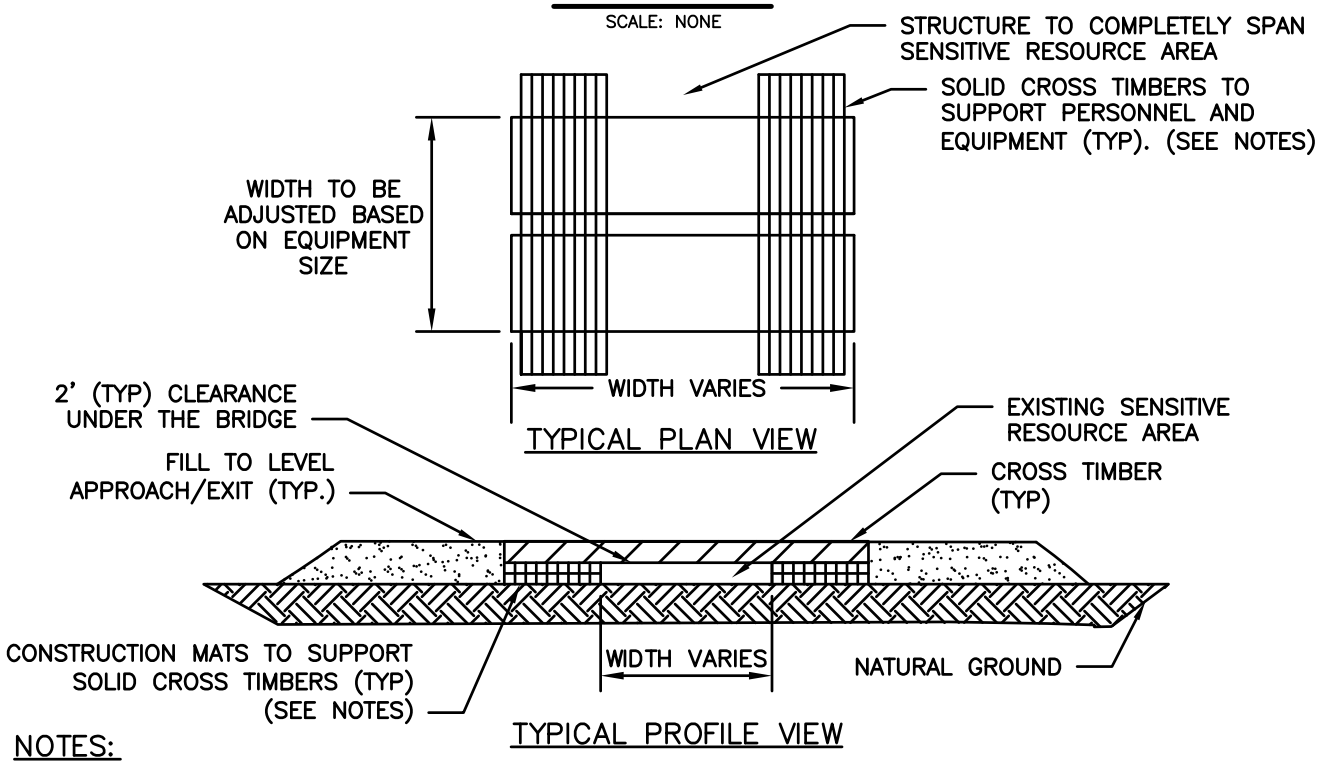
CM-4
CONSTRUCTION MAT LAYOUT
(WITH TRANSITION AND BMPs)

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File: Swamp_Mat_Transition and BMPs.dwg

BMP DETAIL

SCALE: NONE



NOTES:

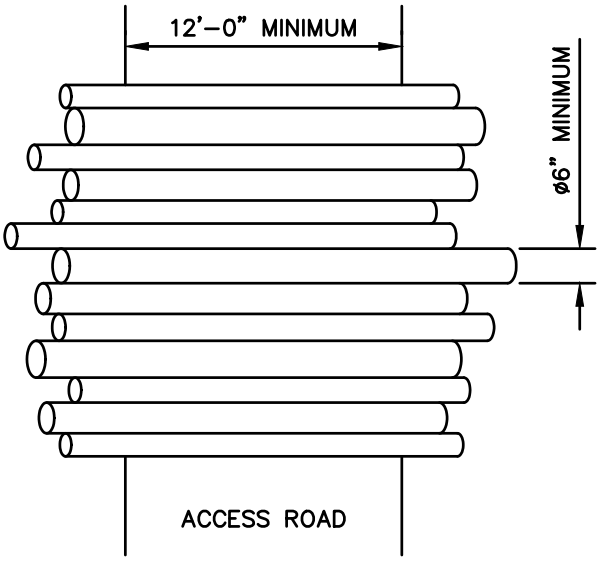
1. THE DETAIL SHOWN IS CONCEPTUAL. CONSTRUCTION MATS AND CROSS TIMBERS SHALL BE SIZED AND SELECTED BASED ON SPAN WIDTH, CROSSING EQUIPMENT AND FIELD CONDITIONS.
2. THE NUMBER OF CONSTRUCTION MATS MAY VARY DEPENDING ON THE CLEARANCE HEIGHT.
3. EQUIPMENT AND PERSONNEL LOAD SHALL BE DISTRIBUTED ON ALL TIMBERS.
4. EACH EQUIPMENT OPERATOR AND USER OF THE FIELD BRIDGE SHALL BE FAMILIAR WITH THE DESIGN AND THE MAXIMUM EQUIPMENT AND PERSONNEL LOADS.
5. THIS DETAIL MAY NOT BE APPLICABLE IN ALL FIELD CONDITIONS.
6. INSTALL EROSION CONTROLS ADJACENT TO THE CULVERT ENDS TO PROTECT THE WATERWAY FROM ROADWAY DEBRIS.

BMP PICTURE



BMP DETAIL

SCALE: NONE



RANDOM LENGTH AND DIAMETER LOGS PLACED ACROSS AN ACCESS ROAD

NOTE:

1. A SIMILAR BRUSH MAT INSTALLATION CONSISTING OF SMALLER DIAMETER STEMS AND LOGS CAN BE USED.
2. CORDUROY ROADS SHALL ONLY BE USED IN EMERGENCIES OR AFTER APPROVAL FROM THE PROJECT ENVIRONMENTAL CONSULTANT OR NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE

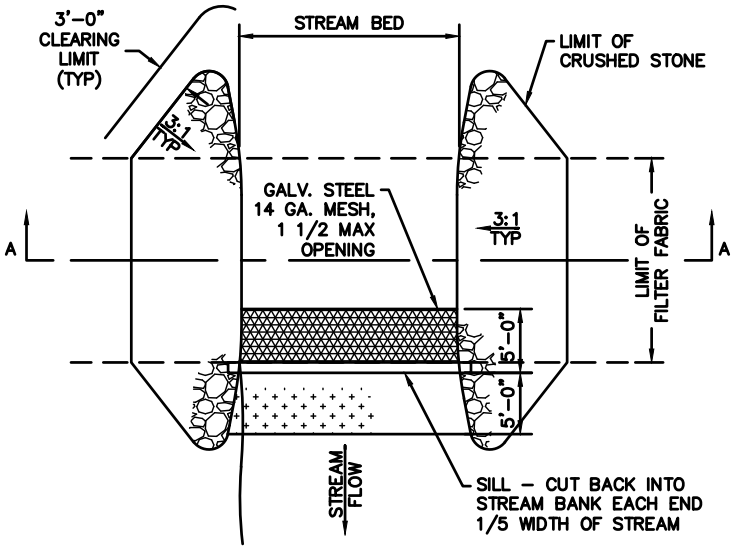


CM-6
CORDUROY ROAD

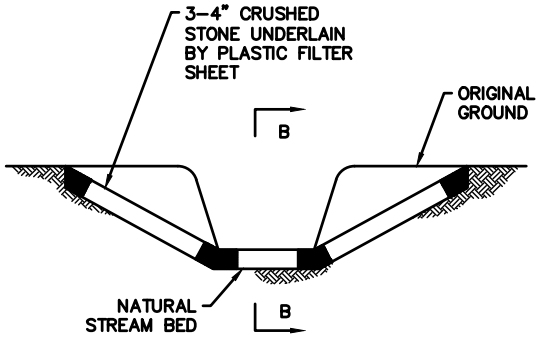
File: Corduroy_Road.dwg

BMP DETAIL

SCALE: NONE



PLAN VIEW



SECTION 'A-A'

BMP PICTURE





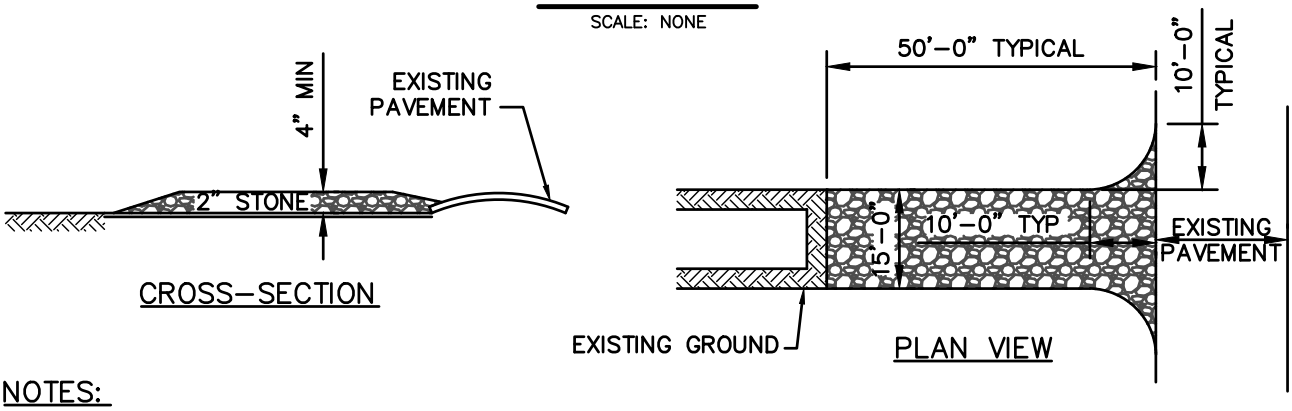
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CM-7
ROCK FORD

File: Rock_Ford.dwg

BMP DETAIL

SCALE: NONE



NOTES:

1. STONE SIZE – USE 2" STONE (MINIMUM) TO 6" STONE (MAXIMUM)
2. LENGTH – GREATER THAN OR EQUAL TO 50 FEET
3. THICKNESS – 4"
4. WIDTH – FIFTEEN (15) FOOT TYP., BUT NOT LESS THAN FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS ENTRANCE. IF PIPING IS IMPRACTICAL, MOUNTABLE BERM SHALL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
7. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.
8. THE CLEAN STONE SHOULD BE INSTALLED OVER A GEOTEXTILE FABRIC. GEOTEXTILE FABRIC MAY BE OMITTED FOR PERMANENT CONSTRUCTION ENTRANCES/EXITS ON A CASE–BY–CASE BASIS WITH THE APPROVAL OF THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.
9. FOLLOWING CONSTRUCTION, THE CONSTRUCTION ENTRANCE/EXIT SHALL BE REMOVED AND THE AREA GRADED, SEEDED, AND MULCHED AS NEEDED. ENTRANCE/EXITS MAY REMAIN DEPENDING UPON FUTURE ACCESS NEEDS AND/OR PROJECT–SPECIFIC APPROVALS BUT REQUIRES APPROVALS FROM THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND PROPERTY LEGAL.

BMP PICTURE

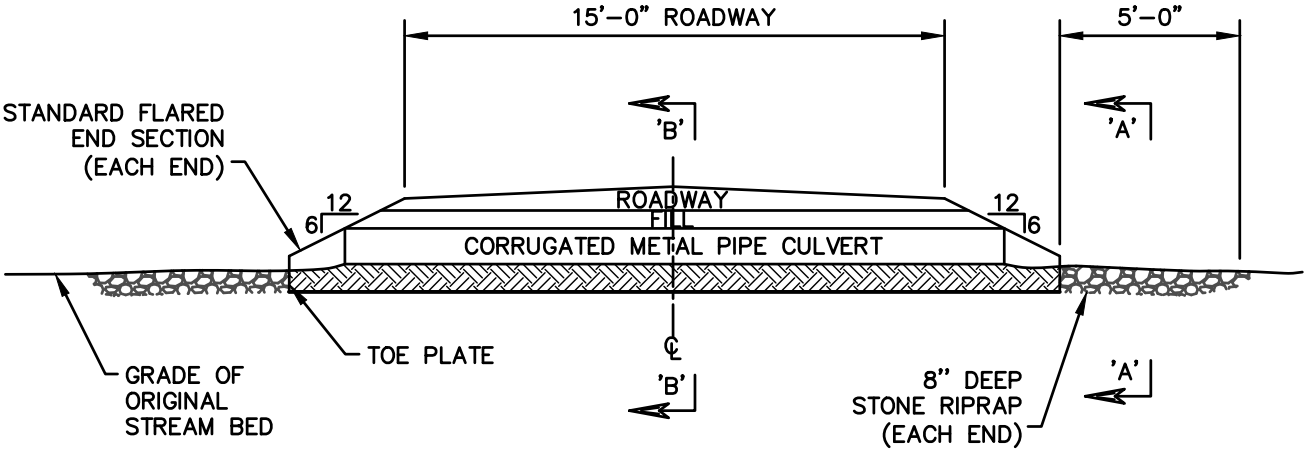


CM-8
TEMPORARY CONSTRUCTION ENTRANCE/ EXIT

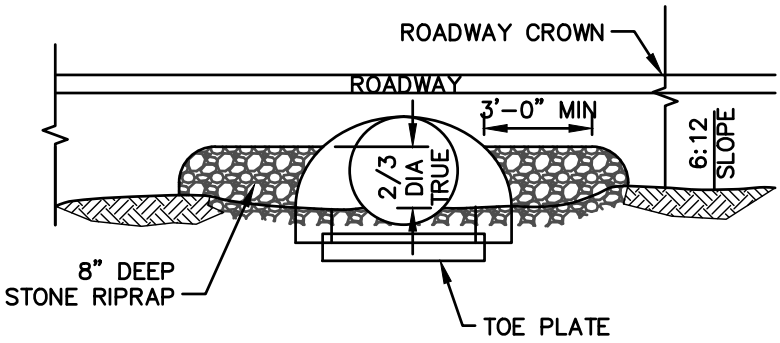
File: Temp_Construction_Ent.dwg

BMP DETAIL

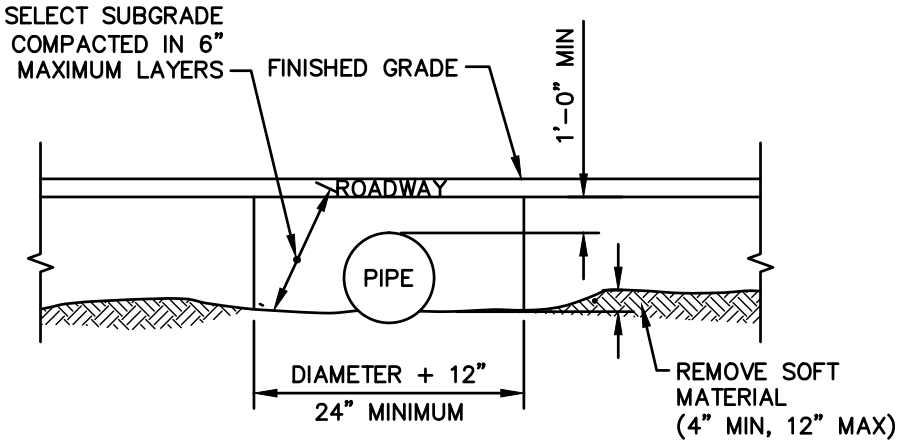
SCALE: NONE



CROSS SECTION



SECTION 'A–A'
(SAME BOTH ENDS)



SECTION 'B–B'

CM-9
TEMPORARY CONSTRUCTION
CULVERT (1 OF 2)

File: Temp_Constr_Culvert.dwg

BMP DETAIL

SCALE: NONE

NOTES:

1. CULVERT DESIGN AND LAYOUT SHALL BE COORDINATED WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST (NGES).
2. CROWN ROADWAY 1/2 INCH PER FOOT.
3. LAY THE CULVERT STRAIGHT AND AS NEARLY AS POSSIBLE ALONG THE EXISTING STREAM BED AND WITH THE INVERTS AT OR SLIGHTLY BELOW BED ELEVATION.
4. CORRUGATED METAL PIPE IS TO BE GALVANIZED STEEL, OR ALUMINIZED STEEL (TYPE 2), WITH BOLTED CONNECTORS.
5. DIAMETERS SHALL BE AS PER THE PROJECT DRAWINGS AND THE SPECIFICATION. THE PIPE GAGE SHALL BE AS FOLLOWS:

DIAMETER (INCHES)	GAGE
12" – 15"	.004"
18" – 24"	.079"
30" – 36"	.109"

6. INSTALLATION OF CULVERTS LARGER THAN 36 INCH DIAMETER SHALL REQUIRE SPECIAL ENGINEERING DESIGN.
7. SELECT SUBGRADE SHALL BE A GRANULAR MATERIAL AS DESCRIBED IN NYSDOT SPECIFICATION ITEM 203–2.02C, OR AS APPROVED BY A NGES.
8. STONE RIPRAP SHALL BE AS DESCRIBED IN NYSDOT SPECIFICATION ITEM 203–2.02D, WITH 8 INCH MAXIMUM SIZE, OR AS APPROVED BY A NGES. EXCEPT WHERE PROTECTED BY STONE, ALL EMBANKMENT SLOPES ARE TO BE STABILIZED, MULCHED AND SEEDED AS PER PROJECT SPECIFICATIONS.
9. OUTLET SHOULD BE CONFIGURED NOT TO CREATE HYDRAULIC JUMP OR PLUNGE POOL.
10. INSTALL EROSION CONTROLS ADJACENT TO THE CULVERT ENDS TO PROTECT THE WATERWAY FROM ROADWAY DEBRIS.

BMP PICTURE



BMP PICTURE



NOTE:

1. PICTURE SHOWS VIEW OF ACCESS WAY STABILIZATION ADJACENT TO A WETLAND.
2. COORDINATE STABILIZATION DESIGN AND PRODUCT WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE




NO ACCESS – WETLAND/STREAM CROSSING MATS REQUIRED







NO ACCESS – A.) PROJECT LIMITS E.G. ROW LIMITS
B.) HISTORICAL/CULTURAL
C.) ENVIRONMENTALLY SENSITIVE E.G. THREATENED & ENDANGERED
D.) OTHER

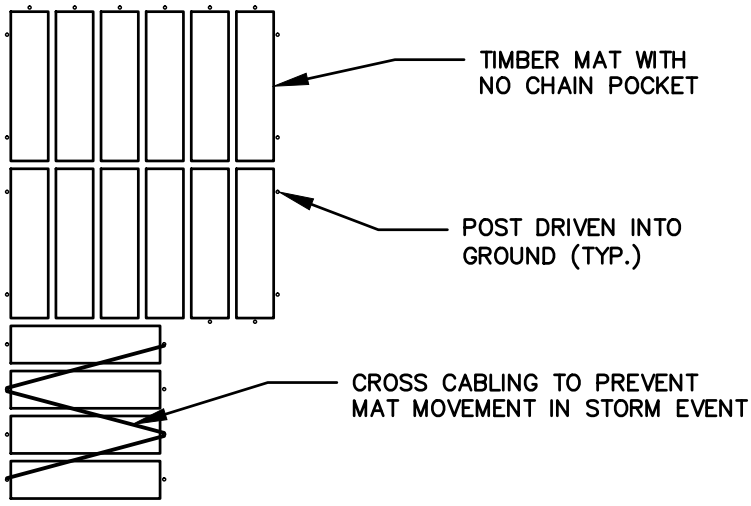




APPROVED ACCESS

BMP DETAIL 1

SCALE: NONE



TYPICAL PLAN VIEW

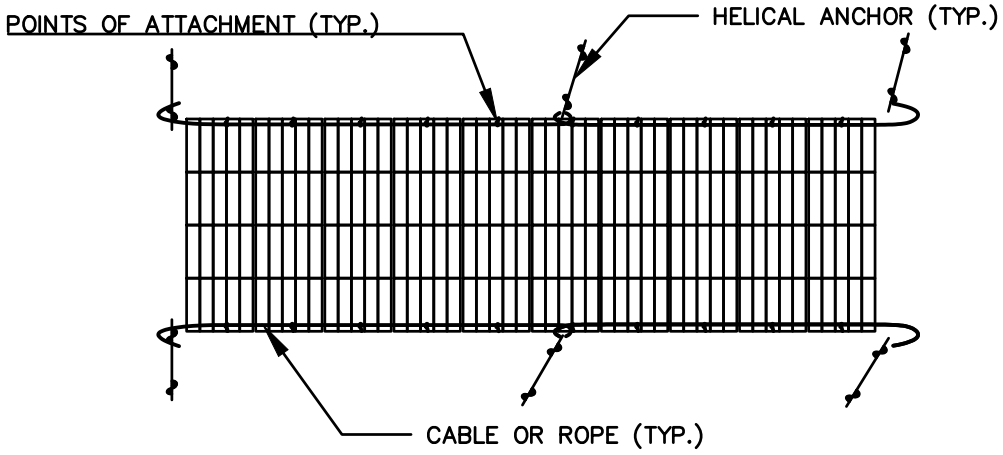
NOTES:

1. EXAMPLES OF ANCHORING ONLY. MATTING CONTRACTOR SHALL PROPOSE THE METHOD OF ANCHORING BASED ON FIELD CONDITIONS.
2. ANCHORING METHOD TO BE APPROVED BY THE NATIONAL GRID ENVIRONMENTAL SCIENTIST AND TRANSMISSION LINE CONSTRUCTION SUPERVISOR.

BMP DETAIL 2

NOTES:

1. TYPICAL HELICAL ANCHOR AND CABLE CONFIGURATION FOR MAT CONTAINMENT IN FLOODPLAINS/LAND SUBJECT TO FLOODING.
2. TYPICAL POINTS OF ATTACHMENT HEAVY STAPLES, EYE BOLTS OR OTHER SUITABLE HARDWARE TO SECURE ATTACHMENT OF MAT TO LINEAR CABLE. IF CHAIN POCKETS ARE PRESENT IN THE MATS CABLE OR ROPE CAN BE LOOPED THROUGH RODS.



BMP PICTURE 1



BMP PICTURE 2



CM-12
EXAMPLE OF CONSTRUCTION MAT ANCHORING (2 OF 2)

File: Const_Mat_Anchoring.dwg

BMP DETAIL

SCALE: NONE

WIRE BACKED SILT FENCE



MUTUAL INDUSTRIES WIRE BACKED SILT FENCE
PART # 1776-14-24
36" X 100'
36" MISF 1776 FABRIC
24" 14GA WIRE MESH
OPENING OF MESH 2" X 4"
FABRIC HOG RINGED EVERY 12"-18" ALONG THE TOP OF THE FENCE

ROLL WEIGHT 40 LBS

32 ROLLS PER PALLET

NOTES:

1. PRODUCT TO BE MUTUAL INDUSTRIES' WIRE BACKED SILT FENCE OR APPROVED EQUAL BY NATIONAL ENVIRONMENTAL SCIENTIST.
2. COORDINATE INSTALLATION METHOD AND LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

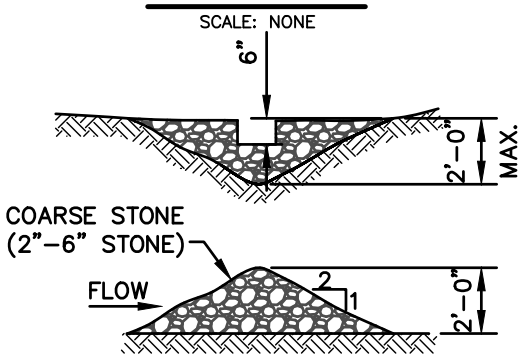
BMP PICTURE



NOTE:

1. PICTURE SHOWS SEDIMENT FILTER WITHIN A WETLAND.

BMP DETAIL



STONE CHECK DAM

NOTES:

1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. THE CENTER OF THE CHECK DAM MUST BE AT LEAST 6" LOWER THAN THE OUTER EDGES.
4. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
5. MAX. SPACING: TOE OF THE UPSTREAM DAM IS SAME ELEVATION AS TOP OF DOWNSTREAM DAM.
6. STONE SHALL BE FREE OF FINE PARTICLES TO PREVENT TURBID DISCHARGES.

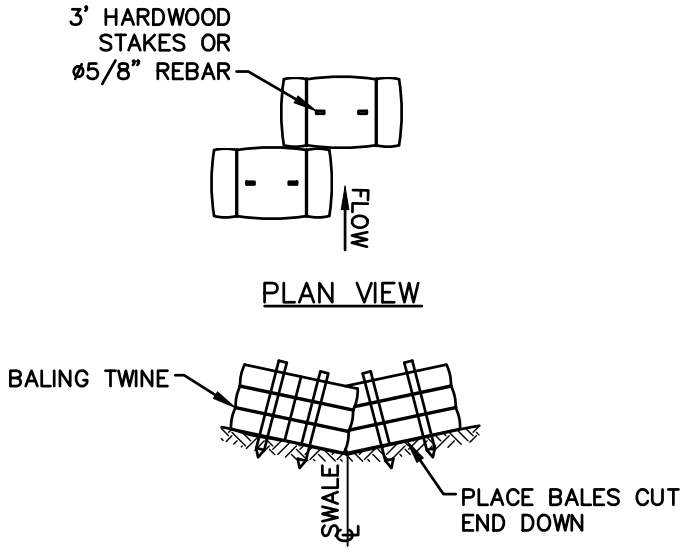
BMP PICTURE



NOTE: A SMALLER STONE SIZE IS SHOWN IN THIS PICTURE.

BMP DETAIL

SCALE: NONE



NOTES:

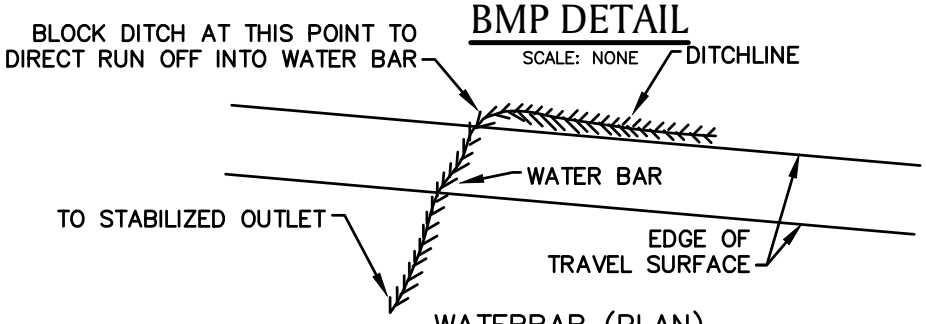
1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE

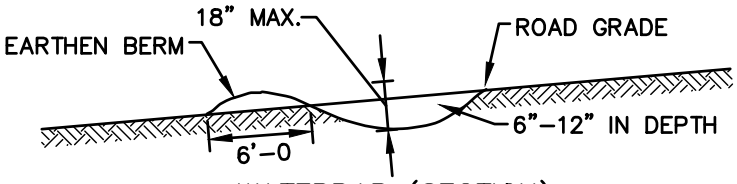


BMP DETAIL

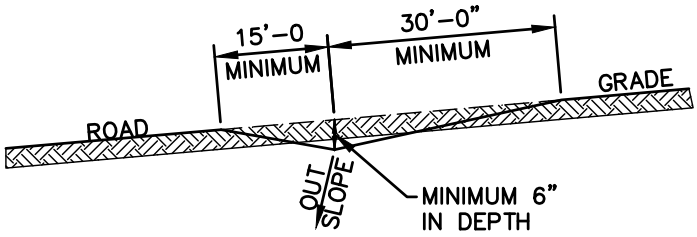
SCALE: NONE



WATERBAR (PLAN)



WATERBAR (SECTION)



DISCHARGE (SECTION)

NOTE:

1. LINE WITH 2"–6" STONE UNDERLAIN BY GEOTEXTILE FILTER FABRIC, KEYED INTO ROAD SURFACE AT LEAST 10 FEET EACH SIDE OF WATERBAR.
2. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

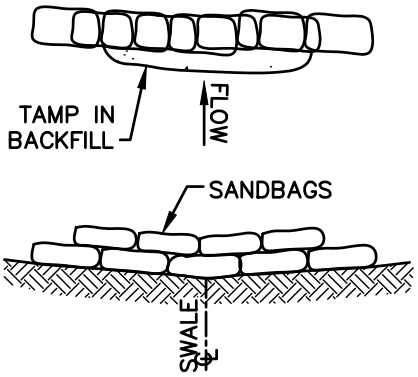
BMP PICTURE





BMP DETAIL

SCALE: NONE



SANDBAG
CHECK DAM

NOTES:

1. USE CHECK DAMS TO SLOW WATER FLOWS AND AS SMALL SEDIMENT TRAPS IN DITCHES ALONG ACCESS ROADS.
2. CLEAN SEDIMENT AND REPLACE DAMS AS NECESSARY.
3. COORDINATE SPACING WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE



NOTE:

1. PICTURE DOES NOT DEPICT "TAMP IN BACKFILL"

BMP PICTURE

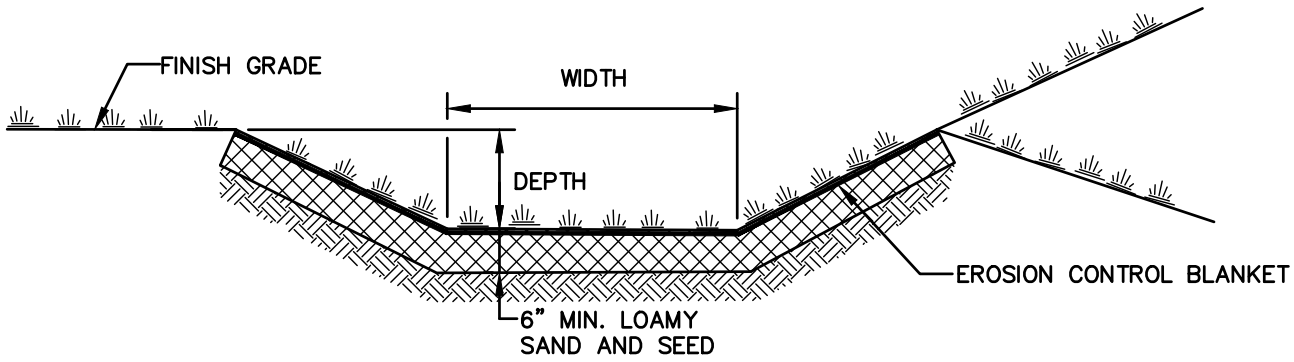


NOTE:

1. EXACT SIZE, LOCATION AND DESIGN IS DEPENDANT ON SITE CONDITIONS, AND LOCAL AND STATE REGULATIONS. COORDINATE THIS BMP WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST PRIOR TO CONSTRUCTION.

BMP DETAIL

SCALE: NONE



NOTES:

1. WIDTH AND DEPTH OF SWALE, AND EROSION CONTROL BLANKET TYPE TO BE COORDINATED WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. REFER TO DETAILS SEC–10 AND SEC–11 FOR SEED MIXTURE OPTIONS.

BMP PICTURE

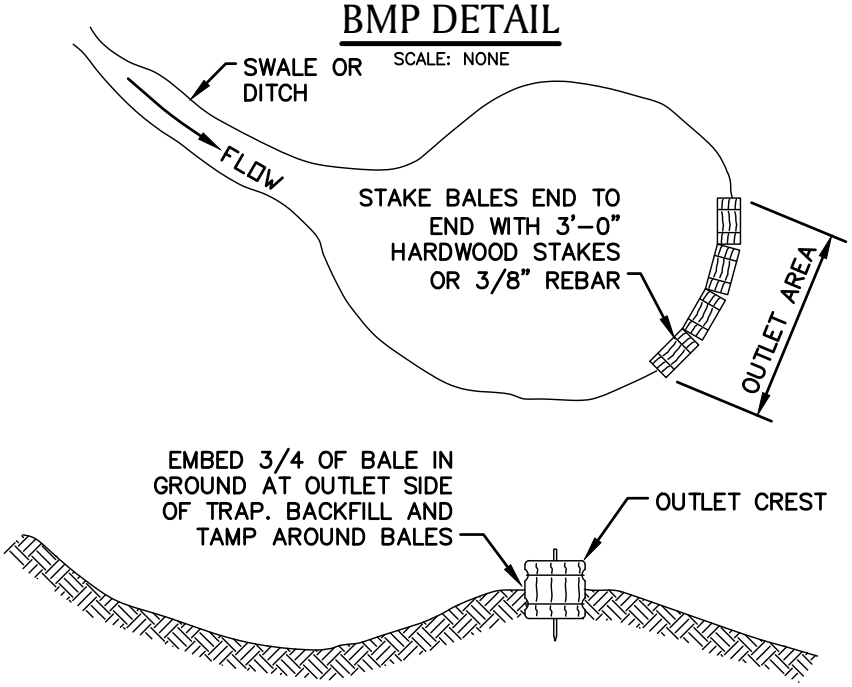


AA-8
DRAINAGE SWALE AND
LINED DITCH

File: Lined_Drainage_Swale.dwg

BMP DETAIL

SCALE: NONE



TYPICAL PROFILE

NOTES

1. SIZE, SHAPE AND PROFILE OF SEDIMENT WILL VARY ACCORDING TO ANTICIPATED FLOW VOLUME AND SURROUNDING TERRAIN AND SHALL BE COORDIANTED WITH THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE BASIN SHALL BE CUT BELOW THE GROUNDLINE. FILL SHALL NOT BE USED TO HOLD WATER UNLESS ROLLED AND COMPACTED.
3. OUTLET AREA IS TO REMAIN FREE OF EXCAVATION SPOILS.
4. OUTLET CREST ELEVATION SHALL BE LOWER THAN INLET ELEVATION AND AT LEAST 1'–0" BELOW THE TOP OF THE BASIN.ARMOUR SLOPES >8% IN OUTLET AREA WITH STONE OF APPROPRIATE SIZE TO PREVENT SCOUR.
5. ARMOUR SLOPES >8% IN OUTLET AREA WITH STONE OF APPROPRIATE SIZE TO PREVENT SCOUR.

BMP PICTURE

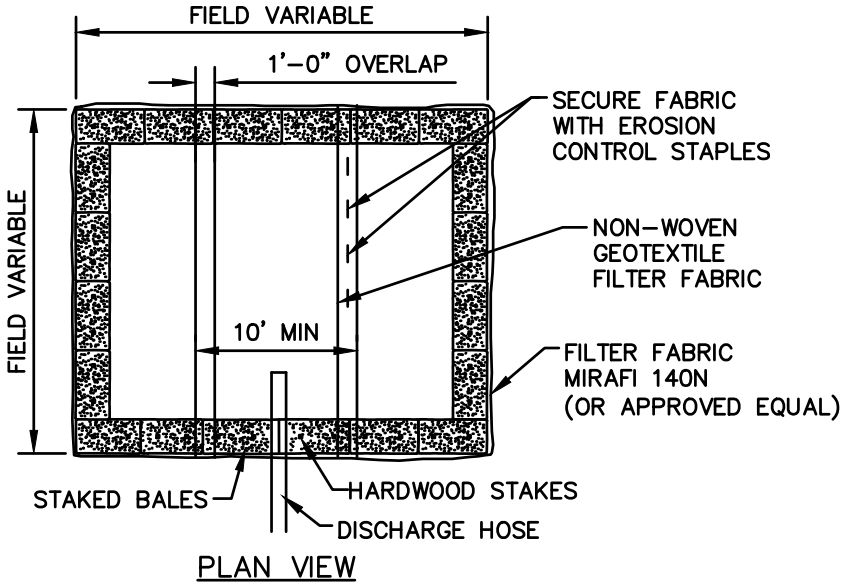


AA-9
SEDIMENTATION BASIN

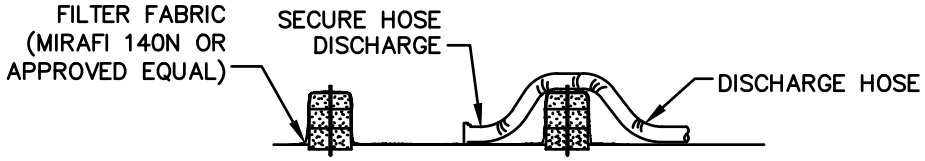
File: Sedimentation_Basin.dwg

BMP DETAIL

SCALE: NONE



PLAN VIEW



CROSS–SECTION

NOTES:

1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS,
2. THE BASIN TO BE SIZED TO PREVENT DISCHARGE WATER FROM OVERTOPPING BASIN.
3. KEEP AS FAR FROM WETLANDS AS PRACTICAL.
4. CLEAN AND REMOVE AS SOON AS DEWATERING IS COMPLETE.

BMP PICTURE



AA-10
DEWATERING BASIN
(SMALL SCALE)

File: Dewat_Bas_Small.dwg

BMP PICTURE

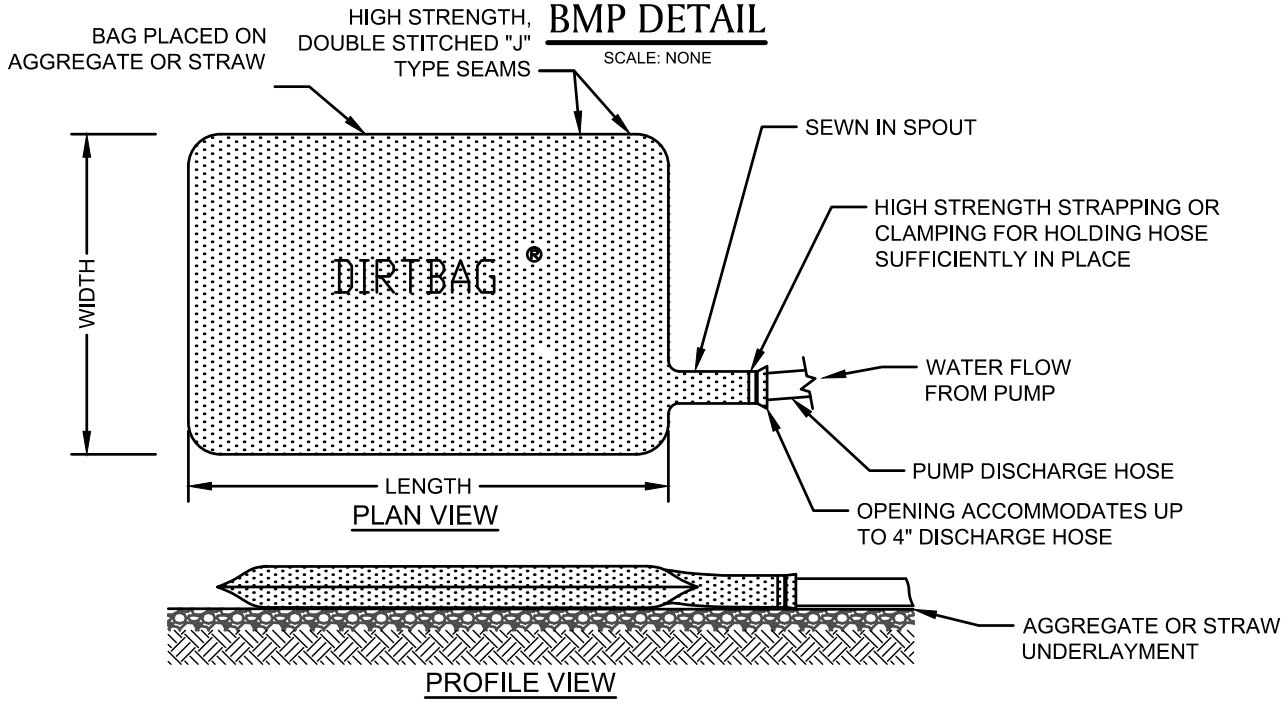


NOTE:

1. EXACT SIZE, LOCATION AND DESIGN IS DEPENDANT ON SITE CONDITIONS, AND LOCAL AND STATE REGULATIONS. COORDINATE THIS BMP WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST PRIOR TO CONSTRUCTION.

BMP DETAIL

SCALE: NONE



NOTE:
ONCE PUMPING COMMENCES, THE DIRT BAG SHALL BE MONITORED FREQUENTLY TO ASSURE THAT THE CONNECTIONS ARE SECURELY FASTENED AND THE RATE OF WATER DELIVERY TO THE STRUCTURE IS LOW ENOUGH TO PREVENT UNFILTERED WATER FROM FLOWING FROM THE HOSE CONNECTIONS OR BAG.

BMP PICTURE



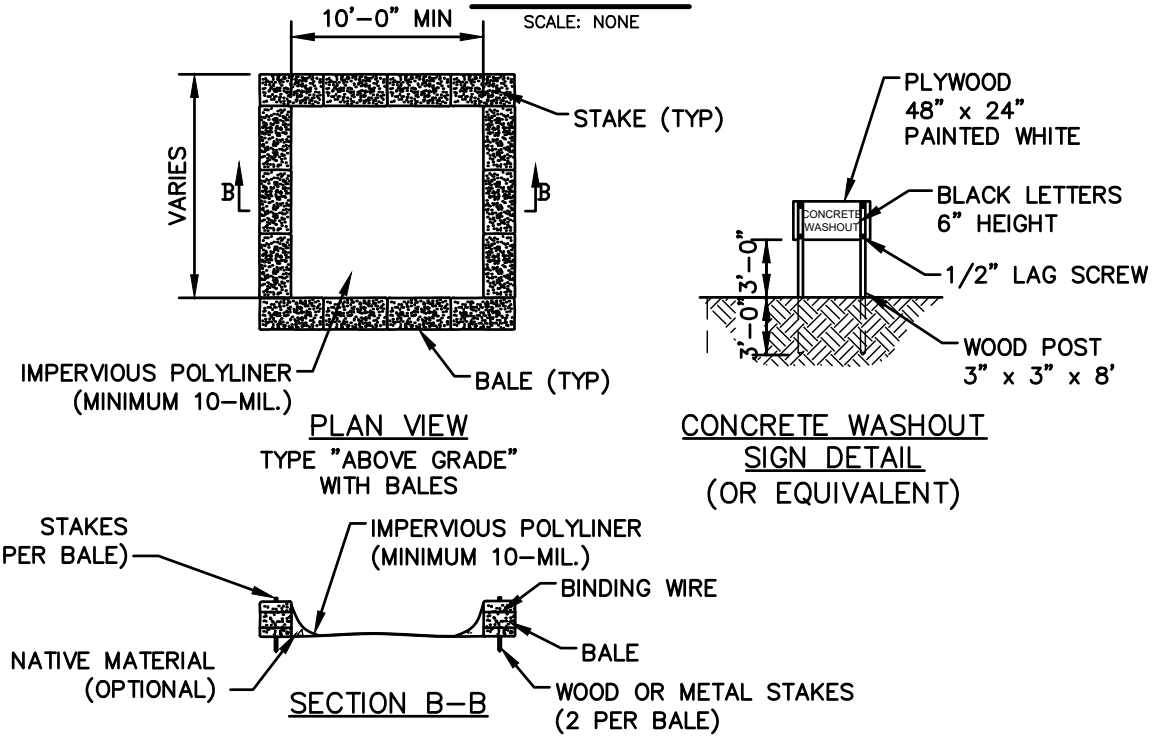
* PICTURE AND DETAIL PROVIDED BY ACF ENVIRONMENTAL

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AA-12
DIRTBAG *

File: Dirtbag.dwg

BMP DETAIL



NOTES:

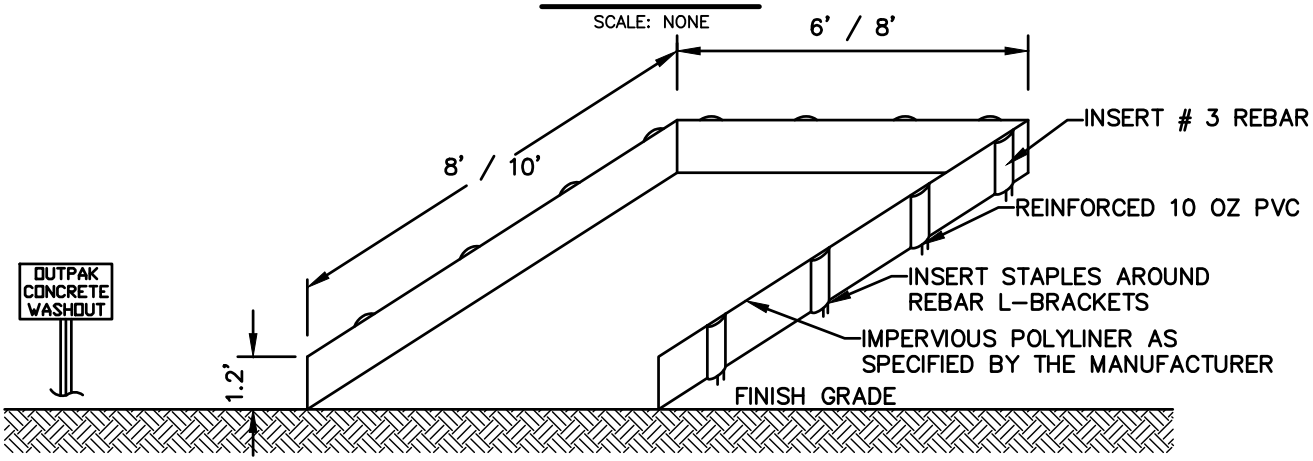
1. NUMBER OF BALES MAY VARY DEPENDING ON SITE CONDITIONS. COORDINATE SIZE AND LOCATION OF CONCRETE WASTE SUMP WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. KEEP AS FAR FROM DRAINAGE CHANNELS AND WETLAND AREAS AS PRACTICAL.
3. SUMPS TO BE CLEANED AND WASTE CONCRETE REMOVED AND PROPERLY DISPOSED OF UPON COMPLETION OF WORK.
4. SEE ADDITIONAL NOTES ON DETAIL AA–14.

BMP PICTURE



BMP DETAIL

SCALE: NONE



CROSS SECTION

NOTES:

1. PRODUCT TO BE OUTPAK PVC CONCRETE WASHOUT OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE CONCRETE WASHOUT AREA SHALL BE INSTALLED PRIOR TO ANY CONCRETE PLACEMENT.
3. SIGNS SHALL BE PLACED AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT.
4. THE CONCRETE WASHOUT AREA WILL BE REPLACED AS NECESSARY TO MAINTAIN CAPACITY FOR WASTE CONCRETE AND OTHER LIQUID WASTE.
5. WASHOUT RESIDUE SHALL BE REMOVED FROM THE SITE AND DISPENSED OF AT AN APPROVED WASTE SITE.
6. DO NOT MIX EXCESS AMOUNTS OF FRESH CONCRETE OR CEMENT ON-SITE.
7. DO NOT WASH OUT CONCRETE TRUCKS INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS.
8. AVOID DUMPING EXCESS CONCRETE IN NON-DESIGNATED DUMPING AREAS.
9. LOCATE WASHOUT AREA AT LEAST 50' FROM STORM DRAIN, OPEN DITCHES, OR WATERBODIES. COORDINATE LOCATION WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.
10. WASH OUT WASTES INTO THE OUTPAK WASHOUT WHERE THE CONCRETE CAN SET, BE BROKEN UP, AND THEN DISPOSED OF PROPERLY.
11. A SECURE, NON-COLLAPSING, NON-WATER COLLECTING COVER MUST BE PLACED OVER CONCRETE WASHOUT PRIOR TO PREDICTED WET WEATHER TO PREVENT ACCUMULATION AND OVERFLOW OF PRECIPITATION.

BMP PICTURE



*** PICTURE AND DETAIL PROVIDED BY OUTPAK WASHOUT**

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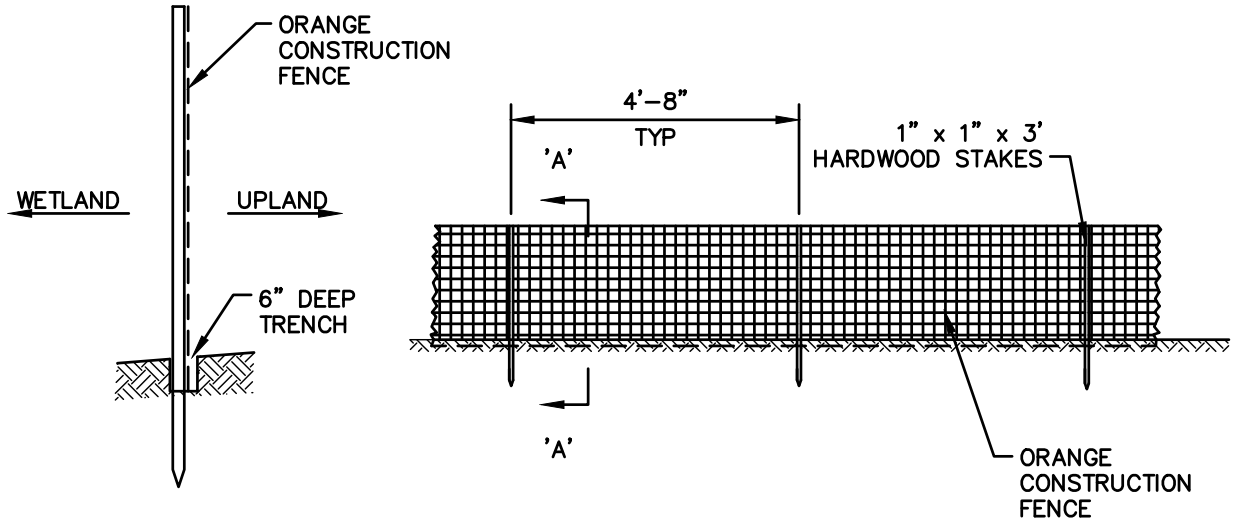
AA-14

OUTPAK CONCRETE WASHOUT *

File: Outpak_Washout.dwg

BMP DETAIL

SCALE: NONE



SECTION A-A

BMP PICTURE



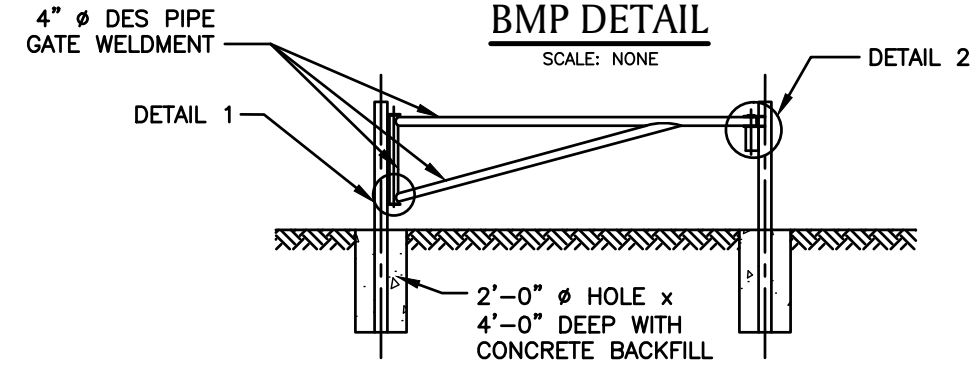
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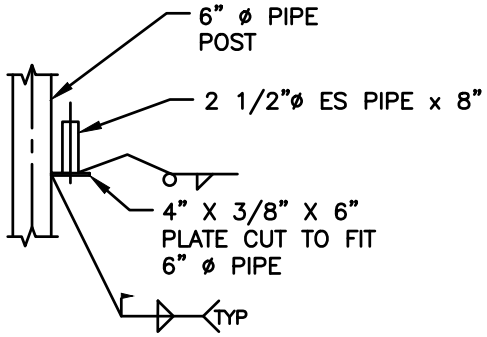
AA-15
BARRIER FENCE
(CONSTRUCTION FENCE)

File: Barrier_Fence.dwg

BMP DETAIL

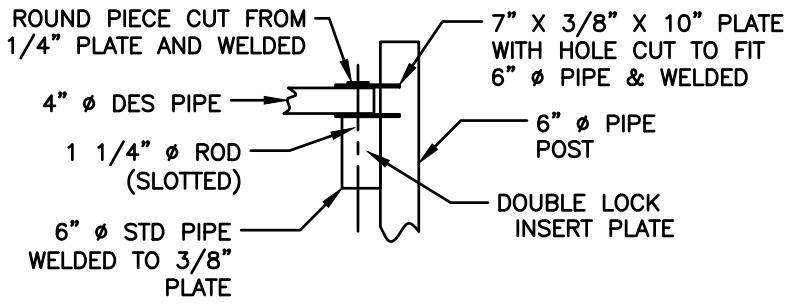
SCALE: NONE





DETAIL 1

SIMILAR DETAIL AT TOP



DETAIL 2

NOTES:

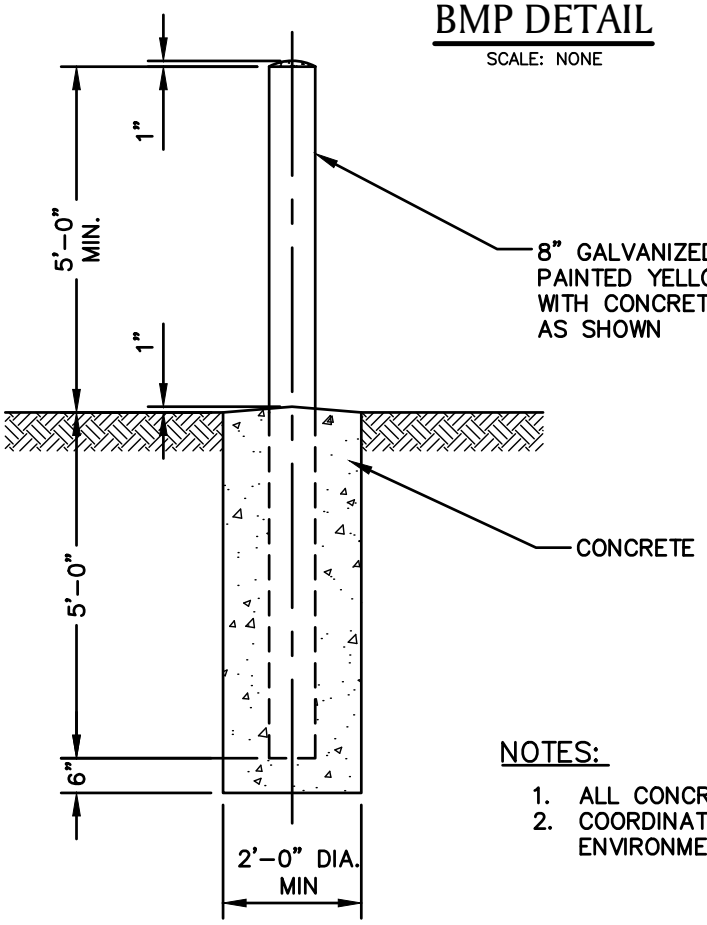
1. ALL GATE STEEL PIPES SHALL BE IN ACCORDANCE WITH ASTM A–501, PLATES SHALL BE ASTM A–36.
2. ALL STEEL PIPES SHALL BE PRIMED WITH ZINC–CHROMATE PRIMER AND FINISHED WITH AN APPROVED OSHA "SAFETY YELLOW" TOP COAT COMPATIBLE WITH THE PRIMER AND FOR EXTERIOR EXPOSURE.
3. REFLECTORS SHALL BE SPACED AT 3 FEET ALONG THE LENGTH OF THE CROSSBAR AND BRACE
4. BACKFILL AT POSTS TO BE COMPACTED.

BMP PICTURE



BMP DETAIL

SCALE: NONE



NOTES:

1. ALL CONCRETE TO BE 2500 P.S.I. MINIMUM.
2. COORDINATE LOCATIONS WITH NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE



BMP



Definition

The control of dust resulting from land-disturbing activities.

Purpose

To prevent surface and air movement of dust from disturbed soil surfaces that may cause off-site damage, health hazards, and traffic safety problems.

Conditions Where Practice Applies

On construction roads, access points, and other disturbed areas subject to surface dust movement and dust blowing where off-site damage may occur if dust is not controlled.

Design Criteria

Construction operations should be scheduled to minimize the amount of area disturbed at one time. Buffer areas of vegetation should be left where practical. Temporary or permanent stabilization measures shall be installed. No specific design criteria is given; see construction specifications below for common methods of dust control.

Water quality must be considered when materials are selected for dust control. Where there is a potential for the material to wash off to a stream, ingredient information must be provided to the local permitting authority.

Construction Specifications

A. Non-driving Areas – These areas use products and materials applied or placed on soil surfaces to prevent airborne migration of soil particles.

Vegetative Cover – For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control (see Section 3).

Mulch (including gravel mulch) – Mulch offers a fast effective means of controlling dust. This can also include rolled erosion control blankets.

Spray adhesives – These are products generally composed of polymers in a liquid or solid form that are mixed with water to form an emulsion that is sprayed on the soil surface with typical hydroseeding equipment. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations for the specific soils on the site. In no case should the application of these adhesives be made on wet soils or if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators and others working with the material.

B. Driving Areas – These areas utilize water, polymer emulsions, and barriers to prevent dust movement from the traffic surface into the air.

Sprinkling – The site may be sprayed with water until the surface is wet. This is especially effective on haul roads and access routes.

Polymer Additives – These polymers are mixed with water and applied to the driving surface by a water truck with a gravity feed drip bar, spray bar or automated distributor truck. The mixing ratios and application rates will be in accordance with the manufacturer's recommendations. Incorporation of the emulsion into the soil will be done to the appropriate depth based on expected traffic. Compaction after incorporation will be by vibratory roller to a minimum of 95%. The prepared surface shall be moist and no application of the polymer will be made if there is a probability of precipitation within 48 hours of its proposed use. Material Safety Data Sheets will be provided to all applicators working with the material.

Barriers – Woven geotextiles can be placed on the driving surface to effectively reduce dust throw and particle migration on haul roads. Stone can also be used for construction roads for effective dust control.

Windbreak – A silt fence or similar barrier can control air currents at intervals equal to ten times the barrier height. Preserve existing wind barrier vegetation as much as practical.

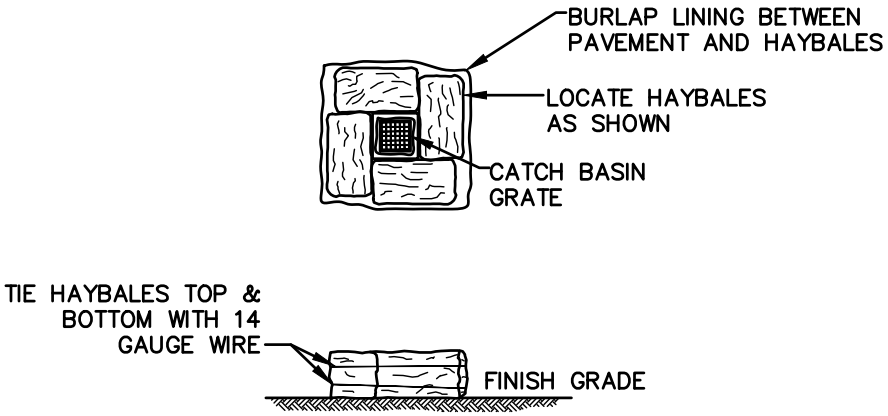
* BMP INFORMATION FROM "NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL (AUGUST, 2005)." INFORMATION OBTAINED VIA WEBSITE: http://www.dec.ny.gov/chemical/29066.html

AA-18
DUST CONTROL (FROM NY) *

File: Dust_Control.dwg

BMP DETAIL

SCALE: NONE



NOTES:

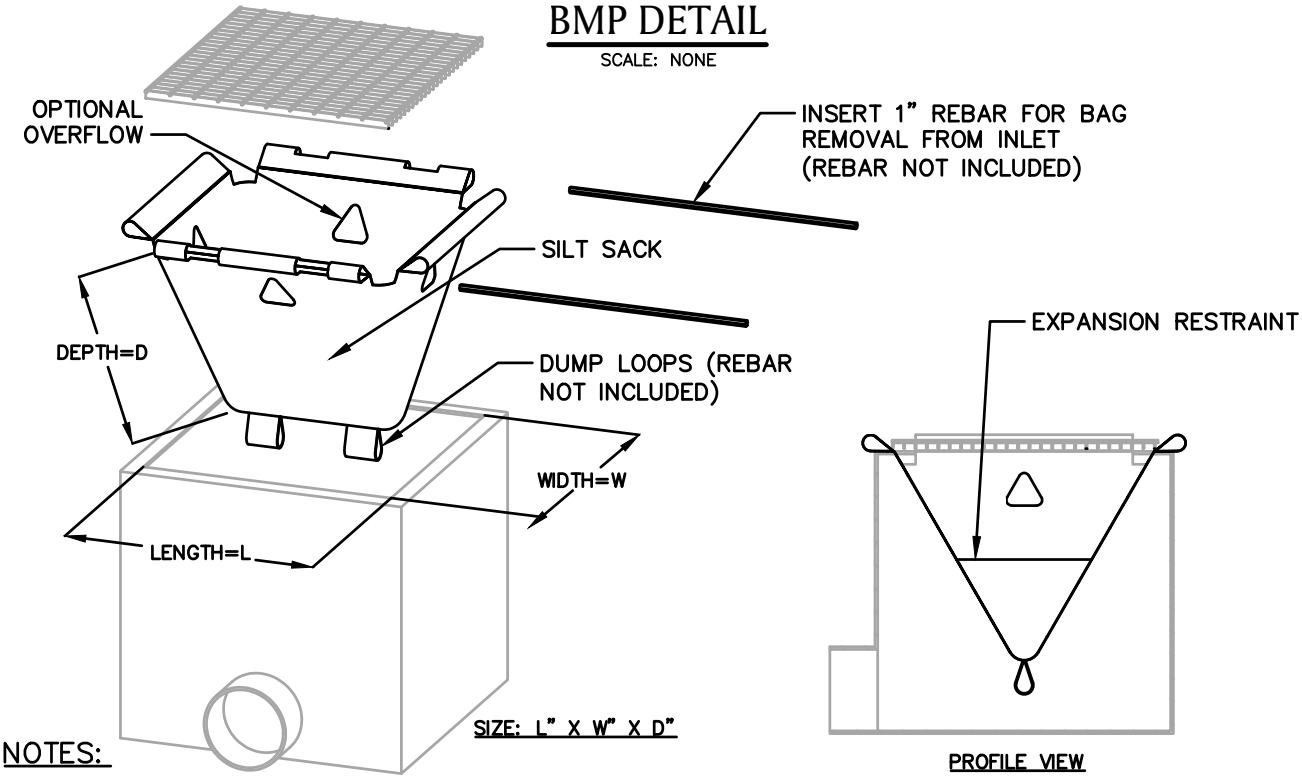
1. SURROUND STREET DRAINAGE STRUCTURE INLET WITH HAY BALES PRIOR TO CONSTRUCTION AND MAINTAIN UNTIL CONSTRUCTION IS COMPLETED. ACCUMULATED SEDIMENTS SHALL BE REMOVED.
2. HAYBALES PLACED ON PAVEMENT SHALL HAVE BURLAP PLACED BETWEEN PAVEMENT AND HAYBALE

BMP PICTURE



BMP DETAIL

SCALE: NONE



NOTES:

1. PRODUCT TO BE SILT SACK OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. THE USE OF A SILT SACK OPTIONAL OVERFLOW AND OVERALL DIMENSIONS ARE TO BE COORDINATED WITH A NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP PICTURE



*** DETAIL PROVIDED BY ACF ENVIRONMENTAL**

APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES

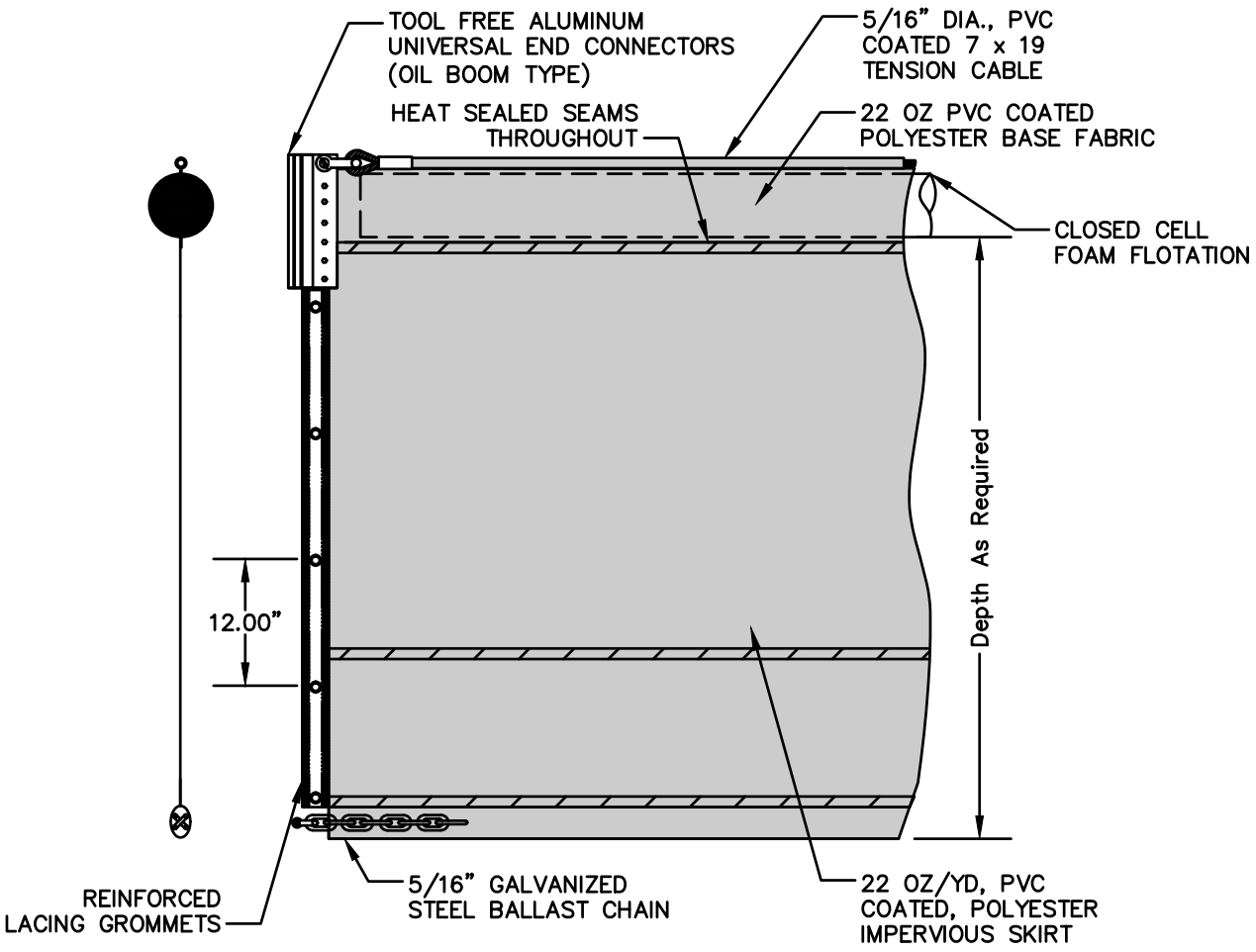
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

AA-20
SILT SACK *

File: SILT SACK.dwg

BMP DETAIL

SCALE: NONE



BMP PICTURE



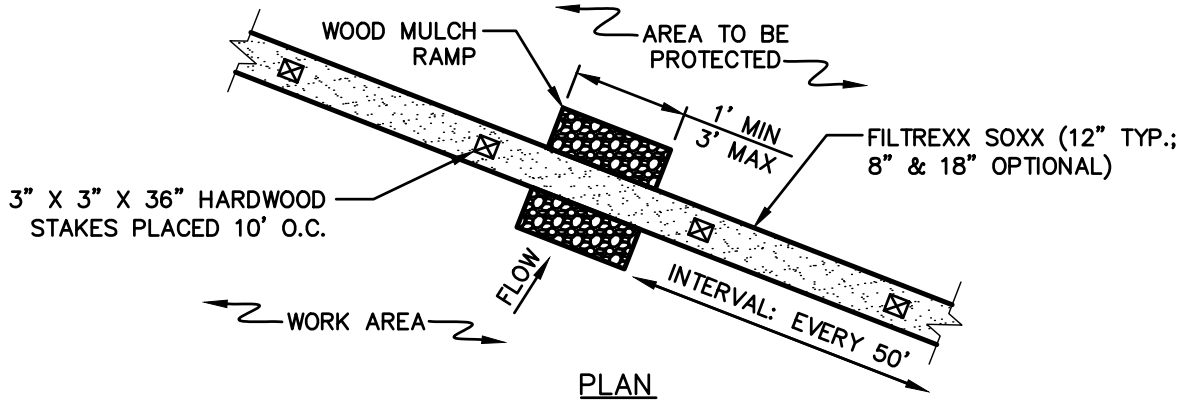
*** DETAIL PROVIDED BY BROCKTON EQUIPMENT / SPILLDAM INC.**
APPROVED BY: VICE PRESIDENT, ENVIRONMENTAL SERVICES
PRINTED COPIES ARE NOT DOCUMENT CONTROLLED. FOR LATEST AUTHORIZED VERSION PLEASE REFER TO THE NATIONAL GRID ENVIRONMENTAL INFONET SITE.

AA-21
TURBIDITY CURTAIN *

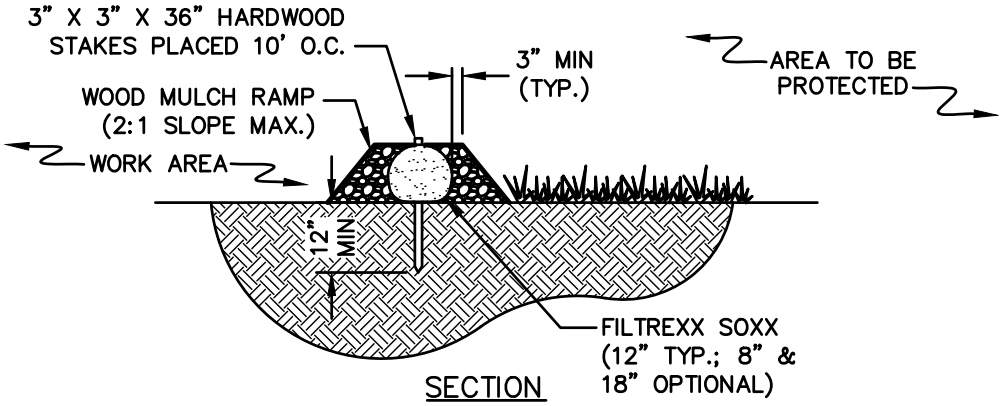
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BMP DETAIL

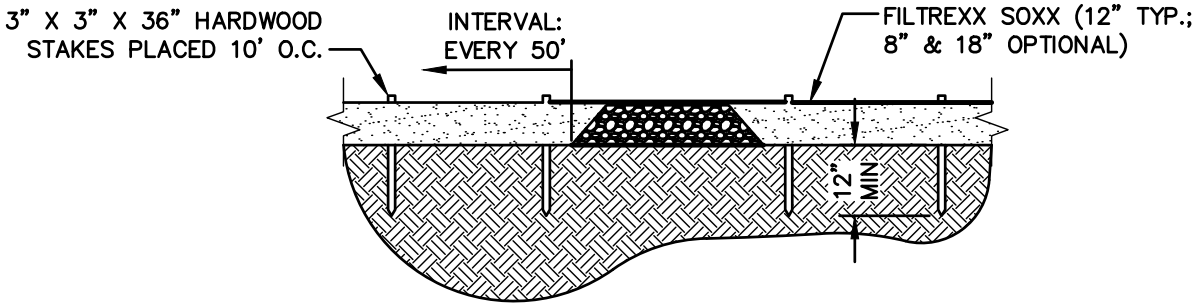
SCALE: NONE



PLAN



SECTION



PROFILE

NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. NON-MONOFILAMENT CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 1/4".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPOSED OF ON-SITE, OR IN ACCORDANCE WITH ENVIRONMENTAL PERMITS AS APPROVED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
7. WOOD MULCH RAMP IS OPTIONAL DEPENDING ON SUBSTRATE/SITE CONDITIONS, AND TO BE APPROVED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP # AA-22
SILTSOXX AMPHIBIAN & REPTILE CROSSING #1 (1 OF 2)

File: Alternate_Mulch_Ramp_Siltsoxx.dwg

BMP PICTURE



SALAMANDER AND SNAKE CROSSING #1

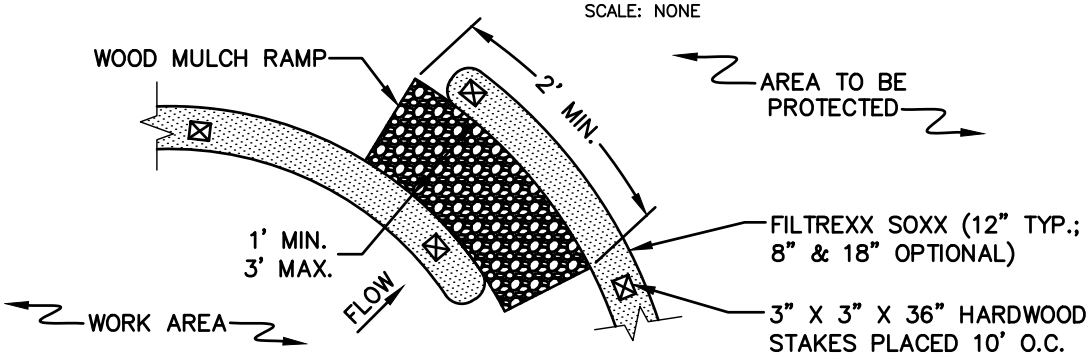
ALTERNATE WOOD MULCH RAMP SILTSOXX NOTES:

1. SILTSOXX, BY FILTREX INTERNATIONAL, OR APPROVED EQUAL PRODUCT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.

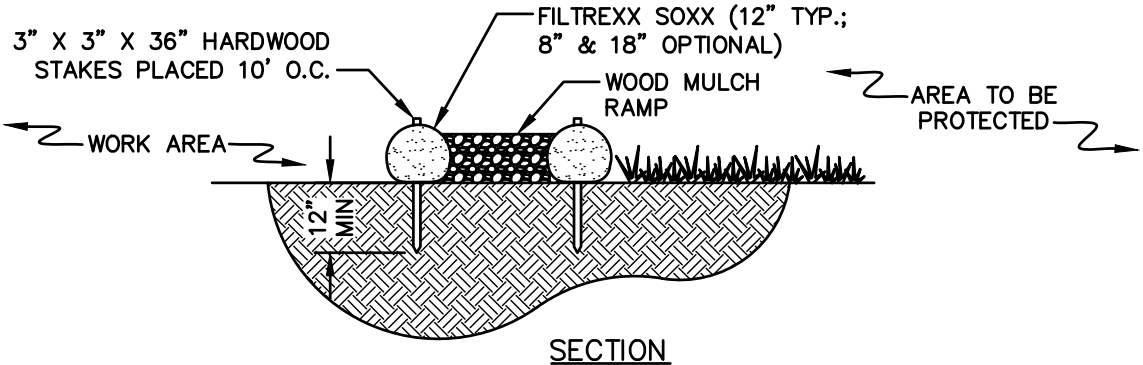
2. BMP SHOULD ONLY BE UTILIZED IN AREAS WHERE RARE SALAMANDER AND SNAKE HABITAT OCCURS, OR AT THE DIRECTION OF THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP DETAIL

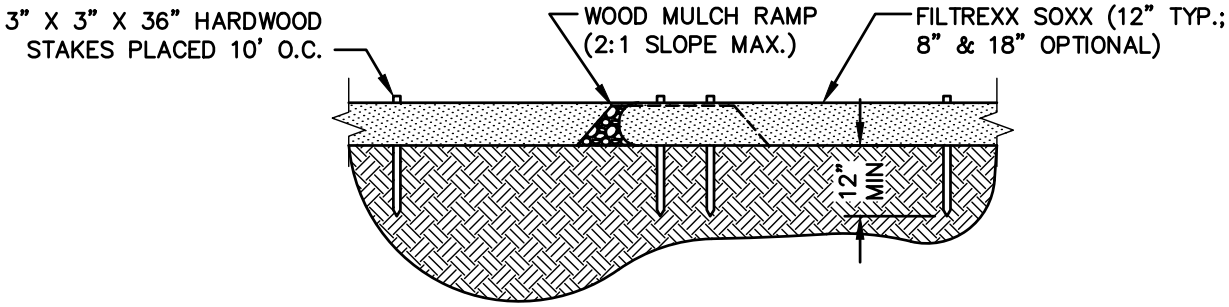
SCALE: NONE



PLAN



SECTION



PROFILE

NOTES

1. PRODUCT TO BE FILTREXX SILT SOXX OR APPROVED EQUAL BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
2. ALL MATERIAL TO MEET FILTREXX SPECIFICATIONS.
3. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
4. NON-MONOFILAMENT CONTAINMENT MATERIAL SHOULD BE KNITTED PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL, WITH OPENING SIZES BETWEEN 1/8" – 1/4".
5. COMPOST MEDIA SHOULD HAVE PARTICLE SIZE WHERE 99% < 2", 50% > 1/2".
6. COMPOST MATERIAL TO BE DISPOSED OF ON-SITE, OR IN ACCORDANCE WITH ENVIRONMENTAL PERMITS AS APPROVED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
7. WOOD MULCH RAMP IS OPTIONAL DEPENDING ON SUBSTRATE/SITE CONDITIONS, AND TO BE APPROVED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
8. GAPS TO BE SPACED EVERY 50 FT, IF POSSIBLE GIVEN WETLAND PERMIT CONDITIONS.

BMP # AA-23
SILTSOXX AMPHIBIAN & REPTILE CROSSING #2 (1 OF 2)

File: Alternate_Siltsoxx.dwg

BMP PICTURE



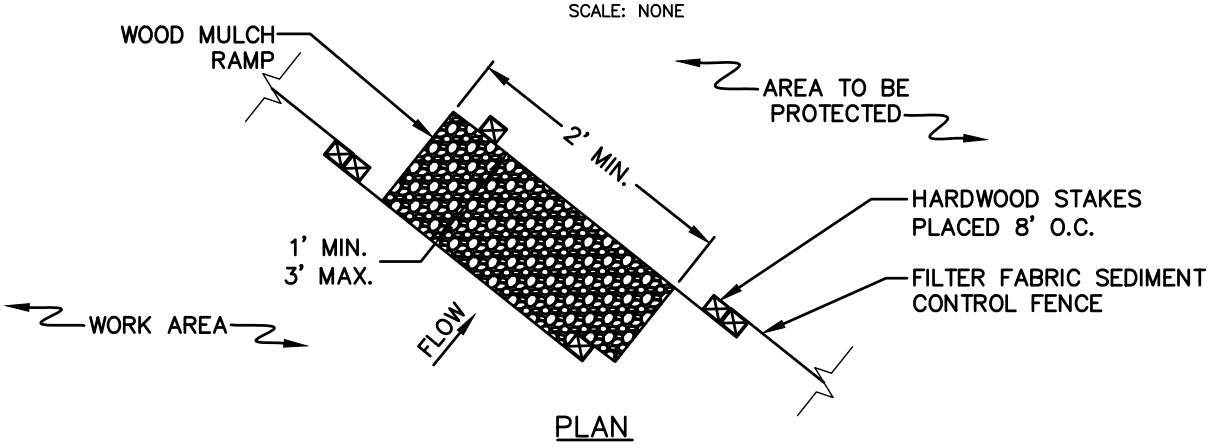
SILTSOXX AMPHIBIAN & REPTILE CROSSING #2

ALTERNATE WOOD MULCH RAMP SILTSOXX NOTES:

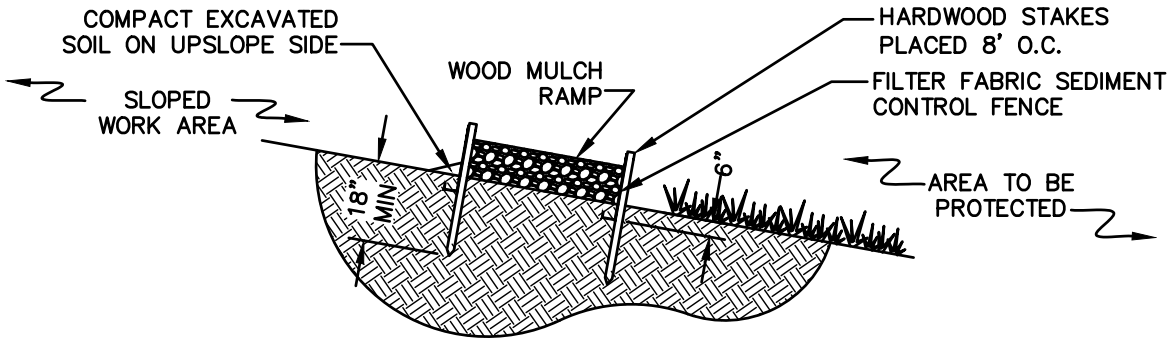
1. SILTSOXX, BY FILTREX INTERNATIONAL, OR APPROVED EQUAL PRODUCT SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE MANUFACTURER'S GUIDELINES.
2. BMP SHOULD ONLY BE UTILIZED IN AREAS WHERE RARE SALAMANDER AND SNAKE HABITAT OCCURS OR AT THE DIRECTION OF THE NATIONAL GRID ENVIRONMENTAL SCIENTIST.

BMP DETAIL

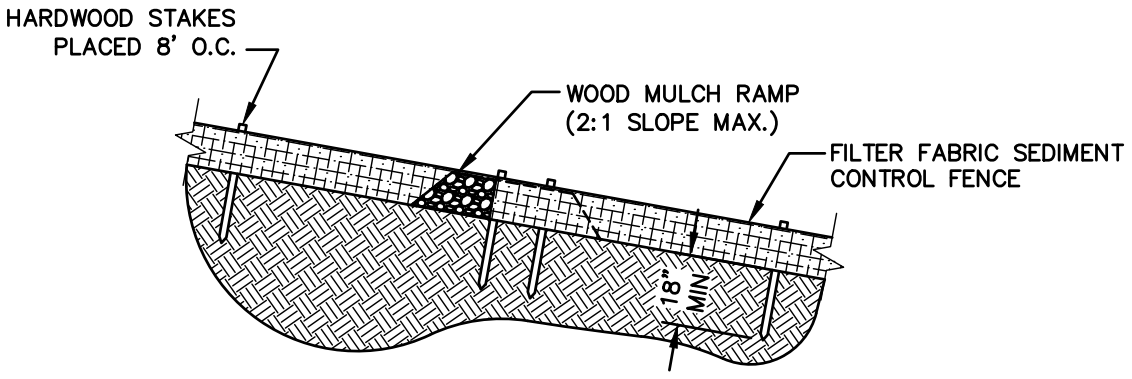
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PLAN



SECTION



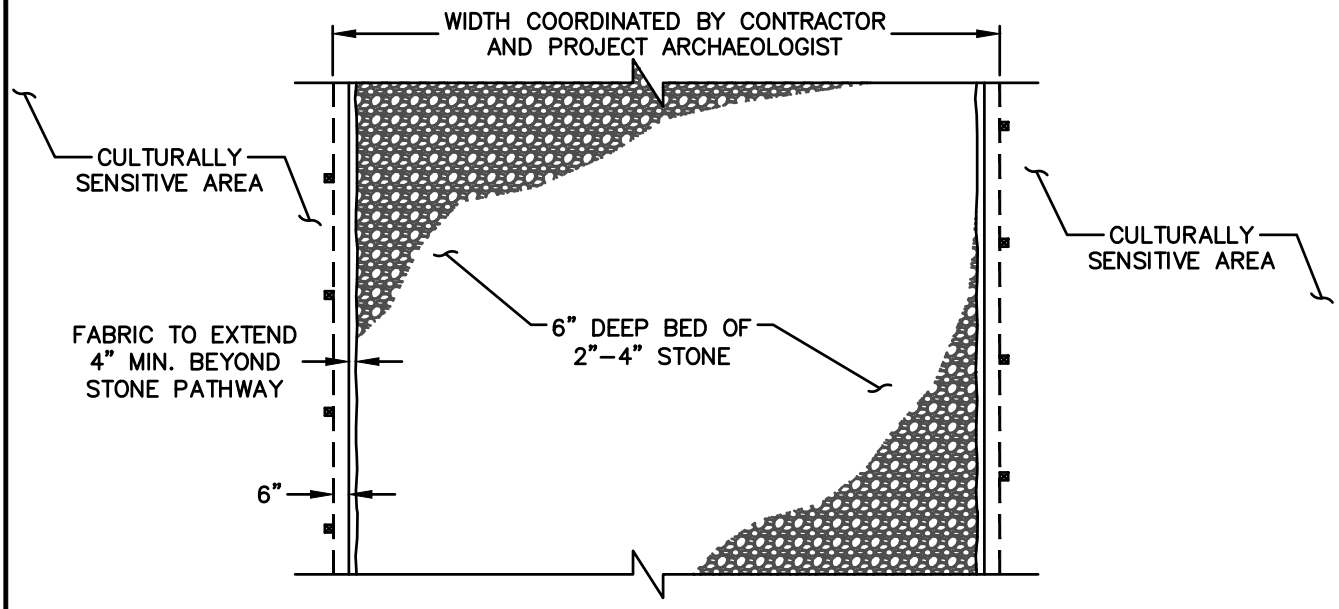
PROFILE

NOTES

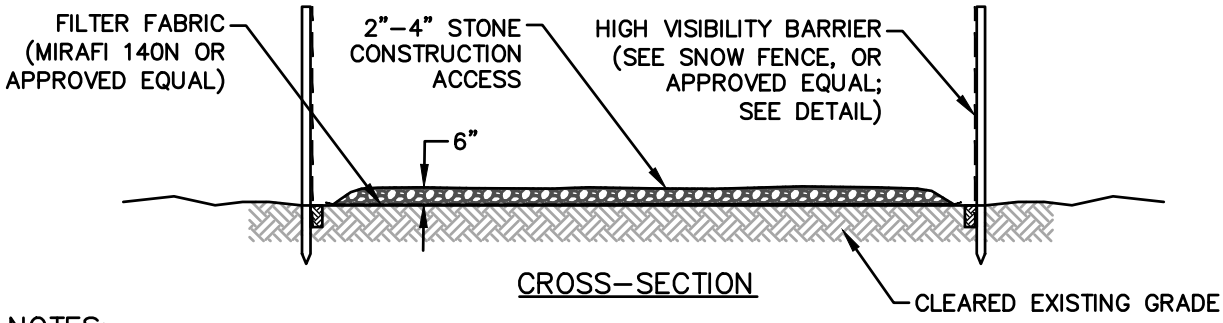
1. IN AREAS WHERE SLOPES OR RUN-OFF VOLUME PROHIBIT USE OF SILTSOXX, CROSSINGS CAN BE PROVIDED THROUGH TRENCHED SILT FENCE.
2. INTALL SILT FENCE TO SPECIFICATIONS IN EG303 APPENDIX 7 "SEC-2 SEDIMENT CONTROL FENCE."
3. WOOD MULCH RAMP IS OPTIONAL DEPENDING ON SUBSTRATE/SITE CONDITIONS, AND TO BE APPROVED BY NATIONAL GRID ENVIRONMENTAL SCIENTIST.
4. GAPS TO BE SPACED EVERY 50 FT, IF POSSIBLE GIVEN WETLAND PERMIT CONDITIONS.

BMP DETAIL

SCALE: NONE



PLAN VIEW



CROSS–SECTION

NOTES:

1. ARCHAEOLOGICAL SITE BOUNDARIES, AS DEFINED BY INTENSIVE ARCHAEOLOGICAL SURVEY AND SITE AVOIDANCE AND PROTECTION PLANS, WILL BE DEMARCATED BY STAKING BY THE PROJECT ARCHAEOLOGIST.
2. GEOTEXTILE AND STONE MAY REMAIN IN PLACE FOLLOWING CONSTRUCTION IF PERMANENT PROTECTION IS NECESSARY AND DEPENDENT ON EASEMENT RIGHTS.
3. WHERE APPROVED BY THE PROJECT–SPECIFIC SAPP, CONSTRUCTION MATTING MAY BE ADDED OVER, OR IN PLACE OF, THE FABRIC AND STONE.
4. INSTALLATION AND REMOVAL OF FABRIC AND STONE, EROSION CONTROLS, AND/OR CONSTRUCTION MATTING WILL BE MONITORED BY THE PROJECT ARCHAEOLOGIST AT EACH LOCATION(S).
5. INSTALLATION OF THESE MEASURES WILL BE CONDUCTED WITH LOW–GROUND PRESSURE VEHICLES WHERE FEASIBLE.
6. WHERE REQUIRED BY THE PROJECT–SPECIFIC SAPP, TEMPORARY, HIGH VISIBILITY PROTECTIVE FENCING (E.G., SNOW FENCE OR PLASTIC FENCE) WILL BE ERECTED ALONG THE SITE BOUNDARIES OUTSIDE OF THE WORKSPACE WITHIN THE ROW IN ORDER TO PREVENT VEHICLES FROM TRAVELING THROUGH THOSE SITE AREAS DURING CONSTRUCTION. THE PROTECTIVE FENCE WILL BE POSTED WITH "NO TRESPASSING" SIGNS, SO THAT THE SITES CAN BE AVOIDED BY ALL CONSTRUCTION RELATED ACTIVITIES. THE FENCING WILL BE REMOVED UPON COMPLETION OF THE PROJECT. THE INSTALLATION AND REMOVAL OF FENCING WILL BE MONITORED BY THE PROJECT ARCHAEOLOGIST.

BMP PICTURES





APPENDIX 5
CERTIFICATION FORM FOR INVASIVE SPECIES CONTROL

Certain permit conditions, therefore a Condition of Contracts for the Prime Contractor, any Subcontractors, and any equipment or mat vendors for ***National Grid Projects*** shall be required to Certify their equipment[7] {each piece of equipment used on site} as 'clean'[8].

_____ (*name of firm*) hereby Certifies that

_____ (*make, model, and/or type*)

_____ (*equipment ID tag or #)* meets the following

1. before entry on to the job site, has been sufficiently cleaned to remove all accumulated mud, debris, plant fragments, and detritus that could harbor seeds, roots, or plant fragments of so-called invasive plant species; and

2. that the above piece of equipment has neither been off-loaded nor operated in the interval between cleaning and delivery to the jobsite.

3. that equipment deployed in areas of invasive species (as identified in project plans) shall be cleaned prior to redeployment.

_____ (*signed*) _____ (*dated*)

_____ (*printed name*) _____ (*title*)

_____ (*Firm*)

The signed original of this form {one for each piece of equipment (or lot[9] of mats)} is to be given to the NG Construction Supervisor assigned to the project.

---

7 Equipment may include, but is not limited to bulldozers, excavators, backhoes, bucket trucks (tracked or wheeled), pulling equipment, concrete trucks, compressors, drilling equipment, and mats (composite, wood, or other materials).

8 With regard to invasive species, the definition of clean means free of accumulated mud, debris, plant fragments, and detritus that could harbor seeds, roots, or plant fragments of so-called invasive plant species.

9 Lot of mats is the number of mats that may be transported by one forwarder/truck at a time.

APPENDIX 6
SNOW DISPOSAL GUIDELINES

Finding a place to dispose of collected snow poses a challenge. While we are all aware of the threats to public safety caused by snow, collected snow that is contaminated with road salt, sand, litter, and automotive pollutants such as oil also threatens public health and the environment.

As snow melts, road salt, sand, litter, and other pollutants are transported into surface water or through the soil where they may eventually reach the groundwater. Road salt and other pollutants can contaminate water supplies and are toxic to aquatic life at certain levels. Sand washed into water bodies can create sand bars or fill in wetlands and ponds, impacting aquatic life, causing flooding, and affecting our use of these resources.

There are several steps that should be taken to minimize the impacts of snow disposal on public health and the environment.

- **DO NOT** dump snow into any water body, including rivers, the ocean, reservoirs, ponds, or wetlands. In fact, a buffer of at least 50 feet between any snow disposal area and any the high-water mark of any surface water should be kept. A silt fence or equivalent barrier should be securely placed between the snow storage area and the high-water mark. In addition to water quality impacts and flooding, snow disposed in surface waters can cause navigational hazards when it freezes into ice blocks.
- **DO NOT** dump snow within a wellhead protection area (e.g., a Zone II), in a high or medium-yield aquifer, or within 75 feet of a private well, where road salt may contaminate water supplies**. Ask an Environmental Department representative for guidance in determining if a proposed disposal area is located within one of these sensitive areas.**
- Avoid disposing of snow on top of storm drain catch basins or in storm water drainage swales or ditches. Snow combined with sand and debris may block a storm drainage system, causing localized flooding. A high volume of sand, sediment, and litter released from melting snow also may be quickly transported through the system into surface water.
- All debris in a snow storage area should be cleared from the site and properly disposed of no later than May 15 of each year the area is used for snow storage.

Under extraordinary conditions, when all land-based snow disposal options are exhausted, disposal of snow that is not obviously contaminated with road salt, sand, and other pollutants may be allowed near (within 50 feet) or even in certain water bodies under certain conditions.

In these dire situations, **notify the Environmental Department** so that the local Conservation Commission and the appropriate MassDEP Regional Service Center (in MA), RI DEM Office of Water Resources – RIPDES

Program (in RI), NH Department of Environmental Services – NHDES (in NH) and VT Department of Environmental Conservation - VT DEC (in VT) can be contacted before disposing of snow in a water body.

In emergency situations and after consulting an Environmental Department representative the following guidance should be followed:

- Dispose of snow in open water with adequate flow and mixing to prevent ice dams from forming.
- Do not dispose of snow in saltmarshes, vegetated wetlands, certified vernal pools, shellfish beds, mudflats, drinking water reservoirs and their tributaries, wellhead protection areas, or other environmentally sensitive areas.
- Do not dispose of snow where trucks may cause shoreline or stream bank damage or erosion.

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