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JUNE 28, 2022

Town of Mount Washington Conservation Commission
2 Plantain Pond Road
Mount Washington, MA 01258

RE: Notice of Intent (NOI)
Becker Pond Dam Removal Project
Mount Washington, MA
The Nature Conservancy (TNC)

Dear Members of the Mount Washington Conservation Commission,

BSC Group, Inc., on behalf of the Nature Conservancy (TNC), is submitting this Notice of Intent (NOI) for the Becker Pond Dam Removal Project in Mount Washington, MA. The applicant is seeking a **Restoration Order of Conditions** from the Commission, for the removal of Becker Pond Dam and the restoration of the brook, in accordance with the Wetlands Protection Act (WPA), *310 CMR 10.53(e)(1)*.

TNC is proposing to remove the Becker Pond Dam (also known as the "Dombrowski Pond Dam"), to restore hydrological connectivity, stream geomorphology, and ecological connectivity along the unnamed brook, which flows through what is currently Becker Pond. The Becker Pond Dam is the only known man-made obstruction on this otherwise free-flowing brook, and was highlighted as a priority dam removal project by the Massachusetts Division of Ecological Restoration (DER), in 2018.

TNC has obtained the services of Inter-Fluve (river restoration specialists), for the design and implementation of the dam removal. As designed, Inter-Fluve is proposing a full dam removal with partial sediment removal. The proposed design will reduce the amount of mobile sediment entering the downstream system during and after dam removal, while minimizing site disturbance associated with removing excavated sediments by truck. First, a coffer dam and pump will be installed upstream of Becker Pond, to divert water around the existing dam and dewater the pond and impounded sediment. Once the sediment trapped behind the dam has been dewatered, approximately 1/3 of the readily mobile material will be removed by excavator. A pilot channel will also be dug through the former pond to guide the establishment of the new stream reach. Becker Pond Dam will then be removed in its entirety, and the area stabilized before the coffer dam and pump are removed. Please refer to **Attachment A** – Project Narrative for full details of the proposed work, anticipated impacts, and mitigation and restoration measures to be employed.

As a stream restoration Project, the long-term impacts to Wetland Resource Areas and interests protected by the WPA will be overwhelmingly positive, although short-term impacts to Bordering Vegetated Wetland (BVW), 100-ft Buffer Zone to BVW, Inland Bank, and 200-ft Riverfront Area, are proposed. Permanent impacts will include the loss of Land Under Water (LUW) associated with the man-made impoundment Becker Pond. Once the dam is removed, new resource areas, including new Riverfront Area, Bank, and Bordering Land Subject to Flooding (BLSF), will replace the lost resource areas associated with Becker Pond.

Please find enclosed two (2) hard copies of the NOI application, including WPA Form 3a, Project Narrative, Figures and Plans, Site Photographs and Wetland Data Forms, Abutter Information, Best Management Practices (BMPs), and correspondence with NHESP and MA Division of Fisheries & Wildlife. We respectfully request that you place this matter on your agenda for the next available public hearing. If you have any questions, please do not hesitate to contact me at 860-781-6151, or by email at sbarnum@bscgroup.com.

Sincerely,
BSC Group, Inc.

Sarah Barnum, PhD, CWB
Ecological Services Manager, NH

Cc: Karen Lombard, The Nature Conservancy

THE NATURE CONSERVANCY

Becker Pond Dam Removal Project
Notice of Intent

Town of Mount Washington
Conservation Commission
June 2022

Prepared for:
The Nature Conservancy
136 West Street, Suite 202
Northampton, MA 01060

BSC Project No. 89999.00

Prepared by:

BSC GROUP

150 Dow Street, Ste. 450
Manchester, NH 03101

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Becker Pond Dam Removal Project
Mount Washington, Massachusetts
Notice of Intent

Attachment A

Becker Pond Dam Removal Project
Mount Washington, Massachusetts
Notice of Intent

WPA FORM 3A
PROJECT NARRATIVE

BSC GROUP

2993

BSC COMPANIES, INC.
803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127

53-179/113

DATE 6/28/22

PAY TO THE ORDER OF Town of Mount Washington $ 387.50

Three hundred eighty-Seven dollars ~50/100 DOLLARS

Eastern Bank Boston, MA 02110 easternbank.com 1-800-EASTERN

TWO SIGNATURES REQUIRED OVER $2,500
NOT VALID AFTER 180 DAYS

FOR 89999.00

⑈002993⑈ ⑆011301798⑆ 060065930⑆

2998

BSC COMPANIES, INC.
803 SUMMER STREET
BOSTON, MASSACHUSETTS 02127

53-179/113

DATE 6/29/22

PAY TO THE ORDER OF Commonwealth of MA $362.50

Three hundred Sixty-two dollars 50/00 DOLLARS

Eastern Bank Boston, MA 02110 easternbank.com 1-800-EASTERN

TWO SIGNATURES REQUIRED OVER $2,500
NOT VALID AFTER 180 DAYS

FOR 8999900

⑈002998⑈ ⑆011301798⑆ 060065930⑆

Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program

WPA Form 3A - Notice of Intent for an Ecological Restoration Project

MassDEP File Number

Mount Washington
City or Town

Project Type

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.

Check the Ecological Restoration type that applies:

☒ 1. Dam Removal

☐ 2. Freshwater Stream Crossing Repair and Replacement*

☐ 3. Stream Daylighting

☐ 4. Tidal Restoration

☐ 5. Rare Species Habitat Restoration

☐ 6. Restoring Fish Passageways

Eligibility Criteria:

☒ I am applying for a Restoration Order of Conditions and meet the General Eligibility Criteria [310 CMR 10.13(1)] as described in Section C1 and the Additional Eligibility Criteria for this Ecological Restoration Project type [310 CMR 10.13(2) through (7)] as described in Section C2.

☒ This Notice of Intent includes the required supporting documents as specified in [310 CMR 10.11, 10.12] and outlined in Appendix 1 and Appendix 2 respectively. The NOI also includes a signed Certification of Eligibility in Section G. Signatures and Submittal Requirements.

A. General Information

1. Project Location:

Becker Pond, off East Street
a. Street Address

Mount Washington
b. City/Town

01258
c. Zip Code

Latitude and Longitude*:

42.058353
d. Latitude

-73.459276
e. Longitude

7
f. Assessors Map/Plat Number

5A
g. Parcel/Lot Number

2. Applicant:

Karen
a. First Name

Lombard
b. Last Name

The Nature Conservancy
c. Organization

* *If the Ecological Restoration Project involves work on a stream crossing, baseline photo-points that capture longitudinal views of the crossing inlet, the crossing outlet and the upstream and downstream channel beds during low flow conditions. The latitude and longitude coordinates of the photo-points shall be included in the baseline data.*

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WPA Form 3A - Notice of Intent for an Ecological Restoration Project

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Mount Washington
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A. General Information (cont.)

136 West Street, Suite 202
d. Street Address

Northampton | MA | 01060
e. City/Town | f. State | g. Zip Code

413-923-3174 | | klombard@tnc.org
h. Phone Number | i. Fax Number | j. Email Address

3. Property Owner (required if different from applicant): ☐ Check and attach list if more than one owner

a. First Name | b. Last Name

The Nature Conservancy
c. Organization

d. Street Address

e. City/Town | f. State | g. Zip Code

h. Phone Number | i. Fax Number | j. Email Address

4. Representative (if any):

Sarah | Barnum
a. First Name | b. Last Name

BSC Group, Inc.
c. Organization

150 Dow Street, Ste. 450
d. Street Address

Manchester | NH | 03101
e. City/Town | f. State | g. Zip Code

860-781-6151 | | sabarnum@bscgroup.com
h. Phone Number | i. Fax Number | j. Email Address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form): Category 2 - $500

$750.00 | $362.50 | $387.50
a. Total Fee Paid | b. State Fee Paid | c. City/Town Fee Paid

6. Property recorded at the Registry of Deeds for:

Berkshire South

b. Certificate # (if registered land)

1167 | 155
c. Book | d. Page Number

7. Project Narrative: Describe the project's ecological restoration goals and how it furthers at least one of the interests of the Wetland Protection Act (WPA) M.G.L. c. 131, § 40.

The Project will remove Becker Pond Dam, located off of East Street in Mount Washington, MA. The dam is the only known man-made obstruction on an otherwise free-flowing brook. Its removal will restore river connectivity, benefiting fisheries & wildlife, while reducing flood risks from a possible failure of the structurally defficient dam. Refer to the attached Project Narrative for further details.

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B. Resource Area Impacts (Temporary & Permanent)

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

1. ☒ **Inland Resource Areas**: (See 310 CMR 10.54-10.58)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☒ Bank	1,260 (1. linear feet)	1,260 (2. linear feet)
b. ☒ Bordering Vegetated Wetland	1,230 (temp) (1. square feet)	0 (temp only) (2. square feet)
c. ☒ Land Under Waterbodies and Waterways	42,400 (1. square feet) ~525 (3. cubic yards dredged)	13,200 (2. square feet)
d. ☒ Bordering Land Subject to Flooding	+8,200 (1. square feet) 43,100 (dam capacity, not BLSF) (2. cubic feet of flood storage lost)	0 (2. square feet) 0 (4. cubic feet replaced) (3. cubic feet replaced)
e. ☐ Isolated Land Subject to Flooding	(1. square feet)	
f. ☒ Riverfront Area	unnamed inland perennial brook (1. Name of Waterway (if available) - **specify inland or coastal**)	
2. Proposed alteration of the riverfront area:		**+255,500** (a. total square feet)

2. ☐ **Coastal Resource Areas:** (see 310 CMR 10.25-10.35)

Check all that apply below. **For coastal riverfront area, see B.1.f. above.**

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	(1. square feet) (2. cubic yards dredged)	
c. ☐ Barrier Beach**	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	(1. square feet)	(2. cubic yards beach nourishment)
e. ☐ Coastal Dunes**	(1. square feet)	(2. cubic yards dune nourishment)

** *Note: No armoring of a Coastal Dune or Barrier Beach is permitted.*

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B. Resource Area Impacts (Temporary & Permanent) (cont.)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above 1. cubic yards dredged	
l. ☐ Land Subject to Coastal Storm Flowage	1. square feet	

3. ☐ **Restoration/Enhancement**

In addition to the square footage that has been entered in Section B1.b for BVW and B 2.h for Salt Marsh above, please enter the additional amount here for restoration/enhancement.

a. Identify the appropriate resource area(s) type/name	Square feet or linear feet
b. Identify the appropriate resource area(s) type/name	Square feet or linear feet

C. Ecological Restoration Project Description

1. Check each box below to confirm that the project complies with each Eligibility Criteria required to obtain a Restoration Order of Conditions and provide the appropriate documentation.

☒ This project will have no short term or long-term adverse effects on Estimated Habitat sites of Rare Species located within resource areas that may be affected by the project or will be carried out according to a habitat management plan approved by NHESP.

☒ The project avoids and minimizes adverse impacts to Resource Areas and the interests identified in the WPA, without impeding the achievement of the ecological restoration goals

☒ The project will utilize best management practices to prevent and minimize adverse impacts to Resource Areas and the WPA interests.

☒ This Project will cause NO significant adverse effects on the interests of flood control and storm damage prevention in relation to the built environment (i.e., the project will not result in a significant increase in flooding or storm damage affecting buildings, wells, septic systems, roads or other man-made structures or infrastructure) **and** documentation on how this is achieved.

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C. Ecological Restoration Project Description (cont.)

☒ If the Project involves the dredging of 100 cubic yards of sediment or more or dredging in an ORW, a 401 Water Quality Certification is required and attached. Requires a 401 Water Quality Certification.

☒ The Project will not substantially reduce the capacity of a Resource Area to serve the wildlife habitat functions identified in 310 CMR 10.60(2). A project will be **presumed** to meet this eligibility criteria if the NOI will be carried out in accordance with any Time of Year (TOY) restrictions or other conditions recommended by the DMF for coastal waters, and by the DFW for inland waters in accordance with 310 CMR 10.11(3), (4) and (5). A NOI for an Ecological Restoration Project that meets the requirements of 310 CMR 10.12(1) and (2) it ***is exempt from performing a wildlife habitat evaluation.***

☐ If the project involves work on a **stream crossing**, the stream crossing has been designed in accordance with 310 CMR 10.24(10) for work in coastal resource areas and 310 CMR 10.53(8) for work in inland resource areas, as applicable. See additional requirements below for Freshwater Stream Crossing Repair and Replacement Projects.

☒ The project will not result in a discharge of dredged or fill material within 400 feet of the high water mark of a Class A surface water (exclusive of its tributaries) unless the project is conducted by a public water system under 310 CMR 22.00 or a public agency or authority for the maintenance or repair of existing public roads or railways in accordance with 314 CMR 4.06(1)(d)1.

☒ The project will not result in a discharge of dredged or fill material to a vernal pool certified by the Massachusetts Division of Fisheries and Wildlife (DFW).

☒ The project will not result in a point source discharge to an Outstanding Resource Water.

☒ The project will not involve the armoring of a Coastal Dune or Barrier Beach.

☒ Describe in detail the project plan for invasive species prevention and control.

☒ Provide any TOY restrictions and/or other conditions recommended by the Division of Marine Fisheries or the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3), (4) and (5) with attached copies of their written determinations.

☐ If the project involves the construction, repair, replacement or expansion of infrastructure, a proposed operation and maintenance plan is provided to ensure that the infrastructure will continue to function as designed;

2. Check each box as appropriate to confirm that the project complies with the Eligibility Criteria required for this Ecological Restoration Project type.

Dam Removal

☒ The Ecological Restoration Project is a dam removal project. The project meets the eligibility criteria set forth in 310 CMR 10.13(1)(d).

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C. Ecological Restoration Project Description (cont.)

☒ The Project **is** consistent with the MassDEP guidance entitled *Dam Removal and the Wetlands Regulations*, dated December 2007, and meets the eligibility criteria set forth in 310 CMR 10.13(1).

☐ The Project is NOT consistent with MassDEP's guidance entitled Dam Removal and the Wetlands Regulations, dated December 2007 and meets the eligibility criteria set forth in 310 CMR 10.13(1).

☒ The project will not involve the removal of a dam that was constructed or is managed for flood control by a municipal, state or federal agency.

☒ The project will not adversely impact public water supply wells or water withdrawals permitted or registered under the Water Management Act, M.G.L. c. 21G, and 310 CMR 36.00 within the reach of the stream impacted by the impoundment.

☒ The project will not adversely impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.

☒ The project provides for the removal of the full vertical extent of the dam such that no remnant of the dam will remain at or below the streambed as determined prior to commencement of the dam removal project, or if such determination cannot be made at that time, as determined during construction of the project.

☒ The project provides for the removal of enough of the horizontal extent of the dam such that after removal no water will be impounded during the 500 year flood event.

☒ The project will not involve a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license.

☒ The applicant has obtained from the Department of Conservation and Recreation Office of Dam Safety a written determination in accordance to the General Applicability requirements prior to submitting this NOI.

☒ If the project is exempt from the requirement to obtain a license or permit under 310 CMR 9.05(3)(n), the project will not have an adverse effect on navigation or on any docks, piers or boat ramps authorized under 310 CMR 9.00.

Freshwater Stream Crossing Repair and Replacement (310 CMR 10.13(3))

☐ The Ecological Restoration Project is a freshwater stream crossing repair or replacement project. In addition to the eligibility criteria set forth in 310 CMR 10.13(1), the project meets all of the following eligibility criteria that will meet the MA Stream Crossing (SC) Standards that is completely described below or in the attached:

☐ The width of the structure will be at least 1.2 times bankfull width to facilitate the movement of fish and other aquatic organisms and wildlife species that may utilize riparian corridors.

☐ The structure will be an open-bottom span where practicable or if an open-bottom span is not practicable, the structure bottom will be embedded in a substrate that matches the substrate of the stream channel and that shall be designed to maintain continuity of aquatic and benthic elements of the stream including appropriate substrates and hydraulic characteristics within the culvert (water depths, slope, turbulence, velocities, and flow patterns).

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C. Ecological Restoration Project Description (cont.)

- ☐ The structure will have an Openness Ratio of at least 0.82 feet, or as close to 0.82 feet as is practicable.
- ☐ The project includes considerations for site constraints in meeting the SC standards, undesirable effects or risk in meeting the standard, the environmental benefit of meeting the standard compared to the cost in evaluating:
  - ☐ The potential for downstream flooding
  - ☐ Upstream and downstream habitat (in-stream habitat, wetlands);
  - ☐ Potential for erosion and head-cutting;
  - ☐ Stream stability;
  - ☐ Habitat fragmentation caused by the crossing;
  - ☐ The amount of stream mileage made accessible by the improvements;
  - ☐ Storm flow conveyance;
  - ☐ Engineering design constraints specific to the crossing;
  - ☐ Hydrologic constraints specific to the crossing;
  - ☐ Impacts to wetlands that would occur by improving the crossing;
  - ☐ Potential to affect property and infrastructure; and
  - ☐ Cost of replacement.

Stream Daylighting

- ☐ The Ecological Restoration Project is a stream daylighting project. In addition to the eligibility criteria set forth in 310 CMR 10.13(1), the project meets all of the following eligibility criteria and is completely described narrative below/attached:
  - ☐ The project will meet the applicable performance standards for Bank, 310 CMR 10.54, and Land Under Water Bodies and Waterways, 310 CMR 10.56. As set forth in 10.12(3), a person submitting a Notice of Intent that meets the requirements of 310 CMR 10.12 (1) and (2) for a stream daylighting project is exempt from the requirement to perform a wildlife habitat evaluation in accordance with 310 CMR 10.60, notwithstanding the provisions of 310 CMR 10.54(4)(a)5., 310 CMR 10.56(4)(a)4., and 310 CMR 10.60.
  - ☐ To the maximum extent practicable, the project is designed to include the revegetation of all disturbed areas with noninvasive indigenous species appropriate to the site.

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C. Ecological Restoration Project Description (cont.)

Tidal Restoration Project (310 CMR 10.13(5))

☐ The Ecological Restoration Project is a Tidal Restoration Project designed to restore tidal flow that has been restricted or blocked by a man-made structure. In addition to the eligibility criteria set forth in 310 CMR 10.13(1), the project meets all of the following eligibility criteria that is completely described below or in the attached:

- ☐ If the project will involve work in a Coastal Dune and/or a Coastal Beach, the project meets the applicable performance standard(s) at 310 CMR 10.27 and/or 10.28.
- ☐ The project will not include a new or relocated tidal inlet/breach through a Barrier Beach or additional armoring of a Barrier Beach, but may include the modification, replacement or enlargement of an existing culvert or inlet through a Barrier Beach.
- ☐ The project will not involve installation of new water control devices (i.e., tide gates, flash boards and adjustable weirs) or a change in the management of existing water control devices, when the existing or proposed function of said devices is to prevent flooding or storm damage impacts to the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure.
- ☐ The project's physical specifications are compatible with passage requirements for diadromous fish runs identified at the project location by the Division of Marine Fisheries.
- ☐ Did the project include considerations for site constraints in meeting the SC standards, undesirable effects or risk in meeting the standard, the environmental benefit of meeting the standard compared to the cost in evaluating:
  - ☐ The potential for downstream flooding
  - ☐ Upstream and downstream habitat (in-stream habitat, wetlands);
  - ☐ Potential for erosion and head-cutting;
  - ☐ Stream stability;
  - ☐ Habitat fragmentation caused by the crossing;
  - ☐ The amount of stream mileage made accessible by the improvements;
  - ☐ Storm flow conveyance;
  - ☐ Engineering design constraints specific to the crossing;
  - ☐ Hydrologic constraints specific to the crossing;
  - ☐ Impacts to wetlands that would occur by improving the crossing;
  - ☐ Potential to affect property and infrastructure; and

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C. Ecological Restoration Project Description (cont.)

☐ Cost of replacement.

Rare Species Habitat Restoration (310 CMR 10.13(6))

☐ The Ecological Restoration Project is a Rare Species habitat restoration project. In addition to the eligibility criteria set forth in 310 CMR 10.13(1), the project meets all of the following eligibility criteria that is completely described below or in the attached:

☐ The project is exempt from review under 321 CMR 10.00 as a project that involves the active management of Rare Species habitat for the purpose of maintaining or enhancing the habitat for the benefit of Rare Species. A project that involves the active management of Rare Species habitat and is exempt from review under 321 CMR 10.00 may include without limitation the mowing, cutting, burning or pruning of vegetation or the removal of exotic or invasive species.

☐ The project is carried out in accordance with a Habitat Management Plan that has been approved in writing by the Natural Heritage and Endangered Species Program and submitted with this Notice of Intent.

Restoring Fish Passageways (310 CMR 10.13(7))

☐ The Ecological Restoration Project involves the restoration or repair of a fish passageway as identified by the Division of Marine Fisheries in its Marine Fisheries Technical Reports, TR 15 through 18, dated 2004. In addition to the eligibility criteria set forth in 310 CMR 10.13(1), the project meets all of the following eligibility criteria that is completely described below or in the attached:

☐ Proof of submission of a Fishway Permit Application to the Division of Marine Fisheries, pursuant to M.G.L. c. 130, §§ 1 and 19, and 322 CMR 7.01(4)(f) and (14)(m); and
☐ The fish passageway will be operated and maintained in accordance with an Operation and Maintenance Plan approved by the Division of Marine Fisheries.

D. Other Applicable Standards and Requirements

A person submitting a Notice of Intent for an Ecological Restoration Project that meets the requirements of 310 CMR 10.12(1) and (2) and that contains either a written determination from the Natural Heritage Endangered Species Program (NHESP) that the project will have no short or long term adverse effects on the habitat of the local population of state-listed species, or a Conservation and Management Permit issued by NHESP pursuant to the Massachusetts Endangered Species Act (MESA) Regulations at 321 CMR 10.00 for the project, or a habitat management plan for the project approved in writing by NHESP, will be deemed to have satisfied the requirements in 310 CMR 10.37 and 310 CMR 10.59 of sending the Notice of Intent for the same project for a determination by NHESP. For the purposes of this guidance, the “same project” means either there have been no changes to the project reviewed by NHESP in making its determination or that any subsequent changes to the project since the initial review by NHESP have been reviewed and approved in writing by NHESP.

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D. Other Applicable Standards and Requirements (cont.)

Compliance with the above NHESP-related requirements may be demonstrated by providing the following applicable documentation. See Appendix 1 for a complete description of these requirements. Check the applicable box below.

☐ The project is not within Estimated Habitat of State-Listed Rare Wetlands Wildlife as shown on the most recent Estimated Habitat Maps of State-Listed Rare Wetlands Wildlife published by the Natural Heritage and Endangered Species Program.

☒ The NHESP has issued the attached written determination that the project will have no short or long term adverse effects on the habitat of the local population of state-listed species.

☐ The NHESP has issued the attached written approval of the attached habitat management plan for this project, which makes it an eligible Rare Species habitat restoration project under 310 CMR 10.13(6).

☐ The NHESP has issued pursuant to the MESA Regulations at 321 CMR 10.00 the attached Conservation and Management Permit for this project.

☐ There have been no changes to the project reviewed by NHESP in making its determination, or if so, any subsequent changes to the project have been reviewed and approved in writing by NHESP and attached hereto.

1. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

   a. ☒ Not applicable – project is in inland resource area only

   b. ☐ Yes ☐ No

   If yes, include proof of mailing, hand delivery, or electronic delivery of written determination to either:

   South Shore – Cohasset to Rhode Island border, and the Cape & Islands:
   Division of Marine Fisheries –
   South Coast Field Station
   Attn: Environmental Reviewer
   836 South Rodney French Blvd
   New Bedford, MA 02744
   Email: DMF.EnvReview-South@state.ma.us

   North Shore – Hull to New Hampshire border:
   Division of Marine Fisheries –
   North Shore Field Station
   Attn: Environmental Reviewer
   30 Emerson Avenue
   Gloucester, MA 01930
   Email: DMF.EnvReview-North@state.ma.us

2. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

   a. ☒ Yes ☐ No

   If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP website for ACEC locations).
   Schenob Brook Drainage Basin
   b. ACEC

3. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

   a. ☐ Yes ☒ No

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D. Other Applicable Standards and Requirements (cont.)

4. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

   a. ☐ Yes ☒ No

5. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

   a. ☐ Yes ☒ No

   If yes, attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

   ☐ Proprietary BMPs are included in the Stormwater Management System.

6. ☐ If the Ecological Restoration Project involves the construction, repair, replacement or expansion of infrastructure, an operation and maintenance plan has been submitted to ensure that the infrastructure will continue to function as designed.

7. ☒ The project involves the dredging of 100 cubic yards or more of sediment, or dredging of any amount in an Outstanding Resource Water, and a Water Quality Certification issued by the Department pursuant to 314 CMR 9.00 is attached.

8. ☐ The Ecological Restoration Project involves work on a stream crossing. Sufficient information has been provided to demonstrate that the design meets the requirements in 310 CMR 10.24(10) for work in coastal resources, and 310 CMR 10.53 (8) for work in an inland resource area.

E. Additional Information

Check each box for required documents that are attached to this Notice of Intent (NOI). See instructions for details.

1. ☒ Maps and Plans identifying the location of proposed activities relative to the boundaries of each affected resource area [http://www.mass.gov/anf/research-and-tech/it-serv-and-support/application-serv/office-of-geographic-information-massgis/datalayers/nwi.html]

2. ☒ List the titles and dates for all plans and other materials submitted with this NOI.

   Environmental Resources Map - Existing & Proposed
   a. Plan Title

   BSC Group, Inc.
   b. Prepared By

   N/A
   c. Signed and Stamped by

   June 2022
   d. Final Revision Date

   1" = 100'
   e. Scale

   Project Design Plans
   f. Additional Plan or Document Title

   June 2022
   g. Date

3. ☒ Attach proof of Natural Heritage and Endangered Species Program written determination, if needed.
4. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries Time of Year written determination, if needed.

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E. Additional Information (cont.)

5. ☒ Attach NOI Wetland Fee Transmittal Form.

6. ☐ Attach Stormwater Report, if needed.

F. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

   Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

2993	06/28/2022
2. Municipal Check Number	3. Check date
eDEP submission	
4. State Check Number	5. Check date
BSC Companies, Inc.	
6. Payor Name on Check: First Name	7. Payor Name on Check: Last Name

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G. Signatures and Submittal Requirements

Certification of Ecological Restoration Project Notice of Intent

I hereby certify under penalties of perjury that **the Ecological Restoration Project Notice of Intent application meets the Eligibility Criteria set forth in 310 CMR 10.13.** I also certify that I am familiar with the information contained in this Notice of Intent application and that the accompanying plans, documents, and supporting data are to the best of my knowledge and belief true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Karen Lombard	06/28/2022
1. Signature of Applicant or Authorized Agent	
Karen Lombard	06/28/2022
2. Printed Name of Applicant or Authorized Agent	3. Date
4. Signature of Property Owner (if different)	5. Date
	06/28/2022
6. Signature of Representative (if any)	7. Date

The certification must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 6) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application

For Conservation Commission:
Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

For MassDEP:
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

Other:
The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.

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Appendix 1: Ecological Restoration Notice of Intent (WPA 3a) - Required Actions (310 CMR 10.11)

Complete the Required Actions before submitting a Notice of Intent Application for an Ecological Restoration Project and submit a completed copy of this Checklist with the Notice of Intent.

☒ **Environmental Monitor /Massachusetts Environmental Policy Act (MEPA)**
http://www.mass.gov/eea/agencies/mepa/submitting-notices-to-the-environmental-monitor.html

☒ Submit written notification at least 14 days **prior** to the filing of a Notice of Intent (NOI) to the *Environmental Monitor* for publication. A copy of the written notification is attached and provides at minimum:

- ☒ A brief description of the proposed project.
- ☒ The anticipated NOI submission date to the conservation commission.
- ☒ The name and address of the conservation commission that will review the NOI.
- ☒ Specific details as to where copies of the NOI may be examined or acquired **and** where to obtain the date, time, and location of the public hearing.

☒ **Massachusetts Endangered Species Act (MESA) /Wetlands Protection Act Review**

- ☒ Preliminary Massachusetts Endangered Species Act Review from the Natural Heritage and Endangered Species Program (NHESP) has been met and the written determination is attached.
  - ☐ Supplemental Information for Endangered Species Review has been submitted.
    1. ☐ Percentage/acreage of property to be altered:
       a. Within Wetland Resource Area _____ Percentage/acreage
       b. Outside Wetland Resource Area _____ Percentage/acreage
    2. ☐ Assessor's Map or right-of-way plan of site
    3. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work.
    4. ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)
    5. ☐ Photographs representative of the site
    6. ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm)

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Make check payable to "Commonwealth of Massachusetts - NHESP" and mail to NHESP:

Natural Heritage & Endangered Species Program
MA Division of Fisheries & Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

7. Projects altering 10 or more acres of land, also submit:

   a. ☐ Vegetation cover type map of site

   b. ☐ Project plans showing Priority & Estimated Habitat boundaries

OR Check One of the Following:

1. ☐ Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59 – see C4 below)

2. ☒ Separate MESA review ongoing.

   TBD
   a. NHESP Tracking #

   b. Date submitted to NHESP

3. ☐ Separate MESA review completed. Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

☒ **Estimated Habitat Map of State-Listed Rare Wetlands Wildlife**

If a portion of the proposed project is located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP), complete the portion below. To view habitat maps, see the **Massachusetts Natural Heritage Atlas** or view the maps electronically at: http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review

☒ A preliminary written determination from Natural Heritage and Endangered Species Program (NHESP) must be obtained indicating that:

- ☐ Project will NOT impact an area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by *NHESP.*
- ☒ Project will impact an area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP. A copy of NHESP's written preliminary determination in accordance with 310 CMR 10.11(2) is attached. This specifies:
  - ☒ Date of the map: August 2021

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Appendix 1: Ecological Restoration Notice of Intent (WPA 3a) - Required Actions (310 CMR 10.11)

☒ If the Rare Species identified is/are likely to continue to be located on or near the project, and if so, whether the Resource Area to be altered is in fact part of the habitat of the Rare Species.

☒ That if the project alters Resource Area(s) within the habitat of a Rare Species:

☒ The Rare Species is identified;

☒ NHESP's recommended changes or conditions necessary to ensure that the project will have **no** short or long term adverse effect on the habitat of the local population of the Rare Species is provided; **or**

☒ An approved NHESP habitat management plan is attached with this Notice of Intent.

Send the request for a preliminary determination to:
Natural Heritage & Endangered Species Program
MA Division of Fisheries & Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

☐ **Division of Marine Fisheries**

☐ If the project will occur within a coastal waterbody with a restricted Time of Year, [see Appendix B of the Division of Marine Fisheries (DMF) Technical Report TR 47 "Marine Fisheries Time of Year Restrictions (TOYs) for Coastal Alteration Projects" dated April 2011 http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/NEGP/MADMFTR-47.pdf].

☐ Obtain a DMF written determination stating:

☐ The proposed work does NOT require a TOY restriction.

☐ The proposed work requires a TOY restriction. Specific recommended TOY restriction and recommended conditions on the proposed work is attached.

☐ If the project may affect a diadromous fish run [re: Division of Marine Fisheries (DMF) Technical Reports TR 15 through 18, dated 2004: http://www.mass.gov/eea/agencies/dfg/dmf/publications/technical.html]

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Appendix 1: Ecological Restoration Notice of Intent (WPA 3a) - Required Actions (310 CMR 10.11)

☐ Obtain a DMF written determination stating:

☐ The design specifications and operational plan for the project are compatible with the passage requirements of the fish run.

☐ The design specifications and operational plan for the project are not compatible with the passage requirements of the fish run.

Send the request for a written determination to:

South Shore – Cohasset to Rhode Island border, and the Cape & Islands:
Division of Marine Fisheries –
South Coast Field Station
Attn: Environmental Reviewer
836 South Rodney French Blvd
New Bedford, MA 02744
Email: DMF_EnvReview.South@state.ma.us

North Shore – Hull to New Hampshire border:

Division of Marine Fisheries –
North Shore Field Station
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF_EnvReview.North@state.ma.us

☒ **Division of Fisheries and Wildlife –** http://www.mass.gov/eea/agencies/dfg/dfw/

☒ Projects that involve silt-generating, in-water work that will impact a non-tidal perennial river or stream and the in-water work will ***not*** occur between May 1 and August 30.

☒ Obtain a written determination from the Division of Fisheries and Wildlife (DFW) as to whether the proposed work requires a TOY restriction.

☒ The proposed work does NOT require a TOY restriction.

☐ The proposed work requires a TOY restriction. The DFW determination with TOY restriction and other conditions is attached.

☒ **MassDEP Water Quality Certification**

☒ Project involves dredging of 100 cubic yards or more in a Resource Area or dredging of any amount in an Outstanding Resource Water (ORW). A copy and proof of the MassDEP Water Quality Certification pursuant to 314 CMR 9.00 is attached to the NOI.

☒ This project is a Combined Permit Application for 401 Dredging and Restoration (BRP WW 26).

☒ **MassDEP Wetlands Restriction Order**

Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

☐ Yes ☒ No

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Appendix 1: Ecological Restoration Notice of Intent (WPA 3a) - Required Actions (310 CMR 10.11)

☐ **Department of Conservation and Recreation**

Office of Dam Safety

☐ For Dam Removal Projects, obtain a written determination from the Department of Conservation and Recreation Office of Dam Safety that the dam is not subject to the jurisdiction of the Office under 302 CMR 10.00, a written determination that the dam removal does not require a permit under 302 CMR 10.00 or a permit authorizing the dam removal in accordance with 302 CMR 10.00 has been issued.

Areas of Critical Environmental Concern (ACECs)

Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

☒ Yes ☐ No

If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations).

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Appendix 2: Ecological Restoration Notice of Intent (WPA 3a) - Minimum Required Documents (310 CMR 10.12)

Complete the Required Documents Checklist below and provide supporting materials before submitting a Notice of Intent Application for an Ecological Restoration Project.

☒ This Notice of Intent meets all applicable requirements outlined in for Ecological Restoration Projects in 310 CMR 10.12. Use the checklist below to insure that all documentation is included with the NOI.

At a minimum, a Notice of Intent for an Ecological Restoration Project shall include the following:

☒ Description of the project's ecological restoration goals;

☒ The location of the Ecological Restoration Project;

☒ Description of the construction sequence for completing the project;

☒ A map of the Areas Subject to Protection Under M.G.L. c. 131, § 40, that will be temporarily or permanently altered by the project or include habitat for Rare Species, Habitat of Potential Regional and Statewide Importance, eel grass beds, or Shellfish Suitability Areas.

☒ The method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.) is attached with documentation methodology.

☒ List the titles and dates for all plans and other materials submitted with this NOI.

Environmental Resources Maps - Existing and Proposed
a. Plan Title

BSC Group, Inc.
b. Prepared by

N/A
c. Signed and Stamped by

June 2022
d. Final Revision Date

1" = 100'
e. Scale

Project Design Plans
f. Additional Plan or Document Title

June 2022
g. Date

☐ If there is more than one property owner, attach a list of these property owners not listed on this form.

☒ Attach NOI Wetland Fee Transmittal Form.

☐ An evaluation of any flood impacts that may affect the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure as well as any proposed flood impact mitigation measures;

☒ A plan for invasive species prevention and control;

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Appendix 2: Ecological Restoration Notice of Intent (WPA 3a) - Minimum Required Documents (310 CMR 10.12)

☒ The Natural Heritage and Endangered Species Program written determination in accordance with 310 CMR 10.11(2), if needed;

☒ Any Time of Year restrictions and/or other conditions recommended by the Division of Marine Fisheries or the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3), (4), (5), if needed;

☒ Proof that notice was published in the *Environmental Monitor* as required by 310 CMR 10.11(1;

☒ A certification by the applicant under the penalties of perjury that the project meets the eligibility criteria set forth in 310 CMR 10.13;

☐ If the Ecological Restoration Project involves the construction, repair, replacement or expansion of infrastructure, an operation and maintenance plan to ensure that the infrastructure will continue to function as designed;

☒ If the project involves dredging of 100 cubic yards or more or dredging of any amount in an Outstanding Resource Water, a Water Quality Certification issued by the Department pursuant to 314 CMR 9.00;

☐ If the Ecological Restoration Project involves work on a stream crossing, information sufficient to make the showing required by 310 CMR 10.24(10) for work in a coastal resource area and 310 CMR 10.53(8) for work in an inland resource area; and

☐ If the Ecological Restoration Project involves work on a stream crossing, baseline photo-points that capture longitudinal views of the crossing inlet, the crossing outlet and the upstream and downstream channel beds during low flow conditions. The latitude and longitude coordinates of the photo-points shall be included in the baseline data.

☐ This project is subject to provisions of the MassDEP Stormwater Management Standards. A copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) is attached.

☒ Provide information as the whether the project has the potential to impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.

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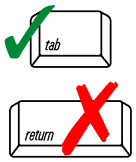
NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Applicant Information

1. Location of Project:

Becker Pond, off East Street	Mount Washington
a. Street Address	b. City/Town
	01258
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Karen	Lombard	
a. First Name	b. Last Name	
The Nature Conservancy		
c. Organization		
136 West Street, Suite 202		
d. Mailing Address		
Northampton	MA	01060
e. City/Town	f. State	g. Zip Code
413-923-3174		klombard@tnc.org
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

a. First Name	b. Last Name	
The Nature Conservancy		
c. Organization		
d. Mailing Address		
e. City/Town	f. State	g. Zip Code
h. Phone Number	i. Fax Number	j. Email Address

B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

Step 1/Type of Activity: Describe each type of activity that will occur in wetland resource area and buffer zone.

Step 2/Number of Activities: Identify the number of each type of activity.

Step 3/Individual Activity Fee: Identify each activity fee from the six project categories listed in the instructions.

Step 4/Subtotal Activity Fee: Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

Step 5/Total Project Fee: Determine the total project fee by adding the subtotal amounts from Step 4.

Step 6/Fee Payments: To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

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NOI Wetland Fee Transmittal Form

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2e (inland limited project)	1	$500.00 (x1.5)	$750

Step 5/Total Project Fee:

Step 6/Fee Payments:

Total Project Fee:	$750 a. Total Fee from Step 5
State share of filing Fee:	$362.50 b. 1/2 Total Fee **less $**12.50
City/Town share of filling Fee:	$387.50 c. 1/2 Total Fee **plus** $12.50

C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

To MassDEP Regional Office (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

ATTACHMENT A
PROJECT NARRATIVE
BECKER POND DAM REMOVAL PROJECT
MOUNT WASHINGTON, MA

CONTENTS

TABLES

1.0 PROJECT SUMMARY

BSC Group, Inc. (BSC), is filing this Notice of Intent (NOI) on behalf of The Nature Conservancy (TNC) for the removal of the Becker Pond Dam, located at Becker Pond in Mount Washington, Massachusetts (the "Project"). The dam is located on an unnamed brook in a relatively remote area and is the only known man-made obstruction on this otherwise free-flowing brook. The concrete dam is currently in poor condition with several critical safety and structural issues. As such, TNC (which owns the area containing the dam and the surrounding 1650-acre Mount Plantain Preserve), intend to remove the structurally deficient dam, restoring river connectivity and reducing flood and safety risks from a possible dam failure in the future. As a stream restoration Project, the long-term impacts to Wetland Resource Areas and interests protected by the WPA will be overwhelmingly positive, although short-term impacts to the 100-ft Buffer Zone to Bordering Vegetated Wetland (BVW), Inland Bank, Land Under Water (LUW), and 200-ft Riverfront Area, are proposed. The Project qualifies as an Ecological Restoration Project in accordance with *310 CMR 10.53(e)(1.)*.

TNC is submitting this NOI for the Project and requesting a **Restoration Order of Conditions** from the Mount Washington Conservation Commission for the work described herein.

Below is a summary of the proposed work schedule and estimated timeframes:

- **Approximate Project construction timeframe**: August 2023 – April 2024

- **Subset of Work subject to review under the WPA**:
  - Construction of new access road from East Street ("*Access Entrance Alternative 2*" on the site plans in **Attachment B**);
  - Removal of the Becker Pond Dam, involving:
    - Installation of coffer dam and pump to divert stream during dam removal;
    - Complete removal of the dam, including removal of the dam spillway, training walls, earthen embankment & concrete core wall;
    - Excavation of a pilot channel through the former impoundment (Becker Pond);
    - Grading and stabilization of Bank, Riverfront and Buffer Zone areas;
    - Restoration and planting of disturbed Bank, Riverfront and Buffer Zone areas.

- **Work not subject to WPA review**:
  - Work areas outside of Wetland Resource Areas and Buffer Zones.

2.0 REGULATORY REVIEW / ESTABLISHING JURISDICTION

2.1 WPA

The Project qualifies as an Ecological Restoration Project in accordance with *310 CMR 10.53(e)(1.)*. Dam removal projects are also generally considered as limited projects under *310 CMR 10.53(4)*, and as such, traditional mitigation requirements are discretionary[1]. TNC and Inter-Fluve have designed the Project to conform with the performance standards of the WPA as far as possible, as described in **Section 7** of this narrative.

[1] MassDEP, "Dam Removal and the Wetland Regulations" (Massachusetts Department of Environmental Protection, 2007).

2.2 ANTICIPATED PERMITS

sarah, add to the planset notes under permitting and to the specifications.

TNC anticipates the following permits for the proposed Project in Mount Washington:

***Table 1**: Anticipated Permitting requirements for the Becker Pond Dam Removal Project*

Permit/Approval	Regulating Body	Status	Anticipated Filing Date	Anticipated Permit in Hand
Local				
OOC	Mount Washington Conservation Commission	This application – in progress	June 28	August/September
Permit for the construction of a driveway or road abutting or intersecting a public way	Mount Washington Board of Selectmen	To be completed upon contract award	TBD	TBD
State				
EIR	MEPA	Complete	May 2021	EEA File # 16226
Combined Section 401 WQC & Chapter 91	MassDEP	In progress – submitted concurrently with NOI	June 28	August/September
Federal				
Section 404	USACE	In progress – submitted concurrently with NOI	June 28	August/September
SWPPP	EPA	To be completed upon contract award	TBD	TBD

3.0 EXISTING CONDITIONS

Add to the planset and specs (probably already in the specs)

Becker Pond is located in the southwest corner of Massachusetts, within the Taconic Mountains Ecoregion and the Schenob Brook Drainage Basin Area of Critical Environmental Concern (designated as such in 1990). The area is significant for being one of the largest continuous calcareous seepage swamps and examples of calcareous fens in southern New England[2]. Mount Washington is very sparsely populated a density of 7.5 people per square mile. Much of the town is forested and over 73% of the town is in a state of perpetual protected open space[3]. The watershed upstream of Becker Pond is approximately one square mile, 80% of which is forested, 2% developed and <0.1% impervious surface[4].

A desktop analysis of environmental constraints was performed using available GIS data layers, including MassDEP wetlands and hydrologic connections. Data layers such as the most recent FEMA National Flood Hazard Mapping, Natural Heritage and Endangered Species Program (NHESP) Priority and Estimated Habitats, Certified and Potential Vernal Pools, Areas of Critical Environmental Concern (ACECs), Outstanding Resource Waters (ORWs), Activity Use Limit site (AULs), and wellhead protection areas (Zone I and II), were also reviewed within proximity of the project area. In addition, BSC conducted site

[2] Secretary of Environmental Affairs, "SCHENOB BROOK DRAINAGE BASIN AREA OF CRITICAL ENVIRONMENTAL CONCERN Located in Portions of the TOWNS OF MOUNT WASHINGTON AND SHEFFIELD WITH SUPPORTING FINDINGS" (ACEC Program, August 10, 1990).

[3] NHESP, "Natural Heritage Atlas" (Massachusetts Division of Fisheries & Wildlife, 2021).

[4] StreamStats, *The StreamStats Program, U.S. Geological Survey*, version 4.5.2, 2016.

visits in May 2022 to review the Project area and delineate wetlands (see Wetland Resource Area Summary below).

The proposed activities will be located within Bordering Vegetated Wetland (BVW), 100-ft Buffer Zone to BVW, Land Under Water (LUW), Bank, 200-ft Riverfront Area (RA), and Bordering Land Subject to Flooding (BLSF). In addition, the Project is located within Natural Heritage and Endangered Species (NHESP) Priority (PH 970) and Estimated (EH 734) Habitat, the Schenob Brook Drainage Basin Area of Critical Environmental Concern (ACEC), and the Sages Ravine Brook Coldwater Fisheries Resource.

No other sensitive resource areas, including Outstanding Resource Waters (ORW), Zone II Wellhead Protection Areas, Surface Water Protection Areas, Public Water Supplies, Certified or Potential Vernal Pools, Mass 21E sites, or AUL Sites, were located within close proximity of the Project area.

3.1 WETLAND RESOURCE AREA SUMMARY (BVW) (310 CMR 10.55)

Summary:

- Dates of Delineations: May 2022
- Completed by: BSC Group wetland scientists
- Methodology: Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, ed. J.S. Wakely, R.W. Lichvar, and C. C. Noble. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center (Version 2.0).

Wetland boundaries were delineated in accordance with USACE Wetland Delineation Manual (1987) and the Massachusetts Wetlands Protection Act regulations (*310 CMR 10.00*). Wetland boundaries were located with an Arrow Gold Receiver with an expected accuracy within one meter of the actual position. Bordering Vegetated Wetlands (BVW) are present adjacent to the work area at specific locations and are summarized below. Please see the attached Project mapping (**Attachment B**) for depictions of delineated resource areas.

Only one (1) area of BVW was identified within the site boundaries – this is a small area of BVW (~4,245-sf), located southwest of Becker Pond, off East Street. BVW is associated with an unnamed intermittent stream, which flows into the perennial stream obstructed by the Becker Pond Dam downstream of the dam location. The BVW is a forested wetland, dominated by red maple (*Acer rubrum)*, with an herbaceous understory containing lady fern (*Athyrium angustum)*, white meadowsweet (*Spiraea alba)*, and sensitive fern (*Onoclea sensibilis)*. No BVW is associated with Becker Pond, although estimated wetland is indicated on MassMapper upstream of the pond.

3.2 WATERCOURSE SUMMARY (BANK, LUW & 200-FT RA)

Two (2) watercourses are located within the Project Area. One unnamed intermittent stream is located southwest of Becker Pond, near East Street. Within the study area, this intermittent stream is approximately 0.5 – 4 -ft wide, and generally <6" deep. The stream has an unconsolidated bottom and was flowing at the time of delineation. This intermittent stream flows west to east, joining the perennial stream obstructed by the Becker Pond Dam downstream of the dam location. Please refer to the site photos in **Attachment C** for a depiction of the intermittent stream.

The second identified watercourse is the unnamed perennial stream which is obstructed by Becker Pond Dam. This stream is a Coldwater Fisheries Resource, identified on MassMapper as part of Sages Ravine Brook. The stream is an upland brook, typically characterized (within the Project area), as having a rocky/cobbly bottom, with areas of riffles and pools. The stream is generally shallow (often <1-ft deep), although deeper pools occur where the stream has backed-up around large woody debris or boulders. A

reconnaissance level survey of potential depositional areas downstream of the dam was undertaken by Inter-Fluve in 2020 (See design plans in **Attachment B**). Reaches downstream of the dam were found to be generally lacking fine sediment, reflecting both the effect of the dam in trapping sediment and the high competence of the stream. Fine sediment deposits were observed in areas where gradient is locally reduced, or the valley is locally wide; locations where lower flow velocities and shear stresses allow for settling out of finer material. **Table 2** (below) provide a summary of the StreamStats Report (**Attachment B**).

***Table 2*:** Summary StreamStats for the perennial stream:

Statistic	Value
Drainage Area	1.05 square miles
BSLDEM10M	17.46 %
Bankfull Width	17.9 ft
Bankfull Depth	1.09 ft
Bankfull Area	19.3 ft^2
Bankfull Streamflow	76.5 ft^3/s

3.2.1 Inland Bank (310 CMR 10.54)

Bank is the portion of land surface which normally abuts and confines a water body. Inland Bank was delineated along the sides of Becker Pond, as well as upstream and downstream of the pond. Inland Bank was delineated along the boundary of the Mean Annual High Water (MAHW) as identified by field indicators, most notably bank undercutting, wrack lines, and water staining. The location of future bank (post-dam removal), was calculated using the hydraulic model (HEC-RAS) that informed the project designs. These linear features represent the edge of water for the area expected to be inundated with an annual exceedance probability of 50% (aka the 2-year event).

The Project proposes to alter ~1,110-ft of Bank, which is currently associated with Becker Pond. Once the dam removal is complete and the stream channel has been restored, the area which was formerly Becker Pond will be replaced with a new stream reach, with associated inland bank. As such, while the total length of Bank available on the Project site will remain unaltered, a portion of the Bank will change type from Bank associated with a pond, to Bank associated with the restored section of inland stream.

3.2.2 Land Under Water (LUW) Summary (310 CMR 10.56)

LUW is the land beneath any creek, river, stream, pond, or lake. LUW is situated between the delineated limits of Inland Bank established at the field indicators of MAHW. Existing LUW is predominantly associated with Becker Pond, which covers and area of ~42,400-sf. Removal of the Becker Pond Dam will reduce the extent of LUW by ~29,200-sf, with the estimated amount of LUW contained within the new river channel being ~13,200-sf.

3.2.3 200-ft Riverfront Area Summary (310 CMR 10.58)

Under present conditions, there is no Riverfront Area associated with the unnamed stream channel that forms Becker Pond between the up-stream limit of hydraulic impacts, as noted on the Becker Pond Dam Removal Plan (9/4/2020) and the base of the down-stream lip of the existing concrete apron. Following removal of the dam and reestablishment of the natural stream channel, Riverfront Area will be created in accordance with the regulatory definition (*310 CMR 10.58(2)(a)1.*). The project proposal will result in creation of 255,500-sf of Riverfront Area resources on the project site. During the project construction, there will be 8,000-sf of temporary construction impact to Riverfront Area on the project site.

3.3 BORDERING LAND SUBJECT TO FLOODING (BLSF)

According to the FEMA website, "*FEMA has not completed a study to determine flood hazard for the [Town of Mount Washington]; therefore, a flood map has not been published at this time*." Inter-Fluve established the limit of BLSF using hydraulic modeling, both before and following removal of the dam to establish the Existing and Proposed Resource Area Dimension figures shown in the Resource Area Impacts sheet of the Plan Set. The boundaries of the existing and proposed BLSF were calculated using the hydraulic model (HEC-RAS) that informed the project designs. These boundaries represent the area expected to be inundated with an annual exceedance probability of 1% (aka the 100-year event).

Hydraulic modeling determines a theoretical Existing Resource Area Dimension for BLSF as 48,500-sf, but should subtract the 42,400-sf of LUW, resulting in an actual theoretical BLSF Existing Resource Area Dimension of 6,100-sf. Following removal of the dam, hydraulic modeling shows a theoretical BLSF Proposed Resource Area Dimension of 14,300-sf. As such, the proposed project will result in a gain of +8,200-sf BLSF (associated with the loss of the impounded Becker Pond).

3.4 NHESP PRIORITY AND ESTIMATED HABITATS

The project area lies within NHESP designated Priority Habitat of Rare Species and Estimated Habitat of Rare Wildlife. Initial consultation with NHESP indicates the listed species known to be present within the Project area is vertebrate that depends on upland habitats, that will not be affected by dam removal but has some potential to be impacted by access road construction and use. Consultation with NHESP is ongoing, and a MESA Checklist is being submitted concurrently to this NOI. Correspondence with NHESP to date is provided in **Attachment F.** Any recommendations and requirements outlined by NHESP will be followed during the planning, construction, and restoration phases of the Project. Based on correspondence with NHESP to date, mitigation options are likely to include:

- When converting the temporary access road into a permanent pedestrian trail, the width of the trail will be significantly reduced from the construction width, and the margins will be restored using native plantings and/or seeding.
- All disturbed areas will be restored to their pre-existing grades, contours, and vegetation (as far as practicably possible), through appropriate native plantings, seeding, and/or natural regeneration;
- All habitat protection and mitigation measures recommended by NHESP during Project design and construction will be followed, and;
- Ongoing construction monitoring and pre-construction training will be provided for construction personnel as needed, to ensure that rare species are avoided.

Please see **Attachment F** for further details on the ongoing consultation with NHESP, and mitigation measures proposed to date. Please note that consultation with NHESP is ongoing and will include the submission of a copy of this NOI for the proposed Project.

3.5 OTHER SENSITIVE RESOURCES

No other sensitive resource areas were identified within the Project locus, including Outstanding Resource Waters (ORW), public water supplies, Wellhead Protection Areas, Certified or Potential Vernal Pools, or Coldwater Fisheries Resources.

4.0 ASSESSMENT OF EXISTING DAM CONDITIONS

This section provides a summary of the existing conditions found at Becker Pond, including the existing dam structure and associated pond.

4.1 DAM STRUCTURE

The Becker Pond Dam (also known as the "Dombrowski Pond Dam"), was constructed by the former owners of the property, the Dombrowski family, in the 1930s for personal use. Currently, the dam and surrounding property are part of TNC's 1650-acre Mount Plantain Preserve and are accessible via an unpaved road through private property from East Street. The TNC property is used by the public for hunting, fishing, and other recreation. The dam is the only known obstruction along this length of river.

Becker Pond Dam is composed of a 95-foot long earthen embankment and concrete core wall. Historically, the dam had a depth of approximately 12-ft, although significant sediment accumulation has occurred since the dam's construction in the 1930's. According to its last inspection, the concrete dam is currently in poor condition with several critical safety and structural issues. The dam is not under jurisdiction of the Massachusetts Office of Dam Safety[5]

4.2 SEDIMENT DEPOSITION & COMPOSITION

Sediment accumulation behind Becker Pond Dam is approximately 1,500-cy, which consists of primarily sand with some gravel and fine sediments. Chemical testing of the sediments conducted for the Project show that concentrations of many of the pollutants were below detection levels. Pollutants that were detected were detected at levels below freshwater probable effects (See design plans in **Attachment B**). In May 2019, Inter-Fluve conducted an extensive chemical and physical analysis of sediments upstream, downstream, and impounded within Becker Pond[6]. Sediment within the impoundment was found to be composed of organic and mineral material found naturally below the Mean Annual High Water Line, and already within other reaches of the stream. The chemical composition of impounded sediments was nearly identical to that found elsewhere in the system, with no contamination/pollution detected. Observations downstream of the dam indicate a much lower proportion of sand than upstream, although sand is found to some extent in all reaches of the stream. The lower levels of sand downstream of the dam are to be expected, as dams can trap up to 95% of sediment which should naturally be moving downstream.

4.3 UPSTREAM & DOWNSTREAM RIVER MORPHOLOGY

The stream habitat goes through several transitions from the upper reaches of Sage Ravine Brook, past Becker Pond, and through Sage Ravine to the confluence with Schenob Brook. The first ~1,200-ft of the identifiable stream flows through a marsh wetland system, created by beaver dams and a remnant woods road, with a stone/earthen berm. After the woods road crossing, the stream channel becomes more defined, and flows through a low gradient area with patches of fringing marsh. This area consists of pool and run habitat. This habitat continues to near the head of the pond. In this segment, the stream sediment is predominantly sand and gravel.

The stream channel then continues at the base of the dam in a southerly direction, within a defined channel with sand and gravel sediments interspersed with cobble and bedrock. As the gradient increases, the flow

[5] Fuss & O'Neill, "Visual Dam Inspection - Becker Pond Dam (MA02617)," Dam Inspection Findings (Mt Washington, MA, June 24, 2016).

[6] Inter-Fluve, "Becker Pond Dam Removal - Sediment Management Plan" (Cambridge, MA, 2019).

becomes predominantly run/pool/cascade. This section has steps created by bedrock, boulders, and fallen logs, creating 1-to-3-foot vertical drops with plunge pools downstream.

Continuing downstream, the gradient continues to increase, flow velocities increase, and the stream substrate changes to boulder/bedrock in swift flowing areas, and gravel in pools or runs. Further downstream (approximately 1 mile below the dam), the brook enters the Sages Ravine section, which extends for over a mile. The Sages Ravine segment consists of falls, cascades, plunge pools and runs. The stream bed (because of the gradient and water velocity), is predominantly bedrock and boulder with gravel and cobble plunge pools. Downstream of Sages Ravine, the brook returns to a lower gradient, and continues to flow in an easterly direction, passing under South Undermountain Road, and then flowing into Schenob Brook.

A reconnaissance level survey of potential depositional areas downstream of the dam was undertaken by Inter-Fluve in 2020 (See design plans, **Attachment B**). Reaches downstream of the dam were found to be generally lacking in fine sediment, reflecting both the effect of the dam in trapping sediment and the high competence of the stream. Fine sediment deposits were observed in areas where gradient is locally reduced, or the valley is locally wide; locations where lower flow velocities and shear stresses allow for settling out of finer material.

5.0 SCOPE OF DAM REMOVAL ACTIVITIES & ANTICIPATED IMPACTS

5.1 DAM REMOVAL - CONSTRUCTION METHODS & SEQUENCE

All of the following information is taken directly from The Becker Pond Dam Removal 75% Design Report (**Attachment B**). Note that site-specific water management, concrete removal, and sediment dewatering plans are currently being developed in consultation with DER and DEP to minimize impacts, as part of the permitting process.

5.1.1 Summary of Construction Activities & Sequence

The construction contractor typically identifies a preferred construction sequence that is reviewed and approved by the Owner and Owner's Technical Representative. Primary considerations for sequencing at this site are access constraints, minimizing safety risk associated with operating near the structurally compromised dam, and minimizing disturbance within the channel. For planning purposes, the following is a suggested construction sequencing based on experience with other dam removal projects, and this dam's specific site conditions:

1. Access Entrance Alternatives 1 and 2: Establish construction entrances and staging area (Alternative 1 only) at East Street. Install erosion and sedimentation control BMPs, high visibility fencing, and temporary closure signs.
2. Access Entrance Alternative 2 (only): Clear and grub for new permanent access road. Harvest and stockpile trees and slash for use in large wood structures.
3. Establish staging area adjacent to the dam. Install erosion and sedimentation control BMPs, high visibility fencing, and temporary closure signs.
4. Implement water management plan. Pump flow around the limits of work.
5. Remove footbridge, signs, and fencing.
6. Drain down the impoundment in such a way that the release of impounded sediment is minimized.

7. Excavate the pilot channel when sediment is sufficiently drained such that newly graded pilot channel banks do not slump.
8. Install seed and large wood structures along the pilot channel.
9. Remove the spillway and training walls.
10. Excavate the earthen embankments, remove the concrete core walls, and grade the slopes on river right and left.
11. Install surface fabric, remaining seed, and plantings within limits shown.
12. Remove water management controls.
13. Restore disturbed areas to a suitable condition.
14. Remove erosion and sedimentation controls.
15. Remove equipment and seed and plant along the new permanent access. Details TBD.
16. Remove temporary fencing and signs.

5.1.2 Access Road Construction

Access to the dam for construction will occur from East Street, Mount Washington. While there is an existing dirt access road to the dam, a portion of this is located on a neighboring property (Access Entrance Alternative 1 on the plans). TNC does not anticipate securing permissions to use this route, and as such is permitting Access Entrance Alternative 2, which would be entirely located within TNC property (see **Attachment B** site plans). Access Alternative 2 will involve the construction of approximately 760-ft of new access road, to connect East Street to the portion of existing access road located within TNC property.

Where existing access road is available within TNC property, the existing dirt access road is approximately 10-12 feet wide, which will be wide enough for access of heavy construction vehicles. Some vegetation clearing may be necessary, and tree branches may need to be removed. Wherever possible, large woody debris will be left on-site to provide wildlife habitat. Where the existing access road approaches the dam, there is a small loop around a few mature hemlock trees. This loop will be available for access to allow for turning and storage of vehicles.

In order to reach the existing access road from East Street, TNC will construct ~760-ft of new gravel access road, of a similar width to the existing dirt road. At the location of the proposed Access Entrance Alternative 2, East Street is a well-maintained gravel road. The proposed new access road will require some vegetation clearing (and possible tree removal), for construction. The route will also require the placement of ~1,230-sf of temporary construction matting within a small area of BVW (and adjacent 100-ft Buffer Zone to BVW), in order to provide a sufficiently wide access route for equipment and construction vehicles. Once the Project is complete, TNC intends to reduce the width the of the new portion of access road (Access Alternative 2), and convert it into a permanent hiking trail. The margins of the gravel road will be loamed and seeded/planted with an appropriate conservation seed mix, creating open herbaceous trail margins. This will provide improved near-termhabitat diversity, with open herbaceous habitat types being particularly important for the NHESP listed reptile species found on the site.

5.1.3 Dam Removal

Inter-Fluve proposes to conduct a full dam removal with partial impounded sediment removal. This strategy was arrived at following consultation with DEP, who preferred a partial sediment removal alternative to the passive release of impounded sediment (please refer to Section 6 – Alternatives Analysis).

First, the water level in Becker Pond will be lowered, and the stream temporarily diverted around the dam, using an up-stream coffer dam and pump. The pump inlet will be covered with fine wire mesh / caging to prevent fish and other wildlife being drawn into the pump system. Staff from Massachusetts Division of

Fisheries & Wildlife (DFW), will be on site during dewatering, to oversee activities (refer to **Attachment F** for correspondence with NHESP & DFW to date). The water level in Becker Pond will drawdown gradually, and the formerly impounded sediments will be allowed to dewater.

Once the sediment has dewatered sufficiently, an excavator will be used to dig the new pilot channel in what was formerly Becker Pond. Sediment accumulated behind the dam will be partially removed (~525-cy anticipated for removal), reducing the amount of sediment which could potentially be remobilized downstream once Becker Pond Dam is removed. Excavated sediments will be disposed of appropriately off-site. Sediment which is being left *in-situ* to form the new river channel and banks will be stabilized with woody material and planting/seeding.

Following partial sediment removal and excavation of the pilot channel, the Becker Pond Dam will be removed. It is anticipated that the dam spillway and right-hand training wall will be removed first, followed by excavation of the earthen embankment and removal of the concrete core wall on the right side of the dam, and then removal of the left-hand training wall, earthen embankment and core wall. Earth excavated from the embankment surrounding the concrete core wall will be used to fill in the historic barrow pit, which will then be stabilized with surface fabric and appropriate native plantings. Concrete and other construction debris from the old dam will be removed and disposed of appropriately off-site.

Once the dam has been removed, the area will be graded to replicate (as far as practicably possible), the upstream and downstream river profile. All areas will be stabilized using appropriate measures (TBD based on site conditions), but are likely to include the use of woody material and surface fabric, followed by planting/seeding with native species. Once all areas are fully stabilized, the coffer dam and pump will be removed, allowing the stream to begin flowing through the new channel. Some re-mobilization of sediment is to be expected at this stage (in the form of temporary, short-term pulses of sediment). Correspondence with DFW (**Attachment F**) has indicated that no time of year restrictions will be required for conducting the dam removal activities, as the project is seen as a long-term benefit to fisheries.

Finally, once dam removal is complete, the access road will be reduced from its construction width to a narrow hiking trail, and the margins seeded with a conservation seed mix. This hiking trail will remain in place, providing alternate access to the site for visitors. Sediment and erosion controls will be removed from the site, along with all construction equipment, debris, and temporary signs.

5.1.4 Restoration of Disturbed Areas & Site Monitoring

Once the dam removal is complete, disturbed areas will be stabilized and restored as far as possible. Some continued (minimal) disturbance is anticipated as the new stream reach adjusts and adapts to find a natural equilibrium. Streams are dynamic systems, and as such some level of movement, erosion, and deposition is to be expected.

As described above (and in **Attachment E** – BMPs), disturbed areas will be stabilized through a number of measures, specific to each location and habitat (woody debris, surface fabric, and native plantings/seeding). Following completion of the dam removal, TNC will work with interested parties to design and implement appropriate monitoring of the new river reach, and areas downstream. Parties which have expressed an interest in conducting ongoing site monitoring include the Appalachian Trail Conservancy (which manages the downstream area around Sages Ravine), and UMass (which has some on-going studies of this river system). Specific aspects of site monitoring will include:

- A detailed monitoring plan will be devised as part of the WQC and Chapter 91 permitting process, and all recommendation made by MassDEP will be adhered to. TNC will conduct monitoring of

site conditions and water quality, during and after construction, as required in the applicable permits.

- The site is currently part of a University of Massachusetts study that is examining the effect of dam removal on stream systems. The study is led by Dr. Allison Roy, Assistant Unit Leader, U.S. Geologic Survey, Massachusetts Cooperative Fish and Wildlife Research Unit and measures water temperature, quality, and the macro-invertebrate community before and after dam removal.
- The Appalachian Trail Conservancy (ATC), which co-manages the downstream area around Sages Ravine with TNC, have offered to provide monitoring of stream flow and sediment release at Sages Ravine. TNC may partner with ATC to meet monitoring commitments related to permitting requirements.

5.2 NEARBY INFRASTRUCTURE

As described previously, Becker Pond is located within a nature reserve, and is primarily surrounded by forest. As such, there is little infrastructure upstream or downstream of the pond which is likely to be impacted by the dam removal. Common concerns relating to infrastructure impacts from dam removal (such as localized flood risk), are not applicable to the Becker Pond Dam Removal Project – the dam does not offer flood water control, and its removal is not anticipated to result in any increase in flood risk. The hydraulic effects of dam removal will be limited to the current impoundment only.

The TNC-owned property is used by the public for hunting, fishing, and other recreation. TNC recently constructed a footbridge upstream of the impoundment to connect the original and new Hallig Trails on either side of the brook. The next bridge over the brook (Undermountain Road, Salisbury, Connecticut) is approximately two miles downstream. Removal of the dam is not anticipated to result in impacts to either of these bridges.

The Appalachian Trail (AT) runs alongside Sages Ravine (downstream of the Becker Pond Dam), and the larger pools which form in this downstream section of the river are used for recreation, including fishing and swimming. An unofficial campsite is located at the top of the ravine where the AT crosses the brook via a wooden footbridge. While some minor impacts to the downstream pools might occur as a result of sediment remobilization after the dam removal, these impacts are anticipated to be temporary, and are more likely to occur after particularly heavy flow periods.

5.3 SUMMARY OF ANTICIPATED IMPACTS

TNC and its partners seek to implement a simple, low-cost solution for dam removal to eliminate the safety hazard posed by the dam, and to restore stream function by restoring aquatic and hydrologic connectivity through the site. Removal of the dam will have long-term benefits to public safety by eliminating the possibility of catastrophic dam failure, as well as the hazards associated with dangerous conditions at the dam itself. Removal of the dam is also a proactive aquatic habitat restoration project that will restore a natural river corridor through the former impoundment and restore connectivity between the upper and lower reaches of the brook. The project will restore the brook to its natural state as a coldwater fishery, which is particularly important for the conservation of brook trout (*Salvelinus fontinalis*), among other coldwater fishery species. Dam removal will improve the ecological function of the brook by decreasing water temperatures, increasing dissolved oxygen levels, and restoring natural sediment transport pathways downstream of the current dam[7]. The restored stream channel will provide improved brook trout habitat, while also restoring connectivity between the upstream and downstream segments of the stream.

[7] A.T. Bednarek, "Undamming Rivers: A Review of the Ecological Impacts of Dam Removal.," *Environmental Management* 27, no. 6 (2001): 803–14; J.L. Lessard and D.B. Hayes, "Effects of Elevated Water Temperature on Fish and Macroinvertebrate

Impacts to Jurisdictional Resource Areas protected by the WPA are summarized in **Table 3** (below). Further details on both the short-term and long-term impacts of the dam removal (both negative and positive), are discussed in the following sections 5.3.1 – 5.3.3.

***Table 3**: Anticipated impacts to resource areas protected by the WPA*

Resource Area	Existing	Proposed	Change / Impact	Temporary impact*
Bank - Left	640	640	0**	65
Bank - Right	620	620	0**	85
LUW	42,400	13,200	-29,200	13,800
200-ft RA	n/a	255,500	+ 255,500	8,000
BLSF	6,100	14,300	+ 8,200	not calculated

* The temporary construction impact is calculated relative to the Existing Resource Area and the Limit of Disturbance.
**550 feet of left bank and 560 feet of right bank will be permanently relocated upon removal of the impoundment.

5.3.1 Impacts to River Channel (Bank, Land Under Water, habitat features, etc.)

Bank: Under present conditions, Bank resources associated with the Becker Pond impoundment total 1,260 linear feet (640-ft of left bank, 620-ft of right bank). The project does not propose changes to the length of Bank resource on the project site following dam removal, but 1,110-ft of Bank will be permanently altered following removal of the impoundment and reestablishment of natural stream course (bank associated with the man-made pond will be restored to bank associated with an inland stream). There will be a temporary construction impact to Bank of 150 linear feet (65-ft of left bank and 85-ft of right bank).

In the short term, negative impacts to Bank may include erosion and depositional changes as the river creates a new, natural channel through the previously impounded area. This may result in some bank destabilization and/or loss of vegetation. These short-term impacts will be minimized (as far as possible), through the excavation of a pilot channel (which should guide the formation of the new river channel into the optimum position), stabilization of exposed sediments along new Bank areas through seeding of native riparian plants, and the possible use of woody debris to help promote natural river flow patterns.

In the long term, the removal of the Becker Pond Dam will result in numerous positive impacts to Bank, by replacing the current man-made Bank with a naturalized riverine Bank. Restored channel function and connectivity will improve the wildlife value of Bank, restoring important natural processes such as erosion and deposition. Over time, revegetation will occur as seeds and plants from the upstream reaches of the brook disperse downstream, now finding suitable habitat in which to establish (in the formerly ponded area). In time, the restored riverbank will provide suitable natural habitat for stream invertebrates, amphibians, fish and mammals.

Riverfront Area: Under present conditions, there is no Riverfront Area associated with the unnamed stream channel that forms Becker Pond between the up-stream limit of hydraulic impacts, as noted on the Becker Pond Dam Removal Plan (9/4/2020) and the base of the down-stream lip of the existing concrete apron. Following removal of the dam and reestablishment of the natural stream channel, Riverfront Area

Communities Below Small Dams," *River Res. Applic* 19 (2003): 721–32; P. Zaidel, "Impacts of Small, Surface-Release Dams on Stream Temperature and Dissolved Oxygen in Massachusetts" (Amherst, University of Massachusetts - Amherst, 2018).

will be created in accordance with the regulatory definition (*310 CMR 10.58(2)(a)1.*). The project proposal will result in creation of 255,500-sf of Riverfront Area resources on the project site. During the project construction, there will be 8,000-sf of temporary construction impact to Riverfront Area on the project site.

Land Under Water (LUW): The Becker Pond impoundment is calculated as 42,400-sf of LUW. Upon removal of the dam and re-establishment of a natural stream channel, LUW will be reduced to 13,200-sf, representing a loss of 29,200-sf. The project also proposes a temporary construction impact of 13,800-sf of LUW (associated with dewatering and excavation of formerly impounded sediments behind Becker Pond Dam).

Although the Project will result in a significant loss of LUW, it should be noted that this loss represents the restoration of a man-made pond back to natural upper reach stream channel. Lost LUW will be replaced with new BLSF and naturalized stream Bank habitats.

Bordering Land Subject to Flooding (BLSF): The Project will result in the creation of ~8,200-sf BLSF (based on hydrological modelling, as FEMA data is not available for this area). BLSF will replace former LUW associated with the Becker Pond impoundment. In the long term, this replacement will provide improved connectivity between the stream channel and its floodplain, and more natural groundwater recharge conditions. These alterations are important for restoring natural stream function.

Under proposed conditions, the restored channel will, at minimum, pass the 100-year flood and during storms with higher flows, and the former pond will act as a flood storage area. In addition, the existing dam is in poor condition, and failure is expected. As such, removal of the dam will not only create new BLSF, but will also remove the risk of sudden flooding due to dam failure.

Wildlife & Habitat Features: The loss of open water habitat with the Project footprint will affect individuals of some water dependent wildlife species (particularly amphibians), that currently use the pond for breeding. However, restoration of the natural brook will provide a net improvement in wildlife habitat, particularly for less common stream species which require continuous, well connected stream environments.

In the short-term, construction activities will result in disturbance of existing wildlife habitat within Becker Pond, as well as in down-stream areas which will experience short-term changes in water flow and sediment deposition. Short-term, intermittent pulses of sediment release are anticipated to occur as a result of dam removal. While there should be no chemical impacts from sediment release (chemical analysis of impounded sediments found no indication of contaminants or pollutants), physical impacts to wildlife habitat may include temporary filling of pools, fining of the channel bed, and burial of other habitat features and/or aquatic species that cannot quickly mobilize and adapt to rapid sediment deposition. For aquatic macroinvertebrates, there may be a reduction in certain species populations resulting from the sporadic and mostly temporary deposition of sandy sediments. This effect will be temporary, since these species have life history traits and reproductive strategies adapted to these types of impacts (which occur naturally in stream systems after storm events or heavy rain).

Sediment repositioning may also impact brook trout spawning redds (nests), burying eggs if dam removal occurs post-spawning. Depending on depth of burial, impacted eggs may experience delayed maturation or mortality. However, no information is available on the amount of natural reproduction that may be occurring in the brook, or locations of redds within the segment below the dam. The Western District fisheries biologist for DFW indicated that October and November are the typical spawning months for brook trout in this stream, and that DFW prefers that projects avoid excessive turbidity during this time. In addition, the “rearing window” of June thru September can be important for trout and excess turbidity

should also be avoided. TNC and DER will continue to coordinate with DFW biologists throughout the Project, but based on discussions to date, dam removal activities are not anticipated to have a significant impact on brook trout reproduction or survival (as brook trout are not currently spawning near the dam site).

The loss of open water habitat will have little to no effect on the overall wildlife community away from the impoundment. Free water for drinking will remain available in the re-created stream channel and wetlands upstream. Removal of the dam will not affect the upstream wetland habitat, which will continue to provide habitat for water dependent species and support their contribution to the local food web and other natural process. Because of the small size of the open water habitat that will be replaced with an alternative aquatic (stream) habitat, and the continued presence of the upstream wetlands, little to no effect at the population level is expected even for water dependent species. Indeed, by removing the obstruction that the Becker Pond Dam poses to aquatic organisms, it is anticipated that population level effects should be positive, as the newly re-connected brook will allow greater upstream and downstream dispersal.

In the long-term, removal of Becker Pond Dam should provide particular benefits for coldwater fish species, such as brown trout (*Salmo trutta*) and rainbow trout (*Oncorhynchus mykiss*). Removal of the dam will restore the historically continuous connection between upstream and downstream sections of the Brook. For brook trout and other species that cannot traverse the dam as it stands now, this will allow interbreeding between currently separated populations. The restored stream habitat in the former impoundment will also provide an incremental increase in stream habitat. This can result in an increase in the brook trout population long-term as more foraging and potential spawning habitat becomes available and individuals can move upstream and downstream past the former dam site. As the currently impounded stream is designated as a Coldwater Fisheries Resource, these improvements are a key component of this habitat restoration Project.

5.3.2 Impacts to Water Quality & Sediment Re-mobilization

No short-term impacts on groundwater or groundwater quality are anticipated as a result of the Project. Short-term impacts on surface water include draining of the impoundment and turbidity. The impacts of draining on downstream flows will be minimized through the use of a diversion coffer dam and pump, which should maintain flows approximate to their current state. Construction activity and breaching of the dam will mobilize some fine organic and inorganic sediments, which will be held in suspension, resulting in temporarily increased turbidity downstream of the dam. As described above (Wildlife & Habitat Features), the remobilization of sediments may have short-term impacts on macroinvertebrates and fish downstream of the dam.

Over the months following dam removal, and particularly during periods of high flows associated with storms or snow melt, sediments initially impounded behind the dam will collect in downstream depositional locations. Over time, sediments within these depositional locations will in turn be remobilized and transported further downstream. Fine sediments will ultimately end up in Schenob Brook or flow into the Housatonic River in a dispersed and minimal level compared to other sources of deposited sediments. Eventually, the sediment within the unnamed brook will reach an equilibrium, and pulses of increased suspended sediments will diminish, returning to a natural cycle throughout the year. Based on regional analysis of suspended sediment discharge measurements at USGS gage sites[8], and the estimated drainage areas for the unnamed brook and Schenob Brook, the estimated average annual suspended sediment loads of the two brooks are approximately 3,000 tons and 41,300 tons, respectively. Thus, the estimated 2,250

[8] Andrew Simon, Wendy Dickerson, and Amanda Heins, "Suspended-Sediment Transport Rates at the 1.5-Year Recurrence Interval for Ecoregions of the United States: Transport Conditions at the Bankfull and Effective Discharge?," *Geomorphology* 58, no. 1 (March 1, 2004): 243–62, https://doi.org/10.1016/j.geomorph.2003.07.003.

tons of sediment in the impoundment[9] constitutes 70% of the average annual suspended sediment load of the small brook, and 5% of the annual suspended sediment load of Schenob Brook.

In the long-term, the removal of Becker Pond Dam will have a positive impact on water quality. Removal of the dam will result in a more natural flow and temperature regime for the brook, benefiting both water quality and stream wildlife. Once the dam is removed and a natural stream channel is restored, and shrubs and trees colonize the former impoundment bottom up to the new stream banks, water temperatures and dissolved oxygen levels will return to the natural seasonal cycle that the brook experiences.

Storm events or other stochastic perturbations will mobilize sediment over time. The duration of these effects will be dependent on precipitation patterns and the consequent flow regime after dam removal is complete. The sedimentation may result in a temporary reduction in certain sedimentation-intolerant macroinvertebrates, and the increased suspended sediment concentrations may be harmful to some brook trout[10]. The greatest effects of sedimentation will be to slow water pools and deposition areas. The effects on downstream macroinvertebrates and brook trout will be temporary and mostly local to the dam. These effects will occur over relatively short period as the flow characteristics of the brook reach a new dynamic equilibrium where habitats are recovered and improved for the native aquatic species as compared to conditions when the dam and pond were in place. Fish and other aquatic species will be able to migrate through the entirety of the brook, from the headwaters to its confluence with Schenob Brook.

5.3.3 Impacts to BVW

No permanent impacts to BVW are anticipated as a result of the removal of Becker Pond Dam. The hydraulic effects of dam removal will be limited to the current impoundment, and no change in upstream flow rates or turnover of the water column within BVW is anticipated. Upstream BVW will continue to provide suitable still-water habitat for breeding amphibians and other aquatic species.

One BVW is located within the Project area, adjacent to the proposed new access road from East Street. Impacts to BVW will be temporary, and associated with the use of ~1,230-sf temporary construction matting to provide access for wider construction equipment through the BVW. Once construction is complete, matting will be removed, and the portion of the access route being left in place (as a hiking trail), will be located within the 100-ft Buffer Zone to BVW only.

Construction matting is frequently used to provide access across BVW, dissipating the pressure of equipment travelling over the wetland and minimizing disturbance of wetland soils and vegetation. Once construction is complete, construction matting will be removed from BVW, and the area will be left to naturally recover. Sediment and erosion controls will be installed prior to construction of the access road, and will remain in place until the road and its margins have been fully stabilized and vegetated.

6.0 ALTERNATIVES ANALYSIS

Five alternatives were considered for this Project, summarized below:

[9] Inter-Fluve, "Becker Pond Dam Removal - Sediment Management Plan."

[10] A.J. Cordone and D.W. Kelly, "The Influences of Inorganic Sediment on Aquatic Life of Streams," *California Fish and Game* 47 (1961): 189–228; K.S. Gradall and W.A. Swenson, "Responses of Brook Trout and Creek Chubs to Turbidity," *Transactions of the American Fisheries Society* 111, no. 3 (1982): 392–95; C.P. Newcombe and J. Jensen, "Channel Suspended Sediment and Fisheries: A Synthesis for Quantitative Assessment of Risk and Impact," *N. American J. of Fisheries Mgmt* 16, no. 4 (1996): 693–727.

6.1 ALTERNATIVE 1 - NO BUILD/NO-ACTION

The No-Action Alternative would leave the dam in place, but not include repairs or other actions to address the dam's safety deficiencies. This alternative would preserve the shallow impoundment environment, which would continue to fill in with sediment over time and eliminate the cost of dam removal and stream restoration. However, this alternative would continue the long history of passage constraints for aquatic organisms and continued deposition of sediment and organic material within the impoundment. The No-action Alternative would also continue to pose a safety risk due to the structural deficiencies of the dam. Under a potential future catastrophic failure of the dam, the impacts to stream species and habitats would likely be more severe than the controlled removal of the dam under other alternatives, as well as create a human safety risk to downstream areas. Dam removal and the associated restoration of stream functions and reduction in safety hazards are the primary goals of this proposed project. Therefore, the No-Action alternative would not serve the Project's purpose and was dismissed.

6.2 ALTERNATIVE 2 – FULL DAM REMOVAL WITH PASSIVE DOWNSTREAM SEDIMENT RELEASE

Alternative 2 would restore the shallow impoundment behind the dam to a free-flowing stream with an overbank floodplain and areas of bordering wetland. This alternative includes the removal of the full vertical and lateral extent of the dam and restoration of the adjacent side slopes and channel in the footprint of the dam. With this alternative, approximately 550 cubic yards (cy) of impounded sediment would be passively released downstream following dam removal. This is the estimated sediment volume that would be mobilized through natural channel-forming processes shortly after dam removal. This amount represents approximately one-third of the estimated total sediment behind the dam (~1,500 cy). Storm events or other stochastic perturbations may mobilize additional material over time. The mobilized sediments would supplement sediment-starved reaches of the stream and Schenob Brook, with finer-grained materials being mobilized well downstream. The restored stream channel at the dam would be expected to match the step-pool-riffle structure of the stream observed downstream.

The concrete from the dam would be removed to an off-site facility to be recycled, and disturbed side slopes would be stabilized with biodegradable fabric. Based on experience with similar projects, the organic nature of the sediments, and abundant seed sources from within the surrounding forest and upstream headwater wetlands, the former impoundment is expected to revegetate naturally, without need for seeding.

Although alternative 2 meets the Projects goals, has the lowest implementation cost, and requires disturbing the least amount of upland at the dam and impoundment, it carries a risk of temporarily high levels of sediment transport and deposition within Sages Ravine during the period when the accumulated sediments are released from the Becker Pond impoundment. In response to discussions with DEP and DER, this Alternative has been rejected in favor of a more controlled release of sediment from behind the dam.

6.3 ALTERNATIVE 3 – FULL DAM REMOVAL WITH FULL MOBILE SEDIMENT REMOVAL

Alternative 3 would restore the impoundment to a free-flowing stream with areas of bordering wetlands and floodplain through the same level of dam removal described for Alternative 2. Alternative 3 would also include mechanical removal of the estimated total 1,500 cy of accumulated sediment present in the impoundment. A portion of the excavated sediments could be re-used for shaping and grading on-site, but most would need to be dewatered and hauled off-site for disposal.

While complete sediment removal is technically feasible (and would minimize potential impacts to downstream receiving areas such as Sages Ravine), this alternative would require extensive water control

to re-route the stream during construction and then excavate and haul out the sediment. It would also require a much longer construction period, and result in considerable disturbance of upland areas classified as NHESP Priority Habitat.

To be safely transported, the large volume of sediment removed would need to be dewatered, which would require a relatively large cleared and level space within the upland area, which is within Natural Heritage and Endangered Species Program (NHESP) Priority Habitat. In total, the activities associated with shaping and grading, water control, and sediment dewatering and hauling, would require limits of disturbance substantially greater than the footprint of the excavated channel. Off-site hauling of sediments would require approximately 100 dump truck loads (based on an approximate load size of 15 cy of dry sediment for a typical tri-axle dump truck), which could cause substantial wear and tear to both the access road and to East Street, which is unpaved in the vicinity of the site. Finally, because the natural sediments and existing seed bank would be removed, Alternative 3 would involve extensive seeding and revegetation of the former impoundment, with associated monitoring and maintenance, and the increased risk of invasive species establishment. This alternative would also incur considerable financial costs, estimated at ~$75,000 for full sediment excavation and removal (assuming no additional costs for special landfill disposal. As such, this alternative has been removed from consideration as the Preferred Alternative.

6.4 ALTERNATIVE 4 – FULL DAM REMOVAL WITH PARTIAL MOBILE SEDIMENT REMOVAL (PREFERRED ALTERNATIVE)

Alternative 4 (**the Preferred Alternative**), would provide the same level of dam removal and stream restoration as Alternatives 2 and 3, and would include mechanical removal of approximately 1/3 of the impounded sediment that has been determined to be readily mobile, through creation of a pilot channel through the impoundment. For planning and pricing purposes, the volume to be removed is assumed to be ~525 cy, but the exact volume and extent of channel excavation will be determined in consultation with the permitting agencies, and will reflect a balance between controlling short term impacts and the feasibility of sediment removal from the site. The pilot channel will closely approximate the natural channel formation that would occur under Alternatives 2 (in terms of morphology, slope, size etc.). Some portion of the excavated sediment would be reused for shaping and grading on site, but this on-site use is unlikely to require all the sediment removed. The unused portion would be disposed of off-site. Like Alternative 3, off-site disposal will require dewatering and transport by road-worthy dump trucks, but the dewatering area will be smaller (minimizing the area of upland disturbance), and the smaller sediment volume being removed (525 cy), will reduce the number of truck trips required for disposal (~35 trips, compared with ~100 trips for Alternative 3).

Alternative 4 would reduce the potential for temporary sediment impacts to downstream receiving areas relative to Alternative 2, but will likely not prevent all sediment movement because the narrow valley bottom, irregular bedrock, and boulder pre-dam surface will likely inhibit complete removal of sediment within the pilot channel. The nature of the impounded sediment (primarily sand and fine material), and the relatively shallow depth of impounded sediment also make this material easy to displace and mobilize. The stream will need to be re-routed during channel excavation. Activities associated with shaping and grading, water control, and sediment dewatering and hauling will require limits of disturbance greater than the footprint of the excavated channel, but smaller than that required for Alternative 3. Alternative 4 has the advantage of reducing passive sediment release (as requested by DEP and DER), while retaining some of the impounded sediment on-site for use in channel re-profiling (and associated natural re-vegetation from the seed bank stored within river sediments). Natural revegetation from the historic seed bank will be supplemented with plantings and seeding, to help speed up the stabilization of the formerly impounded sediments.

This alternative meets the Project's goals, reduces the potential for sediment impacts to downstream areas including Sages Ravine, and has reduced financial and environmental costs compared to Alternative 3. Therefore, Alternative 4 has been selected as the Preferred Alternative.

6.5 ALTERNATIVE 5 – DAM REPAIR

This alternative would repair the dam to meet current safety standards and has little potential for downstream sedimentation impacts, but it does not restore ecological function, and would be costly to complete, particularly when taking into account on-going monitoring and maintenance of the dam to ensure safe conditions are maintained. Dam repair would not meet the project goals of restoring stream connectivity, would be considerably more expensive than dam removal, and would still require large-scale site disturbance during construction. Therefore, this alternative has been removed from consideration as the Preferred Alternative.

6.6 AVOIDANCE & MINIMIZATION FOR THE PREFERRED ALTERNATIVE

The Project is designed to provide a benefit to public safety and the ecological function of the Schenob Brook Watershed. As a pro-active habitat restoration project with many environmental benefits and limited short-term impacts, no mitigation for the conversion/loss of habitat associated with the Project itself is warranted or provided. Mitigation for short-term construction related impacts is proposed and described below.

6.6.1 Management of Sediment Release

Short-term impacts associated with the natural re-distribution of sediments after dam removal will occur, and will attenuate naturally, as the restored stream system reaches equilibrium. The Preferred Alternative was chosen to minimize the potential for these impacts through creation of a pilot channel that will require partial removal of impoundment sediments. Specifically, avoidance and minimization measures incorporated into the preferred dam removal alternative include:

- Use of a coffer dam and pump to bypass the Becker Pond Dam during removal activities. This method for dewatering the existing pond and bypassing the dam was preferred as it involves lower risk of passive sediment release downstream (compared to notching the dam and drawing-down the water level of the pond incrementally) and protects fisheries interests. A fine wire mesh/cage will be installed over the pump inlet to prevent fish from being drawn into the pumping system, and a member of staff from Massachusetts Division of Fisheries & Wildlife will be on-site during pumping to oversee the work, and provide fish rescue (if required).
- Partial removal of approximately 1/3 of the impounded sediment behind Becker Pond Dam. Partial sediment removal will reduce the volume of readily mobile sediment which will be released downstream by the dam removal, while retaining some of the valuable seed bank and nutrients contained within the impounded sediment;
- Excavation of a pilot channel to help guide the formation of the restored river channel, reducing the potential for erosion/deposition in unexpected areas;
- Use of a portion of the impounded sediment *in-situ* to create new river bank and floodplain, which will reduce the amount of disturbance associated with removing sediment off-site, while providing a rich seed bank for habitat restoration using seeds local to the same river system.

6.6.2 Protection of Jurisdictional Wetland Resource Areas

Short-term impacts to Jurisdictional Wetland Resource Areas, including BVW, 100-ft Buffer Zone to BVW, Riverfront Area, LUW, and BLSF, may occur during construction. Best Management Practices

(BMPs) to avoid, minimize, and mitigate these impacts are summarized below, and a detailed description is provided in **Attachment E**, as well as on the site plans in **Attachment B**. BMPs will comply with all Local, State and Federal permit conditions, and have been developed in consultation with DER and MassDEP to minimize impacts. BMPs may including the following:

- Install, inspect, and maintain erosion and sediment controls and other applicable construction BMPs to minimize the potential for erosion and sedimentation;
- Keep stockpiled materials outside of wetland resource areas and Buffer Zones;
- Backfill any excavations as work is completed;
- Limit equipment access to designated access roads and work areas, which will be appropriately stabilized and monitored;
- Locate staging areas within upland areas, well away from wetland resource areas and their buffer zones. Staging areas will be surrounded by appropriate sediment controls;
- Where possible, refueling of vehicles and equipment will be conducted in a designated staging area, away from wetland resources. If this is not possible, appropriate containment will be used to ensure no hazardous materials enter the environment;
- All temporarily disturbed areas will be stabilized and restored, in accordance with the requirements of the Wetlands Protection Act (WPA) and other applicable regulations. Stabilization measures may include the use of surface fabric with plantings/seeding (soil stabilization), woody debris and structures (bank and channel stabilization), and much/seed application of upland areas (access road margins);
- All vehicles will be equipped with spill release kits;
- All construction and demolition activities will conform to current Air Pollution Control Regulations. Measures to alleviate dust, noise, and odor nuisance conditions that may occur during the construction and demolition activities will be implements, if needed;
- Any hazardous materials encountered or generated on site will be properly contained and disposed of off-site;
- Once construction is complete, the temporary access road will be converted into a pedestrian trail. The access road will be narrowed, and the margins planted and seeded with native plant species.

Additional details of typical mitigation measures and Best Management Practices (BMPs) for dam removal projects have been provided by the project's design engineer, Inter-Fluve, Inc., and are provided in **Attachment E.**

In addition to construction BMPs, consideration of the long-term impacts to resource areas has been made. Long term impacts will be overwhelmingly positive, restoring the currently impounded stream system to one with natural connectivity, geomorphology, and hydrology. Dam removal is a key stream restoration goal of DER, who have assisted in the removal of 40 (of an estimated 3,000+) dams in Massachusetts since 2005[11]. The removal of Becker Pond Dam was highlighted as a Priority Project in 2018.

Negative long-term impacts from the Project are minimal, but include the loss of 42,400-sf of man-made LUW. These losses are due to the removal of Becker Pond, and restoration of the upper perennial stream. No negative impacts to upstream BVW are anticipated to result from the dam removal, as hydraulic effects will be limited to the impounded area only.

[11] DER, "River Restoration: Dam Removal," Mass.gov, 2022.

6.6.3 Invasive Species Prevention & Control

As an ecological restoration project, invasive species prevention and control is at the forefront of Project design and goals. Former dam impoundments (with their modified habitat, flow regimes and temperature regimes), can be hot spots for invasive and non-native species, including fish, invertebrates, and plants. In order to minimize the risk of introducing invasive species to the area or releasing invasive species from behind the dam into the down-stream environment, TNC will employ a number of BMPs (outlined in more detail in **Attachment E**). These may include:

Fish and Invertebrates: Based on the surveys of Schmidt *et al*. (2002)[12] and UMass (2016), no invasive or non-native fish or macro-invertebrate species have been documented upstream or downstream of the Becker Pond Dam.

Plants: TNC has been using invasive plant control methods in the southern Berkshires for over 15 years, with documented success at both controlling invasive plants and minimizing non-target impacts. Stipulations of the contract to do the project work will require that precautions be taken to ensure that invasive plants are not introduced to or spread around the Becker Pond site by equipment or movement of soils. At present, the only invasive plant recorded at the site is reed canary grass (*Phalaris arundinacea*). BMPs will include:

- Limiting access of machinery and equipment to designated areas;
- Avoidance of areas containing known invasive plant species (currently, reed canary grass). Japanese stiltgrass (*Microstegium vimineum*), is common along roadsides in Mt. Washington, and could easily move onto this site.
- Management of invasives found at site by TNC will follow best practices for those species (see **Attachment E** BMPs);
- Checking & cleaning vehicles and machinery to remove any plant fragments before arriving on or leaving the site;
- Planting and seeding of native species (post dam removal), to help stabilize the area, and ensure bare ground is colonized by native rather than invasive plants.

Once dam removal activities are complete, TNC staff will complete yearly assessments of invasive species occurrence, and implement any necessary control measures.

7.0 CONFORMANCE WITH THE PERFORMANCE STANDARDS OF THE WPA

7.1 LIMITED PROJECT (310 CMR 10.53(3)(D))

Dam removal Projects are generally considered Limited Projects under the WPA *310 CMR 10.53(4)*, and as such, traditional mitigation requirements are discretionary[13]. As far as possible, the Project has been designed to meet the performance standards of the WPA, as described in the following sections.

[12] R.E. Schmidt, R. Petersson, and E.G. Eck, "Status of the Stream Biota in Sages Ravine in the Vicinity of Becker Pond. Final Report to Berkshire Taconic Landscape Program" (Sheffield, MA.: The Nature Conservancy, December 3, 2002).

[13] MassDEP, "Dam Removal and the Wetland Regulations."

7.2 PERFORMANCE STANDARDS FOR DAM REMOVAL PROJECTS

***Table 4**: Performance Standards Review for Dam Removal Projects*

Reference Under *310 CMR 10.13(2)* – Additional Eligibility Criteria for Dam Removal Projects	
…, the project shall be presumed to meet the eligibility criteria set forth in 310 CMR 10.13(1)(d), if the project is consistent with the Department's guidance entitled Dam Removal and the Wetlands Regulations, dated December 2007.	The Project has been designed to conform with the guidelines outlined in DEPs "*Dam Removal and the Wetlands Regulations."* Guidebook. In addition, DEP and DER have been consulted throughout the Project design process and have provided input at various stages of the design.
(a) The project will not involve the removal of a dam that was constructed or is managed for flood control by a municipal, state or federal agency	Becker Pond Dam is not constructed or managed for flood control and is not under the jurisdiction of the Massachusetts Office of Dam Safety.
(b) The project will not adversely impact public water supply wells or water withdrawals permitted or registered under the Water Management Act, M.G.L. c. 21G, and 310 CMR 36.00: Massachusetts Water Resources Management Program within the reach of the stream impacted by the impoundment.	The Project will not impact public or private water supply wells or withdrawals.
(c) The project will not adversely impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.	The Project will not impact public or private water supply wells or surface water withdrawal points.
(d) The project provides for the removal of the full vertical extent of the dam such that no remnant of the dam will remain at or below the streambed as determined prior to commencement of the dam removal project, or if such determination cannot be made at that time, as determined during construction of the project.	The Project will remove the dam in its entirety, and no remnant of the dam will remain at or below the streambed.
(e) The project provides for the removal of enough of the horizontal extent of the dam such that after removal no water will be impounded during the 500 year flood event.	The Project will remove the entire horizontal extent of the dam.
(f) The project will not involve a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license.	N/A – the Project is not a hydroelectric facility
(g) The applicant has obtained from the Department of Conservation and Recreation Office of Dam Safety a written determination that the dam is not subject to the jurisdiction of the Office under 302 CMR 10.00: Dam Safety, a written determination that the dam removal does not require a permit under 302 CMR 10.00: Dam Safety or a permit authorizing the dam removal in accordance with 302 CMR 10.00: Dam Safety has been issued.	The dam is not subject to the jurisdiction of the Office under *302 CMR 10.00*: Dam Safety.

Reference Under *310 CMR 10.13(2)* – Additional Eligibility Criteria for Dam Removal Projects	
(h) If the project is exempt from the requirement to obtain a license or permit under 310 CMR 9.05(3)(n), the project will not have an adverse effect on navigation or on any docks, piers or boat ramps authorized under 310 CMR 9.00: Waterways.	The Project will not have an adverse effect on navigation, or any boat ramps / piers authorized under *310 CMR 9.00: Waterways.*

7.3 PERFORMANCE STANDARDS FOR WORK WITHIN BORDERING LAND SUBJECT TO FLOODING (BLSF)

***Table 5**: Performance Standards Review for Work in BLSF*

Reference Under *310 CMR 10.57(4)(a)* – General Performance Standards	
1. Compensatory storage shall be provided…when in the judgement of the issuing authority said loss will cause an increase or will contribute incrementally to an increase in the horizontal extent and level of flood waters during peak flow…Compensatory volume shall be provided within the same reach of the river, stream, or creek.	N/A – The Project will not impact existing BLSF, and will create ~8,200-sf of new BLSF (in place of the former Becker Pond impoundment).
2. Work within [BLSF]… shall not restrict flows so as to cause an increase in flood stage or velocity.	N/A – The Project will not impact existing BLSF, and will create ~8,200-sf of new BLSF (in place of the former Becker Pond impoundment).
3. Work in…[BLSF] found to be significant to the protection of wildlife habitat shall not impair its capacity to provide important wildlife habitat functions. …a project or projects on a single lot… that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat functions, shall not be deemed to impair its capacity to provide important wildlife functions. Additional alteration beyond the above threshold, or altering vernal pool habitat, may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.	N/A – The Project will not impact existing BLSF.

7.4 PERFORMANCE STANDARDS FOR WORK WITHIN BVW

***Table 6**: Performance Standards Review for Work in BVW*

Reference Under *310 CMR 10.55(4)* – General Performance Standards	
(a) Where the presumption set forth in 310 CMR 10.55(3) is not overcome, any proposed work in a BVW shall not destroy or otherwise impair any portion of said area	No permanent impacts to BVW are anticipated. Temporary impacts to BVW are limited to the use of ~1,230-sf temporary construction matting for access. Matting will be place on top of existing vegetation (as far as possible, although some woody shrubs may need to be cut), minimizing disturbance to roots and soil. Once construction is complete, all temporary matting

Reference Under *310 CMR 10.55(4)* – General Performance Standards	
	will be removed from the site, and the matted areas will be left to natural revegetate.
(b) Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of up to 5,000 square feet of BVW when said area is replaced (in accordance with 310 CMR 10.55(4)(b)).	Not applicable; impacts to BVW will be temporary in nature, associated with the use of temporary construction matting for site access across a small area of BVW near East Street. Once construction is complete and matting is removed, BVW will be allowed to naturally revegetate. No permanent impacts to soil, hydrology or vegetation are anticipated from the temporary matting of BVW.
(c) Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of BVW when said portion has a surface area less than 500 square feet; said portion extends in a distinct linear configuration ("finger like") into adjacent uplands; and in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.	Not applicable – impacts to BVW will be temporary, and will not result in the permanent loss of BVW.
(d) [310 CMR 10.55(4)(d)] – Notwithstanding the provisions of 310 CMR 10.55(4)(a), (b) or (c), no project may be permitted which will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures established under 310 CMR 10.59.	TNC have consulted with NHESP throughout the design and permitting process (please refer to **Attachment F**), and have incorporate all BMPs recommended by NHESP into the Project. All impacts to rare species or their habitat can be avoided or mitigated, as described in **Attachment F**.
(e) [310 CMR 10.55(4)(e)] – Any proposed work shall not destroy or otherwise impair any portion of BVW that is within an Area of Critical Environmental Concern designated by the Secretary of Environmental Affairs under M.G.L. c.21A, s.2(7) and 301 CMR 12.00.	Not applicable – impacts to BVW will be temporary, and will not result in the permanent impairment of BVW.

7.5 PERFORMANCE STANDARDS FOR WORK IN RIVERFRONT AREA

***Table** 7: Performance Standards Review for Work in Riverfront Area*

Reference Under *310 CMR 10.58(4)* – General Performance Standards	
(a) Protection of other Resource Areas	Activities within Riverfront Area will be limited to ~8,000-sf of temporary impacts to newly created Riverfront Area, associated with the removal of Becker Pond Dam. As a stream restoration Project, all stream features will be protected, but the existing Land Under Water resource area (associated with Becker Pond), will be lost.
(b) Protection of Rare Species	The Proposed Project is located within NHESP Designated Priority Habitat. TNC have consulted with NHESP, and it has been determined that dam removal activities will not impact the habitat of the Priority species (an upland species). However, creation of the new access road has the potential to impact habitat, including areas within the 200-ft Riverfront Area. Mitigation for access road impacts discussed with NHESP will include the restoration of the

Reference Under *310 CMR 10.58(4)* – General Performance Standards	
	outer margins of the road (post-construction), with a native seed mix, and habitat enhancement in the vicinity of the dam removal site (including native plantings and seeding).
(c) Practicable and Substantially Equivalent Economic Alternatives	The chosen Project alternative provides a compromise between Project costs and requirements outlined by DEP and DER for minimizing sediment remobilization.
(d) No Significant Adverse Impact *1. The issuing authority may allow the alteration of up to 5,000 square feet or 10% of the Riverfront Area within the lot, whichever is greater.*	No significant adverse impacts to Riverfront Area are anticipated – there is currently no Riverfront Area within the Project Area, and the Project will create ~255,500-sf new Riverfront Area.
2. A minimum 100 ft-wide area of undisturbed vegetation from the mean annual high-water…	N/A – The Project is creating new Riverfront Area, and as such there is no existing Riverfront Area or associated vegetation.
b. *Stormwater managed according to standards established by the Department in its Stormwater Policy.*	The Project is not proposing to impact any existing Stormwater features, nor is it proposing to install any Stormwater features.
c. *Proposed work does not impair the capacity of the Riverfront Area to provide important wildlife functions or impair vernal pool habitat.*	N/A – The Project is creating new Riverfront Area, and as such there is no existing wildlife value (of Riverfront Area). Existing pond habitat will be lost due to the dam removal but will be compensated through replacement with a more natural stream habitat.
d. *Proposed work shall not impair groundwater or surface water quality by incorporating erosion and sediment controls and other measures to attenuate non-point source pollution.*	Measures to prevent ground and surface water impairment (including controls to reduce sediment re-mobilization), will be implemented throughout the dam removal process. Post-construction, the restored stream will provide improved ground and surface water quality, through the removal of the manmade impoundment and restoration of natural stream functions.
(d) *2. No significant adverse impacts to 25-ft Riverfront Area*	N/A – there is currently no existing Riverfront Area.

8.0 COORDINATION WITH NHESP AND MA DIVISION OF FISHERIES & WILDLIFE

TNC has been in consultation with NHESP and the Massachusetts Division of Fisheries & Wildlife throughout the Project design and permitting process. Correspondence with these organizations to date is provided in **Attachment F**.

As the Project is located within NHESP Priority Habitat, consultation with Massachusetts Division of Fisheries & Wildlife has indicated that although no impacts to protected species and their habitat are anticipated as a result of the dam removal activities, there is a potential for impact from the construction of the new length of access road. As such, TNC is filing for MESA review (concurrent to the submission of this NOI), with anticipated mitigation for impacts likely to include the implementation of a rare species protection plan, and habitat enhancement activities in the vicinity of the dam removal.

No impacts to fisheries resources are anticipated, provided that a fine wire mesh/cage is installed over the pump inlet to prevent fish from being drawn into the system. In addition, a member of staff from MA Division of Fisheries & Wildlife will be on-site during the pumping activities, to oversee the work and provide fish rescue (if required).

9.0 CONCLUSION

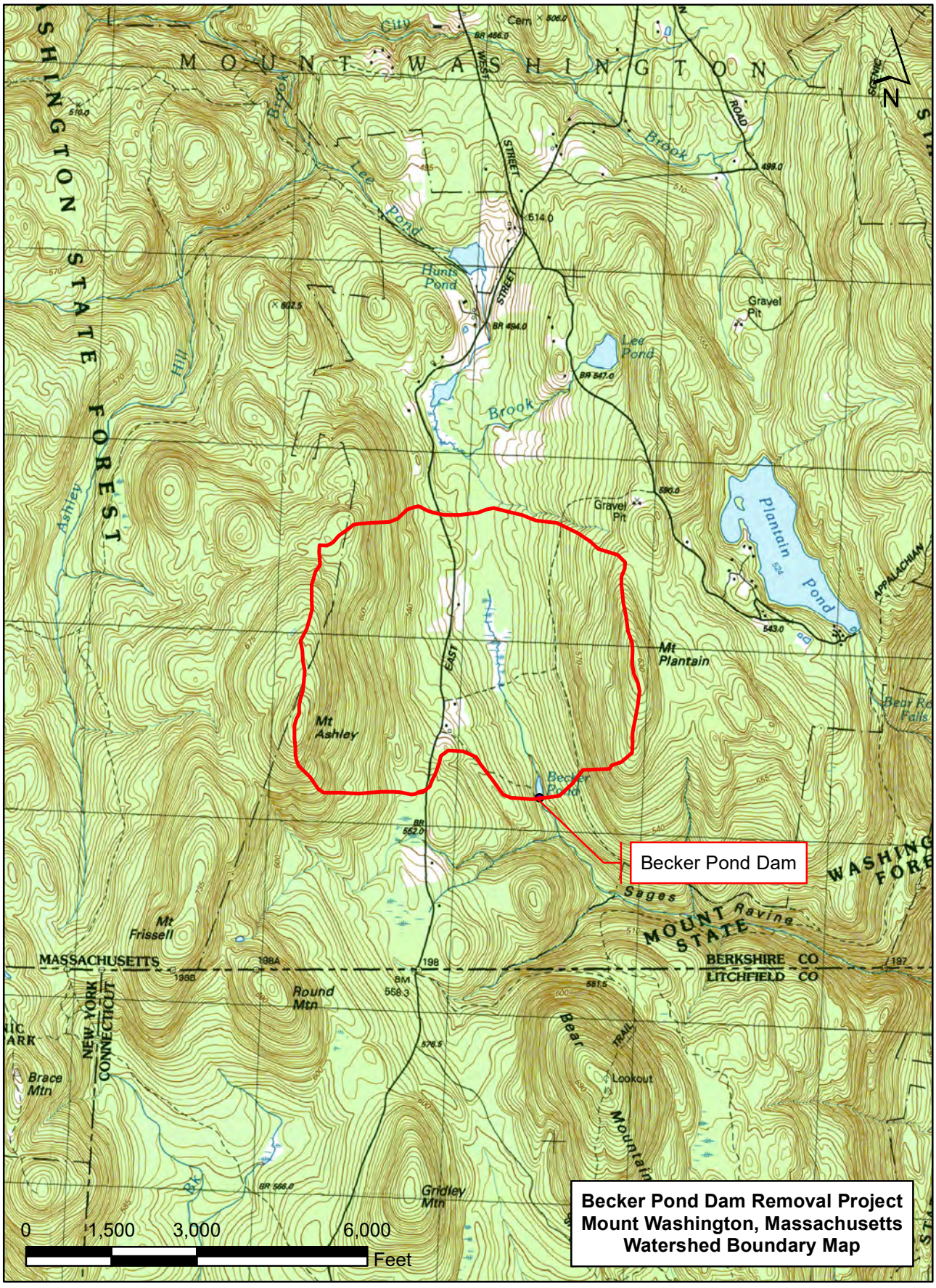
The information contained in this Notice of Intent application sufficiently describes the existing conditions, proposed activities, and anticipated impacts to the wetland resource areas protected under the WPA. The application further demonstrates that, even though dam removal projects are generally considered Limited Projects (which do not need to meet all of the Performance Standards of the WPA), the proposed Project can largely be constructed in accordance with the applicable general performance standards for the affected resource areas. As an Ecological Restoration Project, the removal of Becker Pond Dam is anticipated to have an overwhelmingly net positive impact on the interests protected by the WPA, particularly the protection of fisheries, protection of wildlife habitat, storm damage prevention, and flood control. The Project has the expressed support of MassDEP, DER, American Rivers, the Appalachian Trail Conservancy, Trout Unlimited, and the Housatonic Valley Association, who support the Project's goals of restoring natural river connectivity along the brook. Therefore, the Applicant respectfully requests the Mount Washing Conservation Commission issue a Restoration Order of Conditions for the Becker Pond Dam Removal Project, as described herein.

Attachment B

Becker Pond Dam Removal Project
Mount Washington, Massachusetts
Notice of Intent

USGS Site Locus Map
Environmental Resources Map – Existing Conditions
Environmental Resources Map – Proposed Conditions
Inter-Fluve Design Plans

BSC Group



1. USGS Topo Map courtesy of MassGIS.

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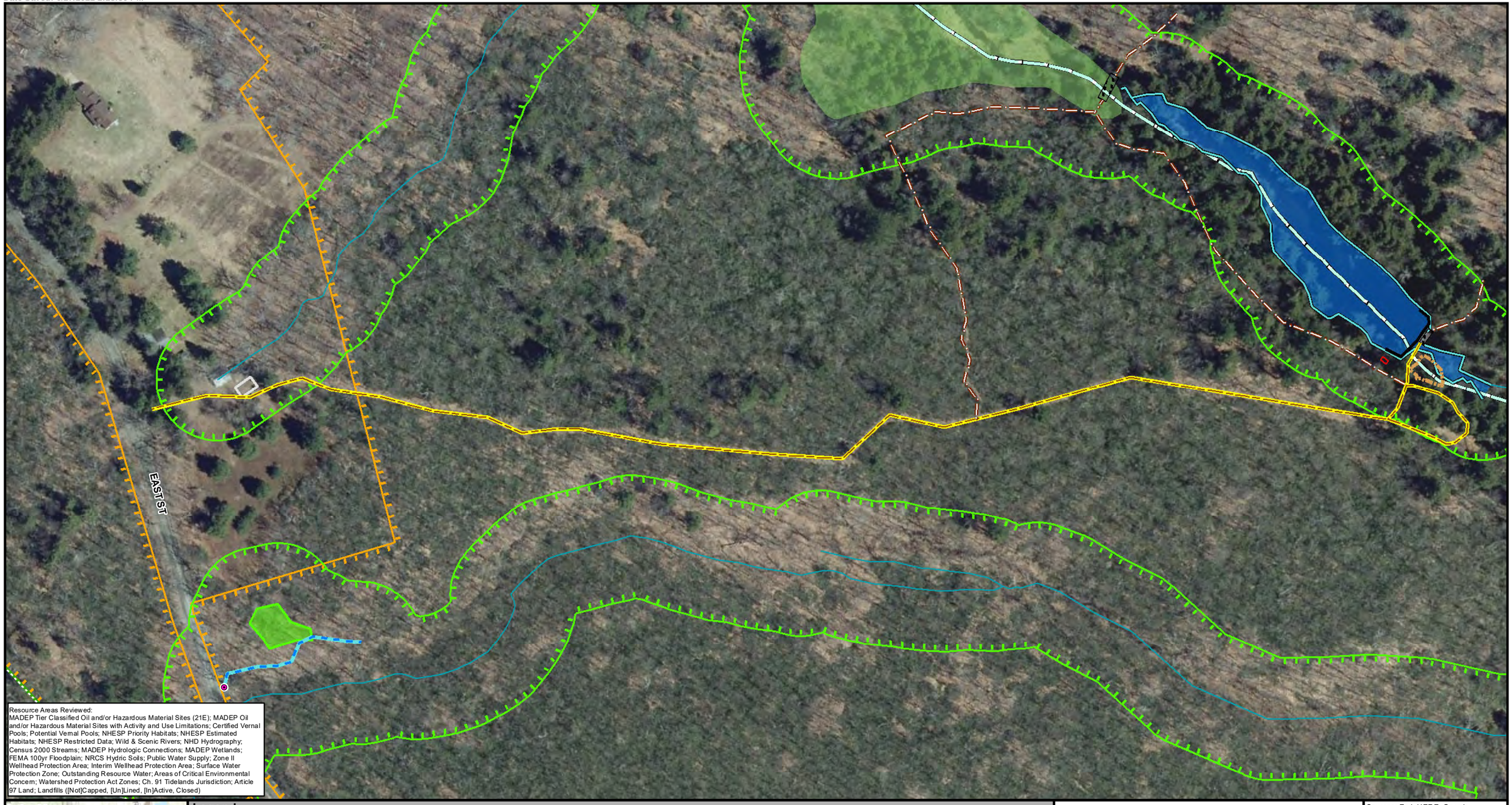

Resource Areas Reviewed:
MADEP Tier Classified Oil and/or Hazardous Material Sites (21E); MADEP Oil and/or Hazardous Material Sites with Activity and Use Limitations; Certified Vernal Pools; Potential Vernal Pools; NHESP Priority Habitats; NHESP Estimated Habitats; NHESP Restricted Data; Wild & Scenic Rivers; NHD Hydrography; Census 2000 Streams; MADEP Hydrologic Connections; MADEP Wetlands; FEMA 100yr Floodplain; NRCS Hydric Soils; Public Water Supply; Zone II Wellhead Protection Area; Interim Wellhead Protection Area; Surface Water Protection Zone; Outstanding Resource Water; Areas of Critical Environmental Concern; Watershed Protection Act Zones; Ch. 91 Tidelands Jurisdiction; Article 97 Land; Landfills ([Not]Capped, [Un]Lined, [In]Active, Closed)

Index Map

Legend

- Approximate Edge of Embankment
- Existing Access
- Approximate Existing Footpath
- Approximate Existing Dam to be Removed
- Approximate Existing Foot Bridge to be Removed
- Approximate Existing Shed
- Approximate Existing Structure
- Approximate Historic Barrows
- Field Delineated Intermittent Stream
- Field Delineated Perennial Stream
- Field Delineated Stream Area*
- Field Delineated Wetland Boundary
- Field Delineated Wetland*
- MADEP Hydrologic Connections
- Coldwater Fisheries Resources
- MADEP Wetlands*
- 100ft Buffer to Wetlands & Streams
- Culvert

Article 97 Lands

- DCR-State Parks & Recreation
- Private

Entire view within NHESP Priority & Estimated Habitats and Areas of Critical Environmental Concern

N

1 inch = 150 feet
0 75 150
Feet

Indicates Layers Set to Transparency

BECKER DAM REMOVAL PROJECT

Environmental Resources Map
Existing Conditions

Mount Washington, MA

BSC GROUP

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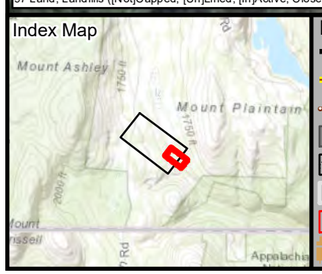
Index Map



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BECKER DAM REMOVAL PROJECT

Environmental Resources Map
Existing Conditions

Mount Washington, MA
Page 2 of 2

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

BSC GROUP

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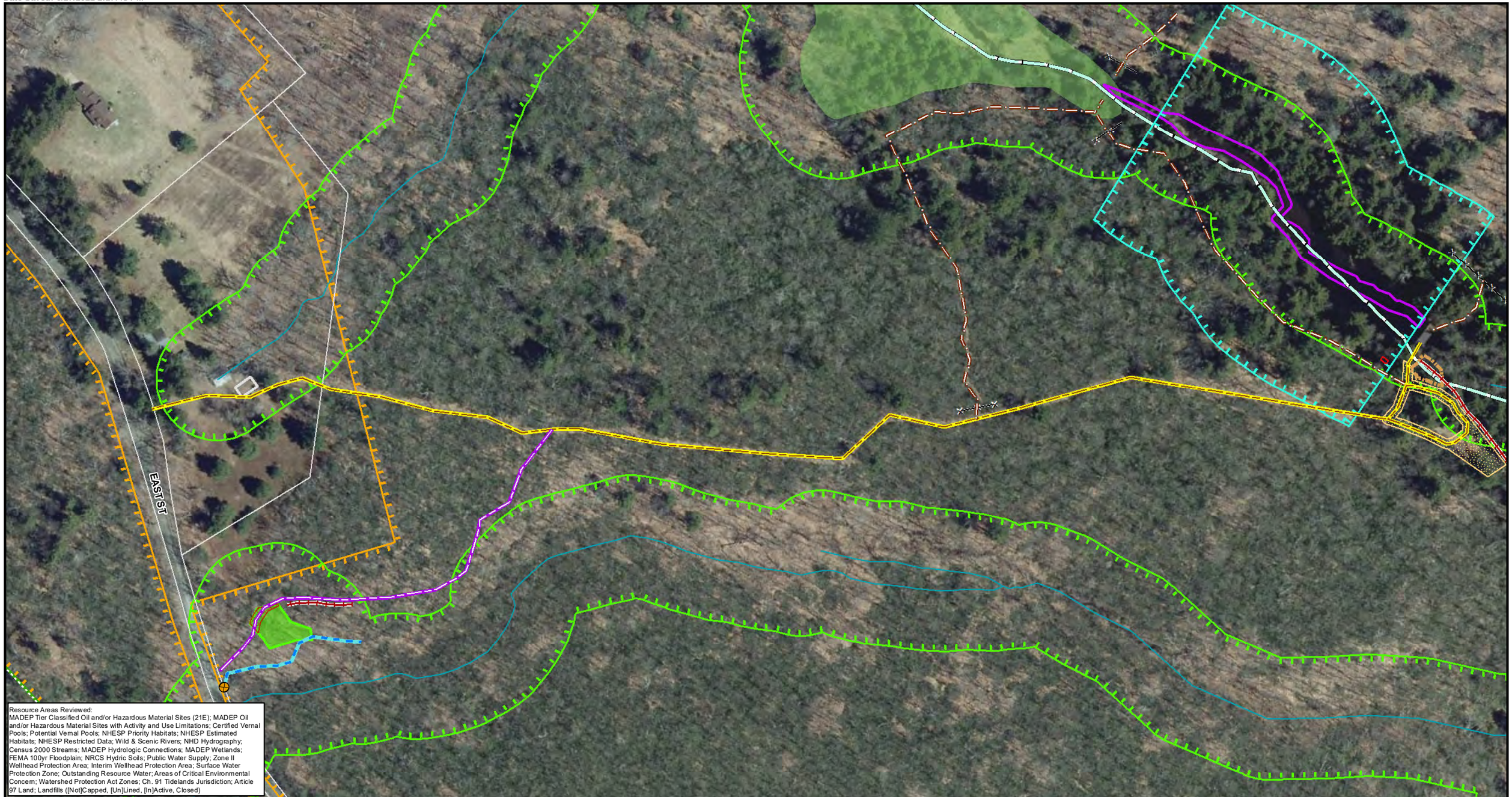

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Index Map

Legend

- Existing Access
- Temporary Access for Construction
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- Approximate Proposed Fence
- Temporary Construction Matting
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Entire view within NHESP Priority & Estimated Habitats and Areas of Critical Environmental Concern

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BECKER DAM REMOVAL PROJECT

Environmental Resources Map
Proposed Conditions

Mount Washington, MA

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

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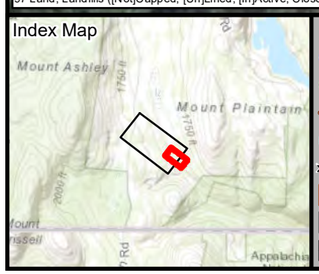

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Environmental Resources Map
Proposed Conditions

Mount Washington, MA
Page 2 of 2

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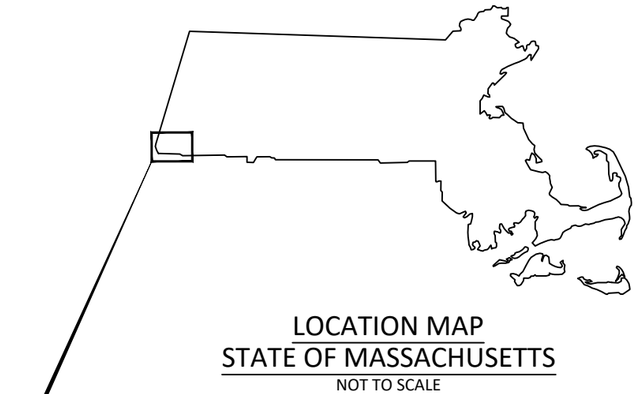
BSC GROUP

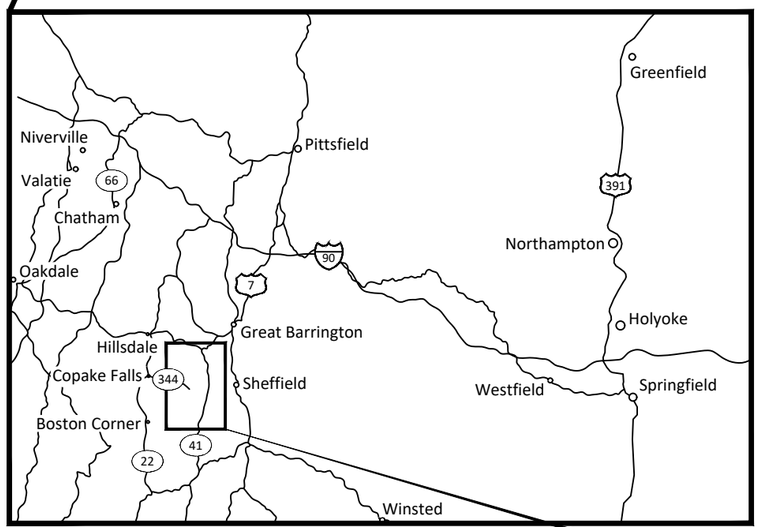
BECKER POND DAM REMOVAL

75% DESIGN PLANS

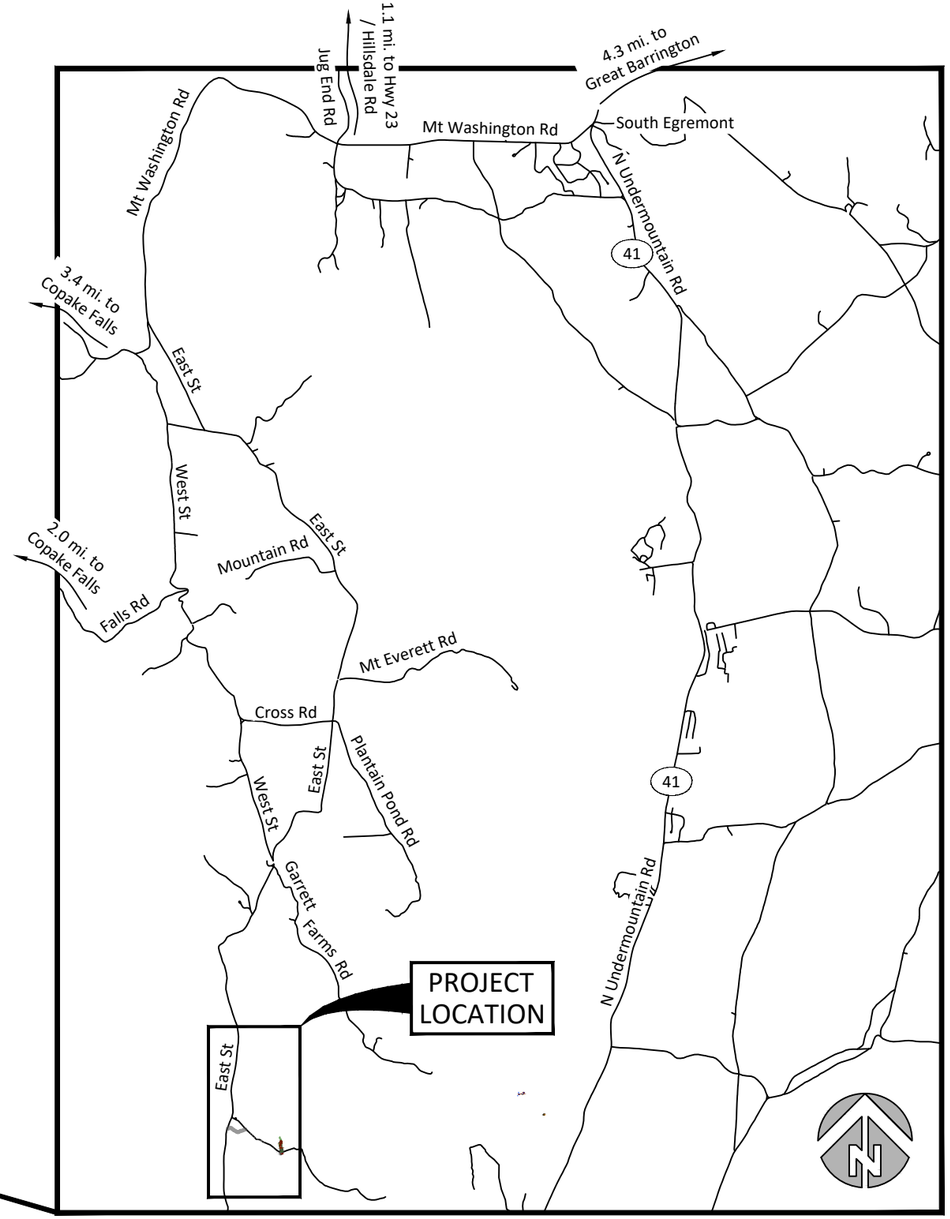
JUNE 28, 2022



LOCATION MAP
STATE OF MASSACHUSETTS
NOT TO SCALE



VICINITY MAP
SCALE: 1" = 15 MI.



SITE MAP
SCALE: 1" = 1 MI.

SHEET LIST

COORDINATES:
LATITUDE 42°03'29.88" N
LONGITUDE 73°27'33.12" W

MOUNT WASHINGTON, BERKSHIRE COUNTY, MASSACHUSETTS

WATERBODY: BECKER POND
TRIBUTARY OF: SHENOB BROOK AND HOUSATONIC RIVER

NO.	BY	DATE	REVISION DESCRIPTION

DF,SW,SJ	NN,SW	CC
DRAWN	DESIGNED	CHECKED
----	06/28/2022	18-05-01
APPROVED	DATE	PROJECT

BECKER POND DAM REMOVAL
THE NATURE CONSERVANCY
BERKSHIRE COUNTY, MASSACHUSETTS

inter·fluve
220 Concord Avenue, 2nd Floor
Cambridge, MA 02138
617.714.5537
www.interfluve.com

COVER, LOCATION AND SHEET LIST

SHEET 1 OF 12

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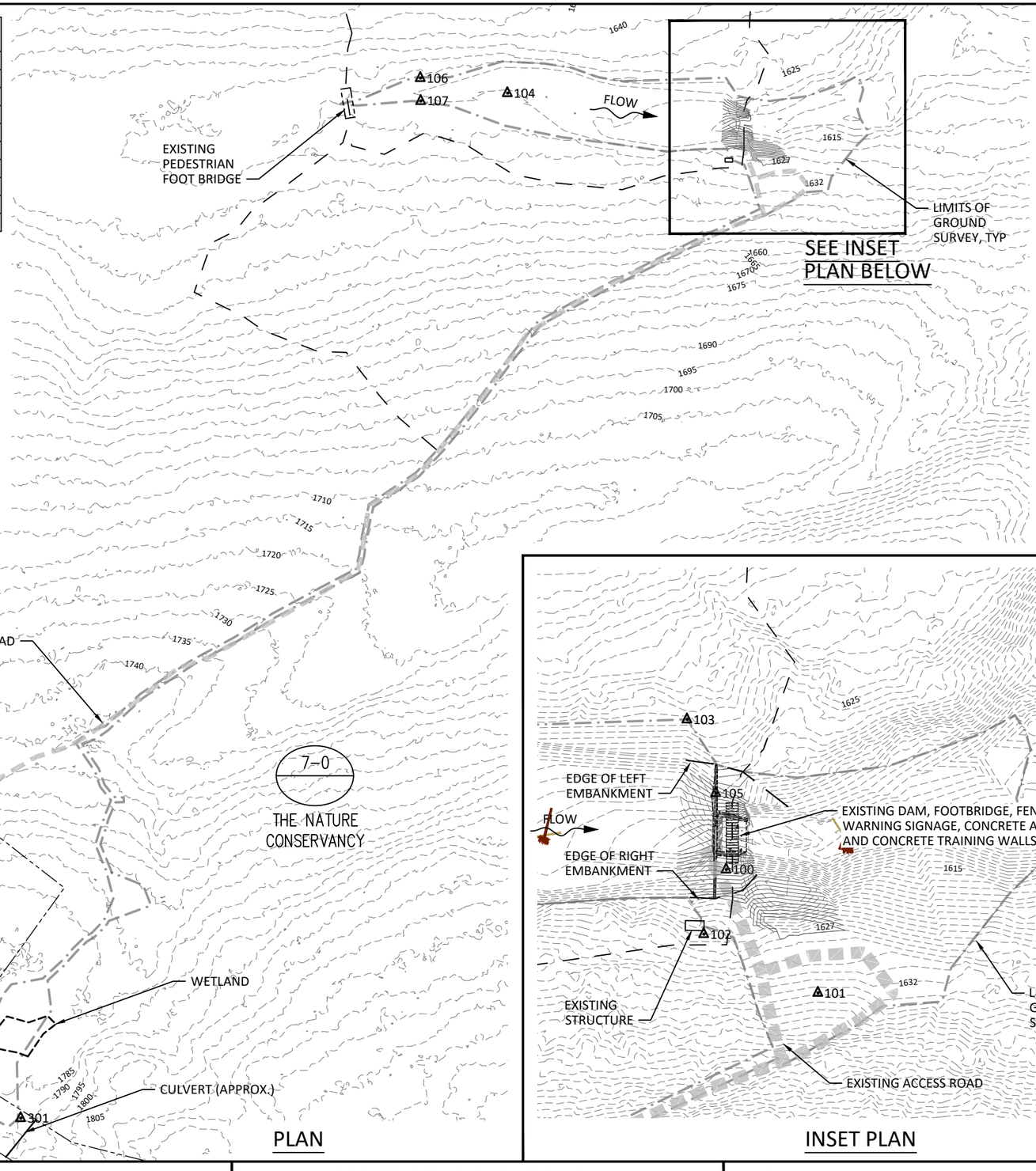
SURVEY CONTROL POINTS

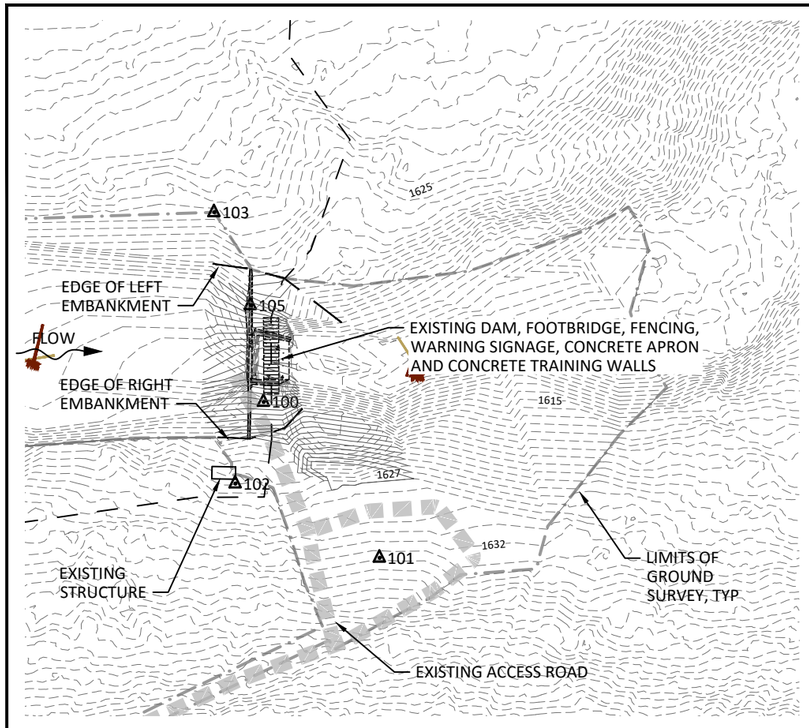
PT NO	NORTHING	EASTING	ELEVATION	DESCRIPTION
100	2852371.25'	124142.01'	1620.87'	STAKE
101	2852290.85'	124078.40'	1635.07'	CAPPED REBAR
102	2852374.56'	124096.57'	1627.66'	CAPPED REBAR
103	2852422.40'	124232.01'	1626.99'	CAPPED REBAR
104	2852767.31'	124112.83'	1620.78'	STAKE
105	2852391.20'	124189.53'	1622.10'	PK NAIL
106	2852914.11'	124099.55'	1624.06'	STAKE
107	2822903.58'	124062.79'	1621.03'	STAKE
301	2853108.94'	122251.53'	1790.53'	PK NAIL

SURVEY NOTES:

1. Ground survey completed within the Limit of Survey by Inter-Fluve in April 2018 and May 2019.
2. Depth of refusal survey completed within the impoundment by Inter-Fluve in April 2018.
3. Contours beyond the Limits of Survey in upland areas from LiDAR Digital Elevation Model: 2016 USGS CoNED Topobathymetric Model (1887-2016) New England Dataset (obtained from NOAA June 2019).
4. The horizontal coordinate system is the North American Datum of 1983 (NAD83), Massachusetts State Plane, Mainland Zone, US feet. Elevations are presented in feet and referenced to the North American Vertical Datum 1988 (NAVD88)
5. Existing parcel data provided by TNC (2019) and obtained by MassGIS. Existing trail data provided by TNC (2019).
6. The wetland delineation was completed by BSC Group on May 16, 2022 using handheld GPS with sub-meter accuracy.



PLAN



INSET PLAN

0 200 400

SCALE IN FEET

LEGEND

- 100 — SURVEY CONTROL POINT
- EXISTING 5-FT CONTOURS
- PROPERTY LINE (MassGIS)
- PROPERTY LINE (TNC GIS)
- EXISTING TRAIL
- LIMITS OF GROUND SURVEY
- EXISTING ROAD
- WETLAND
- 7–0 / 5 — MAP NUMBER / LOT NUMBER
- DOMBROWSKI — PROPERTY OWNER

0 80 160

SCALE IN FEET

LEGEND

- 100 — SURVEY CONTROL POINT
- EXISTING 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- EXISTING ROAD
- EXISTING TRAIL

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EXISTING CONDITIONS, OWNERSHIP, AND SURVEY CONTROL

SHEET 2 OF 12

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LEGEND

- SURVEY CONTROL POINT (100)
- EXISTING 5-FT CONTOURS
- PROPERTY LINE
- EXISTING OR PROPOSED TRAIL (TNC GIS)
- WETLANDS
- LIMITS OF GROUND SURVEY
- LIMITS OF DISTURBANCE
- EXISTING ROAD
- PROPOSED ACCESS ROAD
- STAGING AREA
- SILT FENCE
- HIGH VISIBILITY FENCE
- 7–0 / 5 — MAP NUMBER / LOT NUMBER
- DOMBROWSKI — PROPERTY OWNER

INSTALL HIGH VISIBILITY FENCING AND TEMPORARY CLOSURE SIGN

EXISTING PEDESTRIAN FOOT BRIDGE

EXISTING STRUCTURE, DO NOT DISTURB

LIMITS OF GROUND SURVEY, TYP

SEE INSET PLAN BELOW

INSTALL HIGH VISIBILITY FENCING AND TEMPORARY CLOSURE SIGN

WHERE CLEARING IS REQUIRED, HARVEST AND STOCKPILE TREES AND SLASH FOR USE IN LARGE WOOD STRUCTURES

ACCESS ENTRANCE ALTERNATIVE 1: USE EXISTING ACCESS PATHWAY

UTILIZE EXISTING ACCESS ROAD; IMPROVEMENTS OR CLEARING MAY BE REQUIRED

ACCESS ENTRANCE ALTERNATIVE 1: TEMPORARY STAGING

ACCESS ENTRANCE ALTERNATIVE 1: TEMPORARY SILT FENCE

7–0 / 5 DOMBROWSKI

7–0 THE NATURE CONSERVANCY

ACCESS ENTRANCE ALTERNATIVE 2: CLEAR AND GRUB FOR NEW PERMANENT ACCESS ROAD

ACCESS ENTRANCE ALTERNATIVE 2: TEMPORARY SILT FENCE

WETLAND

EXISTING SHED

ACCESS ENTRANCE ALTERNATIVE 1: CONSTRUCTION ENTRANCE

7–0 / 5A THE NATURE CONSERVANCY

EAST ST

CULVERT (APPROX.)

ACCESS ENTRANCE ALTERNATIVE 2: CONSTRUCTION ENTRANCE

PLAN

0 200 400
SCALE IN FEET

SUGGESTED CONSTRUCTION SEQUENCE

1. Access Entrance Alternatives 1 and 2: Establish construction entrances and staging area (Alternative 1 only) at East Street. Install erosion and sedimentation control BMPs, high visibility fencing, and temporary closure signs.
2. Access Entrance Alternative 2 (only): Clear and grub for new permanent access road. Harvest and stockpile trees and slash for use in large wood structures.
3. Establish staging area adjacent to the dam. Install erosion and sedimentation control BMPs, high visibility fencing, and temporary closure signs.
4. Install large wood jam in channel downstream of dam (optional).
5. Implement water management plan. Pump flow around the impoundment.
6. Remove footbridge, signs, and fencing.
7. Drain down the impoundment in such a way that the release of impounded sediment is minimized.
8. Excavate the pilot channel when sediment is sufficiently drained such that newly graded pilot channel banks do not slump.
9. Install seed and large wood structures along the pilot channel.
10. Remove the spillway and training walls.
11. Excavate the earthen embankments, remove the concrete core walls, and grade the slopes on river right and left.
12. Install surface fabric, remaining seed, and plantings within limits shown.
13. Remove water management controls.
14. Restore disturbed areas to a suitable condition.
15. Remove erosion and sedimentation controls.
16. Remove equipment and seed and plant along the new permanent access. Details TBD.
17. Remove temporary fencing and signs.

INSTALL HIGH VISIBILITY FENCING AND TEMPORARY CLOSURE SIGN

TEMPORARY SILT FENCE

EDGE OF LEFT EMBANKMENT

EDGE OF RIGHT EMBANKMENT

EXISTING DAM TO BE REMOVED, INCLUDING FOOTBRIDGE, FENCING, WARNING SIGNAGE, EARTHEN EMBANKMENT, CONCRETE CORE WALL, CONCRETE APRON, AND CONCRETE TRAINING WALLS

TEMPORARY SILT FENCE

EXISTING STRUCTURE, DO NOT DISTURB

UTILIZE EXISTING ACCESS ROAD

LIMITS OF GROUND SURVEY, TYP

TEMPORARY STAGING

CLEAR STAGING AREA BY HARVESTING TREES WITH ROOTWADS FOR USE IN LARGE WOOD STRUCTURES

INSET PLAN

0 80 160
SCALE IN FEET

LEGEND

- SURVEY CONTROL POINT (100)
- EXISTING 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- LIMITS OF DISTURBANCE
- EXISTING ROAD
- STAGING AREA
- SILT FENCE
- HIGH VISIBILITY FENCE
- EXISTING OR PROPOSED TRAIL (TNC GIS)

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ACCESS AND STAGING, EROSION AND SEDIMENT CONTROL

SHEET 3 OF 12

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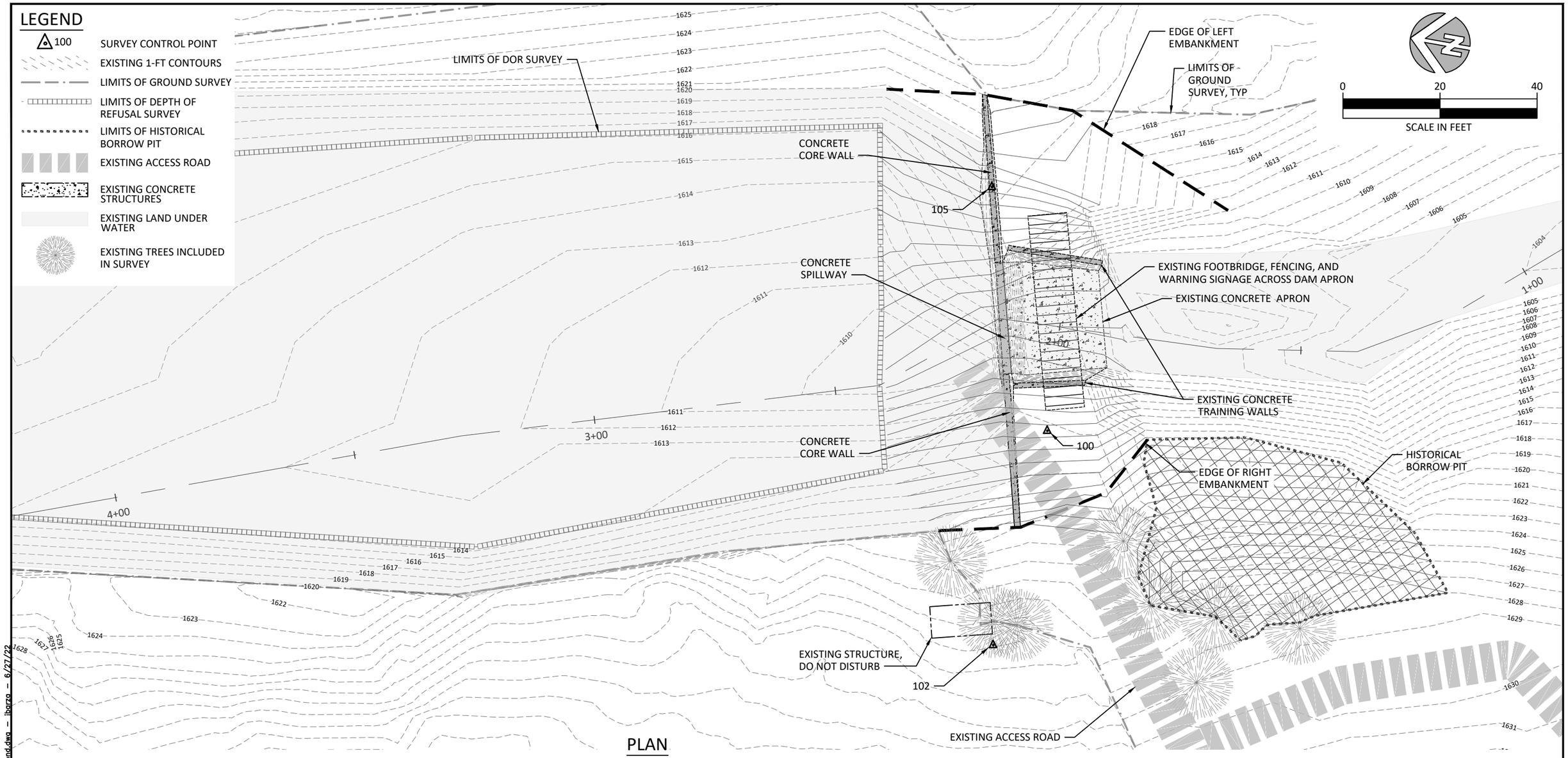
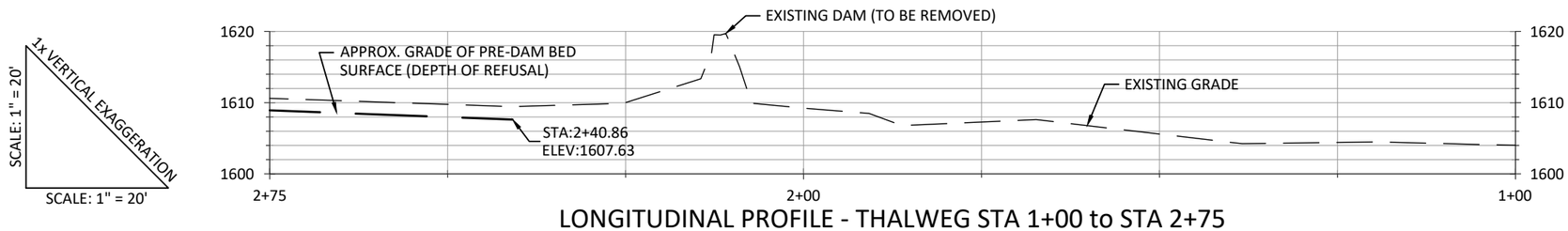
LEGEND

- SURVEY CONTROL POINT (100)
- EXISTING 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- LIMITS OF DEPTH OF REFUSAL SURVEY
- LIMITS OF HISTORICAL BORROW PIT
- EXISTING ACCESS ROAD
- EXISTING CONCRETE STRUCTURES
- EXISTING LAND UNDER WATER
- EXISTING TREES INCLUDED IN SURVEY



PLAN



LONGITUDINAL PROFILE - THALWEG STA 1+00 to STA 2+75

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BERKSHIRE COUNTY, MASSACHUSETTS

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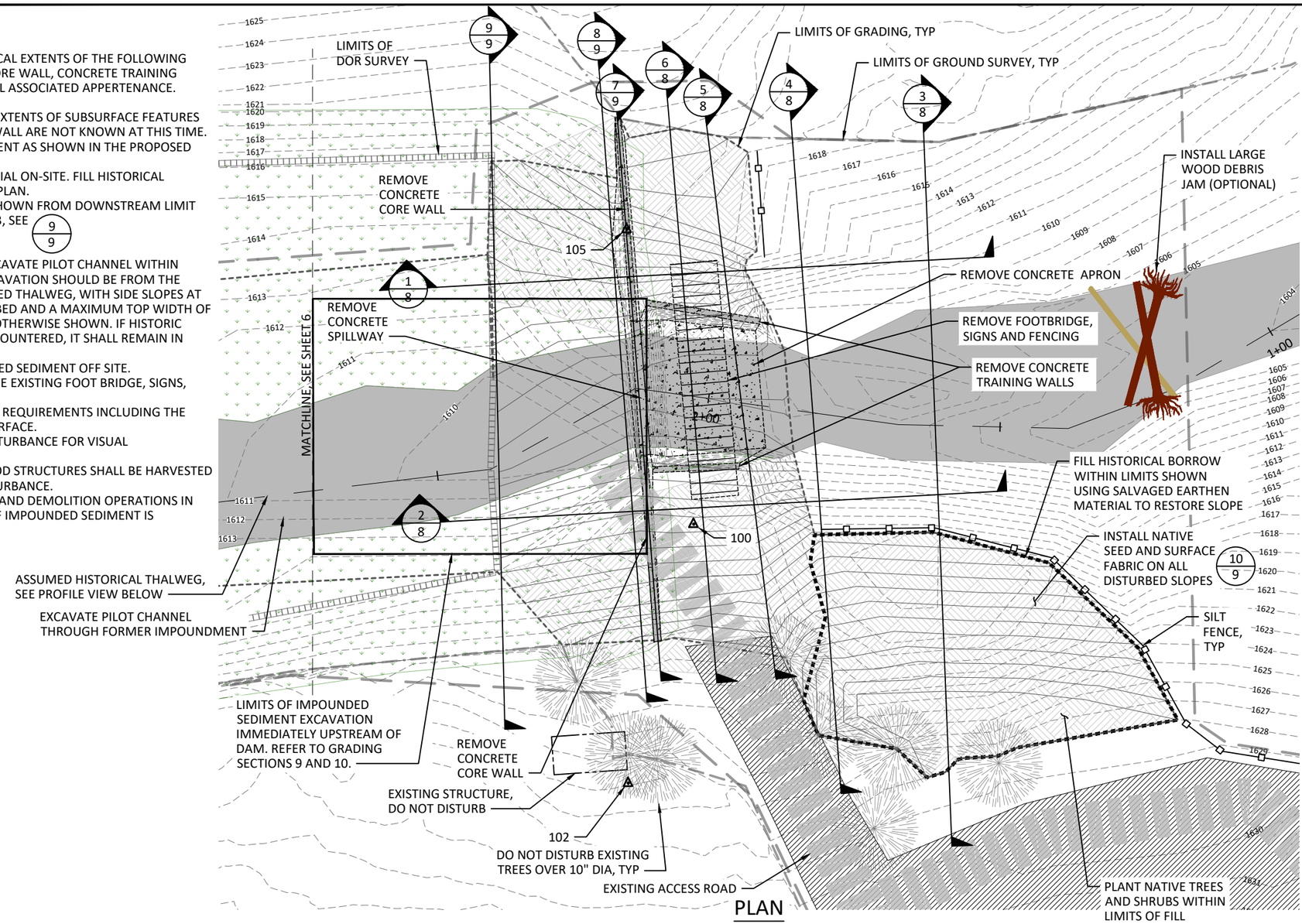
EXISTING CONDITIONS

SHEET 4 OF 12

N:\ProjectFiles_Active\BeckerPondDam_MA\Drawings\IFI_BeckerPond.dwg — lbarza — 6/27/22

NOTES:

1. REMOVE FULL LATERAL AND VERTICAL EXTENTS OF THE FOLLOWING DAM COMPONENTS: CONCRETE CORE WALL, CONCRETE TRAINING WALLS, CONCRETE APRON, AND ALL ASSOCIATED APPERTENANCE. DISPOSE OF CONCRETE OFF SITE.
2. THE FULL LATERAL AND VERTICAL EXTENTS OF SUBSURFACE FEATURES INCLUDING THE CONCRETE CORE WALL ARE NOT KNOWN AT THIS TIME.
3. REMOVE THE EARTHEN EMBANKMENT AS SHOWN IN THE PROPOSED GRADING.
4. REUSE SALVAGED EARTHEN MATERIAL ON-SITE. FILL HISTORICAL BORROW PIT, IDENTIFIED ON THIS PLAN.
5. GRADE BANKS AND CHANNEL AS SHOWN FROM DOWNSTREAM LIMIT OF DISTURBANCE TO STATION 1+83, SEE 9/9
6. FOR PILOT CHANNEL GRADING, EXCAVATE PILOT CHANNEL WITHIN LIMIT OF DISTURBANCE. PILOT EXCAVATION SHOULD BE FROM THE DEPTH OF REFUSAL AT THE ASSUMED THALWEG, WITH SIDE SLOPES AT APPROXIMATELY 2:1 TO EXISTING BED AND A MAXIMUM TOP WIDTH OF APPROXIMATELY 23 FEET UNLESS OTHERWISE SHOWN. IF HISTORIC NATIVE CHANNEL MATERIAL IS ENCOUNTERED, IT SHALL REMAIN IN PLACE.
7. DISPOSE OF EXCAVATED IMPOUNDED SEDIMENT OFF SITE.
8. REMOVE AND DISPOSE OFF-SITE THE EXISTING FOOT BRIDGE, SIGNS, AND FENCING.
9. REFER TO SPECIFICATIONS FOR FILL REQUIREMENTS INCLUDING THE PREPARATION OF THE EXISTING SURFACE.
10. STAKE AND FLAG THE LIMIT OF DISTURBANCE FOR VISUAL IDENTIFICATION IN THE FIELD.
11. TREES AND SLASH FOR LARGE WOOD STRUCTURES SHALL BE HARVESTED FROM WITHIN THE LIMITS OF DISTURBANCE.
12. PLAN AND CONDUCT EXCAVATION AND DEMOLITION OPERATIONS IN SUCH A WAY THAT THE RELEASE OF IMPOUNDED SEDIMENT IS MINIMIZED.



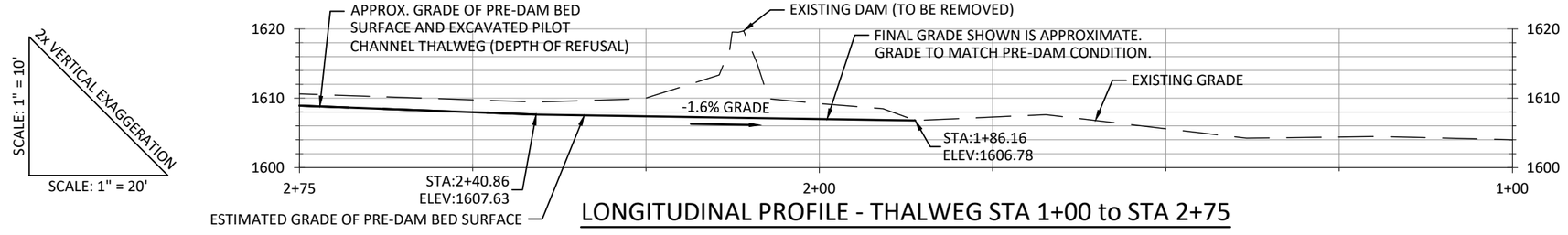
PLAN

0 20 40

SCALE IN FEET

LEGEND

- EXISTING 1-FT CONTOURS
- PROPOSED 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- LIMITS OF DEPTH OF REFUSAL SURVEY
- LIMITS OF DISTURBANCE
- ESTIMATED LIMIT OF GRADING
- EXISTING ACCESS ROAD
- TEMPORARY STAGING AND STOCKPILE AREA
- EXISTING CONCRETE STRUCTURES
- ANTICIPATED LAND UNDER WATER AFTER DAM REMOVAL
- EXISTING TREES
- PROPOSED SURFACE FABRIC INSTALLATION 10/9
- TEMPORARY SILT FENCE
- APPROXIMATE FILL AREA BOUNDARY
- NATIVE SEED APPLICATION



LONGITUDINAL PROFILE - THALWEG STA 1+00 to STA 2+75

NO.	BY	DATE	REVISION DESCRIPTION

DF,SW,SJ	NN,SW	CC
DRAWN	DESIGNED	CHECKED
----	06/28/2022	18-05-01
APPROVED	DATE	PROJECT

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DAM REMOVAL PLAN AND PROFILE STA 1+50 TO STA 2+75

SHEET 5 OF 12

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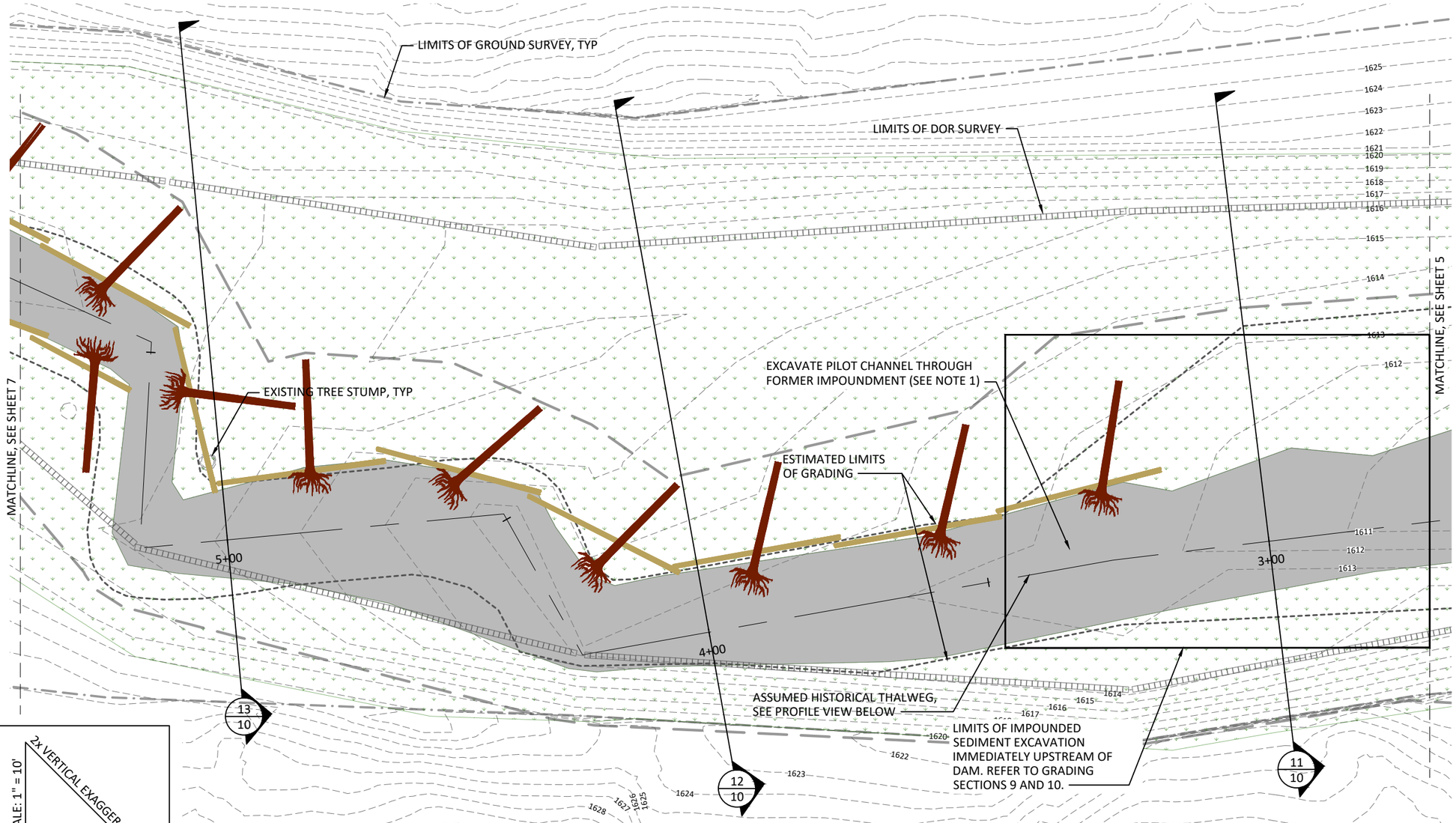
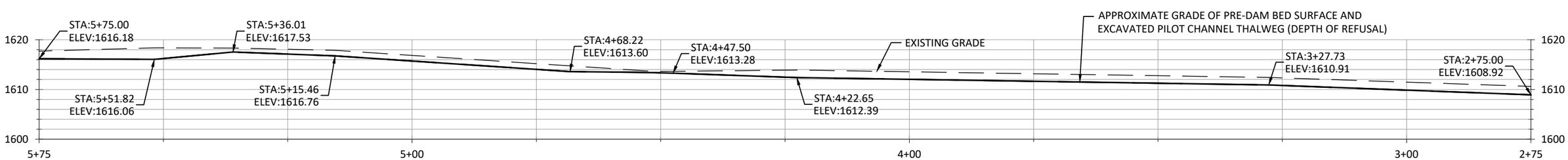


PLAN

SCALE: 1" = 10'
2x VERTICAL EXAGGERATION
SCALE: 1" = 20'



LONGITUDINAL PROFILE - THALWEG STA 2+75 to STA 5+75

0 20 40
SCALE IN FEET

LEGEND

- EXISTING 1-FT CONTOURS
- PROPOSED 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- LIMITS OF DISTURBANCE
- ESTIMATED LIMIT OF GRADING
- LIMITS OF DEPTH OF REFUSAL SURVEY
- ANTICIPATED LAND UNDER WATER AFTER DAM REMOVAL
- NATIVE SEED APPLICATION
- LARGE WOOD STRUCTURE

NOTES:

1. FOR PILOT CHANNEL GRADING, EXCAVATE PILOT CHANNEL WITHIN LIMIT OF DISTURBANCE. EXCAVATION SHOULD BE FROM THE DEPTH OF REFUSAL AT THE ASSUMED THALWEG, WITH SIDE SLOPES AT APPROXIMATELY 1:1 TO EXISTING BED WITH A MAXIMUM TOP WIDTH OF 23 FEET UNLESS OTHERWISE SHOWN. IF HISTORIC NATIVE CHANNEL MATERIAL IS ENCOUNTERED, IT SHALL REMAIN IN PLACE.

2. STAKE AND FLAG LIMIT OF DISTURBANCE FOR VISUAL IDENTIFICATION IN THE FIELD.

NO.	BY	DATE	REVISION DESCRIPTION

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PILOT CHANNEL PLAN AND PROFILE STA 2+75 TO STA 5+75

SHEET 6 OF 12

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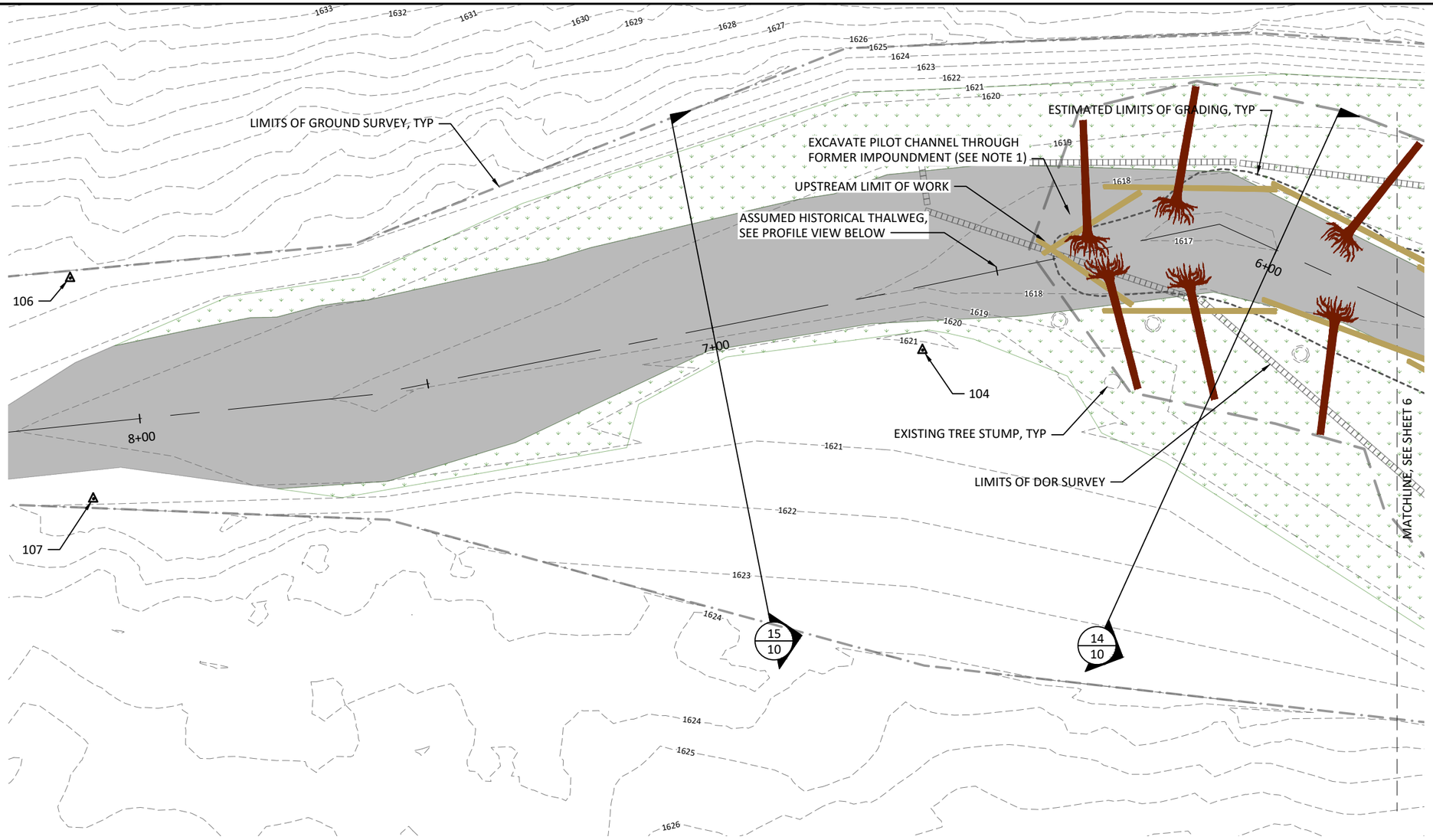

PLAN

LEGEND

- EXISTING 1-FT CONTOURS
- PROPOSED 1-FT CONTOURS
- LIMITS OF GROUND SURVEY
- LIMITS OF DEPTH OF REFUSAL SURVEY
- LIMITS OF DISTURBANCE
- ESTIMATED LIMIT OF GRADING
- ANTICIPATED LAND UNDER WATER AFTER DAM REMOVAL
- NATIVE SEED APPLICATION
- LARGE WOOD STRUCTURE

NOTES:

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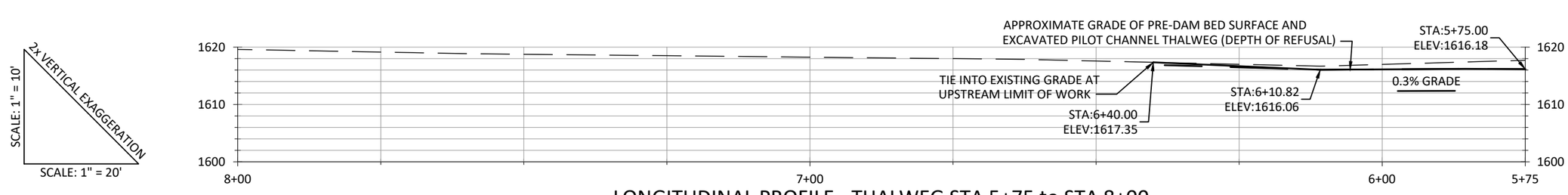
2. STAKE AND FLAG LIMIT OF DISTURBANCE FOR VISUAL IDENTIFICATION IN THE FIELD.



LONGITUDINAL PROFILE - THALWEG STA 5+75 to STA 8+00

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DRAWN	DESIGNED	CHECKED
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PILOT CHANNEL PLAN AND PROFILE STA 5+75 TO STA 8+00

SHEET 7 OF 12

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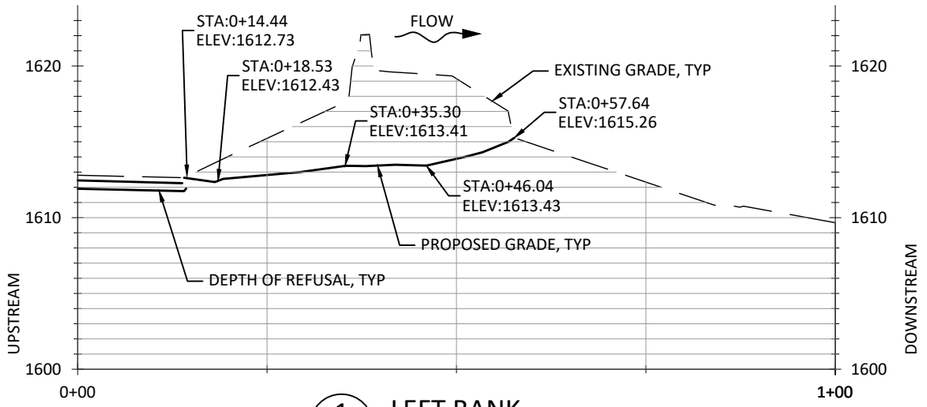
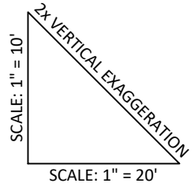
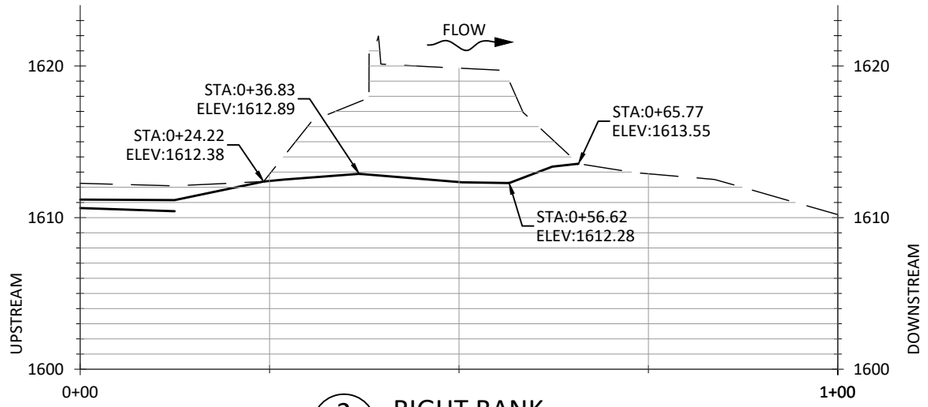
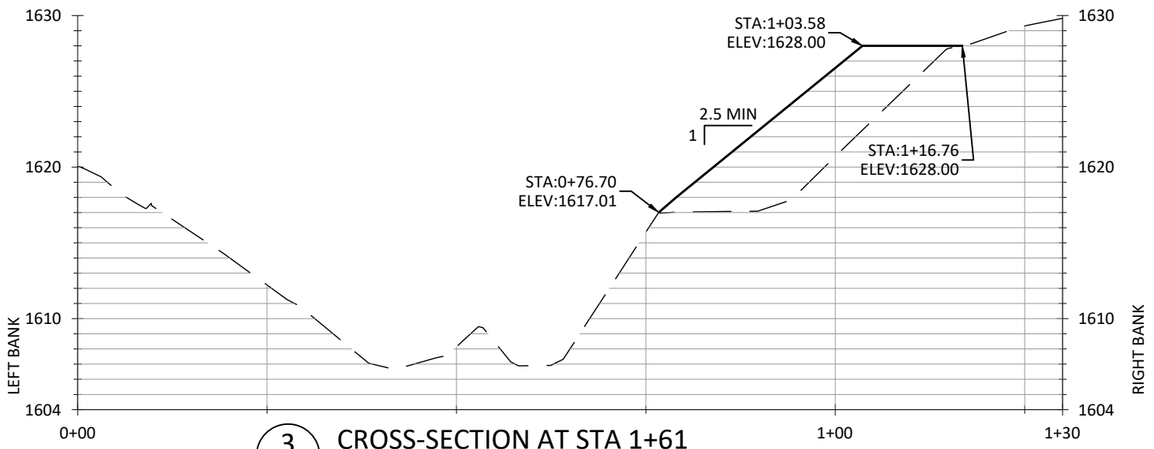


1/8 LEFT BANK

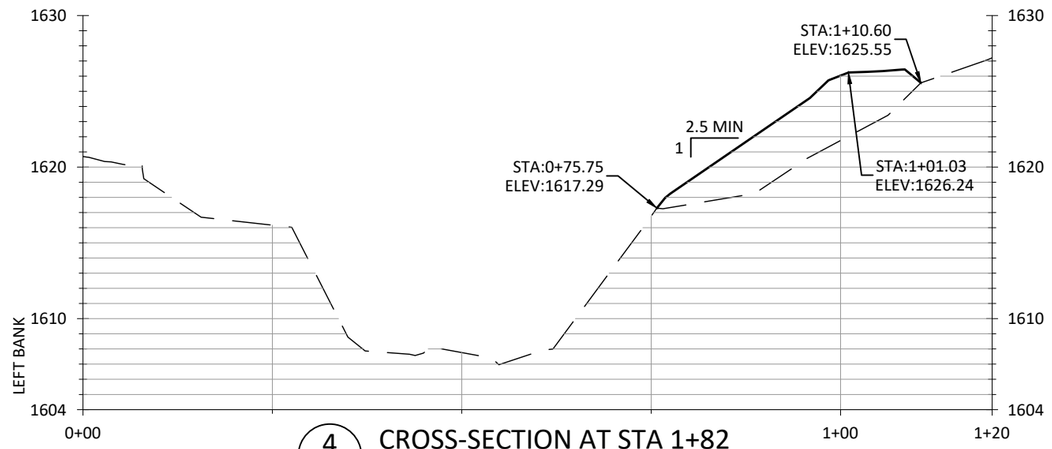




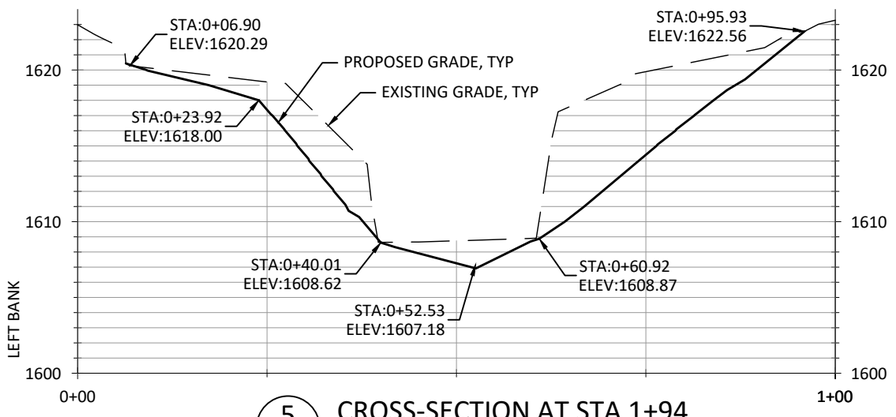
2/8 RIGHT BANK



3/8 CROSS-SECTION AT STA 1+61



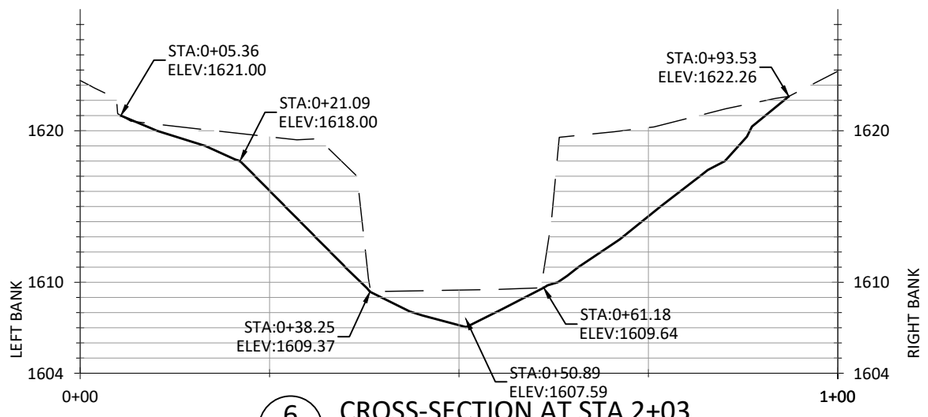
4/8 CROSS-SECTION AT STA 1+82



5/8 CROSS-SECTION AT STA 1+94

NOTES:

1. SECTIONS ARE ORIENTED LEFT TO RIGHT FACING DOWNSTREAM.
2. THE MAXIMUM SLOPE IN FILL AREAS SHALL BE 2.5:1.
3. THE PROPOSED CUT SLOPES PRESENTED ON THESE SECTIONS REPRESENT OUR BEST ESTIMATES OF THE PRE-DAM RIVER CHANNEL GEOMETRY.
4. THE PROPOSED CUT-SLOPES ARE NOT INTENDED TO BE PRESCRIPTIVE. THE INTENT OF EXCAVATION ACTIVITIES IS TO REMOVE FILL MATERIAL OR IMPOUNDED SEDIMENT THAT IS ON TOP OF THE HISTORIC NATIVE MATERIAL, WHICH IS LIKELY TO CONSIST OF COBBLES, BOULDERS, AND ROCK. IF HISTORIC NATIVE MATERIAL IS ENCOUNTERED ABOVE THE PROPOSED GRADE, IT SHALL REMAIN IN PLACE. IF HISTORIC NATIVE MATERIAL IS NOT ENCOUNTERED AT THE PROPOSED GRADE, NO FURTHER EXCAVATION IS REQUESTED.
5. THE PROPOSED CUT-SLOPES MAY BE USED TO ESTIMATE THE VOLUME OF SALVAGED MATERIAL THAT WILL NEED TO BE DISPOSED OF, EITHER IN DESIGNATED AREAS ON-SITE, OR AT OFF-SITE FACILITIES.



6/8 CROSS-SECTION AT STA 2+03

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DRAWN	DESIGNED	CHECKED
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DAM REMOVAL GRADING
CROSS SECTIONS

SHEET
8 OF 12

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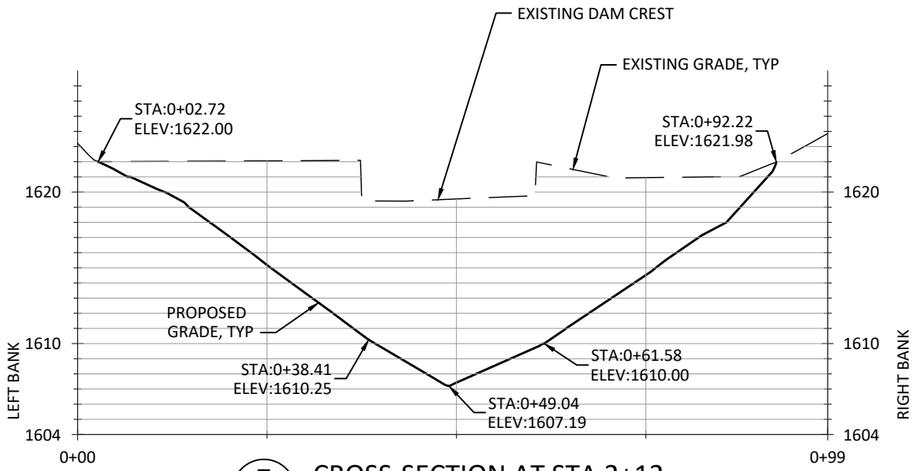
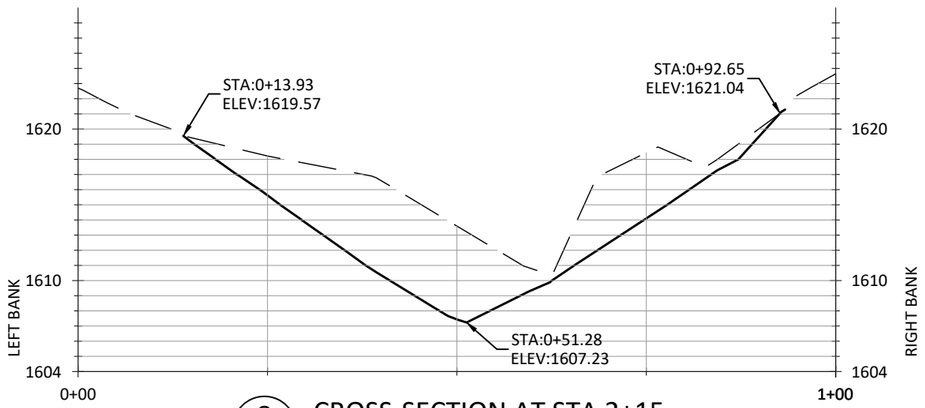
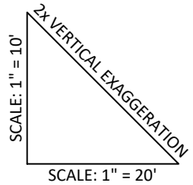


7/9 CROSS-SECTION AT STA 2+12



8/9 CROSS-SECTION AT STA 2+15



NOTES:

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3. THE PROPOSED CUT SLOPES PRESENTED ON THESE SECTIONS REPRESENT OUR BEST ESTIMATES OF THE PRE-DAM RIVER CHANNEL GEOMETRY.
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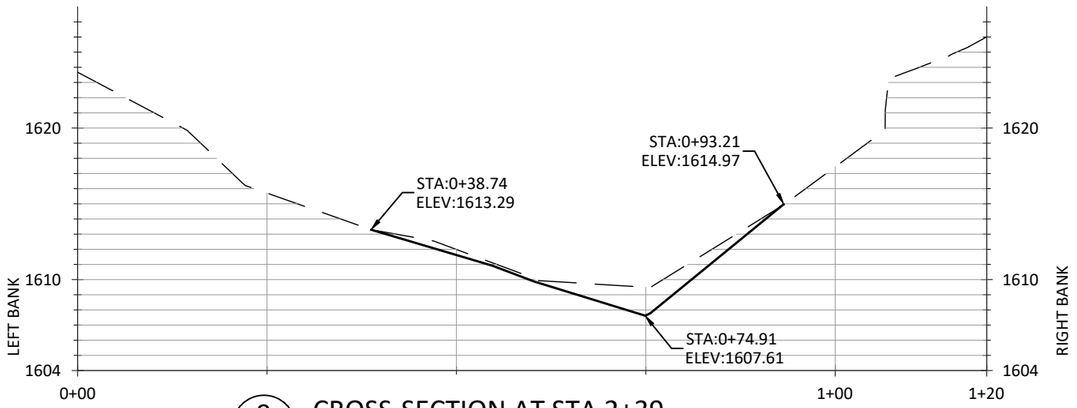
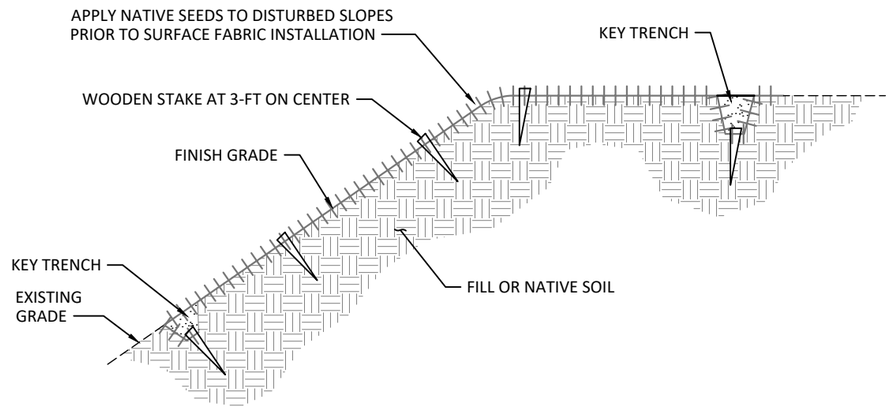


9/9 CROSS-SECTION AT STA 2+39



10/9 TYPICAL SURFACE FABRIC TREATMENT
NOT TO SCALE

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DAM REMOVAL GRADING
CROSS SECTIONS AND DETAILS

SHEET
9 OF 12

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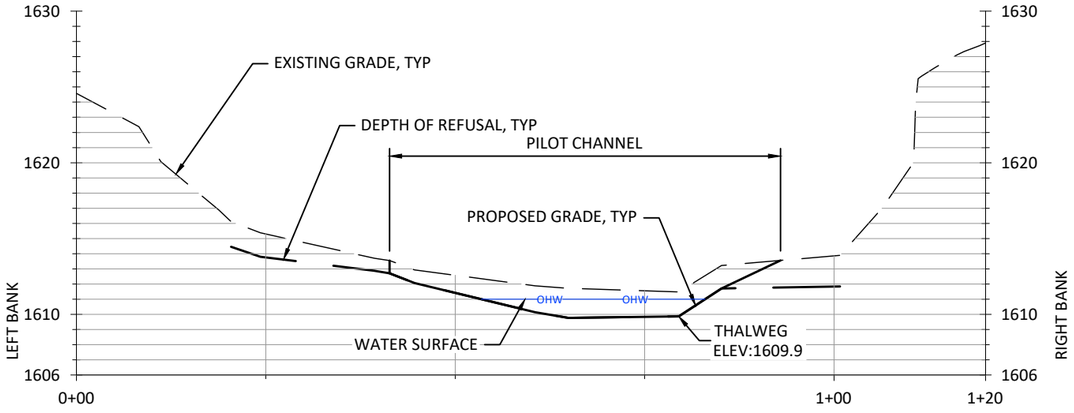
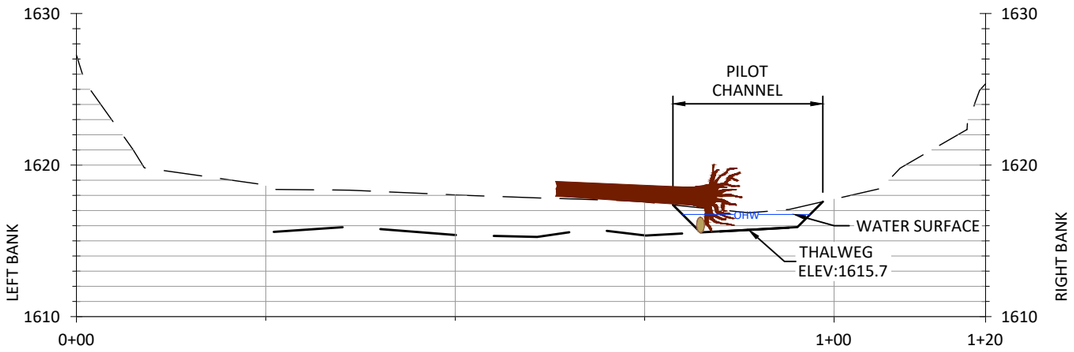
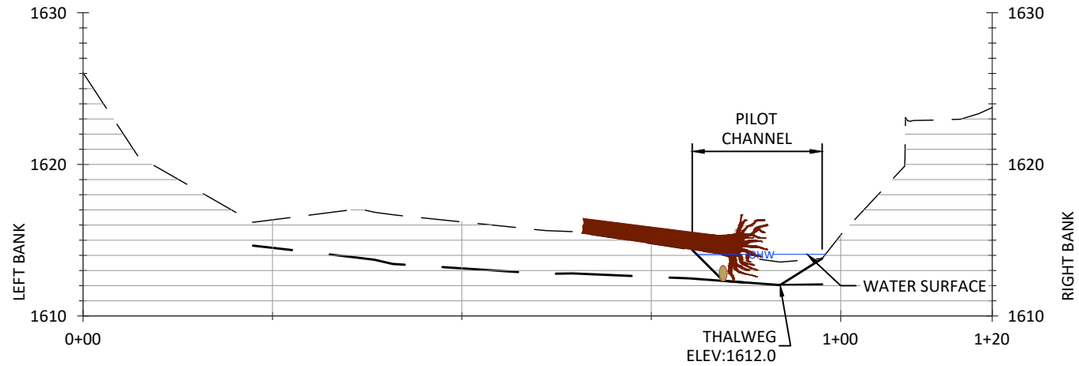
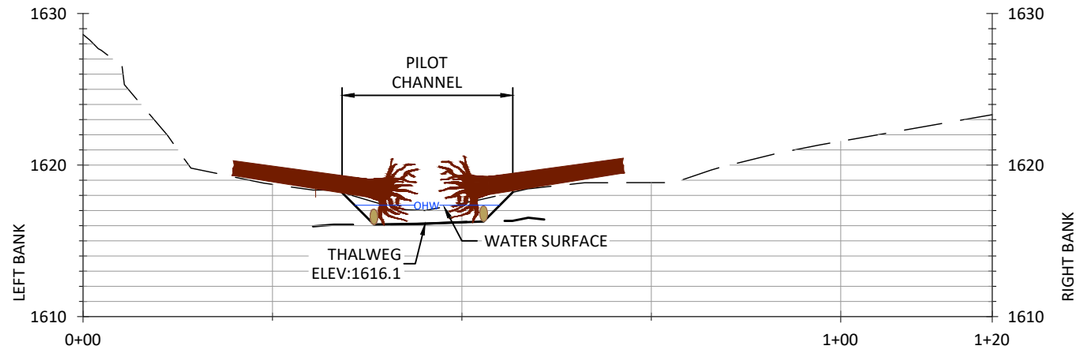


11/10 CROSS-SECTION AT STA 3+00

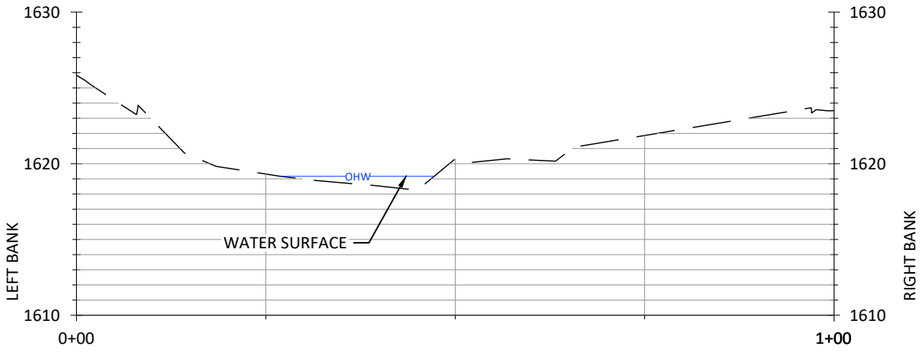




12/10 CROSS-SECTION AT STA 4+00

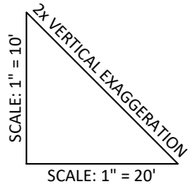


13/10 CROSS-SECTION AT STA 5+00



14/10 CROSS-SECTION AT STA 6+00

15/10 CROSS-SECTION AT STA 7+00



NOTES:

1. SECTIONS ARE ORIENTED LEFT TO RIGHT FACING DOWNSTREAM.
2. THE PROPOSED CUT SLOPES PRESENTED ON THESE SECTIONS REPRESENT OUR BEST ESTIMATES OF THE PRE-DAM RIVER CHANNEL GEOMETRY.
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5. WATER SURFACE SHOWN ON SECTIONS IS THE PREDICTED 2-YEAR FLOOD.

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PILOT CHANNEL CONSTRUCTION CROSS SECTIONS

SHEET
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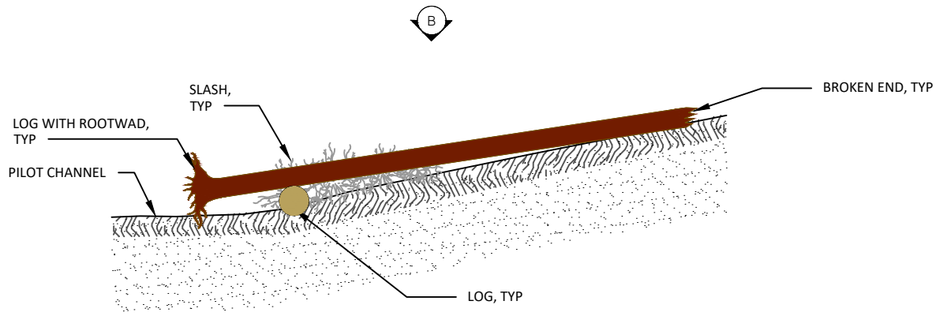
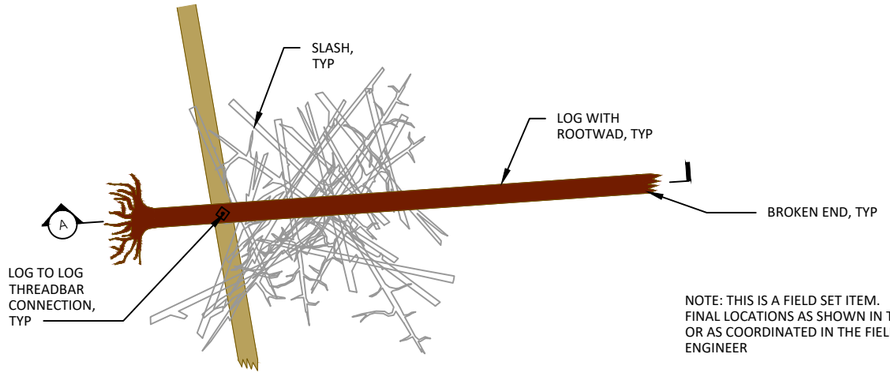


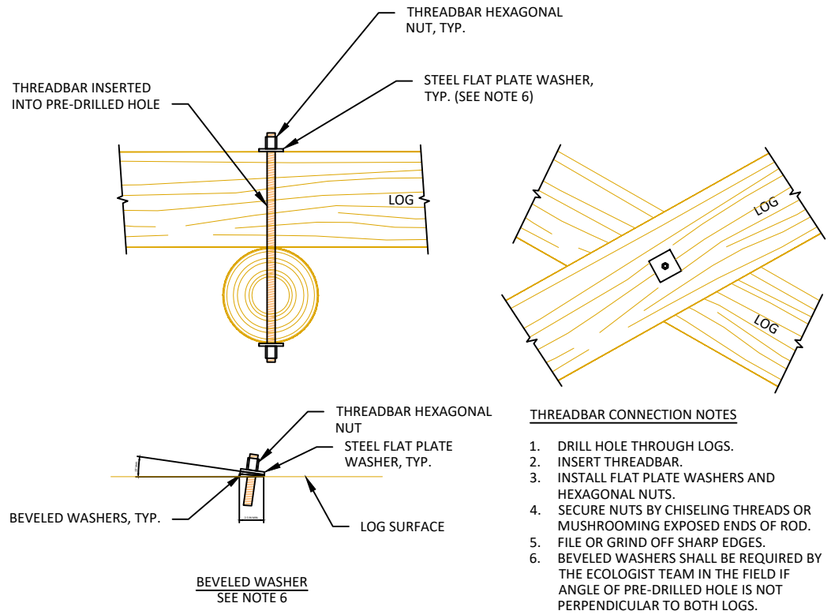
A TYPICAL SECTION VIEW



NOTE: THIS IS A FIELD SET ITEM.
FINAL LOCATIONS AS SHOWN IN THE PLANS OR AS COORDINATED IN THE FIELD WITH THE ENGINEER

B TYPICAL PLAN VIEW

16/11 TYPICAL DETAIL: LARGE WOOD STRUCTURE



BEVELED WASHER
SEE NOTE 6

THREADBAR CONNECTION NOTES

1. DRILL HOLE THROUGH LOGS.
2. INSERT THREADBAR.
3. INSTALL FLAT PLATE WASHERS AND HEXAGONAL NUTS.
4. SECURE NUTS BY CHISELING THREADS OR MUSHROOMING EXPOSED ENDS OF ROD.
5. FILE OR GRIND OFF SHARP EDGES.
6. BEVELED WASHERS SHALL BE REQUIRED BY THE ECOLOGIST TEAM IN THE FIELD IF ANGLE OF PRE-DRILLED HOLE IS NOT PERPENDICULAR TO BOTH LOGS.

17/11 LOG TO LOG THREADBAR CONNECTION

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LARGE WOOD STRUCTURE DETAILS

SHEET
11 OF 12

	Existing Resource Area Dimension	Proposed Resource Area Dimension	Net Change in Resource Area	Temporary Construction Impact*
Bank (310 CMR 10.54)**				
Length Left Bank (feet)	640	640	0**	65
Length Right Bank (feet)	620	620	0**	85
Land Under Water (LUW) (310 CMR 10.56)				
Area (square feet)	42,400	13,200	-29,200	13,800
Riverfront Area (310 CMR 10.58)				
Area (square feet)	n/a***	255,500	255,500	8,000
Bordering Land Subject to Flooding (BLSF) (310 CMR 10.57)				
Area (square feet)	6,100	14,300	8,200	not calculated

NOTES:
* The temporary construction impact is calculated relative to the Existing Resource Area and the Limit of Disturbance.
** 550 feet of left bank and 560 feet of right bank will be permanently relocated upon removal of the impoundment.
*** Riverfront Area is not applicable to the existing impoundment. Riverfront Area will be created upon removal of the impoundment.

UPSTREAM LIMIT OF HYDRAULIC IMPACTS

EXISTING FOOT BRIDGE

LAND UNDER WATER

LEGEND

EXISTING AND PROPOSED RESOURCE AREAS

BANK (310CMR10.54)
- EXISTING
- PROPOSED

LAND UNDERWATER (310CMR10.56)
- EXISTING
- PROPOSED

LAND SUBJECT TO FLOODING (310CMR10.57)
- EXISTING
- PROPOSED

RIVERFRONT AREA (310CMR10.58)
- NEW
- EXISTING RIVERFRONT BOUNDARY
- LIMITS OF DISTURBANCE
- EXISTING ROAD

0 40 80
SCALE IN FEET

PLAN

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RESOURCE AREA IMPACTS

SHEET 12 OF 12

Attachment C

19B15/19B16 Structure Replacement Project
Hadley, Massachusetts
Notice of Intent

SITE PHOTOGRAPHS
WETLAND DELINEATION DATA FORMS

BSC GROUP

Photo #1: View of stream habitat upstream of the Becker Pond Dam – stream has a mostly rocky/cobbly substrate, with a mixture of riffles and pools (with silt/sand deposition in some of the pools). Fallen trees and large woody debris provide additional instream habitat and shelter.

Photo #2: View of the existing footbridge, upstream of Becker Pond Dam. This bridge will remain in place, providing access across the stream.

Photo #3: View of slower flowing depositional area, where the stream begins to pond above the Becker Pond Dam.

Photo #4: View of Becker Pond, facing towards the dam (orange safety fencing visible on the dam in the background).

Photo #5: View of stream habitat downstream of the Becker Pond Dam – stream has a mostly rocky/cobbly substrate, with a mixture of riffles and pools (with silt/sand deposition in some of the pools). The western bank is steeply inclined in some areas.

Photo #6: View of stream habitat downstream of the Becker Pond Dam.

Photo #7: View of forested wetland just east of East Street. This BVW borders an unnamed intermittent stream (pictured below). A portion of the new access road will be located within this BVW, requiring temporary placement of construction matting wihin BVW.

Photo #8: View of culverted stream under East Street. BVW associated with this stream (pictured above), will be temporarily matted to provide access for construction equipment during dam removal activities.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: The Nature Conservancy Prepared by: BSC Group, Inc. Project location: Becker Pond, Mount Washington, MA DEP File #: TBD

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology usedto delineateBVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

Wetland Plot

Section I.

Vegetation	Observation Plot Number: wetland		Transect Number:	Date of Delineation: 5/16/22
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
TREES				
Red maple / Acer rubrum	70%	88%	Yes	FAC
Striped maple / Acer pensylvanicum	10%	13%	No	FACU
HERBS				
White meadowsweet / Spiraea alba	8%	15%	No	FACW
Lady fern / Athyrium angustum	25%	47%	Yes	FAC
Sensitive fern / Onoclea sensibilis	10%	19%	No	FACW
Reed canary grass / Phalaris arundinacea	5%	9%	No	FACW
Sedges / Carex spp.	5%	9%	No	FAC

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.*

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland indicator plants: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes ☑ no ☐

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? (yes) no
title/date: Berkshire County, Massachusetts Version 16, Sep 2, 2021
map number: (MA003)
soil type mapped: 89B - Brayton silt loam, 0 to 8 percent slopes, very stony
hydric soil inclusions: No

Are field observations consistent with soil survey? (yes) no
Remarks: Soils are not hydric

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-4"	10YR 3/1	N/A
A	4-7"	2.5Y 3/3	N/A
A	7-18"	2.5Y 4/4	N/A

Remarks:
Silty soils. No redox features. 1" thick organic horizon.

3. Other:

Conclusion: Is soil hydric? yes (no)

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☑ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☑ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☑ Water-stained leaves: _____
- ☑ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____ _____ _____
- ☑ Other: Geomorphic position, moss trim line

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	☑	☐
Wetland hydrology present:		
Hydric soil present	☐	☑
Other indicators of hydrology present	☑	☐
Sample location is in a BVW	☑	☐

Submit this form with the Request for Determination of Applicability or Notice of Intent.

MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: The Nature Conservancy Prepared by: BSC Group, Inc. Project location: Becker Pond, Mount Washington, MA DEP File #: TBD

Check all that apply:

- ❑ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☑ Vegetation and other indicators of hydrology usedto delineateBVW boundary: fill out Sections I and II
- ❑ Method other than dominance test used (attach additional information)

Upland Plot

Section I.

Vegetation	Observation Plot Number: upland		Transect Number:	Date of Delineation: 5/16/22
A. Sample Layer & Plant Species (by common/scientific name)	B. Percent Cover (or basal Area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
TREES				
Red maple / Acer rubrum	5%	17%	No	FAC
Striped maple / Acer pensylvanicum	5%	17%	No	FACU
Red oak / Quercus rubra	25%	71%	Yes	FACU
SHRUBS				
Mountain laurel / Kalmia latifolia	80%	100%	Yes	FACU
HERBS				
Cinnamon fern / Osmundastrum cinnamomeum	10%	100%	Yes	FACW

* *Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.*

Vegetation conclusion:

Number of dominant wetland indicator plants: 1 Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes ☐ no ☑

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? (yes) no
title/date: Berkshire County, Massachusetts Version 16, Sep 2, 2021
map number: (MA003)
soil type mapped: 89B - Brayton silt loam, 0 to 8 percent slopes, very stony
hydric soil inclusions: No

Are field observations consistent with soil survey? (yes) no
Remarks: Soils are not hydric

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-4"	10YR 3/1	N/A
A	4-8"	10YR 3/2	N/A
A	8+"	Refusal	N/A

Remarks:
Silty soils. No redox features. 1" thick organic horizon.

3. Other:

Conclusion: Is soil hydric? yes (no)

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other): _____ _____ _____
- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	☐	☑
Wetland hydrology present:		
Hydric soil present	☐	☑
Other indicators of hydrology present	☐	☑
Sample location is in a BVW	☐	☑

Submit this form with the Request for Determination of Applicability or Notice of Intent.

Attachment D

19B15/19B16 Structure Replacement Project
Hadley, Massachusetts
Notice of Intent

ABUTTER NOTIFICATION LETTER
CERTIFIED ABUTTERS LIST

Hard copy of the Certified Abutters List delivered to the Commission by Vicki Torrico on 06/21/22. Email version attached below.

BSC GROUP

Alderton, Emily

From: Vicki Torrico <vickitorrico@townofmtwashington.com>
Sent: Monday, June 20, 2022 2:20 PM
To: Alderton, Emily
Subject: Re: Request for Certified Abutters List

Hi Emily-
I'm so very sorry. I forgot to put the very last sentence at the end of my email saying it was a certified list. Will resend.
Vicki

Sent from my iPhone

On Jun 20, 2022, at 5:12 AM, Alderton, Emily <ealderton@bscgroup.com> wrote:

Hi Vicki,

I have received the emailed list of abutters, but these don't appear to be certified? Was there an attachment with the certified list, or just the written list within the email (below)? The Conservation Commission require us to obtain a certified list. Please let me know how that is best arranged.

Thank you,

Emily.

Emily Alderton, PhD, PWS
Ecological Scientist

ealderton@bscgroup.com
www.bscgroup.com

Working remotely from the UK – please note the time difference when awaiting a reply.
*Current work schedule: **Monday, Tuesday & Friday**, 9am – 5pm BST (4am – 12 noon EST).*

From: Vicki Torrico <vickitorrico@townofmtwashington.com>
Sent: Saturday, June 18, 2022 5:05 PM
To: Alderton, Emily <ealderton@bscgroup.com>
Subject: RE: Request for Certified Abutters List

List of abutters for Map 7 Lot 5A

Map 5 Lot 10
Commonwealth of MA
100 Cambridge St.

Boston, MA 02204

Map 5 Lot 11
The Nature Conservancy
99 Bedford St. 5th Floor
Boston, MA 02111

Map 6 Lot 6
Geneve Brossard
779 East St.
Mt. Washington, MA 01258

Map 6 Lot 6A
Theodore Dombrowski
Patsy Lockenwitz
747 East St.
Mt. Washington, MA 01258

Map 7 Lot 3
Frederick B. and Alison F. Collins
776 East St.
Mt. Washington, MA 01258

Map 7 Lot 4
Richard and Virginia Jackowski
788 East St.
Mt. Washington, MA 01258

Map 7 Lot 2
Roberto and Roberta Chiappelloni
353 North St.
Greenwich, CT 06830

Map 7 Lot 5
David Velsmid
John Velsmid
Rebecca Ben-Ezra
47 St. Andrews Lane
Hopewell Junction, NY 12533

Map 7 Lot 5A
Commonwealth of MA
100 Cambridge St.
Boston, MA 02204

> -------- Original Message --------
> Subject: Request for Certified Abutters List
> From: "Alderton, Emily" <ealderton@bscgroup.com>
> Date: Tue, June 14, 2022 3:20 am
> To: "vickitorrico@townofmtwashington.com"
> <vickitorrico@townofmtwashington.com>
> Cc: "Barnum, Sarah" <SBarnum@bscgroup.com>

Dear Vicki Torrico,

Please could I request a Certified list of the 100' Abutters to The Nature Conservancy (TNC) owned parcel located at 0 East Street, Mount Washington, 01258. The parcel information reported on MassMapper is:

Location ID: M_38498_869882
Map #: 7
Town ID: 195
Property ID: 7 0 5A

Please see the attached screenshot for the parcel location – it is a very large lot, where a Notice of Intent (NOI) is being submitted to the Conservation Commission for work at Becker Pond. Bengt Granskog (of the Conservation Commission), has indicated that we need to request a certified list of abutters within 100' of the property line from the Assessors Office.

Please let me know if there is a fee associated with the certified abutters list, and I will arrange to have a check mailed to you.

Thank you,

Emily.

Emily Alderton, PhD, PWS
Ecological Scientist

ealderton@bscgroup.com
www.bscgroup.com

Working remotely from the UK – please note the time difference when awaiting a reply.
*Current work schedule: **Monday, Tuesday & Friday**, 9am – 5pm BST (4am – 12 noon EST).*

Alderton, Emily

From: Vicki Torrico <vickitorrico@townofmtwashington.com>
Sent: Monday, June 20, 2022 2:30 PM
To: Alderton, Emily
Subject: Certification of abutters

Emily-
Please include this email with the one of the list that I sent. Below is the final sentence I should have included. Thank you.

This is a certified list of abutters for Map 7 Lot 5.

Victorine Torrico
Board of Assessors
Mt. Washington, MA

Sent from my iPhone

Alderton, Emily

From: Vicki Torrico <vickitorrico@townofmtwashington.com>
Sent: Monday, June 20, 2022 2:36 PM
To: Alderton, Emily
Subject: Map 7 Lot 5A

Emily -
So very sorry-did not include the “A” in the lot number.

Here is the proper sentence (added email) to include:

This is a true list of abutters for Map7 Lot 5A.
Victorine Torrico
Thomas Furcht
Mt. Washington Board of Assessors

Sent from my iPhone

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificates of Mailing

This is a notification required by law. You are receiving this notification because you have been identified as the owner of land abutting another parcel of land for which certain activities are proposed. Those activities require a permit under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40).

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act, and 310 CMR 10.05(4)(a) of the Wetlands Regulations, you are hereby notified that:

A. A Notice of Intent was filed with the Mount Washington Conservation Commission on June 28, 2022 seeking permission to remove, fill, dredge, or alter an area subject to protection under M.G.L. c. 131 §40. The following is a description of the proposed activity/activities:

The Project will remove Becker Pond Dam, located off of East Street in Mount Washington, MA. The dam is the only known man-made obstruction on an otherwise free-flowing brook. Its removal will restore river connectivity, benefiting fisheries & wildlife, while reducing flood risks from a possible failure of the structurally defficient dam.

B. The name of the applicant is: The Nature Conservancy (TNC).

C. The address of the land where the activity is proposed is: 0 East Street, Mount Washington, 01258.

D. Copies of the Notice of Intent may be examined or obtained at the office of the Mount Washington Conservation Commission, located at 2 Plantain Pond Road, Mount Washington, MA 01258. The regular business hours of the Commission are Monday (11am – 3pm), Tuesday (9am – 2pm), and other times by appointment only. The Commission may be reached at 413-528-2839, or by email to Bengt Granskog at bengtgranskog@townofmtwashington.com.

E. Copies of the Notice of Intent may be obtained from the applicant's representative by calling Sarah Barnum (BSC Group Inc). at 860-781-6151, or email: sbarnum@bscgroup.com. An administrative fee may be applied for providing copies of the NOI and plans.

F. Information regarding the date, time, and location of the public hearing regarding the Notice of Intent may be obtained from the Mount Washington Conservation Commission. Notice of the public hearing will be published at least five business days in advance, in the Berkshire Eagle.

Notification provided pursuant to the above requirement does not automatically confer standing to the recipient to request Departmental Action for the underlying matter. See 310 CMR 10.05(7)(a)4.

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act

(to be submitted to the Massachusetts Department of Environmental Protection and the Conservation Commission when filing a Notice of Intent)

I, Sarah Barnum, BSC Group, Inc., hereby certify under the pains and penalties of perjury that on or before July 12, 2022 I gave notification to abutters in compliance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and the **DEP Guide to Abutter Notification** dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act and the Town of Mount Washington by The Nature Conservancy (TNC) with the Town of Mount Washington on June 28, 2022 for property located at Becker Pond - 0 East Street, Mount Washington, MA 01258.

The form of the notification, and a list of the abutters to whom it was given and their addresses are attached to this Affidavit of Service.

Signature

06/27/2022

Date

Attachment E

19B15/19B16 Structure Replacement Project
Hadley, Massachusetts
Notice of Intent

BEST MANAGEMENT PRACTICES (BMPS)

BSC GROUP

SECTION 02100 – FLOW MANAGEMENT, EROSION AND POLLUTION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. Section Addresses:
   1. Minimizing the pollution of air, water, or land; control of noise; the disposal of solid waste materials.
   2. Employ and utilize environmental protection methods, and fully comply with all local, state, and federal regulations and permits.

B. Section Includes:
   1. Flow management, erosion and pollution control consisting of providing construction operations that avoid or minimize damage to adjacent or resident natural resources, and water, air and noise pollution.

1.2 QUALITY ASSURANCE

A. Referenced Standards
   1. Flow Management, Erosion and Pollution Control shall be performed in accordance with the permits and their requirements (see Section - 00820 Permits).
   2. MassDOT Standards Specifications and Supplements (MHD) – latest edition

1.3 SUBMITTALS

A. The Contractor shall submit a Spill Prevention Plan to the Engineer for approval as part of the Construction Operations Plan prior to the preconstruction conference. The plan shall include a procedure for reporting incidents to Mass DEP.

B. Water Management Plan
   1. The Contractor shall submit a Water Management Plan to the Engineer for approval as part of the Construction Operations Plan prior to the preconstruction conference. An approved plan must be in place prior to the start of work.
   2. The Water Management Plan shall include:
      a. A narrative of the methods to be used to control water;
      b. A complete list of equipment and materials to be used and a schedule for their delivery and installation at the site;
      c. Location of facilities;
      d. Provisions for addressing circumstances resulting from overtopping of flow management works due to wet weather conditions;
      e. Provisions for treatment of water pumped from within the immediate work area; and
      f. A flood response plan that sets out procedures for evacuating all workers, equipment, materials, etc. from the work area and for stabilizing and protecting the area to the greatest extent possible prior to the onset of flooding. Any flood emergency warning and response procedures must be identified. The plan must set

procedures and protective measures to be implemented in the event of a flood during dam breach construction activities.

3. Sheet XX of the Contract Drawings provides a suggested construction sequence, including flow management, for the purposes of project bidding. The Contractor may follow the suggested sequencing or provide an alternate plan. Overall, the plan will be the Contractor's plan that meets all permit requirements and is subject to approval by the Engineer.

C. Erosion and Pollution Control Plan
1. The Contractor shall submit an Erosion and Pollution Control Plan for the project to the Engineer for review and approval. The Erosion and Pollution Control Plan must satisfy the requirements of the NPDES Stormwater General Permit for Construction Activity and all other applicable permits.
2. The plan shall include a drawing of the work area, haul routes, storage areas, access routes and current land conditions including trees and vegetation.
3. The Engineer must approve this plan prior to the start of work.
4. The plan shall include the name, address and 24-hour contact number of the person responsible for erosion and pollution prevention and control measures.

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. Management of in-stream flows shall use temporary dams or exclusion barriers, gravity or pumped diversion pathways, or other methods that allow the Work to be completed in compliance with applicable permits and have been approved by the Owner.

2.2 MATERIALS

A. Oil Absorbent Booms
1. Shall be 5-inch, minimum, diameter and constructed of an outer mesh that contains oil absorbent filler material.
2. Shall be capable of absorbing all hydrocarbons including, oil, gasoline, diesel and lubricating oils.
3. Shall not sink when saturated with oil.

B. Silt Fence
1. Silt fence shall be provided as required to protect surface water quality and comply with all permits.

C. Bulk Bags
1. Bulk bags, if necessary to complete the Work, shall be constructed of woven polypropylene fabric. Bulk bags shall have a minimum capacity of 3,000 lbs and shall be spread strap containers with 28-inch by 28-inch bases as manufactured by Bag Corp., or approved equal.

D. Woven Coir Fabric, Wood Stakes, and Wood Staples
1. Refer to Section 02200 – Earthwork for specifications

PART 3 - EXECUTION

3.1 CONSTRUCTION

A. General Construction Requirements
   1. No work requiring erosion control shall commence until the Erosion and Pollution Control Plan has been submitted and approved by the Owner and any required permits are in place.
   2. The Contractor shall furnish, install, maintain and remove erosion and sediment control devices over the lifetime of the Project. If any of the installed measures require repair or are rendered ineffective during construction, these measures shall be replaced or repaired by the Contractor and brought back to effective condition at no extra cost

3.2 PROTECTION OF PROPERTY

A. Land Protection
   1. Except for any work or storage area and access routes specifically assigned for the use of the Contractor, the areas outside the limits of construction shall be preserved in their present condition. Contractor shall confine his activities to areas shown on the Drawings.
   2. Contractor shall manage and control all borrow areas, work or storage areas, access routes and embankments to prevent water from entering nearby water or land adjacent to the work site.
   3. Contractor shall restore all disturbed areas including borrow and haul areas and establish permanent type of locally adaptive vegetative cover.
   4. Unless earthwork is immediately paved or surfaced, Contractor shall protect all side slopes and backslopes immediately upon completion of final grading.
   5. Plan and execute earthwork in a manner to minimize duration of exposure of unprotected soils.
   6. Except for areas designated by the Contract Documents to be cleared, the Contractor shall not deface, injure or destroy trees and vegetation, nor remove, cut, or disturb them without approval of the Owner. Any damage caused by the Contractor's equipment or operations shall be restored to its original condition at the Contractor's expense.
   7. Silt fence shall be installed prior to clearing and grubbing to control sediment from leaving the project limits. The Contractor may submit alternate methods of establishing perimeter sediment control in locations where silt fence installation is deemed impractical or problematic. The Contractor shall not make this substitution without prior approval of the Engineer.
   8. The Contractor shall be responsible for the removal of temporary erosion control measures once the project is completed.
   9. All disturbed areas shall be treated as shown on the Drawings or described in these specifications.

B. Project Access, Staging and Storage Areas
   1. Access corridor and potential staging and storage areas are shown on the Drawings, and will be reviewed in the field by the Owner. The Contractor shall be responsible for any repairs, replacement or payment required to return any vegetation, structures, grading or other facilities disturbed in the course of this project by the Contractor, his employees or subcontractors, to the same condition as existed before the project was started. Such repairs, replacement or payment shall be at the Contractor's expense.

C. Haul Routes
   1. The Contractor is required to determine and observe any restrictions placed on travel over public roads.
   2. The Contractor shall be responsible for any repairs, replacement or payment required to return public roads damaged in the course of this project by the Contractor, his employees or subcontractors, to the same condition as existed before the project was started. Such repairs, replacement or payment shall be at the Contractor's expense.
   3. The Contractor shall be responsible for limiting spillage of spoils and other impacts from passage of haul vehicles and other operations to comply with road use requirements and to ensure a safe operating environment.

3.3 FLOW MANAGEMENT

A. The Contractor shall perform water management in excavations and other work locations as necessary to facilitate completion of the work.

B. The water management facilities shall be sufficient to bypass or exclude the watercourse from the active work area and to protect the work in progress.

C. The Contractor shall provide all equipment and materials necessary for water management. The Contractor shall have on hand, at all times, sufficient pumping and other equipment and machinery in good working condition and shall have available, at all times, competent workers for the operation of equipment.

D. The Contractor shall be responsible for installation, maintenance and performance of the water management works. All materials used for construction of temporary flow management structures shall be clean and stable.

E. The Contractor shall be aware that the project site is in a waterway and the Contractor is responsible for monitoring incoming weather and flow levels to protect equipment and the site accordingly.

3.4 EROSION AND POLLUTION CONTROL

A. The provisions shown on the approved Erosion and Pollution Control Plan shall be in place prior to any ground disturbing activity on the site.

B. The Contractor shall perform erosion control for the duration of the Contract in accordance with the approved Erosion and Pollution Control Plan or otherwise approved by the Owner.

C. Control of Dust
   1. The control of dust shall mean that no construction activity shall take place without applying all such reasonable measures as may be required to prevent particulate matter from becoming airborne so this it remains visible beyond the limits of construction. Reasonable measures may include paving, frequent road cleaning, planting vegetative groundcover, application of water or application of chemical dust suppressants. Utilize methods and practices of construction to eliminate dust.
   2. The Engineer will determine the effectiveness of the dust control program and may request the Contractor to provide additional measures, at no additional cost to the Owner.

D. Control of surface runoff shall include operations adequate to bypass or remove all flowing water. The Contractor shall be responsible for performing dewatering in accordance with the requirements of all applicable permits.
   1. Utilize methods necessary to effectively prevent erosion and control of sedimentation and include the following:
      a. Mechanically retard rate of runoff by construction of diversion ditches, terraces, and berms. Divert runoff to protect drainage courses.
      b. Protect side and backslopes as soon as rough grading is complete by mulching or netting.
      c. Where slopes are too steep for stabilization, use mulching anchored in place, covered by woven coir fabric that is secured with wooden stakes and staples to prevent erosion.
      d. Remove temporary protection prior to final grading operations.
      e. Install woven coir fabric secured with wooden stakes and staples immediately upon completion of final grading operations. Refer to Section 02200 – Earthwork.

E. It shall be the sole responsibility of the Contractor to control the rate and effect of the water management and erosion control in such a manner as to avoid all objectionable settlement, subsidence or erosion caused by discharge flows, and to mitigate impacts to the watercourse, including fish and wildlife resources. All materials used for dewatering shall be clean and stable. No materials that can be washed away by stream flows, such as topsoil, sand or fine gravel, will be allowed.

F. Solid Waste Disposal
   1. Collect solid waste on a daily basis.
   2. Provide disposal of degradable solid waste to an approved solid waste disposal site.
   3. Provide disposal of nondegradable solid waste to an approved solid waste disposal site or in an alternative manner approved by Owner and regulatory agencies.

G. Control of Chemical Waste
   1. Store and dispose of chemical wastes in a manner approved by regulatory agencies.
   2. Take special measures to prevent chemicals, fuels, oils, greases, herbicides, and insecticides from entering drainage ways.
   3. Do not allow water used in onsite material processing, concrete curing, cleanup, and other waste waters to enter drainage way(s) or stream(s).

H. Burning
   1. Do not burn material on site. If the Contractor elects to dispose of waste material by burning, make arrangements for an offsite burning area and conform to all agency regulations.

I. Control of Noise
   1. Control of noise by fitting equipment with appropriate mufflers.

3.5 REMOVAL OF FACILITIES AND SUPPLIES

A. Following the conclusion of project construction and upon approval of the Engineer, the flow management and erosion control facilities and materials shall be removed, and the areas impacted by these operations shall be restored to their original condition. Materials used in water

management and erosion control activity shall become property of the Contractor and removed from the site at his sole expense.

B. Completion of Work
   1. Upon completion of work, leave area in a clean, natural looking condition.
   2. Ensure all signs of temporary construction and activities incidental to construction of required permanent work are removed upon completion of the Work.
   3. Grade, fill and seal disturbed area.

END OF SECTION 02100

The Nature Conservancy Approaches to
Invasive Plant Species Management in Wetland Resource Areas

The Nature Conservancy (TNC) has been using invasive plant control methods in the southern Berkshires for over 15 years, with documented success at both controlling invasive plants and minimizing non-target impacts. Monitoring treatment success is performed through the use of vegetation monitoring plots, photo monitoring, and pre and post treatment site inspections and evaluations. All herbicide applications are performed by TNC staff, volunteers, or contractors who hold valid pesticide application licenses issued by the Commonwealth of Massachusetts.

TNC has worked to manage and control several invasive plant species including, but not limited to, *Phragmites australis* (Common reed), *Lythrum salicaria* (Purple Loosestrife), *Phalaris arundinacea* (Reed canarygrass), *Berberis thunbergii* (Barberry), *Rhamnus cathartica* and *R. frangula* (Buckthorn), *Lonicera* spp. (Honeysuckle), *Celastrus orbiculata* (Oriental Bittersweet) and *Rosa multiflora* (Multiflora rose). Preferred and alternative methods of control for these invasive plants within and around wetland resources areas are as follows:

Common reed (*Phragmites australis*)
Preferred methods of treatment: Hand-clip Phragmites at chest height and apply an approved herbicide to the hollow stems in August through September, or swipe stems with a glove coated with herbicide in mid-July.
Alternative: Apply a foliar treatment of herbicide in mid-July.

Reed canarygrass (*Phalaris arundinacea*)
Preferred method of treatment: Mow during early summer, and apply a foliar herbicide during late summer.
Alternative: Mow up to 4 times during the growing season.

Purple loosestrife (*Lythrum salicaria*)
Preferred method of treatment: Apply a biological control with *Galerucella* spp. beetles.
Alternative: Apply a foliar herbicide through hand swiping.

Barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), bittersweet (*Celastrus orbiculatus*), and honey suckle (*Lonicera spp.*)
Preferred method of treatment: Apply foliar herbicide, or use a combination of mechanical cutting and herbicide application to the cut stems or stumps.
Alternative: Remove individual plants by hand.

Buckthorn (*Frangula spp.*)
Preferred method of treatment: Mechanically cut and apply herbicide to the cut stumps.
Alternative: Remove individual plants by hand.

Japanese Stiltgrass (*Microstegium vineum*)
Preferred method of treatment: Mechanically cut in late summer but before seeds mature.
Alternative: Remove individual plants by hand.

Our preferred herbicide for use in all habitat types is glyphosate (53.8% active ingredient glyphosate N-(phosphonomethyl) glycine, isopropylamine salt). This product is approved by the Commonwealth of Massachusetts for use within wetlands and it does not come pre-mixed with any surfactants. When working directly in wetland resource areas we prefer to use a glyphosate herbicide without any additional surfactants, which requires a direct application of the glyphosate herbicide either onto/into a cut stump/stem. However, some site conditions require a foliar application of a glyphosate herbicide, and those circumstances will require the addition of a surfactant to the herbicide mixture. Our preferred surfactant is Cide-Kick™ II, which is made of natural limonene taken from the bark of pine trees. It is used in foliar applications because it breaks down the waxy cuticle of the plants, allowing better uptake of the herbicide.

The coloring agent Bullseye™ is added to all herbicide mixes. This allows applicators to see areas that have already been treated, therefore greatly reducing the chances of over application. This is our preferred coloring agent because it is non-toxic, environmentally safe, water soluble, and does not permanently stain clothing or equipment.

As stated above, all herbicide applications are performed by licensed TNC staff, volunteers, or contractors the Commonwealth of Massachusetts. In addition, all herbicide applications are performed in compliance with their respective labels and under the strictest protocols to minimize non-target impacts. These practices include the following protocols:

- To minimize runoff, herbicide will not be applied when there is greater than a 50% chance of rain within 8 hours following application.
- To reduce the risk of drift, foliar applications, via low pressure backpack sprayers, will only occur when wind speeds are between 2 to 10 mph. In additional, drift will be minimized by avoiding foliar applications during periods of temperature inversion.
- Evaporation will be mitigated by avoiding application during the hottest and driest days.

For further information contact Angela Sirois-Pitel, TNC Western Massachusetts Stewardship Manager, asirois@tnc.org, (413) 229-0232.

Attachment F

19B15/19B16 Structure Replacement Project
Hadley, Massachusetts

Notice of Intent

NHESP INFORMATION

BSC GROUP

Alderton, Emily

From: Sarah Barnum
Sent: Tuesday, May 11, 2021 12:07 PM
To: Alderton, Emily
Subject: FW: Mount Washington, Becker Pond dam - NHESP 18-37448

Emily,

See below for NHESP consultation info. This e-mail should be referenced and included in the Appendices.

Sarah

From: Karen Lombard <klombard@TNC.ORG>
Sent: Tuesday, May 11, 2021 12:01 PM
To: Sarah Barnum <SBarnum@bscgroup.com>
Cc: Ford, Eric (FWE) <eric.ford@state.ma.us>; Wildman, Nick (FWE) <nick.wildman@state.ma.us>; Fontaine, Leanda (FWE) <leanda.fontaine@state.ma.us>; Hirsch, Chris (FWE) <chris.hirsch@state.ma.us>
Subject: FW: Mount Washington, Becker Pond dam - NHESP 18-37448

Heritage email demonstrating that we are in consultation below.

From: Marold, Misty-Anne (FWE) <misty-anne.marold@state.ma.us>
Sent: Tuesday, May 11, 2021 9:51 AM
To: Karen Lombard <klombard@TNC.ORG>
Cc: Cheeseman, Melany (FWE) <melany.cheeseman@state.ma.us>
Subject: RE: Mount Washington, Becker Pond dam - NHESP 18-37448

RE: Becker Pond dam - NHESP 18-37448, plan change

Karen,

Thanks for the information about the change to the proposed access road. The existing road is 10-12 feet wide, but TNC has not been able to obtain approval for use of this road fo the proposed dam removal project. So, TNC proposes to construct a new 15 foot access road to facilitate construction. The new access road will be about 300 ft long with the intention of minimizing tree cutting and gravel application resulting in about 4500 square-feet of additional disturbance. As discussed in prior consultation, TNC will narrow the road to a hiking trail post-construction.

The Division anticipates that this additional work will not require a MESA Conservation and Management Permit pursuant to 321 CMR 10.23 based on the information available at this time. The project will need to file for a formal MESA Review pursuant to 321 CMR 10.18 after the completion of the MEPA Review process (boiler-plate filing language below). I anticipate that the project can be conditioned, as previously discussed, pursuant to 321 CMR 10.18. This includes implementation of a protection plan and taking opportunities for habitat enhancement in the vicinity of the dam.

Best, Misty-Anne

Wetlands Protection Act (WPA)

If the project site is within Estimated Habitat and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the Division so that it is received at the same time as the local conservation commission. If the Division determines that the proposed project will adversely affect the actual Resource Area habitat of state-protected wildlife, then the proposed project may not be permitted (310 CMR 10.37, 10.58(4)(b) & 10.59). In such a case, the project proponent may request a consultation with the Division to discuss potential project design modifications that would avoid adverse effects to rare wildlife habitat.

A streamlined joint MESA/WPA review process is now available. When filing a Notice of Intent (NOI), the applicant may now file concurrently under the MESA on the same NOI form and qualify for a 30-day streamlined joint review. For a copy of the revised NOI form, please visit the MA Department of Environmental Protection's website: http://www.mass.gov/eea/agencies/massdep/service/approvals/wpa-form-3.html.

MA Endangered Species Act (MESA)

If the proposed project is located within Priority Habitat and is not exempt from review (see 321 CMR 10.14), then project plans, a fee, and other required materials must be sent to Natural Heritage Regulatory Review to determine whether a probable Take under the MA Endangered Species Act would occur (321 CMR 10.18). Please note that all proposed and anticipated development must be disclosed, as MESA does not allow project segmentation (321 CMR 10.16). For a MESA filing checklist and additional information please see our website: www.mass.gov/regulatory-review.

We recommend that rare species habitat concerns be addressed during the project design phase prior to submission of a formal MESA filing, as avoidance and minimization of impacts to rare species and their habitats is likely to expedite endangered species regulatory review.

Important: Our offices are currently closed and all non-essential state are working remotely. We will respond to your inquiry as quickly as possible. Thank you for your patience. Please visit our website (www.mass.gov/nhesp) for updates.

Misty-Anne R. Marold (*she/her/hers*)
Senior Endangered Species Review Biologist
Massachusetts Division of Fisheries & Wildlife
Natural Heritage Endangered Species Program
1 North Drive, Rabbit Hill Road
Westborough, MA 01581
misty-anne.marold@mass.gov

From: Karen Lombard <klombard@TNC.ORG>
Sent: Wednesday, May 5, 2021 2:25 PM
To: Marold, Misty-Anne (FWE) <misty-anne.marold@mass.gov>
Subject: FW: Becker Pond dam - NHESP 18-37448

Hi Misty,
As we prep the draft EIR for submittal, we realized we don't have any documentation that we are in consultation with Heritage. Is that something you can provide?

Also is there any chance of Heritage providing clarification on requirements before we submit the EIR as I mention below? We are in the final draft review phase before submittal on May 17th. If not, at least the documentation above would indicate that we are in discussions.

Thanks,

Karen

From: Karen Lombard
Sent: Wednesday, April 28, 2021 10:44 AM
To: Marold, Misty-Anne (FWE) <misty-anne.marold@state.ma.us>
Subject: RE: Becker Pond dam - NHESP 18-37448

Hi Misty,
I'm just checking in regarding the follow-up mentioned below. We hope to submit to MEPA May 17th and it would be good to have clarification on Heritage requirements to include in the submittal.

Thanks,
Karen

From: Karen Lombard <klombard@TNC.ORG>
Sent: Monday, April 12, 2021 1:56 PM
To: Marold, Misty-Anne (FWE) <misty-anne.marold@mass.gov>
Subject: RE: Becker Pond dam - NHESP 18-37448

The existing road is 10-12 feet wide and was considered wide enough to get vehicles down for the project (with some tree branch trimming) in the 75% design. So 15 feet should be adequate. We will want to get an excavator and dump trucks down it.

Perhaps it could be considered as similar to a temporary logging road??

Karen

From: Marold, Misty-Anne (FWE) <misty-anne.marold@state.ma.us>
Sent: Monday, April 12, 2021 1:50 PM
To: Karen Lombard <klombard@TNC.ORG>
Subject: RE: Becker Pond dam - NHESP 18-37448

Karen,

Let me chat internally and get back to you. Would you expect it to be around 15 feet wider or wider during construction? Misty-Anne

Important: Our offices are currently closed and all non-essential state are working remotely. We will respond to your inquiry as quickly as possible. Thank you for your patience. Please visit our website (www.mass.gov/nhesp) for updates.

Misty-Anne R. Marold (*she/her/hers*)
Senior Endangered Species Review Biologist
Massachusetts Division of Fisheries & Wildlife
Natural Heritage Endangered Species Program
1 North Drive, Rabbit Hill Road
Westborough, MA 01581
misty-anne.marold@mass.gov

From: Karen Lombard <klombard@TNC.ORG>
Sent: Monday, April 12, 2021 1:20 PM
To: Marold, Misty-Anne (FWE) <misty-anne.marold@mass.gov>
Subject: Becker Pond dam - NHESP 18-37448

Hi Misty,
Since I emailed you on March 16th, we have determined that we will not access the dam site through the neighbor's property. I know that in previous conversations you said that this determination might require a conservation management permit? We will now need to cut a road through our property as indicated on the 75% design plans. The new access will be about 300 ft and we intend to cut as few trees as possible as well as only put down gravel where needed. As we have indicated previously we would like to narrow down the road and use it as part of hiking trail after the project.

We will be submitting an EIR to MEPA on the May 17th filing date, so any details we can include about Heritage requirements would be helpful.

Can we set up a phone call?

Thanks,
Karen

Karen Lombard
Director of Stewardship & Restoration
klombard@tnc.org
(413) 923-3174 (Office)

The Nature Conservancy
Massachusetts Field Office

136 West St., Suite 202
Northampton, MA 01060

Alderton, Emily

From: Barnum, Sarah
Sent: Monday, June 27, 2022 8:36 PM
To: Alderton, Emily
Subject: FW: Becker Pond - TOY Restriction

From: Fontaine, Leanda (FWE) <leanda.fontaine@state.ma.us>
Sent: Monday, June 27, 2022 3:25 PM
To: Ford, Eric (FWE) <eric.ford@state.ma.us>
Cc: Barnum, Sarah <SBarnum@bscgroup.com>; Candice Constantine PhD (cconstantine@interfluve.com) <cconstantine@interfluve.com>; Wildman, Nick (FWE) <nick.wildman@state.ma.us>; Hirsch, Chris (FWE) <chris.hirsch@state.ma.us>
Subject: RE: Becker Pond - TOY Restriction

Hey Eric,

Given the fact that the project is short-term, there should be no TOY restrictions. We consider the dam removal has more of a long-term benefit to the waterbody, outweighing any possible short-term impacts.

Leanda Fontaine (she/her)
Aquatic Biologist, Western District
Massachusetts Division of Fisheries & Wildlife
88 Old Windsor Rd, Dalton, MA 01226
p: (413) 684-1646 | f: (413) 684-1705
mass.gov/masswildlife | facebook.com/masswildlife

From: Ford, Eric (FWE) <eric.ford@mass.gov>
Sent: Wednesday, June 22, 2022 3:32 PM
To: Fontaine, Leanda (FWE) <leanda.fontaine@mass.gov>
Cc: Sarah Barnum <sbarnum@bscgroup.com>; Candice Constantine PhD (cconstantine@interfluve.com) <cconstantine@interfluve.com>; Wildman, Nick (FWE) <nick.wildman@mass.gov>; Hirsch, Chris (FWE) <Chris.Hirsch@mass.gov>
Subject: Becker Pond - TOY Restriction

Hi Leanda,

Since there is no formal mechanism for coordination, we wanted to check in and see what you anticipate being a TOY restriction for fisheries at the Becker Pond site. We were planning to leave it open ended in our NOI application since you'll have an opportunity to comment at that time, but if you have any initial guidance, it would be much appreciated.

Thanks!

Eric C. Ford, PWS ***(he/him/his)***
Ecological Restoration Specialist/Project Manager
Division of Ecological Restoration - ***Invested in Nature & Community***
Massachusetts Department of Fish and Game

Alderton, Emily

Write in that fisheries staff will be on site during the initial dewatering phase.

From: Barnum, Sarah
Sent: Friday, June 24, 2022 3:34 PM
To: Alderton, Emily; Milliman, Alison
Subject: FW: Pumping at Becker Pond

Looking at Leanda's e-mail, I think we can state that Fisheries staff will be there when they dewater (see my added highlight below).

Sarah

From: Fontaine, Leanda (FWE) <leanda.fontaine@state.ma.us>
Sent: Tuesday, May 31, 2022 10:10 AM
To: Ford, Eric (FWE) <eric.ford@state.ma.us>
Cc: Wildman, Nick (FWE) <nick.wildman@state.ma.us>; Barnum, Sarah <SBarnum@bscgroup.com>; Hirsch, Chris (FWE) <chris.hirsch@state.ma.us>; Candice Constantine PhD (cconstantine@interfluve.com) <cconstantine@interfluve.com>; Karen Lombard <klombard@TNC.ORG>; Sarah Widing <swiding@interfluve.com>
Subject: RE: Pumping at Becker Pond

Hi Eric,

Cage or grate at inlet to pump.

I was just about to respond as you beat me to it. 😊 I'm finally catching up on emails & such now that trout stocking is *finally* over.

I think pumping would be an acceptable alternative to maintain stream flow while the work is being conducted. It's been used on many projects where a bypass channel is not possible. My main request with pumping would be installing some small wire mesh or caging around the pump inlet to prevent small fish from getting sucked up into the pump system. Depending on the time of year when the pump bypass will be in place, I don't think we need to worry about any spawning migrations (which they can't do currently anyways because of the dam, so it shouldn't be an issue).

Everything else mentioned sound pretty reasonable to me to prevent sediment from washing downstream. When the pump is in place & dewatering of the impoundment commences, I'd like to be there during the dewatering process in case any fish still stuck in the impoundment need to be relocated downstream. What is the proposed timeframe for the dewatering (start, finish & anticipated duration of dewatering)? This way I can plan for it with my field schedule & have my staff there to assist.

Let me know if there's anything else you have questions on. Now that trout season is over, I should be more available to catch up on meetings & whatnot. I will try my damnedest to be present at the upcoming meetings, now that things are starting to ramp up with the removal process. And thanks for checking back in with me. I appreciate your patience.

-Leanda

Leanda Fontaine (she/her)
Aquatic Biologist, Western District
Massachusetts Division of Fisheries & Wildlife
88 Old Windsor Rd, Dalton, MA 01226
p: (413) 684-1646 | f: (413) 684-1705
mass.gov/masswildlife | facebook.com/masswildlife

From: Ford, Eric (FWE) <eric.ford@mass.gov>
Sent: Tuesday, May 31, 2022 9:50 AM
To: Fontaine, Leanda (FWE) <leanda.fontaine@mass.gov>
Cc: Wildman, Nick (FWE) <nick.wildman@mass.gov>; Sarah Barnum <sbarnum@bscgroup.com>; Hirsch, Chris (FWE) <Chris.Hirsch@mass.gov>; Candice Constantine PhD (cconstantine@interfluve.com) <cconstantine@interfluve.com>; Karen Lombard <klombard@TNC.ORG>; Sarah Widing <swiding@interfluve.com>
Subject: RE: Pumping at Becker Pond

Hi Leanda – just checking in on this. Any thoughts and opinions would be much appreciated.

From: Ford, Eric (FWE)
Sent: Wednesday, May 25, 2022 2:41 PM
To: Fontaine, Leanda (FWE) <leanda.fontaine@mass.gov>
Cc: Wildman, Nick (FWE) <nick.wildman@mass.gov>; Sarah Barnum <sbarnum@bscgroup.com>; Hirsch, Chris (FWE) <Chris.Hirsch@mass.gov>; Candice Constantine PhD (cconstantine@interfluve.com) <cconstantine@interfluve.com>; Karen Lombard <klombard@TNC.ORG>; Sarah Widing <swiding@interfluve.com>
Subject: Pumping at Becker Pond

Water Control Plan.

Hi Leanda,

Hope all is well. We just wrapped up our latest Becker Pond meeting, and we actually had a question for you related to brook trout and pumping. As you know, DEP has pushed to reduce the amount of sediment migrating downstream during and immediately after construction. This has created some challenges on the construction side, and we wanted to reach out and see if our current approach passes muster from a fisheries perspective. Currently, we are proposing the following:

1. Setup a coffer dam at the upstream end of the impoundment and pump water around the impoundment. The valley is very narrow so creating some type of gravity bypass channel (as we often do) isn't really an option here;
2. Once the pump is in place and operating, the impoundment would be drawn down, allowing the impoundment sediment to dewater;
3. Once the impoundment sediment is dewatered, an excavator can enter the impoundment and create the pilot channel. At the same time, the impounded sediments to remain would be stabilized with seed and surficial woody debris;
4. Additional wood structures could be added to stabilize the channel (depending on the substrate below the impounded sediments);
5. Once the pilot channel is completed, the dam structure can be removed.

Our question is twofold:

1. Is pumping acceptable from your perspective (i.e., Is there a significant risk to fisheries)?
2. Are there any best practices we can use in concert with pumping to avoid issues with fish mortality?

I know you haven't been on some of the more recent calls, so I'm happy to discuss in more detail via Teams so you have better context regarding the challenges we are dealing with..

Thanks!

Eric C. Ford, PWS ***(he/him/his)***
Ecological Restoration Specialist/Project Manager
Division of Ecological Restoration - ***Invested in Nature & Community***
Massachusetts Department of Fish and Game