

**Commonwealth of Massachusetts**  
**Executive Office of Energy and Environmental Affairs**  
**Massachusetts Environmental Policy Act (MEPA) Office**

**Environmental Notification Form**

<p><i>For Office Use Only</i></p> <p>EEA#: <u>16226</u></p> <p>MEPA Analyst: <u>Anne Canaday</u></p>
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*The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.*

<b>Project Name: Becker Pond Dam Removal</b>		
<b>Street Address: East Street</b>		
<b>Municipality: Mt. Washington</b>	<b>Watershed: Housatonic River</b>	
Universal Transverse Mercator Coordinates:	Latitude: <b>42° 33' 30.05"</b> Longitude: <b>73° 27' 33.29"</b>	
Estimated commencement date: <b>July 2021</b>	Estimated completion date: <b>September 2021</b>	
<b>Project Type: Dam Removal/River Restoration</b>	Status of project design: <b>75% complete</b>	
<b>Proponent: The Nature Conservancy</b>		
<b>Street Address: 136 West St., Suite 202</b>		
<b>Municipality: Northampton</b>	<b>State: MA</b>	<b>Zip Code: 01060</b>
<b>Name of Contact Person: Candice Constantine</b>		
<b>Firm/Agency: Inter-Fluve, Inc.</b>	<b>Street Address: 63 Spring Street, 2<sup>nd</sup> Floor, Suite J</b>	
<b>Municipality: Williamstown</b>	<b>State: MA</b>	<b>Zip Code: 01267</b>
<b>Phone: 617.909.7569</b>	<b>Fax: 608.441.0218</b>	<b>E-mail: cconstantine@interfluve.com</b>
<p>Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  <input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No</p> <p>If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you requesting:</p> <p>a Single EIR? (see 301 CMR 11.06(8))                      <input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No  a Special Review Procedure? (see 301 CMR 11.09)                      <input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No  a Waiver of mandatory EIR? (see 301 CMR 11.11)                      <input checked="" type="checkbox"/> Yes   <input type="checkbox"/> No  a Phase I Waiver? (see 301 CMR 11.11)                      <input type="checkbox"/> Yes   <input checked="" type="checkbox"/> No</p> <p><i>(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)</i></p> <p>Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?  <b>Wetlands, Waterways, and Tidelands (301 CMR 11.03(3))</b>  <b>State-Listed Rare Species (301 CMR 11.03(2))</b>  Which State Agency Permits will the project require?  <b>MA Wetlands Protection Act Notice of Intent</b>  <b>WW26 combined Ch91 dredge permit/401 Water Quality Certification</b></p>		

Identify any financial assistance or land transfer from an Agency of the Commonwealth, including the Agency name and the amount of funding or land area in acres:

**MA Division of Ecological Restoration: ~\$58,000**

<b>Summary of Project Size &amp; Environmental Impacts</b>	<b>Existing</b>	<b>Change</b>	<b>Total</b>
<b>LAND</b>			
Total site acreage	0.98 ac		
New acres of land altered		0.98	
Acres of impervious area	N/A	N/A	N/A
Square feet of new bordering vegetated wetlands alteration		N/A	
Square feet of new other wetland alteration		-34,600 (Land Underwater)	
Acres of new non-water dependent use of tidelands or waterways		N/A	
<b>STRUCTURES</b>			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	N/A	N/A
<b>TRANSPORTATION</b>			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
<b>WASTEWATER</b>			
Water Use (Gallons per day)	N/A	N/A	N/A
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	N/A	N/A	N/A
Length of water mains (miles)	N/A	N/A	N/A
Length of sewer mains (miles)	N/A	N/A	N/A
Has this project been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			

## **GENERAL PROJECT INFORMATION – all proponents must fill out this section**

### **PROJECT DESCRIPTION:**

Describe the existing conditions and land uses on the project site:

The project area consists of Becker Pond Dam and the area immediately upstream of the dam. Becker Pond Dam is located on an unnamed brook in a relatively remote area near the Mt. Washington State Forest. The dam and the surrounding property are part of the 800-acre Mt. Plantain Preserve, owned by The Nature Conservancy (TNC). The TNC property is used by the public for hunting, fishing, and other recreation. Downstream of the dam, the unnamed brook joins Schenob Brook downstream of Sages Ravine. The next bridge over the brook is approximately two miles downstream from the dam.

Becker Pond Dam is a run-of-the-river dam currently in poor condition with several critical safety and structural issues. Becker Pond covers an area of approximately 0.65 acres and is not under jurisdiction of the MA Office of Dam Safety. Becker Pond Dam is composed of a 95-foot long earthen embankment and concrete core wall. The dam outlet consists of a rectangular weir spillway with concrete apron and concrete training walls. The structural height of the dam is 14.3 ft. The crest of the concrete spillway is set approximately 2.3 feet below the top of the concrete core wall and has a weir length of 23.2 feet. The concrete training walls retain the earthen embankments adjacent to the spillway section and direct flow over the concrete apron. The concrete apron extends approximately 16.8 feet downstream of the base of the spillway. A low-level outlet is present and believed by project partners to be inoperable.

A visual inspection carried out in 2016 by Fuss & O'Neill found the dam to be in poor condition with several critical issues, notably on the left training wall which is cracking and failing and has slipped off the foundation. The inspection also found significant erosion of the earthen embankment adjacent to the wall and cracked and spalling concrete. The wooden bridge crossing the dam is partially collapsed and has been cordoned off by TNC with warning signs posted.

Downstream of Becker Pond Dam, the brook flows over steep terrain within a narrow hemlock and birch dominated forested valley. The channel is approximately 12 to 15 feet wide with a 1 to 1.5 foot bankfull depth. Frequent, but irregularly spaced, constrictions created by bedrock narrow the channel to approximately 8 feet in some locations. Exposed bedrock, fallen logs, and boulders create steps with 1 to 3 feet of vertical drop with plunge pools located downstream. Investigations found that substrate material is primarily sand and gravel, with 2 to 3-inch particles frequently mobilized.

The upstream limit of the impoundment is approximately 50 feet downstream of a wooden footbridge that crosses the stream. Upstream of this bridge the channel is steep with boulders and cobbles. Further upstream, the channel is a low gradient wetland channel with an extensive deciduous wooded swamp influenced by beaver activity.

Describe the proposed project and its programmatic and physical elements:

The primary goals of the proposed project are to 1) eliminate the safety hazard posed by the dam; and 2) restore aquatic and hydrologic connectivity through the site. TNC is seeking a simple, low-impact solution that will restore habitat for wild brook trout and other native aquatic species.

The design of the dam removal includes removing the full vertical and lateral extents of the

concrete associated with the dam, and re-grading the surrounding embankments to balance the impact to surrounding areas. This minimal effort approach is consistent with the project goals.

The proposed embankment re-grading reflects an intent to tie into the contours of the existing valley slopes and stream channel upstream and downstream of the dam. It is likely that the embankment is constructed of unconsolidated fill placed on boulders and bedrock. If stable consolidated material is not encountered, materials will be excavated to achieve approximately 2:1 slopes.

All excavated slopes that result in bare soil are to receive a slope treatment of native slope/upland seed mix with biodegradable surface fabric on top, staked in place to retain soil on the slope until the vegetation has been established. In addition, native shrub and tree plantings are shown within the limits of fill operations.

Investigations of the watershed and impoundment were carried out to understand the changes that will occur to the area following dam removal. The Becker Pond Dam watershed remains undeveloped, consistent with the conditions that existed when the dam was built. Depth of refusal surveys of the impoundment found that the substrate underlying the impounded sediment is primarily cobbles, boulder, and bedrock consistent with bed and bank materials visible upstream and downstream of the impoundment.

Sediment management following dam removal includes passive downstream release. The relatively small amount of sediment impounded by the dam constitutes approximately 70% of the estimated annual suspended sediment load of the brook and 5% of the estimated suspended sediment load of Schenob Brook. Due to the coarse substrate underlying the fine-grained impounded sediment, headcutting is not expected to be a major risk to channel and adjacent hillslope stability. A due diligence review found no potential sources of contamination within the watershed.

It is expected that a portion of the impounded sediment will be evacuated over time as the channel undergoes natural evolution processes following dam removal. Channel stabilization measures will not be necessary to protect against extraordinary erosion or to protect infrastructure (there is none). Impoundment sediment will be dispersed by the brook downstream of the dam because flow competence and transport capacity are generally high relative to the size and volume of the impounded sediment. Given the sandy nature of the material and the characteristics of the channel and valley, the material will likely be transmitted intermittently, with temporary storage in pools, upstream of log jams, on bars, and other low velocity areas. Thus, the primary impacts of sediment release are likely to include temporary burial of habitat features and/or organisms that cannot quickly mobilize and adapt to changing conditions. Most deposition is likely to be temporary; however, permanent deposition of mobilized sediment may occur in secondary channels and low-lying floodplain areas where the valley widens locally. As seen on similar Massachusetts dam removal projects, these effects will decrease with time and with distance downstream as the inputs of sediment are attenuated through erosion and deposition.

As shown in the design drawings, the proposed access to the dam will be a combination of a new access road and an existing dirt road. The new access road will come off of East Street and will be created in an eastward direction, staying entirely within TNC property until it meets the existing dirt road. The existing dirt road continues in a southerly direction to the dam. Existing cleared areas adjacent to the dam will provide staging space for construction vehicles. Another option for access that is being investigated by TNC is to use the entirety of the existing dirt road that extends from East Street to the dam. This option would eliminate the need to remove vegetation and re-grade a new access road connecting East

**Street to the existing dirt road. However, approximately 600 feet of this existing road starting from East Street is on private property. TNC is actively looking into options to be able to use this existing access route.**

*NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.*

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

**The proposed project design shown in the plan set is the best option to meet the project goals of public safety and restored aquatic connectivity. The benefits and drawbacks of no action, passive sediment release, and active sediment management/channel stabilization are discussed below.**

#### **1. No Action**

**No action at Becker Pond will maintain the existing condition of the dam and impoundment, as well as the river upstream and downstream of the dam. The dam will continue to pose a public safety risk and liability, and hydrologic and aquatic habitat continuity will continue to be impacted. Structural repairs would be recommended if a no action alternative is pursued.**

#### **2. Dam Removal and Passive Sediment Release (preferred alternative)**

**The dam removal and passive sediment release alternative is described in detail in other sections. Dam removal will result in the removal of a hydrologic barrier and reduce an existing public safety risk. Passive sediment release is a low-impact option which allows channel evolution processes to occur without major channel stabilization effort. Because impounded sediment volume is small, minor deposition in downstream areas is expected. Additionally, risk of headcut development or excessive erosion within the impounded area is expected to be low.**

#### **3. Dam Removal and Active Sediment Management**

**Dam removal and active sediment management within the impoundment is not a preferred alternative due to a lack of demonstrated need of this more intensive level of construction. Under this alternative, dam removal would be carried out as described above. Active removal of sediment would include dewatering the impoundment and bypassing the active flows of stream while the impounded sediment was removed by excavator. The sediment would be trucked to an approved off-site facility. Active removal and disposal of impounded sediments was found to not be necessary due to the small volume of sediment and the lack of contamination within the sediment. State funding and staff resources are limited for restoration projects within the Commonwealth and the additional resources necessary to proceed with active sediment removal on this site could be better used initiating new restoration projects that would improve stream and wetland ecosystems elsewhere in the Commonwealth.**

*NOTE: The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*