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June 26, 2020

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME	: Bowen's Pond Dam Removal and Osgood Brook Restoration
PROJECT MUNICIPALITY	: Wendell
PROJECT WATERSHED	: Millers
EEA NUMBER	: 16209
PROJECT PROPONENT	: Bowens Pond LLC, c/o Elizabeth Dougal, Attorney at Law
DATE NOTICED IN MONITOR	: May 20, 2020

Pursuant to the Massachusetts Environmental Policy Act (M.G.L. c. 30, ss. 61-62I) and Sections 11.06 and 11.11 of the MEPA Regulations (301 CMR 11.00), I have reviewed the Expanded Environmental Notification Form (EENF) and hereby determine that this project **requires** the submission of a Single Environmental Impact Report (EIR).

The EENF was submitted to support the Proponent's request for a Waiver from the requirement to prepare a mandatory EIR for the project in accordance with Section 11.05(7) of the MEPA regulations. In the event the Waiver was not granted, the Proponent requested that I allow a Single EIR to be submitted in lieu of the usual two-stage Draft and Final EIR process pursuant to Section 11.06(8) of the MEPA regulations. I hereby grant the request to file a Single EIR, which the Proponent should submit in accordance with the limited Scope included in this Certificate.

Project Description

As described in the EENF, the project consists of partial breach and removal of Bowen's Pond Dam and restoration of the Osgood Brook stream channel. Specifically, the project will include the drawdown of Bowen's Pond; breach of the embankment; demolition, removal, and regrading of the existing spillway and stone masonry to create a 2-foot-wide and 2-foot deep trapezoidal channel; excavation upstream of the existing dam, regrading and stabilization of channel banks; and use of dam masonry elements and planting to stabilize disturbed and sloped areas and promote re-establishment of vegetation. The project also proposes the relocation of an existing dry hydrant adjacent to the dam to a location further upstream along Osgood Brook.

Bowen's Pond Dam is designated as an Intermediate-sized, Low (Class III) hazard dam by the Massachusetts Department of Conservation and Recreation (DCR)'s Office of Dam Safety (ODS). In 2018, the project received Priority Project status from the Massachusetts Department of Fish and Game (DFG), Division of Ecological Restoration (DER).

The dam removal and channel restoration were designed to pass a 100-year flood without significant inundation of the current impoundment area. Flooding associated with a 500-year flood is presently controlled by the culvert immediately downstream of the dam, under Wendell Depot Road; a 500-year storm would cause the dam area to be inundated under both existing and proposed conditions. Flow velocities within the formerly impounded basin are expected to increase after the dam is removed. Restoration of the ecological function of Osgood Brook was designed to allow fish and wildlife passage and improve cold-water fisheries by increasing dissolved oxygen content of the water and decrease the average water temperature. Breaching the dam will protect downstream resources and infrastructure by removing the risk of spontaneous dam failure. Much of the existing Land Under Water (LUW) associated with Bowen's Pond is expected to become seasonally saturated or inundated wetland once construction is complete.

Project Site

The ±29-acre project site includes the pond and land 100-feet beyond the edge of water, excluding the right-of-way (ROW) adjacent to the pond associated with Wendell Depot Road. The site, including the approximately 16-acre pond, is located within a ±212-acre parcel owned by the Proponent. The dam is approximately 83 feet in length and ±6 feet in height topped by 2-foot weir boards, for a structural height of ±8 feet. The grass-covered embankment is approximately 4 feet wide, with the upstream face of the embankment consisting of a vertical concrete face with earthen fill behind it, and the downstream face of the embankment acting as a part of the roadway embankment associated with Wendell Depot Road. The spillway is a broad-created weir approximately 31 feet 9 inches in length, composed of stone masonry with a concrete cap. The spillway crest is divided into four distinct sections by three concrete piers, spaced approximately 7 feet apart, which support the weir boards. The dam includes a low-level outlet to the right of the spillway which is currently inoperable. In addition to the outlet, deficiencies associated with the dam include wet areas/seepage, settlement along embankment sections, and deteriorated concrete.

Downstream training walls direct flows towards a culvert under Wendell Depot Road. There are three (3) existing culverts downstream of the dam through which Osgood Brook flows: the aforementioned box culvert under Wendell Depot Road, immediately downstream of the dam; a culvert under New Salem Road, approximately 2,000 feet downstream of the dam; and a bridge culvert under Wendell Depot Road, approximately 9,400 feet downstream of the dam where the brook turns north before ultimately discharging to Millers River, approximately 10,000 feet downstream of the dam. The pond has several inlet streams, one on the northerly side of the pond, one on the westerly side, and one entering from the south. According to the EENF, the removal of the dam will not impair or preclude any potential future replacement or repair of the Wendell Depot Road culvert and is not anticipated to have negative effects on the culvert structure, nor is the project expected to have any impact to the roadway infrastructure. The EENF additionally states that any construction work that occurs within the ROW will be coordinated with the Town of Wendell.

The EENF included the most recent Inspection/Evaluation Report of Bowen's Pond Dam dated December 4, 2009. According to the report, the dam was found to be in Fair condition, as defined in Dam Safety regulations, 302 CMR 10.00. A dam in Fair condition according to these regulations has significant operational and maintenance deficiencies but no structural deficiencies; potential deficiencies exist under unusual loading conditions that may realistically occur. In accordance with Dam Safety regulations, Bowen's Pond Dam should be inspected every 10 years. While the 2009 report states that it is critical to note that the condition of the dam depends on numerous and constantly changing internal and external conditions, and it would be incorrect to assume that the reported condition of the dam would represent the condition of the dam at some point in the future, this report was referenced for much of the characterization of the present condition of the dam.

A dry fire hydrant is located within the project site, adjacent to Wendell Depot Road, on the shore of Bowen's Pond. According to the EENF, the hydrant was placed into service in the 1990s and is used by the Town to assist in fire-fighting activities in the community by the Wendell Fire Department. The removal of the dam will cause the transition of Bowen's Pond into a coldwater stream and will likely affect the functionality of the existing hydrant. The EENF states the Proponent has been in communication with the Wendell Fire Chief to discuss potential options for either extending or relocating the dry hydrant to another property in the vicinity; these properties were not discussed in the EENF. The extension of the hydrant's intake line into the channel upstream of the dam was depicted in the Preliminary Design Plans. Many comments were submitted stating significant concerns regarding public safety associated with the removal of the dry hydrant. Comments from the Wendell Selectboard state the pond is the primary water source for fighting fires in the center of the town and surrounding areas and an equivalent water source has not been identified, but did not address the viability of the proposed extension of the hydrant's intake line.

Wetland resource areas present in the vicinity of the Dam include: Bank, Bordering Vegetated Wetlands (BVW), Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), and Riverfront Area (RA). The project is not located within mapped *Estimated and Priority Habitat of Rare Species* as delineated by the Natural Heritage and Endangered Species Program (NHESP) in the 14th Edition of the Massachusetts Natural Heritage Atlas. The EENF

indicates the site does not contain any structures listed in the State Register of Historic Places or the Massachusetts Historical Commission's (MHC) Inventory of Historic and Archaeological Assets of the Commonwealth (Inventory), although comments from MHC indicate archaeological resources may be present within the impoundment.

Environmental Impacts and Mitigation

Environmental impacts associated with the project include the new alteration of 6.4 acres of land. Impacts to wetland resource areas include the elimination of 1,070 linear feet (lf) of Bank, creation of 8.17 acres of BVW, elimination of 14.56 acres of LUW, creation of 14.15 acres of Bordering Land Subject to Flooding (BLSF), and creation of 16.31 acres of Riverfront Area. Approximately 60 cubic yards (cy) of sediment will be dredged to create the stream channel, and an additional 1,760 cy of additional sediment is expected to be passively transported downstream over time.

Measures to avoid, minimize, and mitigate project impacts include the development and implementation of a sediment management plan including sedimentation and erosion controls and restoration of disturbed areas. A plan was developed to minimize environmental impacts associated with the breach, such that no more than two vertical feet will be removed in sequence, in addition to monitoring downstream of the dam for sediment blockages.

Jurisdiction and Permitting

The project is undergoing MEPA review and is subject to a mandatory EIR pursuant to 301 CMR 11.03(3)(a)(4) and 11.03(3)(a)(1)(b) of the MEPA regulations because it requires Agency Actions and will result in the structural alteration of an existing dam that will cause a decrease in impoundment capacity, and the alteration of 10 or more acres of any other wetlands, respectively. The project requires a Chapter 253 permit from DCR/ODS. It requires a 401 Water Quality Certificate from the Massachusetts Department of Environmental Protection (MassDEP). The project is receiving funding and technical assistance from DER. It is subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol (GHG Policy).

The project will require an Order of Conditions (OOC) from the Wendell Conservation Commission (or in the case of an appeal, a Superseding Order of Conditions from MassDEP) and submittal of a Pre-Construction Notification to the U.S. Army Corps of Engineers (ACOE) seeking authorization under the General Permits for Massachusetts in accordance with Section 404 of the federal Clean Water Act.

Because the project will receive Financial Assistance, MEPA jurisdiction is broad in scope and extends to all aspects of the project that may cause Damage to the Environment, as defined in the MEPA regulations.

Request for EIR Waiver

In accordance with Section 11.05(7) of the MEPA regulations, the Proponent submitted an EENF with a request that I waive the requirement for the preparation of a mandatory EIR, or

if the Waiver is not granted (301 CMR 11.11), allow a Single EIR to be prepared in lieu of the usual two-stage Draft and Final EIR process pursuant to Section 11.06(8) of the MEPA regulations. The EENF was subject to an extended public comment period pursuant to Section 11.06(1) of the MEPA regulations. The EENF included a discussion of project consistency with the waiver criteria outlined at 310 CMR 11.11. The waiver request was discussed at the consultation session for the project which was held on June 4, 2020.

The MEPA regulations at 301 CMR 11.11(1) state that I may waive any provision or requirement in 301 CMR 11.00 not specifically required by MEPA and may impose appropriate and relevant conditions or restrictions, provided that I find that strict compliance with the provision or requirement would:

(a) result in an undue hardship for the Proponent, unless based on delay in compliance by the Proponent; **and**
(b) not serve to avoid or minimize Damage to the Environment.

As stated in 301 CMR 11.11(3), in the case of a waiver of a mandatory EIR review threshold, the Secretary shall at a minimum base the finding required in accordance with 301 CMR 11.11(1)(b) on a determination that:

(a) the Project is likely to cause no Damage to the Environment; and
(b) ample and unconstrained infrastructure facilities and services exist to support the Project (in the case of a Project undertaken by an Agency or involving Financial Assistance) or those aspects of the Project within subject matter jurisdiction (in the case of a Project undertaken by a Person and requiring one or more Permits or involving a Land Transfer but not involving Financial Assistance).

The Proponent may provide evidence satisfactory to the Secretary that the Agency Action on the Project will contain terms such as a condition or restriction that will cause benefits to environmental resources or quality or infrastructure facilities or services in excess of those that would result in the absence of the waiver.

Single EIR Request

In accordance with Section 11.05(7) of the MEPA regulations, the Proponent requested that in the case a waiver was not granted, I allow the Proponent to fulfill its EIR obligations under MEPA with a Single EIR, in-lieu of a Draft and Final EIR. According to 301 CMR 11.06(8), I may allow a Single EIR provided that the EENF:

- Describes and analyzes all aspects of the project and all feasible alternatives, regardless of any jurisdictional or other limitation that may apply to the Scope;
- Provides a detailed baseline in relation to which potential environmental impacts and mitigation measures can be assessed; and
- Demonstrates that the planning and design of the project use all feasible measures to avoid potential environmental impacts.

Review of the EENF

The EENF included a detailed project description, identified potential environmental impacts, and addressed the project's consistency with the Waiver criteria. The EENF contained photographs of existing site conditions and the proposed areas of work as well as design plans that identified wetland resource areas, existing and proposed conditions, and erosion and sedimentation control measures. It also included surveys of fish species in Bowen's Pond and Osgood Brook conducted by MassWildlife, a preliminary design report, a dam inspection/evaluation report conducted in 2009 in accordance with M.G.L. c. 253, ss. 44-50, and the results of a hydraulic/hydrological modeling and sediment analysis.

Alternatives Analysis

The alternatives analysis considered three alternatives including a No-Action Alternative, Dam Rehabilitation and Fish Ladder Alternative, and the Preferred Alternative which were evaluated based on their ability to meet project goals. The EENF described project goals as the restoration of riverine ecological functions, the elimination of a potential public safety hazard and reduction of liability and maintenance obligations related to Bowen's Pond Dam. The No-Action Alternative was dismissed because the deteriorating condition of the dam could potentially lead to an uncontrolled breach, and Osgood Brook would not be restored such that there would be an unimpeded connection between the lower reaches of the brook and upstream reaches.

The Dam Rehabilitation and Fish Ladder Alternative would consist of improvements and repairs to the dam to maintain proper function and to meet Massachusetts Office of Dam Safety requirements. According to the EENF, the dam currently does not have the capacity to withstand a 100-year flood without overtopping and would require substantial alteration to meet this regulatory requirement of the Office of Dam Safety. Additionally, a fish ladder is proposed to address fish passage. This alternative was dismissed due to the significant costs associated with the improvements to the dam without meeting project goals of reducing long-term liability and maintenance obligations or restoring riverine ecological functions.

The Preferred Alternative, described herein, involves the full removal of the dam and ecological restoration of Osgood Brook. According to the EENF, this alternative was selected due to its ability to meet project goals while being more cost effective, ecologically beneficial, and consistent with best practices for stream restoration as compared to other alternatives.

Wetlands

As noted above, the project will result in permanent and temporary impacts to LUW, Bank, BVW and Riverfront Area. The Wendell Conservation Commission will review the project to determine its consistency with the Wetlands Protection Act (WPA), the Wetlands Regulations (310 CMR 10.00), and associated performance standards. MassDEP will review the project to determine its consistency with the 401 WQC regulations (314 CMR 9.00). The EENF states the construction of the channel will require approximately 60 cy of dredging. An additional 1,760 cy of sediment may be released naturally over time that will be allowed to settle to assist in the reformation of the banks of the restored brook downstream of the dam. According

to the EENF, the dredged material will be used on-site or disposed of off-site. As stated in comments from MassDEP, dredged material should be managed and disposed of in accordance with the conditions of the 401 WQC.

According to the ENF, ±696,960 sf (±16 acres) of the work proposed within wetlands resource areas is being proposed as a limited project under MassDEP's wetlands regulations, meaning that the project may be permitted although the work may not meet the performance standards set forth in the Wetlands Protection Act (310 CMR 10.54 - 10.57). The EENF did not state what specific resource areas are included in work proposed as a limited project. Comments from MassDEP recommend the project be submitted, instead, as an Ecological Restoration Project when the NOI is filed with the Wendell Conservation Commission, if the project qualifies as such under the definition found at 310 CMR 10.04 Ecological Restoration Project and as further clarified at 310 CMR 10.11 and 310 CMR 10.12.

As stated in the EENF, Glossy Buckthorn *(Frangula alnus)* and Purple Loosestrife *(Lythrum salicaria)* have been documented in the project site. Both species are considered invasive flora in Massachusetts[1]. I received many comments that stated a significant concern that should the dam be removed, the land currently underwater that is anticipated to transition to wetlands would be overtaken by Glossy Buckthorn rather than native species, reducing the ecological benefits of the dam removal and brook restoration. A Monitoring and Maintenance plan to address invasive species management while native species revegetate the areas proposed to be converted to riparian or riverain habitat was discussed during the site visit; however, no specific details were given during the site visit or discussed in the EENF.

Wildlife and Ecological Resources

Osgood Brook is identified as a Coldwater Fishery Resource. Coldwater habitats are a declining resource in Massachusetts due to climate change and other anthropogenic impacts. There are no other impoundments or current dams along Osgood Brook downstream of Bowen's Pond Dam. As stated in the EENF, temperature data collected by DER in 2019 showed temperatures above the known thresholds for trout in Bowen's Pond. Fish community sampling by MassWildlife found exclusively warm-water tolerant species in the pond, while sampling upstream and at two locations downstream of the dam showed an increasing proportion of coldwater-dependent species (such as trout) as the distance from the pond increased. According to the EENF, the Bowen's Pond and impoundments upstream of the pond likely contain higher temperatures of water than the free-flowing areas of Osgood Brook downstream of the dam.

As previously stated, the project site does not currently contain mapped *Estimated and Priority Habitat of Rare Species* as delineated by NHESP in the 14th Edition of the Massachusetts Natural Heritage Atlas, although the existence of a specimen of the (now extinct in the state) *Ranunculus flammula* var. *ovalis,* collected from the pond in 1931, was raised in one comment letter. I received many comments stating concerns about the current wildlife present in Bowen's Pond, including comments from the Wendell Conservation Commission, Wendell Selectboard, and Massachusetts State Senator Jo Comerford, in addition to concerns

[1] https://www.mass.gov/doc/invasive-plant-list/download

raised at the site visit. As stated in the EENF, the fish species currently found in Bowen's Pond are expected to decline in numbers or disappear completely from the area following dam removal. Comment letters also stated concerns that the project would adversely affect the ecology of the pond and immediately surrounding area.

According to the EENF, the project will improve the ecological function of the brook and improve community resiliency by eliminating the risk of dam failure and need for maintenance; restoring Osgood Brook's natural channel, water temperatures, dissolved oxygen levels; and restoring natural sediment transport pathways downstream of the dam. Comments from DER and MassWildlife are supportive of the project and emphasize the ecological benefits and increase in community resiliency associated with the removal of an aging dam. These benefits are echoed in comments from DCR and MassDEP. Comments from the Massachusetts Rivers Alliance, American Rivers, and Trout Unlimited also support the project.

Historical and Archaeological Resources

The EENF indicates the site does not contain any structures listed in the State Register of Historic Places or MHC's Inventory, although the parcel is adjacent to two inventoried properties. Comments from MHC state that a cultural resource assessment was submitted to MHC on December 20, 2019, prepared by the Public Archaeology Laboratory Inc. (PAL). This assessment indicates that archaeological resources associated with historical uses of the area as mill sites may be present in Bowen's Pond impoundment and downstream in Osgood Broook. Further, MHC's comments state that significant historic and archaeological resources could be exposed during the pond draw-down and could be affected by project activities, and recommend the development of an archaeological monitoring and documentation during the pond drawdown, dam removal, and excavation work.

Climate Change Adaptation and Resiliency

The effects of climate change, including increased frequency and intensity of precipitation events, underscore the importance of proactively managing dam infrastructure. The EENF included the results of the hydraulic/hydrologic analysis which was used to design the project and to gauge its potential downstream impacts. The hydraulic analysis was conducted using the USACE's Hydrological Engineering Center's River Analysis System (HEC-RAS) Version 5.0.7 and the hydrologic modeling was conducted using the ASACE's Hydrologic Modeling System (HEC-HMS), in order to model to estimate water surface profiles under various flow conditions and channel/breach configurations.

According to the EENF, under existing conditions the Bowen's Pond Dam cannot adequately pass the 100-year and 24-hour storm event; flow overtops the dam by approximately 0.9 feet. Under proposed conditions, the restored channel will, at minimum, pass the 100-year flood and during storms with higher flows the former pond will act as a flood storage area. The EENF states the precipitation data used to perform the hydraulic/hydrologic modeling was NOAA Atlas 14 data, which estimates precipitation using historic data. The EENF did not address how the effects of climate change may impact storm frequency or intensity and in turn the project or downstream areas. However, the dam is classified by ODS (302 CMR 10.06) as an Intermediate-sized, Low (Class III) hazard dam, meaning that it is located in a place where

failure is expected to cause minimal property damage to others and loss of life is not expected. As indicated in the EENF, the project is intended to provide immediate flood protection benefits by reducing the potential risks to public safety and the environment associated with dam failure. Secondary impacts such as downstream flooding do not appear to weigh against these benefits, though specific information or modeling was not presented in the EENF.

Greenhouse Gas Emissions (GHG)

This project is subject to review under the May 2010 MEPA Greenhouse Gas Emission (GHG) Policy and Protocol (Policy) because it exceeds thresholds for a mandatory EIR. The GHG Policy specifically includes a de minimis exemption for projects that are expected to produce minimal GHG emissions. As stated in the EENF and comments from MassDEP, GHG emissions will be limited to the construction period of the project. As described below, the project will undertake best management practices to minimize emissions during the construction period. As such, this project falls under the GHG Policy's de minimis exemption; therefore, the Proponent was not required to submit a GHG analysis in conjunction with the EENF.

Construction Period

Construction activities described in the EENF include the demolition and removal of the existing spillway and a majority of the stone masonry section of the dam, construction and restoration of the stream channel, dredging activities upstream of the dam , removal of concrete from channel, and potential relocation of the existing dry hydrant. According to the EENF, the area of the stream impacted by construction activities will be restored to pre-construction conditions or better at the conclusion of the Project. These restoration activities will include the placement of a series of specially-formulated seed mixes containing native wetland and upland species. As previously stated, project construction is expected to occur within the ROW of Wendell Depot Road due to the proximity of the dam.

All construction and demolition activities should be managed in accordance with applicable MassDEP's regulations regarding Air Pollution Control (310 CMR 7.01, 7.09-7.10), and Solid Waste Facilities (310 CMR 16.00 and 310 CMR 19.00, including the waste ban provision at 310 CMR 19.017). The project should include measures to reduce construction period impacts (e.g., noise, dust, odor, solid waste management) and emissions of air pollutants from equipment, including anti-idling measures in accordance with the Air Quality regulations (310 CMR 7.11). I encourage the Proponent to require that its contractors use construction equipment with engines manufactured to Tier 4 federal emission standards, or select project contractors that have installed retrofit emissions control devices or vehicles that use alternative fuels to reduce emissions of volatile organic compounds (VOCs), carbon monoxide (CO) and particulate matter (PM) from diesel-powered equipment. Off-road vehicles are required to use ultra-low sulfur diesel fuel (ULSD). If oil and/or hazardous materials are found during construction, the Proponent should notify MassDEP in accordance with the Massachusetts Contingency Plan (310 CMR 40.00). All construction activities should be undertaken in compliance with the conditions of all State and local permits. I encourage the Proponent to reuse or recycle construction and demolition (C&D) debris to the maximum extent.

Conclusion

Based on review of the EENF and consultation with State Agencies, I am declining to grant a Waiver of the requirement to prepare an EIR. However, I am granting the request to file a Single EIR. The Scope of the Single EIR is limited and focuses on clarifications of project components and additional information regarding alternative sources of water for fire protection purposes (and any new or different environmental impacts associated with this relocation) and methods for management of invasive species. The Proponent should submit a Single EIR that provides updated project information and analyses as specified in the Scope below.

SCOPE

General

The Single EIR should follow Section 11.07 of the MEPA regulations for outline and content, as modified by this Scope. It should identify, describe, and assess the environmental impacts of any changes in the project that have occurred since the filing of the EENF. The Single EIR should include updated site plans for existing and post-development conditions at a legible scale, and a list of required State Permits, Financial Assistance, or other State approvals and provide an update on the status of each of these pending actions. It should additionally include an update on local, regional or federal permitting as applicable.

The Single EIR should address the methodology used to select the proposed relocation of the dry hydrant and the viability of the proposed location for continued use as a water source for fighting fires. If locations or other waterbodies outside of the project site are considered for relocation of the dry hydrant, information regarding the sites and potential environmental impacts associated with their use should be discussed. A discussion of any communication with the Town regarding the dry hydrant and possible alternative locations should be included. I encourage the Proponent to commit to not removing the dam until a new resource for the dry hydrant can be secured.

A general discussion of the integrity of the dam as it exists today should be included in the Single EIR. This should include any visible structural deficiencies, especially those not noted in the 2009 Inspection/Evaluation Report that was included in the EENF. Any work or repairs conducted on the dam since the 2009 Inspection/Evaluation Report should be discussed.

If submerged cultural resources are encountered during the course of the work, the Proponent should take steps to limit adverse effects and notify BUAR, Massachusetts Historic Commission (MHC), and other appropriate agencies in accordance with BUAR's *Policy Guidance for the Discovery of Unanticipated Archaeological Resources*.

Wetlands and Waterways

The Single EIR should state whether the project is being proposed as a limited project or an Ecological Restoration Project in accordance with the Wetlands Protection Act. If the project is being proposed as a limited project, the Single EIR should include a discussion of what work

this includes and what resource areas will be impacted, including site plans showing these areas, as well as discussing the project's compliance with associated performance standards as required under 310 CMR 10.24(8). If the project is being proposed as an Ecological Restoration Project, the Single EIR should include a discussion of how the project meets associated performance standards and general conditions in accordance with 310 CMR 10.14. The Single EIR should discuss any wetlands impacts that may be associated with potential relocation of the dry hydrant to an alternative water source outside the project site. Additionally, a Monitoring and Maintenance plan for created wetlands resource areas that includes invasive species management should be included in the Single EIR as well. This plan should include proposed monitoring and maintenance activities, estimated length of application of plan, and responsible parties.

Climate Change Adaptation and Resiliency

The Northeast Climate Science Center at the University of Massachusetts at Amherst has developed projections of changes in temperature, precipitation and sea level rise for Massachusetts. The Single EIR should identify the projected changes in temperature and precipitation for the Millers River Basin using this data which is available through the Climate Change Clearinghouse for the Commonwealth at www.resilientMA.org. The Single EIR should address potential secondary impacts, including downstream impacts, that may be exacerbated due to the effects of climate change, including changes in flow rates, velocity and water depth, and changes in flood attenuation capacity. The Single EIR may present supplemental modeling or apply existing models using climate change data. The Proponent should consult with Town regarding impacts to municipal infrastructure and consistency of project design with Town resiliency goals.

Mitigation and Section 61 Findings

The DEIR should include a section that summarizes proposed mitigation measures and provides draft Section 61 Findings for each Agency Action. The DEIR should contain clear commitments to implement these mitigation measures (including monitoring), estimate the individual costs of each proposed measure, identify the parties responsible for implementation, and contain a schedule for implementation.

Response to Comments

The Single EIR should contain a copy of this Certificate and a copy of each comment letter received. In order to ensure that the issues raised by commenters are addressed, the Single EIR should include direct responses to comments to the extent that they are within MEPA jurisdiction. This directive is not intended, and shall not be construed, to enlarge the Scope of the Single EIR beyond what has been expressly identified in this certificate.

Circulation

The Proponent should circulate the Single EIR to those parties who commented on the EENF, to any State and municipal agencies from which the Proponent will seek permits or

approvals, and to any parties specified in section 11.16 of the MEPA regulations. The Proponent may circulate copies of the Single EIR to commenters in a digital format (e.g., CD-ROM, USB drive) or post to an online website. However, the Proponent should make available a reasonable number of hard copies to accommodate those without convenient access to a computer to be distributed upon request on a first-come, first-served basis. The Proponent should send correspondence accompanying the digital copy or identifying the web address of the online version of the Single EIR indicating that hard copies are available upon request, noting relevant comment deadlines, and appropriate addresses for submission of comments. The Single EIR submitted to the MEPA office should include a digital copy of the complete document. A copy of the Single EIR should be made available for review in the Wendell public library.[2]

K. Theoharides

June 26, 2020
Date

Kathleen A. Theoharides

Comments received:

06/04/2020	Allen Young
06/04/2020	Raymond DiDonato
06/08/2020	Massachusetts Department of Fish and Game (DFG), Division of Ecological Restoration (DER)
06/08/2020	Massachusetts Rivers Alliance
06/11/2020	Wendell Selectboard
06/12/2020	Massachusetts Historical Commission (MHC)
06/14/2020	Wendell Conservation Commission
06/16/2020	Adam Porter and Elizabeth Jakob
06/16/2020	Massachusetts Department of Fish and Game (DFG), Division of Fisheries and Wildlife (MassWildlife)
06/16/2020	Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO)
06/17/2020	Michael Idoine
06/18/2020	American Rivers
06/18/2020	Tom, Mary, Ed, and Connie Robinson
06/18/2020	Linda Deegan (Senior Scientist at Woods Hole Research Center)
06/18/2020	Christopher Neill
06/19/2020	Matt Hickler
06/19/2020	Senator Comerford
06/19/2020	Trout Unlimited
06/22/2020	Massachusetts Department of Conservation and Recreation (DCR)

KAT/ELM/elm

[2] Requirements for hard copy distribution or mailings will be suspended during the Commonwealth's COVID-19 response. Please consult the MEPA website for further details on interim procedures during this emergency period: https://www.mass.gov/orgs/massachusetts-environmental-policy-act-office.

dcr
Massachusetts

June 19, 2020

Secretary Kathleen A. Theoharides
Executive Office of Energy and Environmental Affairs
Attn: Eva Murray, MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

RE: # 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration Project, Wendell

Dear Secretary Theoharides:

The Department of Conservation and Recreation (DCR) Office of Dam Safety (ODS) has reviewed the Expanded Environmental Notification Form (EENF) for the Bowen's Pond Dam Removal and Osgood Brook Restoration Project (the Project) located in Wendell, submitted by GZA GeoEnvironmental, Inc. on behalf of Bowen's Pond LLC (the Proponent).

Based upon review of the EENF, ODS understands the Proponent plans to remove the dam's existing masonry and concrete spillway and construct a stabilized trapezoidal flow channel through the dam embankment. The proposed channel will have sufficient capacity to pass flows resulting from the 100-year storm event. The EENF indicates the Project will yield a number of public safety and environmental benefits including: elimination of the risk of an uncontrolled breach of the dam; restoration of natural water temperatures, dissolved oxygen levels and sediment transport pathways.

Based on review of currently available information, implementation of the project design will likely result in improvement over existing site conditions. This Project appears to be in the interest of both public safety and compliance with dam safety regulations.

This Project will require a Chapter 253 Dam Safety Permit. The permit application must be submitted to ODS for review. ODS staff will communicate with the Proponent's design engineer as part of the permit process to ensure all required documentation is provided. After receipt of all required technical information demonstrating compliance with ODS regulations, a Chapter 253 Dam Safety Permit will be processed and issued by ODS. ODS is available to provide additional guidance through the permitting process.

DCR appreciates the opportunity to comment on this Project. Please contact David Ouellette at (617) 626-1347 with any questions or to request additional information or coordination with ODS.

Sincerely,

Jim Montgomery
Commissioner

cc: William Salomaa, Dam Safety Director
Nat Tipton, MEPA Review Coordinator (DCR)

Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
Western Regional Office • 436 Dwight Street, Springfield MA 01103 • 413-784-1100

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Kathleen A. Theoharides
Secretary

Martin Suuberg
Commissioner

June 16, 2020

Kathleen A. Theoharides, Secretary
Executive Office of Energy & Environmental Affairs
Massachusetts Environmental Policy Act Office
Eva Murray, EEA No. 16209
100 Cambridge Street, 9th Floor
Boston, MA 02114-2524

Re: Bowen's Pond Dam Removal and Osgood Brook Restoration Project
Wendell EENF

Dear Secretary Theoharides,

The Massachusetts Department of Environmental Protection (MassDEP), Western Regional Office (WERO) appreciates the opportunity to comment on the Expanded Environmental Notification Form (EENF) submitted for the proposed Bowen's Pond Dam Removal and Osgood Brook Restoration Project in Wendell, Massachusetts. The dam is listed as an "Intermediate-sized, Low (Class III)" hazard potential dam by the Massachusetts Department of Conservation and Recreation (DCR) - Office of Dam Safety (ODS). The applicable MassDEP regulatory and permitting considerations regarding wetlands, air pollution, solid waste, hazardous waste and waste site cleanup are discussed.

I. Project Description

Bowens Pond LLC, Proponent, is seeking to remove the Bowen's Pond Dam and restore Osgood Brook in partnership with the Massachusetts Division of Ecological Restoration (EEA # 16209). The overall parcel is 212 acres and the total site acreage of the project is 29 acres. The pond has roughly 16 acres of open water with a maximum depth of 10 feet. The dam is an earthen and masonry structure located near the easterly end of Bowen's Pond, once used by a mill. There are concrete block wall segments and concrete sections along the

spillway. The dam is approximately 83 feet in length and approximately 8 feet in height with weirboards, 6 feet in height without the weirboards. It is estimated that a 100-year flood event would overtop the dam. Osgood Brook is a Coldwater Fishery Resource. The dam blocks the natural movement of fish and other aquatic life and prevents the natural movement of sediment. Removal of the dam will restore the normal ecological functions of the waterway and restore water temperatures, dissolved oxygen levels and natural sediments. The project also removes the potential safety hazard that the dam presents and eliminates maintenance costs.

Approximately 60 cubic yards of sediment from the area upstream of the dam will be excavated and either reused onsite of disposed offsite. Some pond sediments may be mobilized downstream as part of the natural channel cutting/re-formation process. Stabilization of the upstream channel will occur naturally over a long period of time. The original impoundment area will become a seasonally-saturated or inundated floodplain wetland following completion of the project.

There is a dry hydrant along the shoreline of the pond that was placed into service in the 1990s to allow the local fire department to draft water from the pond for fire-fighting activities. The dry hydrant may be affected by dam removal and the proponent has been in discussions with the Wendell Fire Chief about extending or relocating the dry hydrant to another property nearby.

The Proponent is requesting the Waiver of a Mandatory Environmental Impact Report. Greenhouse Gas Emission Policy and Protocol will be followed. Emissions will be limited to the operation of construction equipment on-site and the proponent states that it would qualify for a de minimis exemption.

Environmental impacts associated with this project include:

- 6.4 new acres of land altered
- 634,300 SF Land Under Waterbodies and Waterways (new)
- 710,400 sf Riverfront Area alteration (new)
- 616,400 sf of bordering land subject to flooding (new)
- 1,070 LF of Bank (new)

II. Required Mass DEP Permits and/or Applicable Regulations

Wetlands
310 CMR 10.00
Water Quality Certificate
314 CMR 9.00
Air Pollution
310 CMR 7.00

Solid Waste
310 CMR 16.00
Hazardous Waste
310 CMR 30.00
Bureau of Waste Site Cleanup
310 CMR 40.000

III. Permit Discussion

Bureau of Water Resource

401 Water Quality Certificate

The Proponent acknowledges that a Section 401 Water Quality Certification from MassDEP is required for dredging. The project as proposed includes both stabilizing sediments in place and dredging sediments. The Proponent should submit a copy of the application to both the Western Regional and the Boston Office of MassDEP for review. One permit will be issued, however regional staff will assist the Boston office in the details of the permitting.

Based on the results of sediment sampling, the Proponent proposes to either use the sediments on site or dispose of the dredged material off-site. The dredged spoils shall be managed and disposed in accordance with conditions of a 401 Water Quality Certificate Permit as detailed in the *MassDEP Interim Policy COMM 94-007 Sampling, Analysis, Handling & Tracking Requirements for Dredged Sediment Reused or Disposed at Massachusetts Permitted Landfills.*

Wetlands

The scope of the project requires that a Notice of Intent (NOI) be filed with the Wendell Conservation Commission; prior to commencement of project construction, a final Order of Conditions (OOC) must be issued by the Commission.

MassDEP recommends that the project be submitted as an Ecological Restoration Project, using Form 3A, if the project qualifies as such per the definition found at 310 CMR 10.04 **Ecological Restoration Project** and as further clarified at 310 CMR 10.11 and 310 CMR 10.12.

MassDEP recommends that any work involving the relocation of the dry hydrant be submitted as a separate Notice of Intent.

Bureau of Air and Waste

Air Quality

Construction and Demolition Activities
The construction and demolition activity must conform to current Air Pollution Control Regulations. The proponent should implement measures to alleviate dust, noise, and odor nuisance conditions that may occur during the construction and demolition activities. Such measures must comply with the MassDEP's Bureau of Air and Waste (BAW) Regulations 310 CMR 7.01, 7.09, and 7.10.

Construction Equipment

MassDEP recommends that the project proponent participate in the MassDEP Diesel Retrofit Program. All non-road engines shall be operated using only ultra-low sulfur diesel (ULSD) with a sulfur content of 15 ppm pursuant to 40 CFR 80.510.

Solid Waste

The proponent shall properly manage and dispose of all solid waste generated by this proposed project pursuant to 310 CMR 16.00 and 310 CMR 19.000, including the regulations at 310 CMR 19.017 (waste ban). In addition, the proponent shall manage regulated asbestos and asbestos-containing waste material as special wastes in accordance with 310 CMR 19.061.

Asphalt, brick and concrete (ABC) generated through crushing and reuse on-site must be handled in accordance with regulation and policy. Otherwise, the proponent would need to obtain a site assignment and facility permit for the crushing activity and a Beneficial Use Determination (BUD) for the reuse of the crushed material. More information regarding the handling of ABC, and a copy of the 30-day notification form may be found at the following website:
http://www.mass.gov/eea/agencies/massdep/recycle/reduce/using-or-processing-asphalt-pavement-brick-and-concrete-.html.

The BUD regulations at 310 CMR 19.060 establish levels of assessment for four categories of beneficial use. Similarly, the fee regulations at 310 CMR 4.00, et seq. were amended. These amended regulations would be applicable to reuse of any materials generated by this project that would otherwise be considered solid waste.

The project proponent should be advised that demolition and earthwork activity at the site must comply with both Solid Waste and Air Quality Control regulations. The appropriate Solid Waste provisions addressing this include M.G.L. Chapter 40, Section 54.

Any discarded objects encountered during the demolition of the former dam and excavation of the pond sediments shall be removed from the site for disposal as Solid Waste or recycling as appropriate.

Hazardous Waste

Any hazardous wastes generated by the demolition and earthwork activities or universal wastes must be properly managed in accordance with 310 CMR 30.0000.

If any hazardous waste, including waste oil, is generated at the site, the proponent must ensure that such generation is properly registered with the Department and managed in accordance with 310 CMR 30.00.

Bureau of Waste Site Cleanup

Spills Prevention

A spills contingency plan addressing prevention and management of potential releases of oil and/or hazardous materials from pre- and post-construction activities should be presented to workers at the site and enforced. The plan should include but not be limited to, refueling of machinery, storage of fuels, and potential releases. This plan is of particular importance due to the proximity of work at Bowen Pond and Osgood Brook.

IV. Other Comments/Guidance

MassDEP staff is available for discussions as the project progresses. If you have any questions regarding this comment letter, please do not hesitate to contact Kathleen Fournier at (413) 755-2267.

Sincerely,

Michael Gorski
Regional Director

cc: MEPA File

Massachusetts Department of Fish and Game
Division of Ecological Restoration
Invested in Nature and Community

Beth Lambert, Director
Hunt Durey, Deputy Director

June 8, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: MEPA File #: 16209, Bowen's Pond Dam Removal and Osgood Brook Restoration Project

Dear Secretary Theoharides:

The Massachusetts Division of Ecological Restoration (DER) supports the request by Bowen's Pond, LLC for a waiver of the mandatory Environmental Impact Report (EIR) under 301 CMR 11.11(5) for the Osgood Brook Restoration Project (Project). DER agrees with the proponent that an EIR would result in undue hardship and that the Project meets the EIR waiver requirements, including that an EIR would "not serve to avoid or minimize damage to the environment" and that "the Project is likely to cause no damage to the environment".

This project increases ecological and community resiliency through the removal of an aging, Low Hazard Dam upstream from the Wendell Depot Road Bridge. Osgood Brook is a Certified Coldwater Fishery with naturally reproducing eastern brook trout documented by the Division of Fisheries and Wildlife. Removal of the dam will eliminate thermal stress generated by water flowing out of the dam's impoundment. Monitoring conducted in 2019 found higher than normal water temperatures downstream of the dam, which could be stressing populations of native brook trout. Dam removal will also allow all fish to move more easily throughout the system to seek thermal refugia, which will become increasingly important with climate change.

The Project has undergone extensive engineering design and pre-application review by numerous stakeholders since becoming a DER Priority Project in 2018. The local, state, and federal permits required for this project will result in a thorough review by regulatory agencies and provide ample opportunity for additional public comment.

We appreciate this opportunity to comment during the MEPA process. Please do not hesitate to contact me at (617) 626-1542 with any questions.

Sincerely,

Beth Lambert

Beth Lambert, Director

The Commonwealth of Massachusetts
William Francis Galvin, Secretary of the Commonwealth
Massachusetts Historical Commission

June 11, 2020

Nick Wildman
Project Manager
Massachusetts Department of Ecological Restoration
Division of Ecological Restoration
251 Causeway Street, Suite 400
Boston, MA 02114

RE: Bowen's Pond Dam Removal and Osgood Brook Restoration, 269 Wendell Depot Road, Wendell, MA. MHC #RC.68128. EEA#16209.

Dear Mr. Wildman:

Staff of the Massachusetts Historical Commission (MHC), the office of the State Historic Preservation Officer, have reviewed the Environmental Notification Form (ENF) for the project referenced above, received by MHC on May 15, 2020. MHC staff also reviewed a cultural resources assessment for the project prepared by the Public Archaeology Laboratory Inc. (PAL) dated December 20, 2019, and received by MHC on May 15, 2020.

The ENF indicates that the project requires permitting by the US Army Corps of Engineers. The MHC will review and comment on the project in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). The MHC looks forward to participating in consultation with other consulting parties. If other federal agencies become involved with the project for funding or permitting, then please provide updated information to the MHC.

If you have not already done so, then please provide a copy of the ENF and PAL's cultural resources assessment to the Massachusetts Board of Underwater Archaeological Resources (BUAR) and to the Wendell Historical Commission (WHC). Copies of any written comments from BUAR and/or the WHC to the Corps should be provided to the MHC.

The proposed project includes dam removal, drawdown of Bowen's Pond, and stream restoration activities in Osgood Brook. The PAL's cultural resources assessment indicates that archaeological resources associated with historical period industrial mill sites may be present within the Bowen's Pond impoundment. Significant historic and archaeological resources could be exposed during the pond draw-down and could be affected by the project activities. The PAL recommends archaeological monitoring and documentation during the pond drawdown, dam removal, and excavation work.

Downstream of the dam, the PAL identified the Osgood-Leonard-Leach & Bowin mill and dam historical archaeological site. Surface features of that historical archaeological complex are visible along the banks of Osgood Brook. Buried archaeological features and deposits are also expected in that area.

The effects of the dam removal and the consequent downstream flows on downstream archaeological resources have not yet been considered. One photograph in the PAL assessment (Photo 17) shows historical dry-laid masonry that may be a remnant of a structure at the mill complex, and what appears to be an eroded area of exposed soil near the brook.

The MHC requests that the potential effects of the project on the downstream archaeological deposits and features, such as bank erosion, be considered by the project team of hydrologists and archaeologists. Some information pertinent to that consideration may be available in the ENF Attachment 5, Preliminary Design Report prepared by GZA and dated December 27, 2019. Archaeological testing and documentation of the downstream archaeological resources may be necessary as part of that consideration to determine if the project will adversely affect any significant historic and archaeological resources in downstream areas along Osgood Brook where hydrologists anticipate project-related effects.

The existing dam was substantially altered in the 20th century and the dam structure no longer retains historical integrity. The project area is adjacent to the Leonard L. Leach-Bowin House (MHC #WEN.55) at 269 Wendell Depot Road and to another residential property at 270 Wendell Depot Road. The project plans do not indicate that any project-related work is proposed at either residential property.

These comments are offered to assist in compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800), M.G.L c. 9, ss. 26-27C (950 CMR 70-71), and MEPA (301 CMR 11). If you have questions, please contact Jonathan K. Patton at this office.

Sincerely,

Brona Simon

Brona Simon
State Historic Preservation Officer
Executive Director
State Archaeologist
Massachusetts Historical Commission

xc: Barbara Newman, USACOE-NED
David S. Robinson, BUAR
Secretary Kathleen A. Theoharides, EEA, Attn: Eva Murray, MEPA Unit
Wendell Historical Commission
Jennifer R.M. Burke, GZA Geoenvironmental Inc., Springfield, MA
Deborah C. Cox, PAL, Attn: Suzanne Cherau

MASSWILDLIFE

DIVISION OF
FISHERIES & WILDLIFE

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

June 16, 2020

Secretary Kathleen Theoharides
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: MEPA File #: 16209
Bowen's Pond Dam Removal and Osgood Brook Restoration

Dear Secretary Beaton:

The Massachusetts Division of Fisheries and Wildlife (MassWildlife) supports the request for a waiver of an Environmental Impact Report (EIR) under 301 CMR 11.11(5) for the Bowen's Pond Dam Removal and Osgood Brook Restoration Project to restore fish passage and wildlife habitat. The project will also have excellent community resiliency benefits for the town of Wendell by eliminating the aging dam and restoring a natural stream channel.

Under 301 CMR, the Secretary may waive an EIR if preparation of the EIR would result in "undue hardship" to the project proponent or would "not serve to avoid or minimize damage to the environment" as described under 301 CMR 11.11(1). Furthermore we understand that when mandatory EIR review thresholds have been exceeded, the Secretary may grant a waiver of the EIR as described under 301 CMR 11.11(2) based on determination that preparation of an EIR would not provide increased benefit to the project and the environment. Based upon the scientific and engineering analysis included in the EENF, preparation of an EIR for this project would not serve to avoid or minimize damage to the environment, nor would its preparation provide increased benefit to the project and the environment for reasons listed below.

The project includes the partial breach and removal of Bowen's Pond Dam and restoration of the stream channel. Work generally includes the drawdown of Bowen's Pond; breach of the embankment; demolition, removal, and regrading of the existing spillway and stone masonry to create a 2-foot-wide channel; excavation upstream of the existing dam, regrading and stabilization of channel banks, and use of dam masonry elements and planting to stabilize disturbed and sloped areas and promote re-establishment of vegetation.

Determinations for an EIR Waiver are based on whether "the project is likely to cause no damage to the environment" and "ample and unconstrained infrastructure facilities exist to support the project" (301 CMR 11.11(3)). Dam removal restores natural ecological function and maximizes environmental benefit. The basis of this waiver request is founded upon the extensive data collection and analysis of environmental impacts that have been conducted in support of this project to date. These analyses support the overwhelming environmental benefit of the project, and have allowed for the development of strategies to minimize and avoid negative environmental impacts as discuss in the alternatives analysis. This project is also supported by other state, federal, and non-governmental organizations with decades of restoration experience.

This project triggers mandatory EIR threshold under 301 CMR 11.03(3), however the permitting associated with this project will enable additional public and regulator input as well as a mechanism for application of conditions to ensure compliance with MEPA regulations. This project will require a number of environmental permits, including

the 401 Water Quality Certificate (Department of Environmental Protection, Wetland Protection Act Notice of Intent/Order of Conditions (Pepperell Conservation Commission), Section 106 Historical Certificate (Mass Historic and other signatories), Chapter 253 Permit (MA Office of Dam Safety) and require a General Permit (Section 404) permit from the US Army Corps of Engineers.

In addition, project partners have already connected with several Town officials and neighbors to the site. In this manner, public interests are being addressed and incorporated in the project development process.

The Bowen's Pond Dam Removal Project will have many environmental and community benefits. MassWildlife urges you to favorably consider this waiver request. If you have any questions please don't hesitate to contact me.

Sincerely,

Caleb Slater, PhD
Massachusetts Division of Fisheries and Wildlife
1 Rabbit Hill Road, Westborough, MA 01581
p: (508) 389-6331 | e: caleb.slater@mass.gov
mass.gov/masswildlife | facebook.com/masswildlife

The Commonwealth of Massachusetts
MASSACHUSETTS SENATE

SENATOR JOANNE M. COMERFORD
Hampshire, Franklin and Worcester District

STATE HOUSE
BOSTON, MA 02133-1053
TEL. (617) 722-1532
FAX (617) 722-1062
WWW.MASENATE.GOV

June 19, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, Massachusetts 02114

Re: EEA# 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration

Dear Secretary Theoharides,

I write in support of my constituents in Wendell who are calling for a full, independent Environmental Impact Report (EIR) on the removal of the Bowen's Pond Dam. I understand that MEPA is considering waiving the mandatory EIR. I write to oppose any such waiver, and to echo the Wendell Select Board and my Wendell constituents' support for a comprehensive, independent study to understand the full impacts of this dam removal.

Once the Bowen's Pond Dam is removed, it cannot be undone. This decision must be taken seriously as it has significant impacts on both the natural environment and the health and safety of my constituents.

I understand that the goals of the dam removal are to create increased habitats for wild Eastern brook trout and other species threatened by the effects of climate change. I appreciate your office's support for these goals but I believe there must be a full analysis of the scope of the impacts this dam removal would have on species that currently inhabit the pond, new opportunities for the spread of invasive plants, and other impacts. A full EIR will ensure that all of this is known and can be evaluated before any action is taken to remove the dam.

In addition, the pond is the primary water source used by the Wendell Fire Department to fight any fires that occur in the center of town or surrounding areas. According to the Select Board,

the Fire Chief has indicated that the removal of the dam will necessitate finding another water source. From an environmental perspective, as well as from an emergency management one, this is far from ideal and deserves due consideration.

I respectfully request that a full EIR be conducted with as robust an analysis as possible before a decision is made about the impact of the dam removal.

Sincerely,

Jo Comerford
State Senator
Hampshire, Franklin, Worcester district

Murray, Eva (EEA)

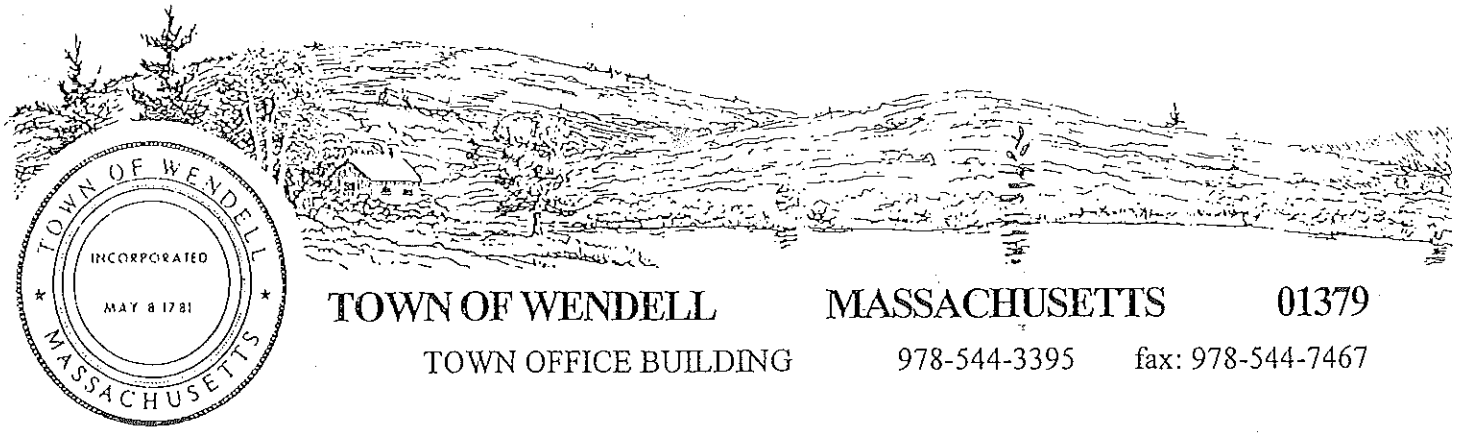
From: Wendell Conservation Commission <wendell.ma.concom@gmail.com>
Sent: Sunday, June 14, 2020 9:39 AM
To: Murray, Eva (EEA); concom
Subject: Bowen's Pond Dam Removal. Wendell, MA

Follow Up Flag: Follow up
Flag Status: Completed

Good day Eva,

The Wendell Conservation Commission would like to recommend the EIR not be waived for the Bowen's Pond dam removal. We are interested in having all the facts, especially concerning the spread of invasive species, to best make a choice if and when we are presented with an NOI. Thanks so much for your consideration and time,

Adam Kohl.
Wendell Conservation Agent.



TOWN OF WENDELL MASSACHUSETTS 01379
TOWN OFFICE BUILDING 978-544-3395 fax: 978-544-7467

June 10, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Bowens Pond Dam Removal and Osgood Brook Restoration Project, Wendell, MA

Dear Secretary Theoharides,

The Wendell Selectboard recently received the Expanded Environmental Notification Form for the Bowen's Pond Dam Removal and Osgood Brook Restoration Project. This project is clearly a large undertaking, and one that has the potential to impact the Town of Wendell on several fronts. We would therefore like to offer the following comments, especially as they relate to the current Project Partners' request to waive the mandatory Environmental Impact Report (EIR).

From an ecological standpoint, we are concerned about what species might disappear by draining Bowens Pond, and we believe a complete inventory should be conducted before any action is taken. In addition, we are equally worried about what species might replace the existing ones if the project moves forward, particularly any invasive plants. While the request to waive the EIR states that "the Project is likely to cause no damage to the environment," we would prefer to have an independent study done to confirm that claim.

In addition, Bowens Pond is the primary water source used for fighting fires in the center of town and surrounding areas. Access to the pond is relatively easy and safe, and other possible alternatives do not have as much water, the water is not as deep, and access is more difficult. If the dam is removed and the pond unavailable, our Fire Chief has indicated he would have no choice but to find another source, but this prospect is neither simple nor desirable. He has looked at several sites over the past few months, and has not found a replacement with the same features.

Finally, the dam's owner has stated that completing an EIR would create undue hardship. We have reason to believe there are other parties willing to purchase the dam and remove any hardship, financial or otherwise, from the owner. Such a claim should not be the basis for waiving the mandatory EIR.

The removal of the Bowens Pond Dam is an action that, once taken, cannot be undone. We strongly feel the citizens of Wendell are entitled to a complete accounting of all the consequences before this project can move forward, and we urge you not to waive the requirement for an Environmental Impact Report.

Thank you for your consideration. Feel free to contact us with questions or concerns.

Sincerely
The Wendell Selectboard

Dan Keller

Laurie DiDonato

Gillian Budine

P.O. Box 943
Wendell, MA 01379

June 16, 2020

To the MEPA office:

Re: Our opposition to the DER's petition to waive the Environmental Impact Report (EIR) requirement for the removal of the dam at Bowen's Pond, Wendell MA

On background, we are abutters to Bowen's Pond, and both of us are ecologists and professors in the Biology Department at UMass-Amherst. We have both published on the biology of invasive species (hemlock woolly adelgid in MA, and an invasive spider in ME), including their impacts on the ecological communities they have invaded. We attended the virtual public hearing and expressed our concerns that, as well-meaning as the intentions of removing the dam and restoring Osgood Brook are, the **loss of the pond will result in an invasion of glossy buckthorn into the pond's basin, with reverberating, long-term negative consequences to the local ecosystem.** In contrast, the petition for waiver asserts that the biological consequences will all be positive. Any decision regarding environmental impacts must weigh the environmental benefits in light of the corresponding environmental costs on a case-by-case basis. We believe in this case that the environmental costs are great and the benefits negligible. **An EIR that comprehensively addresses the biological impacts with data is therefore imperative.** We lay out our reasons here.

We have been following the progress of the plans to remove the dam for several years. Mr. Nick Wildman from the DER has been good about keeping us informed, and we have carefully read the wavier petition and its accompanying engineering report prepared by the firm GZA GeoEnvironmental Inc.

1. Prospective ecological benefits to removing this dam are limited at best

First, we appreciate that, in many cases, the benefits of dam removal and stream or river restoration are high. We are aware of the nationwide movement to remove dams, many of which are unsafe, unsightly, and major impediments to fish passage. Dam removal in many cases has permitted rare and endangered ecosystems to regenerate. However, every case is different and must be evaluated on its own merits. In this case, despite the petition's assertion to the contrary, we believe that any prospective ecological benefits to dam removal will be negligible.

The main proposed benefit of the removal of the Bowen's Pond dam is to improve fish passage for two species, brook trout (native to the Commonwealth) and brown trout (an alien species introduced from Europe). However, as confirmed by Mr. Wildman during the public hearing, only a short section, approximately **1.2 miles**, of new stream habitat would be opened up by the dam's removal before the next upstream dam is reached. This is unlikely to have any

conservation value, as measured by its potential effect on trout abundance in the Millers River catchment.

A second proposed benefit to the fish populations is the potential downstream cooling of the 2 miles of Osgood Brook between the dam and its confluence with the Miller's River. However, inasmuch as the fish survey found trout roughly 1/4 mile downstream from the dam, its removal would only negligibly extend suitable trout habitat in the downstream section. Even the potential for cooling upstream is uncertain. The newly opened brook would flow across a fairly flat open area in the pond's basin. We asked Mr. Wildman by email about whether the stream would be significantly cooled. He replied, "We don't know how much removing the Bowens Pond Dam will lower water temperatures. It will be very interesting to collect that data after the removal. IF beaver build a dam and re-impound water, that will contribute solar gain, too. At first, the brook will be running through an open meadow. With or without tree planting, that openness will diminish over time as the vegetation community succeeds and the brook gets more shaded. One factor we cannot predict is whether there will be groundwater springs emerging in the former impoundment area. These can contribute cold water to streams in many settings." Thus, the effect of this dam's removal on water temperature is unknown.

A final potential benefit is a change to the aquatic macroinvertebrate fauna of the streambed due to any potential changes in water temperature. Given the lack of data on current fauna, whether a benefit (or harm) would accrue must remain speculative. Speculative too is the assertion that American eel would benefit, since they have not been found in Osgood Brook.

In summary, among the hundreds of species currently supported by Bowens Pond, its wetland and the Osgood Brook ecological communities, it appears that dam removal could provide at best a small ecological benefit for one native and one alien fish species, a benefit that would probably not be measurable much beyond the dam site.

2. The pond and adjoining wetlands currently support impressive biodiversity

Bowen's Pond has been in place since the 1850s and now supports a stable and mature ecological community within the pond and especially in the wetlands. Since we moved here 16 years ago, we've kept a species list of wildlife we've seen. Beavers, otters, mink and muskrats call the pond home, as do a diversity of amphibians. Wood ducks, hooded mergansers, black ducks, mallards, geese and black-billed cuckoos breed here and rely on the wetland. Great blue herons and, less commonly, osprey, bald eagles, kingfishers, common mergansers and ring-necked ducks also visit the pond and feed, especially during migrations. No survey has been done of the macroinvertebrates, but the pond and wetland communities are rich in native plant diversity, making it very likely that there is considerable macroinvertebrate diversity there as well. Most of this biodiversity would be lost were the dam to be removed.

The pond and wetland form a strategically placed and heavily used biological wetland-habitat corridor between Mass Audubon's Whetstone Woods and the northern section of Wendell State Forest. Both these large tracts are under full protection and in the process of maturing towards old-growth forest over the coming decades. Mammals with large home ranges

(moose, bear, bobcat, otter, coyote, foxes) traverse the corridor on a regular basis. The corridor provides connecting habitat for species with more limited movement, whose populations exist within the corridor (mink, songbirds, plants, butterflies). Removal of the dam will take this habitat corridor with it, isolating populations of a diversity of plants and animals that would be better off connected.

The pond is a habitat refuge during droughts for species that require aquatic habitats. We have observed Osgood Brook and the narrow streams that feed to Bowens Pond to have gone completely dry during August and September in three of the last five years, including significant sections of the marsh in two of those summers. Removal of the dam will destroy this refuge in this time of accelerating climate change, where longer and hotter summers are increasingly likely.

The petition to waive the EIR implies that removing the dam will replace the expanse of water with a rich meadow of native plants, with little net loss of biodiversity (below left). However, as we will show below, the pond basin is likely to rapidly fill in with a dense monoculture of invasive glossy buckthorn (below right), choking out native vegetation.

Artist's rendition of Osgood Brook after the dam is removed, depicting a trout stream with a native plant community (image from the DER's 6/4/2020 presentation to MEPA regarding their petition to waive the EIR).

The more likely outcome. The abandoned beaver pond where Whetstone Brook meets Wendell Depot Rd., 2 miles from Bowen's Pond, holds a virtual monoculture of invasive glossy buckthorn.

3. Invasive buckthorn will prevent Osgood Brook from returning to its natural state

Glossy buckthorn is an invasive species that is especially aggressive in Wendell and the surrounding towns. We have attached a brief, bulleted summary of these effects and the peer-reviewed scientific articles they are gleaned from (Glossy Buckthorn Biology). To summarize, glossy buckthorn overgrows and outcompetes native species, driving down the diversity of native plants, and it suppresses the growth of trees including oaks, maples and pines that inhabit the surrounding forest. It grows well in diverse light and soil conditions, and it is especially pernicious in and around wetlands because it thrives where soils are especially moist.

It has no natural enemies (herbivores or pathogens) in North America. In addition, the literature shows that in wetlands infested by glossy buckthorn, the density of native pollinators precipitously declines.

Due to the impact of invasive glossy buckthorn, we believe that the Osgood Brook would be unlikely to return to anything resembling its native state were the dam to be removed. Ringing the pond, and particularly dense where we live at the edge of the wetland, is a large thicket of buckthorn that is being held in check only by the water of the pond (below left). If the pond were to be drained, buckthorn will surely invade the pond basin and rapidly fill it with a dense tangle to the exclusion of native shrubs. This has happened in many neighboring watersheds, including the adjacent Whetstone Brook where it meets Wendell Depot Rd. (above right) only a stone's throw downhill from the Osgood Brook crossing, and at the site of another abandoned beaver pond in nearby Leverett MA (below left).

Abandoned beaver pond in Leverett MA. Most of the vegetation is glossy buckthorn. (353 North Leverett Rd.)

Wetland boundary at the upper end of Bowen's Pond. The dense shrub layer is glossy buckthorn.

Buckthorn is pernicious in another way. In uninvaded ecosystems, beavers build dams to establish small impoundments, creating wetlands and promoting biodiversity. In natural cycles lasting over several years, beavers abandon ponds, which then revert to meadows; then they return to rebuild the dams and reestablish the ponds. However, buckthorn invades open habitat very rapidly, filling in pond basins within several years, as has happened in Whetstone Brook (above). **Beavers do not eat or take down buckthorn**, so once buckthorn moves in, beavers do not reestablish the pond; it remains a buckthorn thicket for a very long time. We are seeing this in an unnamed brook on our property that feeds Bowen's Pond, and it has begun to occur in a series of beaver ponds along another unnamed brook that feeds Bowen's Pond as well. Looking to the future, we may find that permanent ponds become the last refuges of beavers in Wendell, at least until conservation biologists devise biological control

methods for glossy buckthorn. Meanwhile, the prospects that beavers will maintain biodiversity in the Bowens Pond basin, as some have suggested, do not look good.

4. It is unlikely that the petitioners will be able to mitigate the impact of glossy buckthorn

In the petition for waiver of the EIR, and in Mr. Wildman's presentation on 6/4/2020, a suggestion was made that the DER would take steps to mitigate the impact of glossy buckthorn. Unfortunately, research has shown that there is no control for buckthorn short of intensive and persistent manual removal (cited in the accompanying document, Glossy Buckthorn Biology). **As confirmed by DER in the hearing two weeks ago, there are no plans for long-term control of buckthorn in the streambed or pond basin.** To our knowledge, buckthorn control is beyond the means of any conservation organization likely to be interested in protecting this property. There are vague plans to revegetate the stream margins with native plants, but buckthorn is likely to outcompete them very quickly as it has elsewhere in Wendell.

In conclusion, it is our fear and expectation that the pond and associated wetlands that currently support thriving biodiversity will be replaced with a monoculture of glossy buckthorn, with the possibility of adding a mere 1.2 miles of habitat for two species, only one of which is native. This tradeoff is not adequately addressed in the report prepared by GZA GeoEnvironmental. In light of this significant gap in the information necessary to evaluate the ecological impact of dam removal on biodiversity in Wendell, and the strong likelihood that the ecological consequences will be overwhelmingly negative, we oppose the request for a waiver of the Environmental Impact Report. We hope that the Massachusetts Environmental Protection Agency will agree.

Sincerely,

Adam Porter
Elizabeth Jakob
217 Wendell Depot Road

Glossy Buckthorn Biology

Glossy buckthorn is an invasive shrub

It is a major problem in northeastern and midwestern North America, and especially aggressive in Wendell MA and surrounding communities. It grows in a diversity of habitats, from the forest understory to low hummocks in open marshes, but it does best in open fields and along the edges of ponds, streams and marshy areas. It is the dominant species in these areas, aggressively outcompeting native plants to form dense thickets that are virtual buckthorn monocultures in many sites. It is especially good at spreading into new open areas, because it dispersed by birds and has two fruiting cycles per year instead of one.

https://www.uwgb.edu/biodiversity/herbarium/invasive_species/rhafra01.htm

Glossy buckthorn leaves and fruit (from Univ. Wisconsin Green Bay).

Glossy buckthorn thicket, supporting an understory with low biodiversity (from Hamelin et al. 2017).

What makes glossy buckthorn such an aggressive invader?

A good deal of scientific research has been done to address this question. The short answer is that there are many reasons, and they combine to give it significant advantages over native species. Here are some bulleted highlights, including references to the scientific studies that reach those conclusions. The full references are listed at the end.

Glossy buckthorn is a very aggressive invasive species

- Glossy buckthorn is the most rapidly spreading woody plant in the Connecticut River floodplain (Marks & Canham 2015).
- In southern Ontario, it had spread so thoroughly that buckthorn canopy cover had reached over 90% in some sites by 1994 (Catling & Porebski 1994). Wendell has many sites with similar densities.
- Once buckthorn becomes established in a new site in the forest understory, it spreads at the average rate of 18-26 ft/yr (roughly half of new seedlings appear beyond that distance and half within it) (Frappier et al. 2003b). Presumably the rate would be similar in open areas. (That would saturate an area the size of Bowen's Pond's basin in Wendell within 4-5 years.)

Glossy Buckthorn Biology

- Buckthorn seedling densities were twice as high as all other native shrub and tree species combined in a bog experiencing invasion, at a mean density of 9.6 plants/m^2 and a maximum of 140/m^2 (Mills et al. 2009). This is consistent with local densities in Wendell.

Glossy buckthorn is especially successful in open areas and wetland margins

- In wetlands, buckthorn establishment is highest at the edges and on slightly higher hummocks within the wetlands, wherever the soil is not completely saturated with water (Williams & Krock 2012; Berg et al. 2016). Outside of wetlands, soil moisture has a negligible effect (Koenig & Singleton 2013).
- Buckthorn establishment is facilitated in areas with higher acidity (Feidler & Landis 2012). Many wet areas in Wendell have sphagnum moss, which prefers high acidity.
- In wetlands, established buckthorn plants alter the hummocks they colonize, reducing the biodiversity of competing native plants and increasing the suitability for buckthorn. They thereby facilitate their own spread (Feidler & Landis 2012).
- Seeds and seedlings are most dense near high-density stands, decreasing away from them (Berg et al. 2016).
- Buckthorn colonizes open areas in wetlands faster than four native shrub species in Wisconsin (which were not species common in Wendell) (Mills et al. 2012).
- Buckthorn takes a multi-stemmed, shrubby growth form in open areas and a single-stemmed, tree-like form under canopies (Hamelin et al. 2015). The shrubby form produces more fruit, facilitating spread.
- Buckthorn is an aggressive species in open areas outside of wetlands, and even in the forest understory (Fagan & Peart 2004; Frappier et al. 2003b; Frappier et al. 2004; Hamelin et al. 2017; Lanzer et al. 2017; Lee 2017).

Glossy buckthorn outcompetes native plants and reduces biodiversity

- In open areas, the diversity of native plant species is significantly lower under buckthorn (Possessky et al. 2000; Frappier et al. 2003a).
- Seedlings of native trees that germinate under heavy buckthorn cover are much less likely to survive (Frappier et al. 2004). Even in forest understories, survival of hardwood seedling was reduced by 90% in the presence of buckthorn (Fagan & Peart 2004).
- Of the young plants that do survive, seedlings of Red Oak and Sugar Maple (Hamelin et al. 2016) and saplings of White Pine (Lanzer et al. 2017; Lee 2017) grow slower in the presence of buckthorn.
- Glossy buckthorn inhibits the growth of native perennial herbs and is likely to have longer-term negative effects on biodiversity in regenerating forest communities (Hamelin et al. 2017).
- Buckthorn significantly depresses the abundance and diversity of pollinator species that native plants depend on (Fiedler et al. 2012).

Glossy buckthorn has no natural enemies

- There are no herbivorous insects or pathogens that attack glossy buckthorn in North America, save one rare butterfly in eastern Ontario (Catling et al. 1998) that has not spread widely. No buckthorn specialists from the native range in Europe, which could be used for biological control, have yet been found (Gassmann et al. 2009).
- Beavers avoid glossy buckthorn. They did not take a single glossy buckthorn plant in a survey study of riparian tree and shrub species in Connecticut (Marks & Canham 2015). Beavers normally create, abandon and re-establish pond sites in cycles lasting several years. However,

because glossy buckthorn rapidly establishes dense populations in abandoned sites, this cycle is likely to be broken.

Glossy buckthorn is very resistant to artificial control measures

- Restoration of buckthorn-infested habitat requires continuous mitigation (Kalkman et al. 2019). The seed bank persists several years and dispersal from nearby sites by birds is inevitable.
- Manual removal — pulling plants up by the roots — always works, but it is the most labor intensive, especially for large plants and where stem densities are high.
- Simply cutting or girdling the plants and leaving the stumps in the ground results in 100% survival and may even favor its spread; the plants re-sprout multiple new stems from the stumps (Reinartz 1997).
- Applying glyphosate (Roundup®) to cut stumps is an effective control, especially in winter (Reinartz 1997); unlike spraying the leaves, this doesn't kill adjacent plants. This too is very labor intensive. However, this method fails in wetter sites (Dornbos & Pruim 2012).
- Glyphosate has significant negative environmental impacts, and even more so in combination with the added ingredients in RoundUp®. The impacts are greatest around wetlands, where buckthorn is most problematic. Manual removal is the only environmentally friendly alternative.

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Murray, Eva (EEA)

From: Allen Young <allenyoung355@gmail.com>
Sent: Thursday, June 4, 2020 11:28 AM
To: Murray, Eva (EEA)
Subject: EEA# 16209 Bowen Pond Dam COMMENT

Dear Eva Murray,

I am writing, as a Massachusetts resident and citizen, to participate in the comment period for EEA project #16209, Bowen Pond Dam Removal, Wendell, Mass..

My name is Allen Young and since 1973, I have lived in Royalston, Mass., about 12 miles from Bowen Pond. I happen to know people who favor the project as well as people who oppose the project. I am friendly with individuals in both groups, and sometimes people restrain from expressing a view because they don't want to damage friendships. Of course, I don't want to damage friendships, but I feel I have a valid and important opinion. I feel in many ways that my opinion represents "the average person." So I am respectfully sending this comment to you and all other state officials involved in the decision-making process.

I am a retired journalist, author and publisher. Since moving to this region 40 years ago, my focus has been on the environment. I am a moderate but committed environmentalist and appreciate the excellent record of the Commonwealth in this arena. I belong to several local, statewide and national environmental groups. I subscribe to Mass Wildlife magazine. I was a reporter and assistant editor of the Athol Daily News for 10 years, and I have written, edited and published hundreds of articles and several books about the region, most notably "North of Quabbin Revisited" and "The Millers River Reader." I have demonstrated against nuclear power plants and fracked gas pipelines. You could call me a tree-hugger, as I love our local forests and support managed forestry, but I do not support extremist opposition to all tree-cutting. I am not a scientist, but I respect and admire science. I also strongly believe in the concept of "common sense," which I think enters into the matter of the Bowen Pond dam.

This project, as I understand it, is related to the concept of "ecological restoration," which is a fine concept. But like many good ideas, it can be unreasonable. I do not think it is reasonable to remove this dam and put an end to the existence of this beautiful pond. Simply put, Bowen Pond is nice to look at. It's pretty. It's scenic. It's been there for a very long time. I have never swum or fished in that pond. I have never set foot on its shores. All I have done is drive by it. I like to see it. If I lived near it, I would like it even more. I would probably get to see the wildlife that uses the pond, and I'd be appalled at the idea of losing it.

Why not just leave it alone? To me, that's common sense. Regarding "ecological restoration," we cannot always go back. We cannot remove all of the white people from Massachusetts and bring back the Native Americans who probably respected the Natural world better than we have. I live near the town of Athol, where the Millers River flows en route to the Connecticut River. That beautiful river has been significantly restored from the horrid pollution of earlier decades. That restoration is the result of activism and funding from the Clean Water Act passed by Congress and signed into law by Richard Nixon. However, sometime in the 1800s, the Millers River pathway through Athol was significantly altered by development. This is no secret. There's an "Island Street" in Athol, but you won't find any island there. History explains this. Demolition of numerous buildings and more might allow "ecological restoration" for the Millers River river and bring back that island, but no sane person is going to even suggest such a thing!

Please leave Bowen Pond alone. The reasons some people favor it probably have some scientific validity, but they make no sense to me, given what would be lost. Please use common sense. Thank you.

Yours sincerely,

Allen Young
75 Butterworth Rod, Royalston MA

mail address: 75 Butterworth Road, Orange MA 01364
Tel. 978-249-7612
email: allenyoung355@gmail.com

American Rivers
RIVERS CONNECT US®

June 18, 2020

Secretary Kathleen Theoharides
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: **MEPA File #: 16209**
Bowen's Pond Dam Removal and Osgood Brook Restoration Project

Dear Secretary Theoharides:

American Rivers supports the request for a waiver of an Environmental Impact Report (EIR) under 301 CMR 11.11(5) for the Osgood Brook Restoration Project to restore fish passage and wildlife habitat. American Rivers has worked on dam removals across Massachusetts and the country for the past two decades and time and again we see the benefits conveyed by stream restoration through dam removal. Based upon the scientific and engineering analysis included in the EENF, preparation of an EIR for this project would not serve to avoid or minimize damage to the environment, nor would its preparation provide increased benefit to the project or the environment.

The dam is a run-of-river dam and does not provide any flood storage. Removal of the dam will restore the natural and historical ecological function of Osgood Brook, a MassWildlife-certified Coldwater Fishery Resource. Project partners are aware of the concerns about invasive species encroachment, understanding that the invasives are prevalent in the surrounding area and not an issue specific to this stream restoration project. The habitat benefits for cold water species like Eastern Brook Trout, however, outweigh the potential negative impact of invasive species. I am confident that a reasonable invasive species monitoring plan will be developed and implemented for this restoration project. Furthermore, dam removal restores natural stream processes and all of the benefits therein. Dam removal environmental benefits include improved water quality, restoration of natural sediment and nutrient transport regimes, improvement to aquatic habitat, aquatic species passage, creation of wetlands, and increased floodplain connectivity. While it is scenic, the impoundment is privately-owned and currently does not support public recreation, nor does the dam provide any flood protection. The project will also have excellent community resiliency benefits for the Town of Wendell by eliminating an aging Low Hazard Dam upstream from the Wendell Depot Road crossing.

The permitting associated with this project will enable additional public and regulator input as well as a mechanism for application of conditions to ensure compliance with MEPA regulations. This project will require a number of environmental permits, including the 401 Water Quality Certificate (Department of Environmental Protection), Wetland Protection Act Notice of Intent/Order of Conditions (Wendell Conservation Commission), Section 106 Historical Certificate (Mass Historic and other signatories), and Section 404 dredge and fill Permit (U.S. Army Corps of Engineers). In addition, project partners have already repeatedly connected with several Town officials, local non-profits, and neighbors to the site. In this manner, public interests are being addressed and incorporated in the project development process.

The Bowen's Pond Dam Removal and Osgood Brook Restoration Project will have many environmental and community benefits. While dam removal constitutes what can seem like a dramatic change, our experience from two decades of dam removal increasingly demonstrates the long-term benefits to the stream and community. On behalf of the dam owner and its restoration partners, I urge you to favorably consider this waiver request. If you have any questions, please don't hesitate to contact me at 413-584-2183 or asingler@americanrivers.org.

Sincerely,

Amy Singler

Director, River Restoration

June 18, 2020

Secretary Kathleen Theoharides
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

RE: Expanded Environmental Notification Form (EENF)
Bowen's Pond Dam Removal and Osgood Brook Restoration Project
Wendell, MA

Dear Secretary Theoharides:

I am writing to strongly support waiving the requirement for Environmental Impact Review for the Bowen's Pond Dam Removal and Osgood Brook Restoration Project in Wendell, MA.

This is a straightforward project with clear benefits. Based upon the scientific and engineering analysis included in the Expanded Environmental Notification Form, preparation of an Environmental Impact Report for this project would not serve to avoid or minimize damage to the environment, nor would it provide increased benefit to the project. I urge you to waive the EIR as has been done for other dam removal projects under 301 CMR 11.11(5).

I am a research scientist with expertise in ecosystems, watershed dynamics, watershed and vegetation restoration, and ecosystem responses to management and climate change. I have authored more than 120 peer reviewed scientific papers including five papers in the journal *Restoration Ecology*. In Massachusetts, I have led efforts to document changes to the chemistry of watersheds, evaluate conservation and restoration of grasslands, and to improve the practice of restoration of natural wetlands onto former cranberry bogs. I have been a Wendell landowner since 1986. I am very familiar with this project area and the ecology and natural history of the surrounding still relatively intact, functional and wild landscape. In the late 1980s I worked with the Wendell Conservation Commission to produce its Open Space Plan.

From my perspective, this project will improve the regional environment.

Removing the Bowen's Pond Dam will enhance habitat in Osgood Brook, a cold water stream that already supports native brook trout but is impaired by unnaturally high temperatures downstream of the current dam. Cold water streams are a relatively uncommon habitat that is increasingly threatened by development and climate change. This project would restore cold water habitat within a largely intact and protected forested region. It will improve habitat by lowering water temperatures, and likely increase water dissolved oxygen and reduce daily dissolved oxygen swings in summer. It will increase Osgood Brook's resilience to future climate warming. Because the location of much of its length within the Wendell State Forest, and its accessibility from an existing road, Osgood Brook is important for public fishing—a function that will be enhanced.

Removing the Bowen's Pond dam will create more natural and dynamic habitat compared with the static pond created by the current dam. This dynamism comes from variations in flow but also from the activities of beavers. Over the long term, removing this dam will increase the dynamism—and regional habitat value—of the low-lying area occupied by the current pond. I've watched, now over decades, these natural cycles of wetland change in Wendell. They involve

changes to Great Blue Heron rookeries, reptile and amphibian populations, and abundances of Tree Swallows, Common Grackles, Eastern Kingbirds, Wood Ducks, Hooded Mergansers, Common Yellowthroats and many other birds. Optimal habitat for any one of these is not obtained by static water levels created by an artificial dam. This, to me, is the gold standard of naturalness that we should shoot for in management of watersheds in the region. Because a new, restored and dynamic wetland in the current footprint of Bowen's Pond would be embedded within an intact and highly protected landscape, it has extra value.

This project will reduce risks to the landowner and the Town of Wendell and Wendell Depot Road from the potential hazard of an uncontrolled dam breach caused by the combination of an aging dam and the more variable stream flows that will result from climate change in the future. The current run-of-the-river dam provides no flood storage. Flood storage would be enhanced in the wetland that will be created by dam removal.

Because the dam and pond are currently privately owned, this project will not reduce any current public access.

The watershed upstream of the project contains almost no houses and no current or past industrial development that would cause contaminated sediments. Assessments in the EENF confirm this. Thus, there are no complicated issues with toxic materials that might require an EIR. While some sediment will be transported downstream during the project, removing the dam will restore more natural sediment delivery to Osgood Brook in the future.

The EENF notes the presence of the non-native glossy buckthorn (*Frangula alnus*), and some project opponents have raised the potential for its expansion as a reason not to undertake this project. This species is a frequent invader of wetlands in Wendell and elsewhere in Massachusetts. Non-native species occur in nearly all the restoration projects that I have studied. I have also found that the more natural the hydrologic or disturbance regimes created by restoration—as is the goal of this project—the less prevalent and more easily manageable these species tend to be. The presence of glossy buckthorn in this project area should not be a reason to require an EIR, or to forego this project.

As a citizen in Wendell, I have had already several occasions for input and comment on this project. There will be additional opportunities for comment on local permits that will be required. This process has been open, clear, and fair.

I urge you to waive the EIR requirement for this project.

Sincerely,

Chris Neill
Falmouth and Wendell, MA

39 Marvin Circle
Falmouth, MA 02540

June 18, 2020

Secretary Kathleen Theoharides
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: **MEPA File #: 16209**
Bowen's Pond Dam Removal and Osgood Brook Restoration Project

Dear Secretary Theoharides:

This letter is in strong support of the Osgood Brook Restoration Project to restore fish passage and wildlife habitat in the Town of Wendell MA. I am a property owner in Wendell, with a house not far from this lovely stream that has been unfortunately degraded by a manmade reservoir and relic dam. I am also a Ph.D.-level environmental scientist with over 45 years of research experience working on fish, fisheries, streams, estuaries and wetlands. I have published 128 referred scientific journal articles, in journals such as Nature, Ecology, Ecological Applications, Journal of the Canadian Fisheries and Aquatic Sciences, and Aquatic Conservation: Marine and Freshwater Ecosystems. I was a member of the Town of Falmouth Conservation Commission for several years.

I attended the public project presentation in the Wendell library, the remote MEPA Consultation session (June 4, 2020 on Zoom) and I have read the Expanded Environmental Notification Form (EENF) for the Bowen's Pond Dam Removal and Osgood Brook Restoration Project.

Osgood Brook is a delightful cold-water stream with wild eastern brook trout and other cold-water species, while there are many, many warm-water reservoirs and ponds in the landscape. Increasing a rare habitat (cold-water streams) by restoring a degraded stream section both upstream and downstream through a small dam removal and providing habitat for a species (brook trout) threatened by human alterations of the environment over maintaining a common and man-made habitat used by tolerant and widely distributed species is well worth the tradeoffs. Removal of Bowen's Pond Dam will lengthen the stream channel, restore the natural channel's functions, and reduce thermal and dissolved oxygen impacts associated with the impoundment, thus improving habitat conditions within the stream for wild eastern brook trout, American eel, and other species. The project will also have excellent community resiliency benefits for the Town of Wendell by eliminating an aging Low Hazard Dam upstream from the Wendell Depot Road crossing – a road that I use to access my house in Wendell.

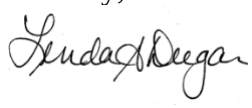
I support the request for a waiver of an Environmental Impact Report (EIR) under 301 CMR 11.11(5). Dam removal projects like this one restore natural ecological function and maximizes environmental benefit. The basis of this waiver request is founded upon the extensive data collection and analysis of environmental impacts that have been conducted in support of this project to date. This is a small project, and the EENF does a great job of describing the stream habitats and functions that have been impaired, and how the dam removal would increase habitat quality and diversity. The EENF details: 1) the wildlife and fish species that use the stream and pond now (no endangered or threatened species); 2) the wetland resources in the area, and how those are expected to change (shallow pond to extensive bordering vegetated wetland); 3) the engineering aspects of the dam removal (minor project in a geologically stable area as it sits on bedrock), 4) sediment contamination (none); 5) expected sediment downstream transport (low and short lived); 6) how stream flows were designed to meet fisheries criteria; 7) a return to colder-water as the riparian vegetation reaches maturity and the flow though time increases; 8) a dynamically stable stream channel designed using storm flow criteria; 9) no change in flood storage as it is a run-of-river dam; and 10) no change in public recreation as the area is privately owned. These analyses support the overwhelming environmental benefit of the project, and have resulted in the development of strategies to minimize and avoid negative environmental impacts as discuss in the alternatives analysis. This project is supported by experts from the Division of Ecological Restoration who have decades of restoration experience. Based upon the scientific and engineering analysis included in the EENF, preparation of an EIR for this project would not serve to avoid or minimize damage to the environment, nor provide increased benefit to the project and the environment.

The permitting associated with this project will enable additional public and regulator input as well as a mechanism for application of conditions to ensure compliance with MEPA regulations. The required permitting, together with prior public discussions, will allow public interests to be incorporated as the project developments.

The Bowen's Pond Dam Removal and Osgood Brook Restoration Project will have many environmental and community benefits. I am impressed by the owners who have the vision to see the improvements that can be made to a rare and endangered habitat and species by this simple, small dam removal.

I urge you to favorably consider the Environmental Impact Report (EIR) waiver request. If you have any questions, please don't hesitate to contact me (mobile: 508-566-4645; LindaADeegan@gmail.com)

Sincerely,



Linda A Deegan
Property Owner: 132 Farley Rd., Wendell, MA.

MASSACHUSETTS
Rivers Alliance
2343 Massachusetts Ave, Cambridge, MA 02140
617-714-4272 • www.massriversalliance.org

June 8, 2020

Secretary Kathleen Theoharides
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: **MEPA File #: 16209**
Bowen's Pond Dam Removal and Osgood Brook Restoration Project

Dear Secretary Theoharides:

On behalf of the Massachusetts Rivers Alliance, I write in support of the request for a waiver of an Environmental Impact Report (EIR) under 301 CMR 11.11(5) for the Osgood Brook Restoration Project to restore fish passage and wildlife habitat.

The Massachusetts Rivers Alliance is an environmental non-profit organization dedicated to protecting and restoring rivers and streams across the Commonwealth. The Alliance is comprised of 75 member organizations and represents hundreds of families and individuals from across the state.

The Osgood Brook Restoration project will have excellent community resiliency benefits for the Town of Wendell by eliminating an aging Low Hazard Dam upstream from the Wendell Depot Road crossing. As you know, the Secretary may waive an EIR if preparation of the EIR would result in "undue hardship" to the project proponent or would "not serve to avoid or minimize damage to the environment" as described under 301 CMR 11.11(1). Furthermore, we understand that when mandatory EIR review thresholds have been exceeded, the Secretary may grant a waiver of the EIR as described under 301 CMR 11.11(2) based on determination that preparation of an EIR would not provide increased benefit to the project and the environment. Based upon the scientific and engineering analysis included in the EENF, preparation of an EIR for this project would not serve to avoid or minimize damage to the environment, nor would its preparation provide increased benefit to the project and the environment for reasons listed below.

Determinations for an EIR Waiver are based on whether "the project is likely to cause no damage to the environment" and "ample and unconstrained infrastructure facilities exist to support the project" (301 CMR 11.11(3)). Dam removal projects like this one restore natural

ecological function and maximizes environmental benefit. The basis of this waiver request is founded upon the extensive data collection and analysis of environmental impacts that have been conducted in support of this project to date. These analyses support the overwhelming environmental benefit of the project and have resulted in the development of strategies to minimize and avoid negative environmental impacts as discuss in the alternatives analysis. This project is also supported by experts from the Division of Ecological Restoration who have decades of restoration experience.

This project triggers mandatory EIR threshold under 301 CMR 11.03(3), namely (3.a.4) structural alteration of an existing dam that causes and expansion of 20% or any decrease in impoundment capacity and (3.b.1.d) alteration of 5,000 or more SF of boarding or isolated vegetated wetlands. The dam is a run-of-river dam and does not provide any flood storage. Removal of the dam will restore the natural and historical ecological function of Osgood Brook, a MassWildlife-certified Coldwater Fishery Resource. Dam removals generate many environmental benefits that improve river health, including enhanced water quality, restoration of natural sediment and nutrient transport regimes, improvement to aquatic habitat, aquatic species passage, creation of wetlands, and increased floodplain connectivity. While it is scenic, the impoundment is privately-owned and currently does not support public recreation, nor does the dam provide any flood protection.

The permitting associated with this project will enable additional public and regulator input as well as a mechanism for application of conditions to ensure compliance with MEPA regulations. This project will require a number of environmental permits, including the 401 Water Quality Certificate (Department of Environmental Protection), Wetland Protection Act Notice of Intent/Order of Conditions (Wendell Conservation Commission), Section 106 Historical Certificate (Mass Historic and other signatories), and Section 404 dredge and fill Permit (U.S. Army Corps of Engineers).

Is addition, project partners have already repeatedly connected with several Town officials, local non-profits, and neighbors to the site. In this manner, public interests are being addressed and incorporated in the project development process.

The Bowen's Pond Dam Removal and Osgood Brook Restoration Project will have many environmental and community benefits. On behalf of the dam owner and its restoration partners, I urge you to favorably consider this waiver request. If you have any questions, please don't hesitate to contact me (juliablatt@massriversalliance.org or 617-714-4272).

Sincerely,

Julia Blatt
Executive Director

Comments: EEA# 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration – WENDELL
6/19/2020

Matthew Hickler PhD
Botanist & Ecologist
52 Butterworth Road
Orange, MA 01364
mhickler@hughes.net
Cell: 774-239-7354
Office: 978-249-5517

Over the past several months I have been contacted, informally, for my thoughts and advice on the Bowens Pond dam removal initiative. By way of comment on the current MEPA review for the project, I have copied, verbatim, below some of my email responses. I also include selected excerpts from a 2006 research report which provide some context and support for the informal statements in the emails.

My bare-bones points are:

1. In order to make an informed decision about removing the dam, we need solid data on existing conditions and expected post-construction conditions, which is lacking in materials provided by the project proponents.
2. The hypothesis that artificial water bodies have poor biological and ecological values, which seems to be an underlying presumption in materials provided by the project proponents, is not supported.

Qualifications

I am a professional botanist and ecologist with specialty in aquatic plants and freshwater ecology. I recently completed whole-pond aquatic plant inventories of all accessible lakes and ponds in Franklin County, including Bowens Pond, for the Franklin County Flora Project (Bertin et al., In Press). My 2006 research study (Hickler and Ludlam, 2006) evaluated patterns of aquatic plant diversity and distribution in the Worcester-Monadnock Plateau Ecoregion. The study had as one of its main goals a comparison of biological and ecological qualities of natural vs. artificial water bodies. Some of the findings have particular relevance to the Bowens Pond initiative and are referenced below where appropriate.

Email from Matt Hickler 1/4/2019 regarding Bowens Pond:

> Dear Audrey,
>
> Thanks for letting me know. That would be very sad. One of the biggest conservation screw-ups in recent times stems from the NHESP "Living Waters" report noting dams as a major threat to freshwater species, followed by the State Dam Safety Program's policy changes making it expensive to be a dam owner. Most of our aquatic biodiversity in Central Mass. is behind dams. Franklin County has 58 ponds > 5 hectares; only 9 of them are natural. A large part of our total aquatic plant diversity is behind dams (many species that do not occur on any of the natural ponds.) The Worcester Plateau Ecoregion as a whole has similar stats: 80% of ponds are artificial. I'm attaching a paper/report I wrote a few years ago with some analyses and discussion comparing artificial and natural ponds on the Worcester Plateau which might have some value.

Also attached is a plant species list for Bowens Pond; some from herbarium specimens, some from recent field surveys. The aquatic flora is mostly regionally common species, but there are a couple of notable residents.

1. Bowen's Pond has the only Franklin County population of *Nuphar x rubrodisca*
2. One of three known populations of *Utricularia gemniscapa* is at Bowen's
3. There is a 1931 specimen of *Ranunculus flammula* var. *ovalis* from the pond. This species is ranked as Historic in Massachusetts (thought to be "extinct" in the state) so it will not show up on the NHESP rare species mapping because they only list extant species. The Franklin County Flora group recovered the species in 2018 in Sunderland so it should be put back on the endangered species list for the state at next update. It could well be still present at Bowens Pond.

Feel free to pass this along to those wrestling with the pros and cons of un-making the pond.

Matt

Email from Matt Hickler 3/18/2020 regarding Bowens Pond:

Hi Michael,

Thank you for your persistence. I did read through (with some skimming) the documents you sent previously. The engineering, and hydrologic modeling are covered in some detail, but very little in the way of substance on biology and ecology. These dam removal projects are not unlike some other currently popular habitat alteration endeavors such as converting forest to open land, riverine farm land to floodplain forest, forested swamps to shrub swamps, cranberry bogs to open wetlands, etc. I have been involved in many such projects in recent years, and many have highly desirable outcomes. One thing they all have in common is a clear understanding of existing conditions in the area proposed for management along with a model, based on solid ecological and biological inference, of expected post-management qualities. The Bowens Pond proposal lacks this critical piece of analysis, which is absolutely essential for making informed decisions as to whether or not the project is worthwhile. There are always trade-offs: Trade a hundred acres of generic young forested upland for a hundred acres of sandplain barrens - might be very appealing since the former is commonplace and the latter uncommon and having the potential to support many uncommon species. Old impoundments like Bowens Pond often support highly desirable open-water, deep marsh, shallow marsh and bordering wetland communities. Many species of plants and animals are wholly dependent on the ponds. They are, sadly, mostly behind old 19th Century dams and, unless we do something about it, natural attrition in the coming decades will see the habitat become less and less common. In the Worcester-Monadnock Plateau Ecoregion, 75% of open water habitats >5 acres are behind old dams. For aquatic plants, the artificial ponds and natural ponds are substantively identical with respect to species composition, diversity and support of rare species. A fantastic amount of aquatic plant (and presumably animal) diversity is contained therein. Some will say "but they are not natural" - the plants and animals do not care about that; they take advantage of suitable habitat where present.

So the big question for me, that would help in my thinking about pros and cons of the project is: What are we trading? It appears we will get some additional lotic (flowing water) habitat in exchange for the lentic (still-water) habitat we now have. The additional lotic habitat should benefit eastern brook trout (probably some stream-dependent invertebrates, too). Perhaps we will see somewhat cooler water temperatures downstream, which would also benefit trout. Though I wonder about beaver activity and how that will effect actual outcome. I have little background with animals so do not know how eastern brook trout are faring in our region and what the value of the expected improved habitat would be for the

species at the regional scale. However, we will lose the current aquatic plant populations in the trade - there are very few that live in flowing water streams. Presumably we will also trade the warm-water fish populations for brook specialist species, still-water invertebrates for flowing water invertebrates, water fowl, wading birds, aquatic mammals, etc. Luckily, it is rather easy to inventory and evaluate current values provided by the pond, and estimate expected values of converting the pond to a stream by surveying free-flowing stretches of Osgood Brook or other nearby streams.

It would be, in my opinion, a sad mistake to pull the dam without having a clear understanding of both benefits and detriments of doing so. It would be great to see if the (Historical in the State) *Ranunculus flamula* var. *ovalis* collected there in 1931 might still be present. How does the loss of *Nuphar rubrodisca* (Bowen's has the only population in Franklin County) weigh in compared to the expected improved trout habitat? What of aquatic invertebrates, birds, etc? What do we gain? What do we lose? Until we know it is not possible to make a rational, informed decision.

Matt

References

Bertin, Robert I., Matthew G. Hickler, Karen B. Searcy, Glenn Motzkin, and Peter P. Grima. Vascular Flora of Franklin County, Massachusetts. 2020 (In Press). Special Publication of the New England Botanical Club, Cambridge, Massachusetts.

Hickler, Matthew G. and Stuart Ludlam. 2006. Lakes and Ponds of the Worcester-Monadnock Plateau Ecoregion in Massachusetts: Comparative Limnology and Patterns of Aquatic Plant Diversity. Unpublished Report to the Massachusetts Environmental Trust. Available at https://millersriverwatershed.files.wordpress.com/2012/06/wppreport-lakes.pdf

Supporting Documentation:

Excerpts from Hickler and Ludlam, 2006

Section 2: Analysis of Diversity Patterns - Summary

- Natural and artificial ponds have small but significant differences in flora. No species has particularly high fidelity for one group or the other, but a small group of species show some affinity for either artificial or natural ponds.
- Species richness does not differ significantly between artificial and natural ponds.
- Rare species (both state-listed and regionally uncommon) are equally likely to be found in artificial and natural ponds.
- Beta diversity does not differ statistically between natural and artificial ponds.
- Natural ponds have higher water clarity than artificial ponds, but otherwise have comparable environmental qualities.

Although a larger dataset could provide more power to detect small differences between the two groups, we are confident that our analysis is sufficient to have detected any fundamental differences between artificial and natural ponds. Our conclusion is that the two groups have roughly equivalent biological qualities. Future conservation efforts, where a goal is protecting biodiversity, should give equal countenance to natural and artificial ponds. The scarcity of natural waterbodies on the landscape limits conservation opportunities, thus, this finding should be welcome news to conservation

professionals. The finding that aquatic plants in general, and high-conservation-value species in particular, are largely insensitive to pond origin opens up a wealth of conservation opportunities.

Artificial Ponds: Qualities and Threats

Artificial and natural waterbodies are, for practical purposes, equivalent in their contributions to regional aquatic plant diversity. Indeed, simply by virtue of the fact that artificial ponds are so much more common than natural ponds, as a group they are quantitatively the more important. This is good news for conservation opportunities because it means we have much more high-quality aquatic habitat in the region than would otherwise be the case. However, it brings up some complex conservation issues:

- The pre-settlement landscape probably supported less aquatic plant diversity, and fewer populations of our high-conservation value species than does the contemporary landscape. In other words, some of the diversity we enjoy today is a legacy of past land use practices.
- Most waterbodies in the region (and most of the aquatic plant diversity) are behind old dams, many of which are beyond their expected life-span or have been documented to be in poor condition, according to the DCR Dams Safety Program.
- New regulations, promulgated in 2006, place great financial and liability burdens on small dam owners. Dam removal will, in many cases, be the most expedient solution.

Leading conservation agencies have identified the approximately 3000 dams in Massachusetts as one of the most serious sources of habitat degradation and threats to aquatic biodiversity (e.g., Natural Heritage and Endangered Species Program, 2003). This has contributed to the popular perception that dam removal is an environmentally "friendly" endeavor. The generally held perception that dams have a negative impact on regional biota appears to have two sources:

1. Some well documented cases where specific dams in specific locations have impeded fish migration, to the detriment of populations.
2. A muddling of two common goals of conservation: conservation of remnants of our most pristine, least human-influenced landscape elements, and conservation of biodiversity. For a small subset of our biota, the two goals may be perfectly compatible; for others they are not.

- The EOEA, in a recent "white paper", urges streamlining environmental review for dam removal proposals, with the idea that dam removal is a win-win situation (in terms of public safety and environmental benefits).
- The DCR Riverways Program has an active program designed to work with dam owners and local conservation groups on (among other things) dam removal projects.
- To the extent that natural attrition and the current regulatory environment are effective at reducing the number of ponds in the Ecoregion in coming years, it is crucial to be able to evaluate effects on regional diversity on a case-by-case basis. Fortunately, we have a certain amount of redundancy in the flora, and many species can be found on several ponds. However, too many species have limited distributions. After surveying over one-third of the ponds in the Ecoregion, there are still fourteen species with only a single occurrence, and more than a third of the aquatic flora is limited to four or fewer ponds. Neither the presence of state-listed species, nor species richness alone are adequate indicators of a pond's contribution to regional aquatic plant diversity. We have developed methods for ranking ponds for their contribution to regional biodiversity, which are effective at identifying critical subsets and, conversely,

identifying those ponds that are the most expendable. These concepts are developed more fully below with some thought on how they might be applied to actual field situations.

Comments: EEA# 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration – WENDELL

6/16/20 Michael Idoine, Swallow Rise, 11 John Quist Road, PO Box 953,Wendell, MA 01379
978/544-2623

I am writing in support of a more complete study, an EIR, to justify proceeding with the dam removal and elimination of Bowen's Pond. The proposed project would neither accomplish its proposed ecological goals nor justify its expense.

Having studied the proposed dam removal project at Bowen's Pond as documented by the GeoEnvironmental, Inc. and Correspondence and conversation with the Division of Ecological Restoration, I find there remain significant inadequacies to the study of the ecological harm that would result from the elimination of Bowen's Pond.

Although the EENF states "it is our belief that preparation of an EIR would "not serve to avoid or minimize damage to the environment" as described in 301 CMR11.11(1)", I conclude that an EIR of this project would clarify the true extent of the ecological damage caused by the removal of the dam at Bowen's pond. Only passing consideration is given to biodiversity of the site by the partner proponents.

In fact, the animals that reside in the pond would not adapt, they instead support this project by just going away. "□ Providing fish access to habitat upstream of the dam;" but eliminating the fish that now live in the pond.

It is proposed that removing the dam would "□ Restor[e}the impounded areas to natural wetlands and a free-flowing stream system;" when in fact, there are already evolved complex natural wetlands and diverse creatures that depend on them.

The GZA report proposes that removing the dam would "□ Eliminat[e] a source of thermal heating of the stream;" pg. 356-362.However the report suggests the decrease in water temperature would be insufficient to provide adequate upstream habitat for trout, and the reduction in water temperature is left hypothetical.

"The purpose and goals of the proposed dam removal project are the following:
1. Restoration of riverine ecological functions, and
2. Elimination of a potential public safety hazard and reduction of liability and maintenance obligations related to Bowen's Pond Dam. Pg 7" EENF

For goal no. 1 there is no support for the riverine ecological function being superior or necessarily more desirable than the ecology it would displace. The body of the report avoids the question and focuses on engineering details of removing the dam. I note that several unnatural processes are planned to restore the proposed version of riverine ecology.

For goal no.2 the dam is documented to be low hazard. I leave it to the "partners" to determine the level of liability they can bear. I suggest that a good faith effort to find a new owner willing to undertake the responsibility for the maintenance and liability would solve this problem and preserve a landscape asset that is valuable to the town.

“Currently, the impoundment provides recreational and aesthetic benefits.” Pg.4 EENF
The EENF accurately reports that the pond does and could continue to provide these benefits. The owner has largely enjoyed the first benefit for the last 60 some years. The town has enjoyed the appealing visual landscape for at least the same amount of time. The proponents of this project have invited little conversation with the Town about this environment value. Perhaps an EIR would allow more room for such a discussion?

Evidence of Bowen’s Pond’s value to the citizens of Wendell can be found in the document attached to this email that includes these comments.

>>

I have copied below questions I asked during the 6/4/20 MEPA Consultation Session:

Questions for Remote MEPA Consultation Session: EEA# 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration – WENDELL

From Michael Idoine, Wendell, Massachusetts

Having studied the proposed dam removal project at Bowen’s Pond as documented by the GeoEnvironmental, Inc. and Correspondence and conversation with the Division of Ecological Restoration there remain significant limitations to the study of the ecology harm that would result from the elimination of Bowen’s Pond. I have submitted five questions below.

The EENF states:

“it is our belief that preparation of an EIR would “not serve to avoid or minimize damage to the environment” as described in 301 CMR11.11(1)”

Specifically, the Project does not cause damage to the environment, but rather serves to benefit and restore the aquatic environment, removing a manmade impediment to a natural system. The environmental impacts of the dam removal would be offset by significant benefits to the environment by restoring this segment of the stream channel to a free-flowing state and improving the condition of the downstream coldwater fishery.

“all feasible means to avoid Damage to the Environment or, to the extent Damage to the Environment cannot be avoided, to minimize and mitigate Damage to the Environment to the maximum extent practicable.”

The Secretary's decision that a review document is adequate or that there has been other due compliance with MEPA and 301 CMR 11.00 means that the Proponent has adequately described and analyzed the Project and its alternatives, and assessed its potential environmental impacts and mitigation measures

Michael Idoine: I conclude that an EIR of this project would clarify the true extent of the ecological damage caused by the removal of the dam at Bowen's pond.

From 301 CMR 11.00

Damage to the Environment. Any destruction or impairment (not including insignificant damage or impairment), actual or probable, to any of the natural resources of the Commonwealth…..marine resources, ….. wetlands,

(3) Wetlands, Waterways and Tidelands.
1. b. alteration of ten or more acres of any other wetlands
4. Structural alteration of an existing dam that causes an Expansion of 20% or any decrease in impoundment Capacity.

These excerpts from 301 CMR 11.00 Are background to the five questions below.

EENF states:

Wildlife Habitat and Fisheries Benefits

A variety of avian life has been observed in and around the impoundment. Some of these species, like mergansers will likely not use the restored stream channel, but other species such as ducks and herons will do so. While there will be changes to the species that use the former impoundment area as it transitions to a more riparian habitat, it is anticipated that, similar to other similar successful dam removal project, these species that seek open water habitats may take advantage of other nearby locations with similar habitat, as there is significant open water and emergent wetland locations within the vicinity of the Project site.

Question1:

Why is there no enumeration of the true inventory of the species that would be extirpated by draining Bowen's pond?

The study suggests that the inhabitants of the pond will just move away.
How does this "minimize and mitigate Damage to the Environment"?

EENF states:

Removal of the dam may affect the existing dry hydrant along the shoreline of the pond. The hydrant was placed into service in the 1990s and reportedly enables the local fire department

to draft water from the pond to assist with fire-fighting activities in the rural community. Potential options to maintain the dry hydrant's functionality have been considered, including extending the hydrant's intake line into the channel upstream of the former dam, an alternative depicted in the Preliminary Design Plans. The Proponent has been in communication with the Wendell Fire Chief to discuss potential options for either extending or relocating the dry hydrant to another property in the vicinity. A dry hydrant's contribution to public safety is an important consideration, and the Proponent has demonstrated a commitment to continued discussions with the Town. Resolution of this item will be part of the ongoing design process.

Question 2;

When the Wendell Fire Chief was questioned recently, he made it clear that the hydrant at Bowen's Pond was an essential asset for fire protection.
How do the proponents plan to replace this asset?

The Restoration Potential Model
RPM4: Bowens Pond Dam states:

Connected Miles Upstream of Dam 4.63
Would be achieved from the removal of the dam at Bowen's Pond

Question3:

The study does not verify the actual mileage restored. In fact, it is less than 2 miles. This would change the value on the RPM scale on connectivity from 10 to 0. The publicity on this project and support letters were based on a 90-percentile rating for the restored upstream connectivity. This data and the rating have not been changed. Why not?

The GZA GeoEnvironmental, Inc**.** Preliminary Plan reports:

"In order to consider the potential effects of water temperature in Osgood Brook on the native brook trout population, logger readings were compared to known temperature thresholds for trout. Brook trout in Massachusetts are found primarily in streams that have cold, highly oxygenated water. They generally do not tolerate extended periods of water temperatures above 20°C, and the ideal temperature for growth and activity is between 12-19°C (University of Massachusetts, 2019). Logger data output is shown in Figures 2 through 5 below. Beginning with the logger upstream of the Bowens Pond impoundment (serial #9946412), a generally higher stream temperature was observed. This is likely due to solar gain from the small impoundment upstream of Wendell Depot Road. Water temperatures at this site regularly exceeded 21˚C until late August. A similar pattern was observed at

the logger just downstream of the dam (serial #20142481), except that temperatures in excess of 21˚C did not abate until nearly October.
At the New Salem Road logger (serial #9946406), water temperatures were more variable on a daily basis and did fall below 21˚C, but not consistently until late August. The downstream-most logger (serial #20142478) was furthest from the dam impoundments and recorded water temperatures within the ideal habitat range for wild brook trout throughout its entire deployment."

Question 4:

This passage from the GZA report suggests that the water temperature is reduced most by the passage from New Salem Rd down to the Depot. The temperatures from the upstream impoundment are likely not to be reduced enough for "the ideal temperature for growth and activity which is between 12-19°C" for brook trout in the short segment restored upstream of the Pond dam site.
Considering this, how can the elimination of the present ecology be justified?

EENF states:

"Elimination of a potential public safety hazard and reduction of liability and maintenance obligations related to Bowen's Pond Dam."

"and would "result in an undue hardship for the Proponent", in this case, a private family landowner."

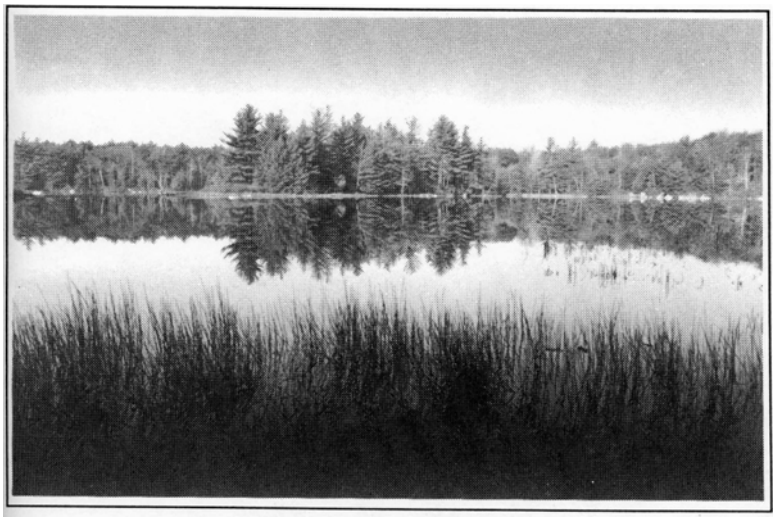
Question5:

How great is the "potential safety hazard" of this low-hazard dam?

What is the "undue hardship for the Proponent"? This claim is not documented is not documented in the report.

Would the owner's liability be relieved if he conveyed ownership to another party?

Michael Idoine
Swallow Rise
11 John Quist Road
PO Box 953
Wendell, MA 01379
978/544-2623

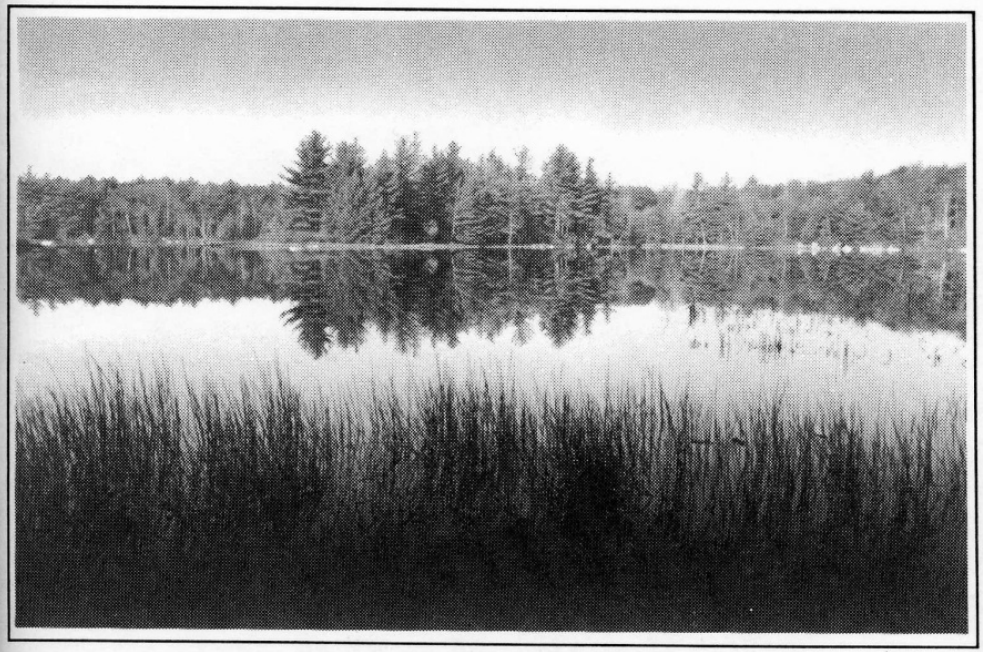


Bowen's Pond from

"Places of the Heart Survey"

TOWN OF WENDELL
INCORPORATED
MAY 8 1781
MASSACHUSETTS

Town of Wendell
Massachusetts
1989



Citations regarding Bowen's Pond in the "Places of the Heart" survey made by Wendell citizens as part of a Community Vision of the Future, 1990.

Quoted by Michael Idoine, November 28, 2018, 11 John Quist Road, Wendell, Massachusetts

Written by Mollie Babize, 1990

pg.2, para.9 "Clear and distinct edges--…are important pieces of the landscape…Such edges are the most visible along a wooded water bank such as Bowen's Pond.

pg.20, para.4 "Conclusions…Explore public acquisition or conservation easements for prominent privately-held ponds such as Fiske, McAvoy, and Bowen's Pond."

pg.38, para. 3 "(13) Of the positive qualities you have just listed in #12 which do you most want to protect? ...[part of long list] brooks and ponds…wildlife"

pg. 41, para.1 "Conclusions…The protection of fragile or valued land is essential…The surveys may have uncovered potential and active citizens to help orchestrate plans for the town's landscape and community life."

pg. 43, para.5 from survey tabulations "Ten to 20 votes were registered for Bowen's Pond.

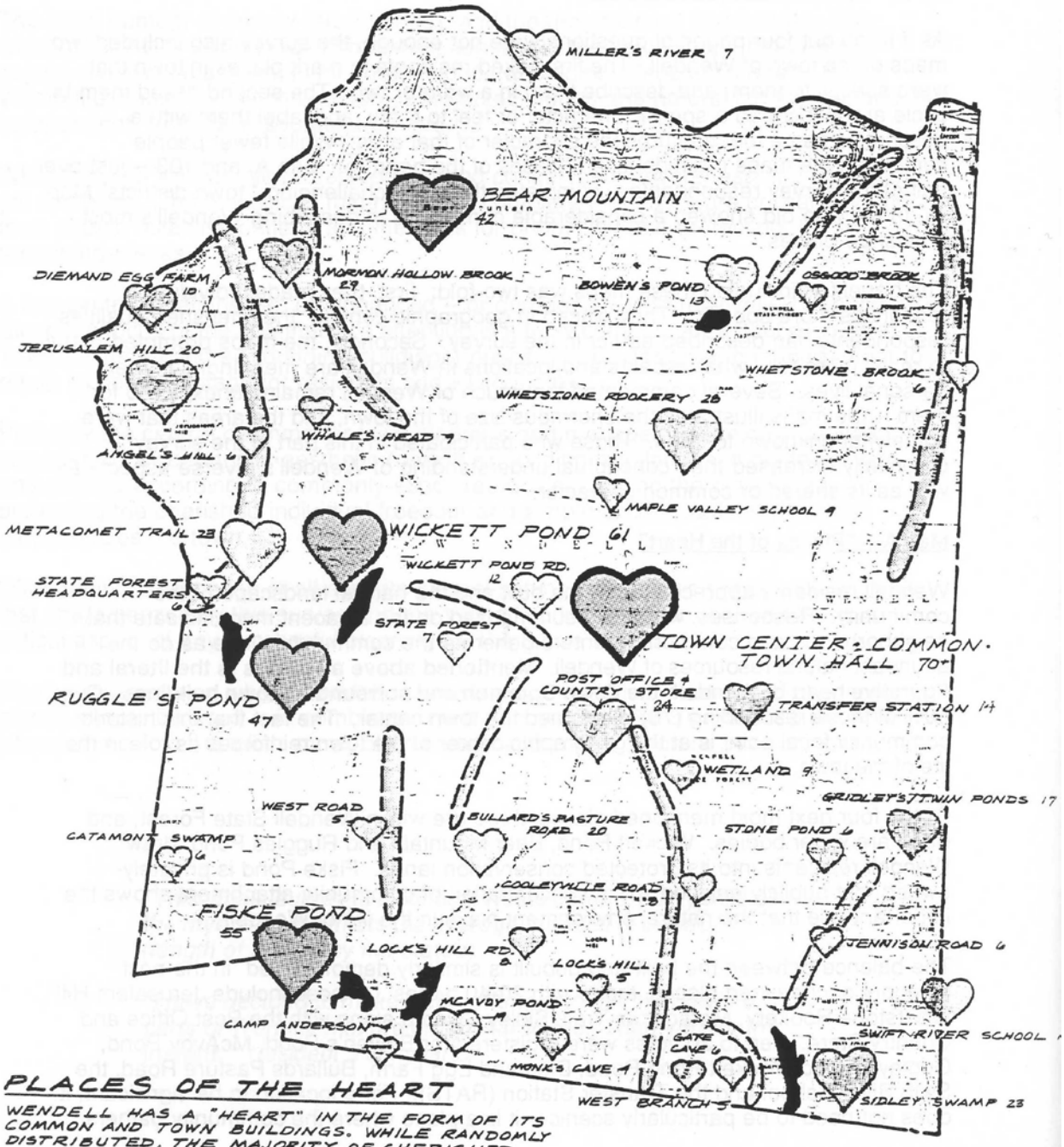
pg. 44, "Places of the Heart Map" where Bowen's Pond is identified.

pg. 45. para.2 from survey results "Ponds and peaks rank high."

pg.57. para.7 under "Conservation Concerns: …
Protect those ponds which are highly visible, privately owned, and enjoyed by the community. Specifically mentioned: McAvoy, Bowen's, Fiske."

pg.76. para.4 "under Water: … Four of the towns several ponds (Fiske, McAvoy, Bowen's Gridley) are repeatedly cited in the surveys as valued places to Wendell citizens. Yet these four …are privately owned and vulnerable to change."

pg. 83. para. 5 under "Identifying Priorities for Protection …
FISKE. McAVOY, BOWEN'S, & GRIDLEY PONDS:
These five privately-owned ponds are visual prominent and popularly enjoyed. The ponds and their edges (the surrounding woodland which contributes to their beauty and clean water) should be protected from development, either with conservation restrictions or by Town ownership.



PLACES OF THE HEART

WENDELL HAS A "HEART" IN THE FORM OF ITS COMMON AND TOWN BUILDINGS. WHILE RANDOMLY DISTRIBUTED, THE MAJORITY OF CHERISHED PLACES ARE NEAR ROADS OR INCLUDE SPECIFIC ROADS. PONDS AND MOUNTAINTOPS ALSO RATE HIGH. THE BUILT LANDSCAPE IS APPRECIATED AS MUCH AS THE NATURAL LANDSCAPE!

NOTE: THIS INFORMATION IS DERIVED FROM THE MAPPED PORTIONS OF THE PLACES OF THE HEART SURVEY.

Town of Wendell

Community Vision of the Future

A project funded by a Rural Design Assistance Grant from the Massachusetts Council on the Arts and Humanities

Conway Design Associates
P.O. Box 264
Conway, MA 01341

March 1990

Recent photo from Cover of Uniquely Quabbin, December 2019 Edition

Murray, Eva (EEA)

From: Raymond DiDonato <rdidonat@hotmail.com>
Sent: Thursday, June 4, 2020 1:18 PM
To: Murray, Eva (EEA)
Subject: Comments on EEA# 16209 Bowen's Pond Dam Removal and Osgood Brook Restoration - WENDELL

Dear Ms. Murray,

I am writing to submit comments on the request for EIR waiver by the Proponents of the Bowen's Pond Dam Removal and Osgood Brook Restoration in Wendell.

As demonstrated in the virtual site visit, the Bowen's Pond dam has been in existence since or prior to 1858, when humans intervened to artificially dam Osgood Brook for a grist mill. Over the past century and a half, a new ecosystem has formed which supports species and ecological niches consistent with a warm water pond environment.

The project proponents now propose to artificially intervene to remove this ecological system built over a century and a half and restore a section of Osgood Brook for cold water native brook trout and alien brown trout.

The report by the project proponents and the public comment section of the virtual site visit discussed the presence of glossy buckthorn around Bowen's Pond. This invasive species would not have been present in or prior to 1858, when Osgood Brook was first dammed, and as such, the project cannot logically be called a restoration since this aggressive invasive species has a high probability of taking over much of the project site after dam removal. Thus the project site will not be restored to its original condition or even a close approximation.

Photographs provided by residents of Wendell demonstrated how buckthorn took over a restored area of nearby Whetstone Brook, and there is no reason to believe a similar outcome would not occur at the nearby Bowen's Pond project site. The proponents of this project offered no clear plan to mitigate buckthorn, and in fact seemed to admit that there would be little recourse in controlling this invasive. This aspect of the project requires closer scrutiny.

A role of warm water ponds is to serve as a reservoir to hold and clean water, with contaminants slowly making their way into sediment and degrading over time, and mitigating downstream environmental impacts. The project proponents did not study the impacts of dam removal on the rate at which an upstream environmental insult might impact Osgood Brook without the presence of Bowen's Pond to slow and mitigate such an event. Such mitigation would be important to protect existing trout in Osgood Brook.

Moreover, because Bowen's Pond has been privately held for decades, there has been little, if any, ability to inventory the parcel for species of special concern or statewide significance. The project proponents say that such species do not exist on the parcel, however the lack of data to this effect is likely due to the property owners' preference for not allowing access to the pond over the years.

Finally, there has been little outreach to town boards by the project proponents on the proposed Bowen's Pond Dam Removal. The proponents have not discussed the project directly with the Selectboard of the Town of Wendell, though there has been some discussion with the Fire Chief about relocating the dry hydrant. Moreover, Bowen's Pond is also listed as an important water resource in the town Open Space Plan.

An EIR would be an additional useful process for providing information that would inform local boards in their review of the project, and I encourage your office not to grant a waiver for this project and I urge you to follow the typical EIR process which would involve a draft and final EIR, since the project proponents stated during the virtual site visit that fundraising needs to be done for the project and as such, there was no rush on project completion.

Sincerely,
Raymond DiDonato
323 Lockes Village Road
Wendell, MA 01379

Murray, Eva (EEA)

From: trobinson931@verizon.net
Sent: Thursday, June 18, 2020 1:42 PM
To: Murray, Eva (EEA)
Subject: Bowens Pond - Osgood Brook - DER Environmental Restoration Project
Attachments: Robinson_DER_RFR_Application_6.2018_Draft3.pdf

Dear Ms. Murray,

My name is Tom Robinson and I, along with three other family members, own the Bowens Pond property and are proponents of the Department of Environmental Restoration Project at Osgood Brook.

Our family has owned the approximately 220 acre property since 1954 and my parents, and now us, have maintained it in an unchanged and undeveloped state. For the last about 12 years we have been dealing with the dam concerns. We studied various options for repairing it or removing it, and with much help from professions in this field, determined that removing it was the best overall path to take for public safety, ecological, recreational, environmental, and permanent conservation reasons.

In 2017 we learned of the DER's Priority Projects Program and applied to participate in it. The application process was very thorough and we produced a 25-page document describing our related pre-2018 activities and our plan for dam removal. Our project was accepted into the Priority Projects program and we are now working that plan with the able assistance of the MA-DER and GZA, an engineering firm.

Attached please find the 2018 Priority Projects Program Application as submitted to the MA-DER. This document provides a complete detailed description of what I've discussed briefly in the above paragraphs and it is our hope that it provides helpful information about the details and benefits of this project.

The application presents evidence that an EIR is not required due to the following:

- The project execution is simple. The work area is small with clear access from Wendell Depot Road. No State, Municipal, or Utility infrastructure is impacted. No infrastructure needs be built to execute the project. This was clear in 2018 and is still true at the present design stage. More study of the subject will not change the environmental impact of the project.
- The project is recognized as environmentally beneficial by the state and other knowledgeable organizations.
- The family resources are limited and are adversely impacted by extended schedules.

We want very much to have this project proceed in a time and cost efficient manner to allow the realization of the public safety and environmental benefits, and permanent conservation of this property.

Thank you very much,

Tom and Mary Robinson

Ed and Connie Robinson

RESTORATION AND REVITALIZATION
PRIORITY PROJECTS APPLICATION
RFR ID# DER 2018-04
DEPARTMENT OF FISH AND GAME
DIVISION OF ECOLOGICAL RESTORATION

Applicants must provide the following information to nominate a potential restoration or revitalization project for priority project status. If submitting more than one project for consideration, separate applications for each project should be completed.

Use additional space as needed, but please limit yourself to 25 pages TOTAL (including letters of support, maps, photos, etc.). The size of the email with attachments may not exceed 20 MB.

Organization: **Bowens Pond LLC (BPLLC)**

Contact Name #1: **Thomas F. Robinson and Mary A. Robinson**
Title: **Thomas F. Robinson, LLC Manager**
Address: **P. O. Box 36**
City/Town: **Hubbardston, MA**
Zip Code: **01452**
Phone: **978-928-3354**
Email: **trobinson931@verizon.net**

Contact Name #2: **Edward Robinson and Constance Robinson**
Title: **Edward Robinson, LLC Manager**
Address: **6 Fairview Rd**
City/Town: **Wilbraham, MA**
Zip Code: **01095**
Phone: **413-596-6147**
Email: **trobinson931@verizon.net**

Project Title: **Bowens Pond Environmental Restoration**
Property Title: **Robinson Property**
Deed Reference: **Book 6863, Page 335**

Site Location: **Wendell Depot Rd, Wendell, MA**
Latitude/Longitude: 42.5775, -73.3851
Waterbody Name: Bowens Pond, Dam ID MA00516
City/Town: Wendell, MA
Nearest road or bounding roads/landmark of river segment for urban revitalization
Wendell Depot Rd
Assessor's Map and Parcel Number(s)[3]: Map 413, Lots 00100 & 00060

[3] Not required for watershed-wide flow restoration or urban revitalization projects.

Describe the project and restoration/revitalization goals.

A. Dam Removal and Stream Restoration

The Bowen's Pond Dam currently impounds the upper reaches of Osgood Brook, a tributary stream of Millers River, and a state designated Coldwater Fisheries Resource (CFR). Removal of the dam will reconnect Osgood Brook over its entire length from its headwaters to its confluence with Millers River re-establishing a continuous and un-interrupted stream corridor that has not existed in centuries. In total, nearly 5 miles of stream length encompassing over 2.7 square miles of watershed area will be reconnected upstream of the dam site and restored to cold water fisheries habitat for the benefit of Eastern Brook Trout (EBT) and other cold water species. In addition, removal of the dam and the improvements in stream continuity will increase and enhance vitally needed habitat for several migratory fish species including Sea Lamprey and American Eel, which also inhabit the brook. All of these species are also listed as "Species of Greatest Conservation Need" in the Massachusetts 2015 State Wildlife Action Plan (SWAP). The Robinson Property is within a BioMap2 Critical Natural Landscape of 17,172 acres, featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block.

The major elements of the **Dam Removal and Stream Restoration** project are as follows:

(1) Feasibility and detailed design of the dam removal and restoration;
(2) Permitting in accordance with requirements of governing entities;
(3) Removal of the Bowens Pond dam;
(4) Impoundment draining and stabilization of the residual dam structure both north and south of the removed dam segment;
(5) Restoration of the streambed;
(6) Control of invasive species in the restoration area.

B. Conservation of Land

In conjunction with the dam removal and stream restoration project, the owners intend to conserve approximately 225 acres of open land in and around Osgood Brook and the restored impoundment area, including wetlands and upland forested areas. Conservation of this land will benefit a wide variety of local wildlife species. The Robinson property abuts other conserved land, including the 1,471-acres Wendell State Forest, and the 1,975 - acres Audubon Whetstone Wood Wildlife Sanctuary. Conservation of the Robinson property will augment this protected landscape. Protection of this large watershed area will help to sustain Osgood Brook's cold water fisheries habitat over time, and will also help to buffer the effects of future climate change on the brook.

The major elements of the **Land Conservation** project are as follows:

(1) Conveying a conservation restriction on the property to a suitable entity, either a government agency or a private land conservation organization, to insure its perpetual preservation in a natural and undeveloped state;

(2) Conveying the property under conservation restriction to a different entity, either a government agency or a private land conservation organization, with the capacity for long term stewardship and management of the property.

.

The **Expected Results** of both the restoration and conservation projects outlined above, include:

(1) Aquatic restoration of Osgood Brook to a pre-dam, unobstructed, cold water condition;
(2) Restoration and enhancement of cold-water species into this expanded area, both upstream and downstream of the dam;

(3) Preservation of the Robinson Property, comprised of approximately 225 acres of undeveloped forest land and wetlands that completely surround Bowen's Pond and make up a large segment of the related watershed;
(4) Conservation of the biological corridor between Audubon's Whetstone Woods Wildlife Area to the south and Wendell State Forest to the north;
(5) Recreational opportunities for the general public, with positive impacts on the economic development of the region.

Describe the project location (this should include a general description of the project area geography and features)**.**

Bowen's Pond is located in a wooded area on the West side of Wendell Depot Road, about 1.5 miles south of the Millers River and Route 2. The dam is a dry stone structure capped by a 32-foot wide concrete spillway. It is about 8 feet high and has retaining walls about 100 feet north and 200 feet south of the dam, parallel to the road. **See Attachment B: Photo Pg. 1**.

Bowens Pond has an 8-to-10 foot deepest depth and approximately 16 acres of water surface. According to the DER's Restoration Model Tool, the pond contributing watershed is 2.72 square miles with 4.63 miles of stream upstream of the dam, all of which is potentially gained by the dam removal.

The pond water surface is at approximately 900 feet elevation. The dam discharge flow, Osgood Brook, travels northerly through a steep sided valley along the east side of Wendell Depot Rd. about 1.5 miles and drops about 400 feet in elevation to where it joins the Millers River. Osgood Brook flows through three culverts; (1) the bridge under Wendell Depot Road, (2) below New Salem Rd., and (3) below Wendell Depot Rd as it turns north to the Millers River. These are open culverts with no flow impoundments. **See Attachment B: Photo Pg. 2 and Map 3**.

There is one residence downstream of the dam on the west side of Wendell Depot Rd. (i.e., the roadside opposite Osgood Brook) just south of culvert #3.

The dam is rated 'low hazard' by the Office of Dam Safety.

The stream that flows into Bowens Pond from the south is mostly within Audubon's Whetstone Wildlife Sanctuary. This area is relatively flat, with a beaver dam and large marsh draining to Bowens Pond. The area west of Bowens Pond includes two smaller streams flowing easterly to the pond.

The Robinson property is within two sub-basins of the Millers River. The sub-basin which includes Bowens Pond and Osgood Brook is the major sub-basin on the Property. The other sub-basin occupies approximately 20 acres of the Property on the east side of Wendell Depot Road **See Attachment B: Map 4**.

Although the DER Restoration Model for the Bowens Pond Dam indicates that it is not within BioMap2, this is not the case. The entire Robinson Property is within a BioMap2 Critical Natural Landscape of 17,172 acres, featuring Aquatic Core Buffer, Wetland Core Buffer and Landscape Block. This mostly forested Landscape Block is the fifth largest in the Worcester Plateau Ecoregion, at 16,964 acres, and it is among the largest 20% of all Landscape Blocks across Massachusetts. Such large Landscape Blocks maintain dynamic ecological processes such as buffering, connectivity, natural disturbance, and hydrological regimes, all of which help to support wide-ranging wildlife species and many other elements of biodiversity. **See Attachment B: Map 5**.

Who are the project site Landowner(s) ? (Not required for watershed-wide flow restoration or urban revitalization projects).

The Robinson Property is owned by Bowens Pond LLC. The BPLLC co-managers are Thomas F. Robinson and Edward J. Robinson.

[4]Has the landowner agreed to habitat restoration work at the site? _X___Yes: is a sale to a restoration-minded entity pending? No__X_ (Landowner Agreement must be in writing and /or copy of Purchase and Sale Agreement provided.) (Not required for watershed-wide flow restoration or urban revitalization projects).

Bowens Pond LLC is the landowner and applicant. The LLC co-managers agree to habitat restoration work at the site.

No, at this time there is no agreement with a restoration-minded entity, although discussions have taken place with Mass. Audubon.

Name and describe the qualifications/experience of the applicant, and personnel to participate in this project. **Include descriptions of the capacity of other project partners as appropriate.**

The applicant (BPLLC) intends to launch the project and manage the project to its conclusion, with the removal of the dam, the restoration of the streambed and the permanent conservation of the property. The Robinson Family have owned the property since 1954, and the LLC co-managers have good knowledge of the dam, surrounding area, and town. Ed Robinson has a BS in Biology and a DDS, as well as being a Colonel, US Army (RET.). Tom Robinson has a BS Mechanical Engineering, graduate work, and extensive project engineering and project management experience on large industrial projects. Both Ed and Tom are retired and able to participate on a flexible schedule focusing on the project planning steps essential to achieving the project goals, community outreach, and necessary fundraising.

The LLC co-managers intend to pursue the dam removal and stream restoration and the conservation of the property on the same timeline. We have communicated with the Mass. Department of Fish and Game, the Mass. Department and Conservation and Recreation and various conservation organizations regarding the ultimate disposition and ownership of the property. Our current plan is to convey a conservation restriction on the property and to convey the restricted property to a government conservation agency or a private conservation organization.

The LLC co-managers have sought support for this project from conservation associations which promote rivers, wetlands and their associated habitats, such as *Trout Unlimited*, the *Millers River Watershed Association,* We have also sought support from abutters to the property and from the Town of Wendell. We have received no opposition to the project, either the removal of the dam and stream restoration or the eventual conservation of the property.

Mass. Audubon has visited the project site and reviewed preliminary plans. This property abuts Audubon's Whetstone Wood Wildlife Sanctuary. Mass. Audubon has direct experience executing other

[4] Not required for multi-site flow restoration or urban revitalization projects.

dam removal and streambed restoration projects. They have expressed an interest in this project. Please see the attached letter from Mr. Lautzenheiser, Audubon's Central/West Regional Scientist dated May 10, 2018. **See Attachment B: Letter 1**.

Trout Unlimited (TU) has visited the project site and reviewed the preliminary plans and is supportive of the project. TU also has experience with dam removal and habitat restoration and extensive knowledge regarding stream restoration for Eastern Brook Trout (EBT) and other cold water species. TU has provided the attached letter of support from Mr. McDonald, dated May 10, 2018. **See Attachment B: Letter 2**.

The Millers River Watershed Council has also visited the project site and reviewed the preliminary plans. They are also supportive of this project. Please see MRWC's Mr. Ussach's letter dated May 21, 2018. **See Attachment B: Letter 3.**

If different from the applicant, please name the Lead Project Sponsor for this project (see definition on page 3 of the RFR).

The applicant, Bowens Pond LLC, is the lead project sponsor.

Please indicate who will be the applicant on any necessary permit applications:

The applicant, Bowens Pond LLC

Please indicate who will be the contract holder for implementation of the restoration work:

The applicant, Bowens Pond LLC

Briefly describe the history, current condition, and restoration needs of the site including the specific type of restoration that is needed. What is the extent and severity of the damage to be restored? What background work for restoration has been accomplished to this point, if any (e.g., site visits, technical analyses, conceptual plans, permits)?

The original dam and impoundment provided water flow to a grist mill located about 100 yards east (downstream) of the existing dam. The stone foundation is still visible, likely dating from the mid-1800s. A 1920's inspection reports the dam in a somewhat tumbled down condition. A 1940's inspection reports the concrete cap and wing walls present and the dam spillways existing. The dam was reported in "good condition."

In 2008, the dam was inspected by Lenard Engineering and a report was issued to the Mass. Office of Dam Safety. The dam owners complied with the report recommendations and removed vegetation and debris from the dam. **The owners have this report.**

In September 2015 the pond water level was lowered about three (3) feet by siphon for inspection of the pond side dam face and wing walls, and gravel embankment. The north concrete wing wall was found to be in good condition. The south wing wall was found by excavation to be about five (5) feet tall with a stable lower section on a footer. The top 18-24-inch section was cracked and in some places tipped into the pond. The four (4) spillways, at about 8 feet wide each, have been kept for many years

without stop logs installed and the water level held low, keeping stress off the dam. The concrete spillways are deteriorating but still contain and direct the water flow. The pond side of the dam was free of any 'rat holes' or indications of dam leakage in the banked gravel. **See Attachment B: Photo Pg. 3.**

A detailed survey of the dam area was made by Edmond J. Boucher, PLS. This survey shows that a horizontal excavation about 60 feet long through the gravel embankment will produce a pond side steam bed at the same 909 ft. elevation to match the downstream of the dam stream bed elevation of 909 feet. The reclaimed streambed upstream of the dam may, therefore, be about 100 feet long. **See Attachment B: Plan 1.**

Please note:

- There are no buildings or structures that are part of or connected to this dam.
- There is no damage in need of repair associated with this dam removal.
- The preliminary plan for dam removal is as follows. See Figure A, below:

Figure A

Dam Removal Preliminary Plan

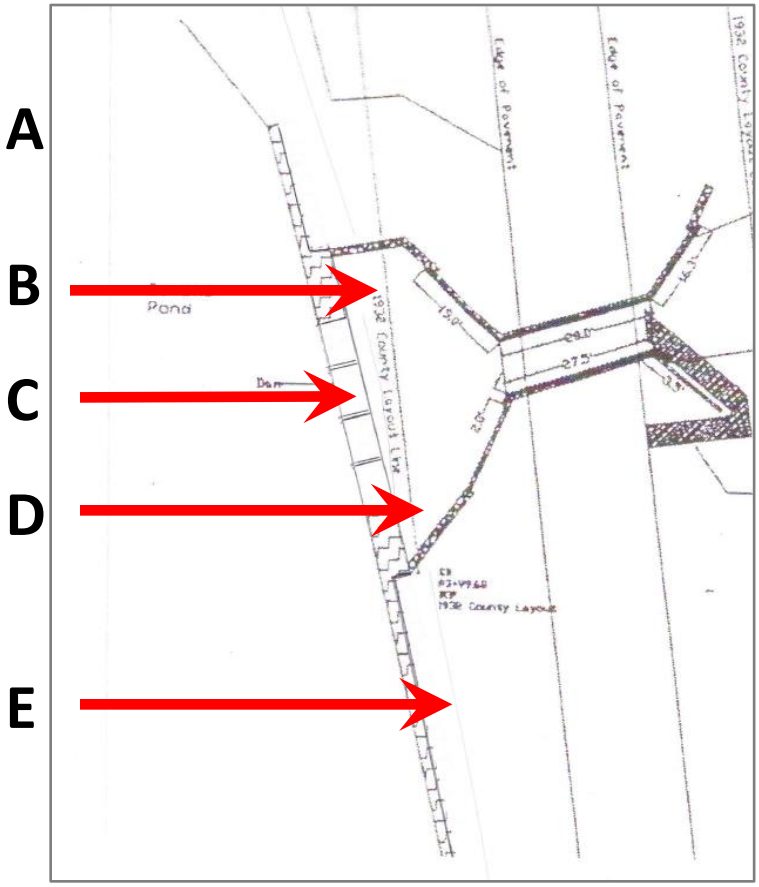
A. Remove concrete cap from spillway area. Dispose of concrete off-site.

B. Remove gravel embankment from pond side of dam in center of spillway area 'C'. Place gravel at ponds edge north (and/or south) of dam at 'A' or elsewhere on site.

C. Remove stones in spillway area 'C' to form a deep 'vee' for stream flow.

D. Place removed stones into areas 'B' and 'D' in support of existing stone walls downstream of dam.

E. Place riprack along pond side of south wing wall at 'E' to support remaining wall and road bed.



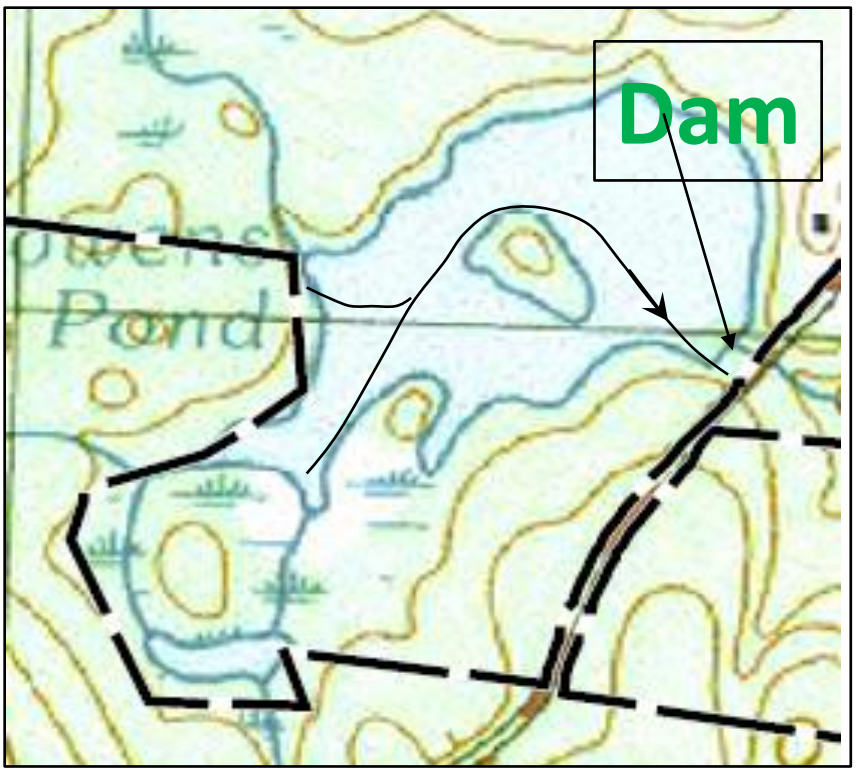
Stream Restoration

The need for stream restoration appears to be limited to the streambed on the pond side of the dam only and may extend into the pond about 60-100 feet as explained above.

Beyond that distance, the drained pond and stream flow will likely scour the pond bed and transport any silt from the newly formed streambed.

Figure B shows the original impoundment and the path of the restored streambed.

Figure B



Briefly explain how the restoration approach was chosen, based on ecological, social, economic, and engineering considerations.

The approach to removal of the Bowens Pond Dam was determined by the physical characteristics of the dam and the nature of the area surrounding the dam, including:

1. There are no buildings or structures connected to the dam structure;
2. There is no history of use of the dam impoundment or the areas upstream from the dam to suggest that contamination has occurred and no evidence of sources of contamination were identified when the historical review was completed;
3. NHESP indicates no evidence of rare or endangered species;
4. No major structural demolition is required to remove the dam;
5. There will be a limited quantity of dam materials that must be disposed off-site.
6. There is close and easy access to the dam from Wendell Depot Road; Equipment can easily access the dam from the road and the sides of dam, with minimal encroachment into the pond;
7. Once dam is removed and the streambed restored, there will be little to no maintenance required.
8. The restoration of the streambed will enhance the ability of the resulting wetland to absorb flooding and storm events and enhance the resilience to climate change;
9. When the restoration project is complete, there will be no man-made structures; the Robinson Property will be conserved and the benefit of the project will be sustained.
10. The removal of the dam will remove any risk of downstream damage.
11. Structural support required during dam removal will require a limited amount of imported materials;
12. Removal of the dam will require no encroachment on the Wendell Depot Road bed or the bridge structure over Osgood Brook;
13. Public access can be easily incorporated into site modifications at roadside;
14. The Overall cost of this preliminary plan should be low due to the items listed above, while providing significant benefits.

The **Benefits of Removal** of the Owens Pond Dam and Restoration of the Streambed include:

Ecological

A. Significant improvement of cold water fisheries habitat upstream and downstream of the dam, by elimination of the impoundment;

B. Increase vitally needed habitat for several migratory fish species including Sea Lamprey and American Eel;

C. Increase the permanent protection of the Millers River Watershed, with multiple benefits for wildlife habitat, flood control, water conservation and climate resiliency.

Recreational

A. Increase the opportunity for cold water stream fishing;

B. Increase the opportunity for outdoor recreation.

Economic

A. Increase state fishing licenses (Approximately 200,000 fishing licenses are purchased in Mass each year.)

B. Attract more recreational fishermen to the area, which will positively impact the local economy, through increased patronage of gas stations, restaurants and sporting goods stores.

Describe the anticipated project benefits. Some things to consider adding are whether the project is located near notable ecological features (e.g., coldwater fishery, endangered species habitat, protected conservation land, diadromous fish run); whether flooding, climate change adaptation, or resilience to extreme weather will be addressed; any community improvements (e.g., trails), etc.

The **Environmental Benefits** of Removal of the Owens Pond Dam and Restoration of the Streambed include:

1. Protect and improve Osgood Brook as a state designated Coldwater Fisheries Resource (CFR). Removal of the dam will allow the Brook to run unencumbered from its headwaters to the Millers River, with the exception of passage through 3 road culverts.

2. Improve habitat for Eastern Brook Trout (EBT) and other cold water species. Improve habitat for migratory fish species including Sea Lamprey and American Eel. Mass. Wildlife has documented the presence of these and other species in Osgood Brook.

3. Increase the permanent protection of the Millers River Watershed, with multiple benefits for wildlife habitat, flood control, water conservation and climate resiliency.

Describe/demonstrate any community support for/involvement in the project and the degree to which supporters have been involved in decision-making.

The owners have been in touch with numerous Town officials, commissions and Boards concerning the removal of the dam, restoration of the streambed and conservation of the property. As a result of their contact with Mass. Audubon, in 2017 Land Preservation Specialist, Kate Buttolph met with the Wendell Board of Selectmen, the Conservation Commission and the Open Space Committee. The results of her discussions with these Town officials are in her letter to Tom Robinson dated June 6, 2018.
See Attachment C: Letter 4

As a result of this outreach by Mass. Audubon and their own communications with Town officials, the owners conclude that:
1. The Town will not oppose the removal of the dam or the restoration of the streambed;
2. The Town would not oppose the conveyance of a conservation restriction on the Robinson property to the Conservation Commission or a private entity, since this would not remove the property from the Town's tax rolls and because public access would be allowed.

The owners have also contacted neighbors and abutters of the property, and they have received no opposition to the removal of the dam, the restoration of the streambed and the conservation of the property.

Has any funding been identified or spent for this project? Yes_X__ No___

Figure C.

Wendell - Bowen's Pond LLC - Tom Robinson June 2018			
RFR Aplication - Record of costs to date			
Description of Activity		**Date**	**Amount**
1 Response to Office of Dam Safety - 2008-2009			
1	Lenard Engineering - Phase 1 Condition Assessment Report	Dec-09	$ 3,550
1	Dam Registration, Ownership Transfers, etc.		$ 350
1	Implementing Phase 1 Recommendations		
	Wendell Con Comm interface		$ -
	Kerry Black, contractor. Trees, brush, debris removal	Aug-10	$ 5,000
2 Investigation of dam options and related costs & schedule			
2	Lenard - Design concepts, sketches, $ estimates, mtgs, etc.	Dec-18	$ 6,314
	Hydraulic and Hydrodynamic Analysis	Oct-18	$ 3,191
2	Places Associates	Jan-15	$ 464
	Interface - Wendell Con Comm, MA state laws review, etc.		
2	Inspection by level drawdown, piping, etc.	Sep-15	$ 450
2	E Boucher, PLS, Survey in low level condition	Oct-18	$ 1,200
	Total, From receipt of Office of Dam Safety letter thru today. Not including RFR application preparation.		$ 20,519

Have any other restoration partners (actual or potential) been identified? Yes _X__ No___ If yes, please state their status in relation to the project and include contact information:

Please see Attachment B: Letters 1, 2 & 3 for contact information.

- Mass. Audubon: Probable ultimate owner of conserved property
- Trout Unlimited: Assistance with streambed restoration
- Millers River Watershed Council: Assistance with community and media relations

Describe the role you see DER playing as part of the Project Team and what project needs you see DER supporting (be as specific as possible with regard to budgets and project work items):

A. The owners are requesting assistance from DER for a **Feasibility Study**, to assess scientific and engineering challenges and conceptual approaches, including:

1. Collect existing data
2. Survey and map the site to prepare scaled plans and elevation drawings showing existing conditions. (A survey of the dam has been completed.)
3. Assess sediment quantity, quality, and mobility
4. Assess hydrology and hydraulics (A study has been completed.)
5. Develop plans for:
   a) Removal or modification of structures
   b) Sediment management
   c) Channel and riparian habitat restoration
6. Analyze other site-specific issues such as utilities, infrastructure, wetland impacts, rare or endangered species, known historic or archaeological sites
   a) Determine if the dam, impoundment, or adjacent land includes properties in the Inventory of Historic and Archaeological Assets of the Commonwealth by conducting research at the office of the Massachusetts Historical Commission (MHC).
   b) Consult with the local historical commission (and local historic district commission if the project is within a local historic district), and to begin to consider any local historical values.
7. Determine which federal, state, and local permits will be required and complete calculations necessary for those permits. Provide assistance to the owner in applying for needed permits.
8. Pre-project monitoring;
   a) Gather and measure pre-project information on water quality, geomorphology, and ecology
   b) Photograph the site extensively (The owner has many photographs.)
9. Develop cost estimates
10. Develop conceptual drawings of proposed project approaches, preliminary to engineered plans

B. If time and DER resources permit, the owners also request assistance with **Final Engineering Design:**

1. Develop engineering design plans for the preferred alternative, which may propose modification, or dam removal and stream restoration.
2. Develop Project Specifications that specify necessary construction equipment, material specifications and quantities, project sequencing, staging areas, and site access.
3. Provide an Engineer's Cost Estimate for construction.

C. The owners also request **Grant Funding** to pay for Engineer's Construction Plans.

By signing below, I acknowledge the terms and specifications contained within this RFR.

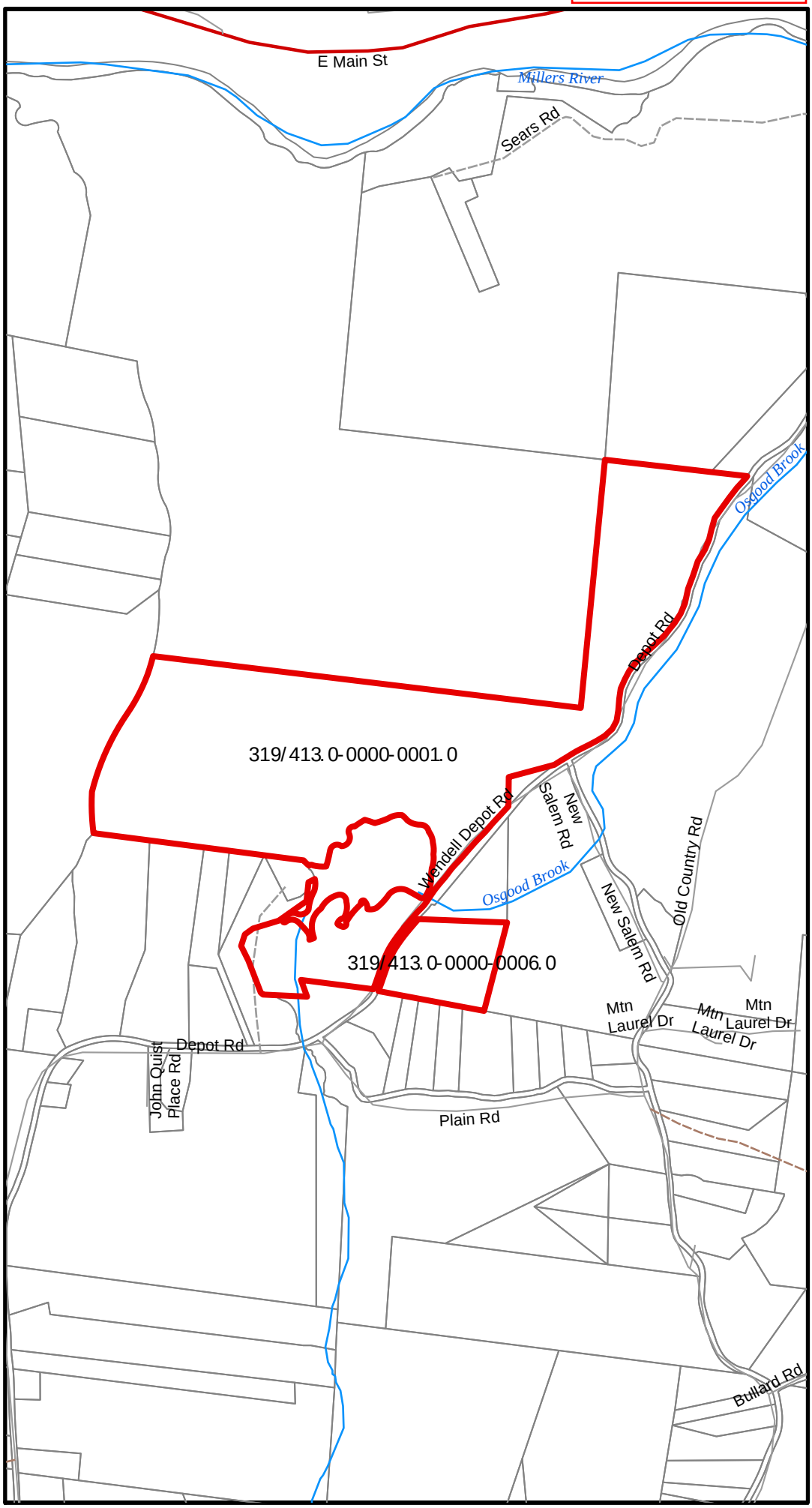
Signed: Thomas F. Robinson **Date**: June 26, 2018

Attachment A: Map1

ROBINSON PROPERTY
WENDELL, MA

Robinson Property

Assessors Map



N

0 0.07 0.15 0.3 Miles

Janet H. Morrison, Esq.
Land Conservation Consulting
59 Kelton Road, Ashburnham, MA 01430
978 827-5600; Cell: 978 502-0704
janet-morrison@comcast.net
JHMORRISON.COM

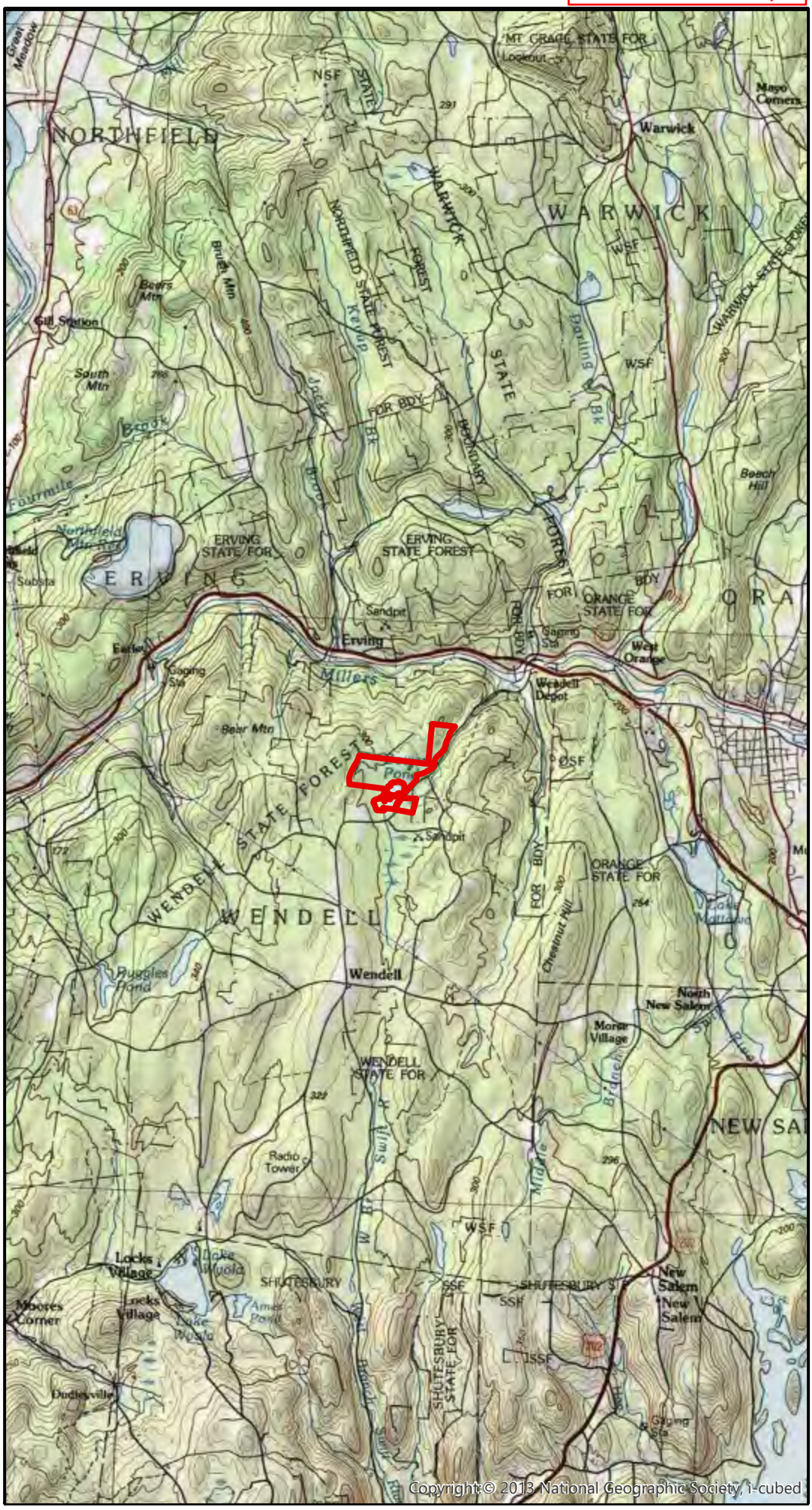
Source Credit: MassGIS

Attachment A: Map 2

ROBINSON PROPERTY
WENDELL, MA

Robinson Property

Locus Map



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Source Credit: MassGIS

Bowens Pond Dam

Attachment B: Photo Pg. 1

Osgood Brook Culverts

Attachment B: Photo Pg. 2

Culvert #1

Culvert #2

Culvert #3

Wendell MA
Dam Removal

Tom Robinson
April 19, 2018

Panoramic view looking northwest

Dam looking north (L) and south (R) (note guardrail)

Water level drawn down about 3 ft by siphon

Shallow pond, ~8 feet deep

Bottom exposed at southerly end of island

Attachment B: Map 3

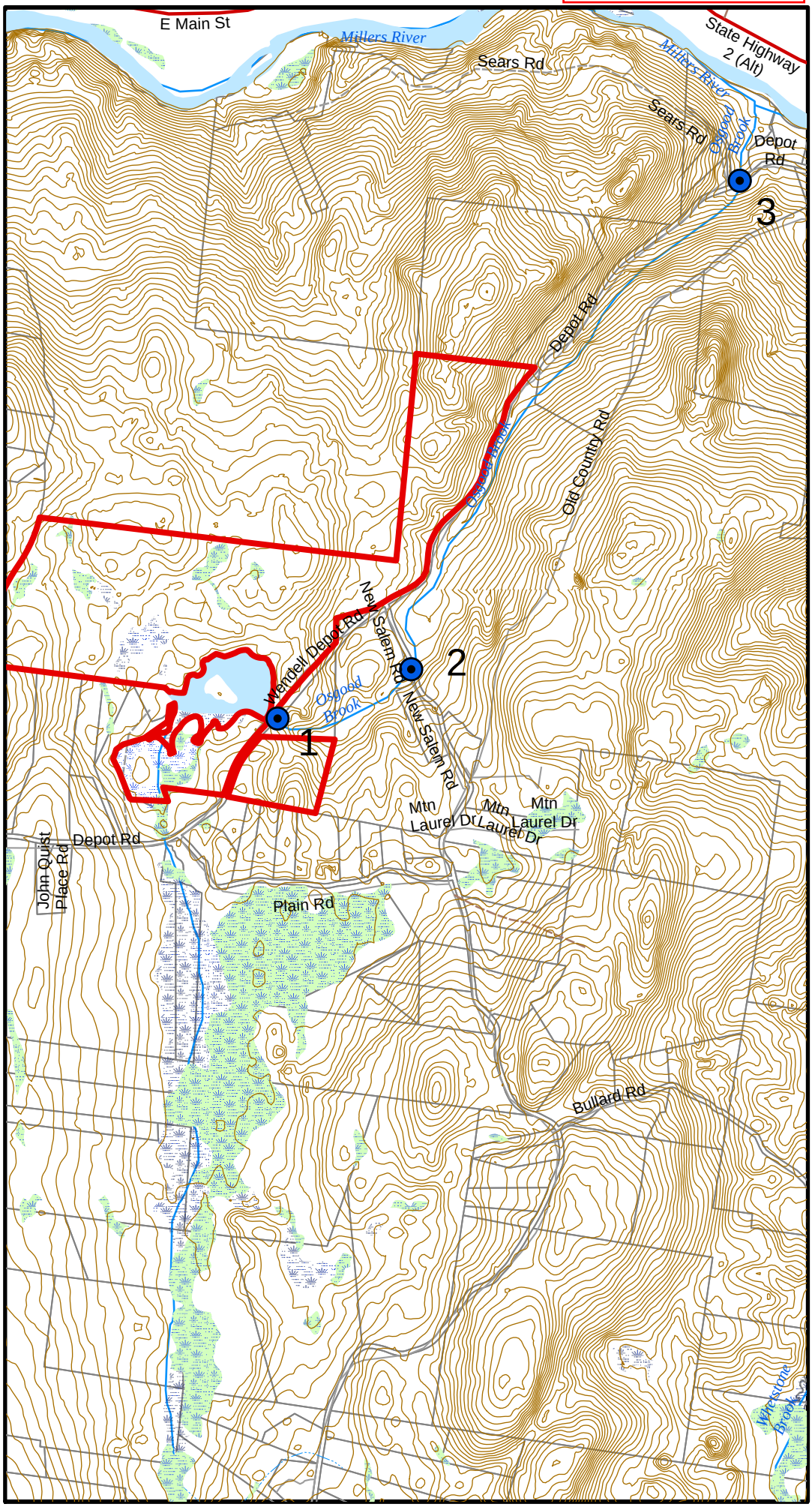
ROBINSON PROPERTY
WENDELL, MA

Robinson Property

DEP Wetlands

- Open Water
- Wooded marsh
- Marsh/Bog

Road Culverts



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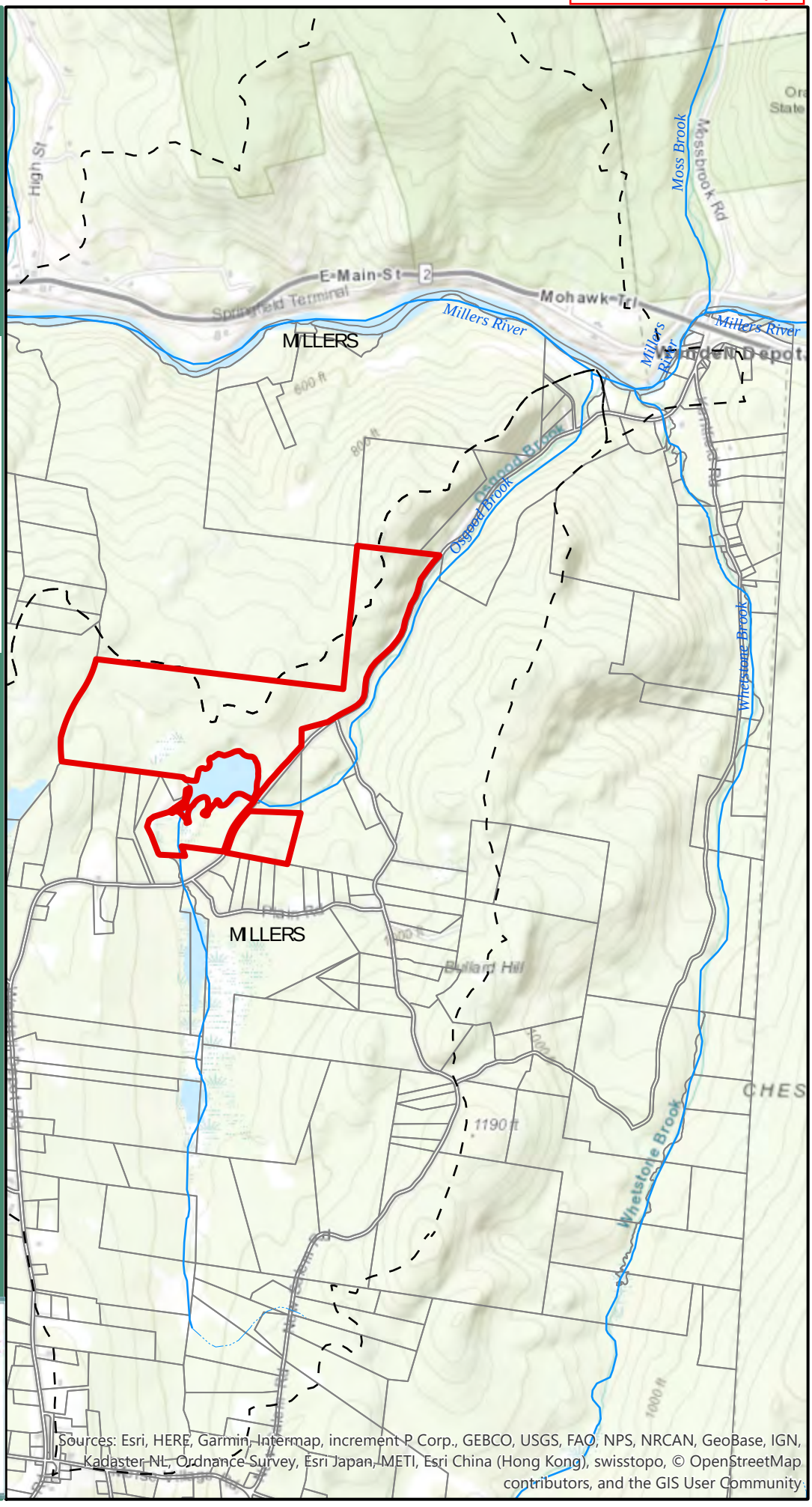
Source Credit: MassGIS

Attachment B: Map 4

ROBINSON PROPERTY
WENDELL, MA

Robinson Property

Millers River Sub-Basins



N

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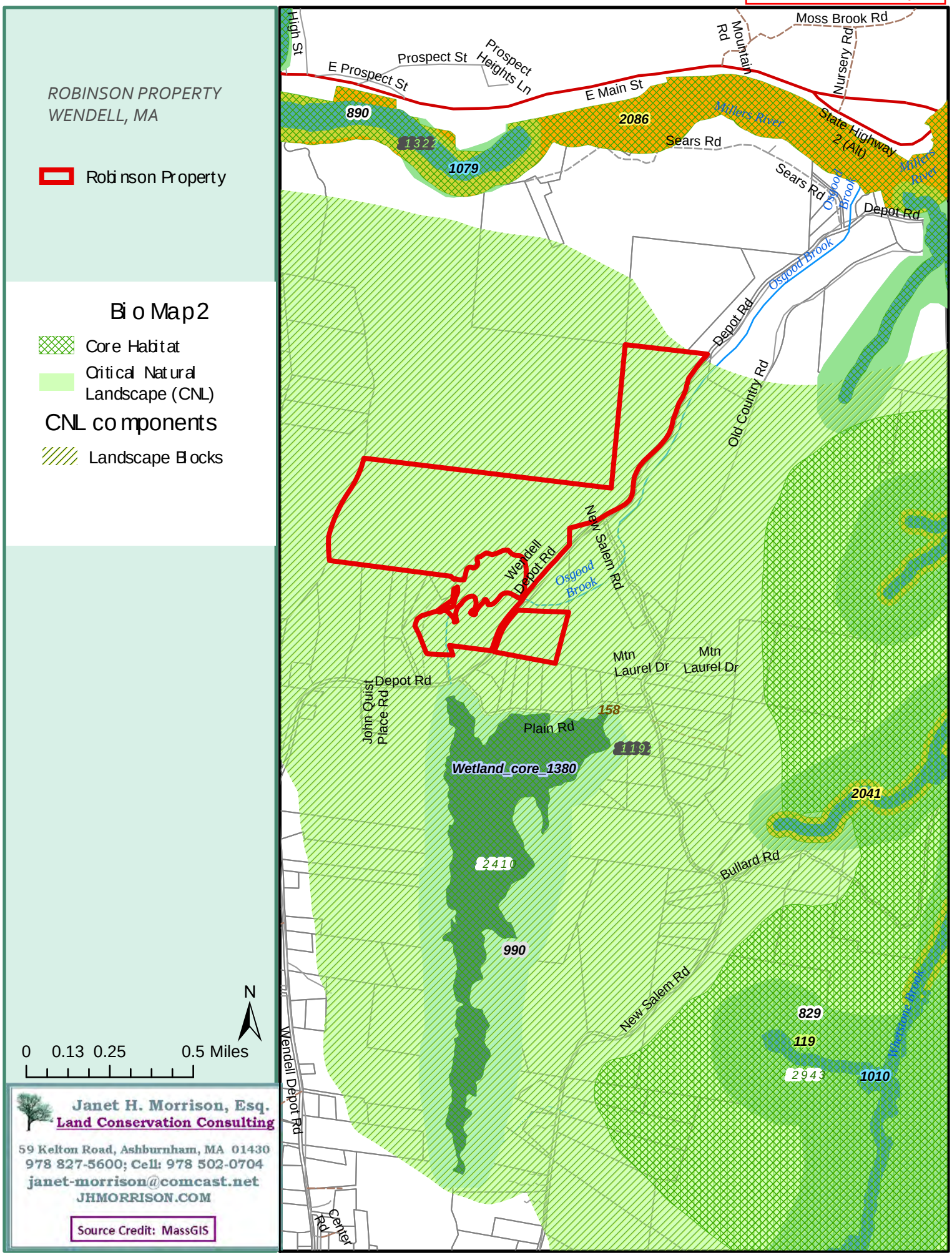
Source Credit: MassGIS

Attachment B: Map 5



Janet H. Morrison, Esq.
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Source Credit: MassGIS

Attachment B: Letter 1

Mass Audubon
Protecting the Nature of Massachusetts

May 10, 2018

Beth Lambert
Director, Division of Ecological Restoration
Massachusetts Dept. of Fish and Game
251 Causeway St.
Boston, MA 02114

Re: Osgood Brook Restoration Project, Wendell (Robinson family property)

Dear Beth:

Mass Audubon has been working with the Robinson family to conserve the family's property in Wendell. The Robinsons own approximately 212 acres abutting Mass Audubon's Whetstone Wood Wildlife Sanctuary and the Wendell State Forest. The property includes a dam on Osgood Brook, creating a pond known as Bowen's Pond. Mass Audubon supports the Robinsons' proposal to remove the Bowen's Pond Dam, and their application for Priority Project status. We believe the proposed dam removal would provide long-term ecological benefits for Osgood Brook riparian system.

The mission of the Division of Ecological Resources ("DER") is to promote the restoration and protection of the ecological integrity of the Commonwealth's watersheds: rivers, streams and adjacent lands. DER was established in recognition that river and stream corridors are a crucial component of the state's ecological infrastructure and that protection of these watershed resources could not be accomplished through land acquisition alone.

The Bowen's Pond Dam (ID# MA00516) ranks in the top 10 percent of the nearly 3,000 dams assessed in DER's 2017 Restoration Potential Model scoring system; based on the Model it is among the most worthwhile dam removal projects in the Commonwealth. The Model includes elements such as the length of stream miles that would be opened above the dam with removal, impervious surfaces in the watershed, and whether coldwater fish resources have been identified in the area. The reach of Osgood Brook within this project area scores very high in this Model, as it contains designated coldwater fish resources, connectivity, and very low impervious surfaces in the watershed, among other elements, reflecting the preponderance of conserved open space in the area.

Mass Audubon staff have visited the site, offered expertise in developing the project proposal, and provided references and resources to the Robinsons to help with technical components of the project. If designated a Priority Project, Mass Audubon will continue its partnership by offering staff time and expertise as the project progresses.

As you know, Mass Audubon has experience working on the removal of the Galloway Brook dam at the Cook's Canyon Wildlife Sanctuary in Barre, and the Gravesleigh Pond Dam on Sackett Brook at Canoe Meadows Wildlife Sanctuary in Pittsfield. We look forward to working with the Robinsons to remove this dam and conserve their property.

Sincerely,

Tom Lautzenheiser
Central/West Regional Scientist, Ecological Management

127 Combs Road ▲ Easthampton, Massachusetts 01027 ▲ tel 413-276-7617 ▲ fax 413-584-0250 ▲ www.massaudubon.org

Attachment B: Letter 2

TROUT UNLIMITED

May 10, 2018

Trout Unlimited, Millers River Chapter #725
Michael E. Miller, President
Scott I. MacDonald, Vice President/Conservation Committee Chairman
1847 Pleasant Street
Athol, Massachusetts 01331

Massachusetts Department of Fish and Game
Division of Ecological Restoration
Beth Lambert, Director
251 Causeway Street, Suite 400
Boston, Massachusetts 02114

RE: Bowen's Pond Dam Removal Project -- Wendell, Massachusetts

Dear Ms. Lambert:

The Millers River Chapter #725 of Trout Unlimited is very pleased to write to you today to offer our support and our highest recommendation that the Bowen's Pond Dam Removal Project in Wendell, Massachusetts be accepted as a Priority Project by the Division of Ecological Restoration (DER).

This project will help to further the core mission of Trout Unlimited which is to protect, reconnect, restore, and sustain North Americas cold water fisheries and their watersheds. The Bowen's Pond Dam currently impounds the upper reaches of Osgood Brook, a tributary stream of Millers River, and a state designated Coldwater Fisheries Resource (CFR).

Removal of the dam will reconnect Osgood Brook over its entire length from its headwaters to its confluence with Millers River re-establishing a continuous and un-interrupted stream corridor that has not existed in centuries. In total, nearly 5 miles of stream length encompassing over 2 square miles of watershed area will be reconnected upstream of the dam site and restored to cold water fisheries habitat for the benefit of Eastern Brook Trout (EBT) and other cold water species. In addition, removal of the dam and the improvements in stream continuity will increase and enhance vitally needed habitat for several migratory fish species including Sea Lamprey and American Eel which also inhabit the brook. It is worthy to note that all of these species are also listed as "Species of Greatest Conservation Need" in the Massachusetts 2015 State Wildlife Action Plan (SWAP).

TROUT UNLIMITED

May 10, 2018

In conjunction with the dam removal project, over 200 acres of forested and undeveloped watershed land adjacent to the brook will be conserved and protected in perpetuity from future development to benefit a wide variety of local wildlife species. The land will directly abut lands from the Audubon Whetstone Wood Wildlife Sanctuary and Wendell State Forest and will help to serve as a connecting wildlife corridor between these two existing conservation areas. The protection of these watershed lands is a key aspect of the project and one that will help to sustain the brooks cold water fisheries habitat over time, and will also help to buffer the effects of future climate change on the brook.

Our chapter also looks forward to exploring future opportunities to partner with DER to help implement various aspects of the project where they may be appropriate. Areas in which our chapter could assist DER might include, but would not be limited to, support in seeking cold water grant funding from TU National and other sources, participating in local fundraising support, participating in on-the-ground restoration activities, participating in possible educational programs and activities relevant to the project, and participating in social media and communications support to help better engage the local community in the project.

In summary, the potential benefits of the Bowen's Pond Dam Removal Project to the health of our local cold water fishery and its watershed are significant and far reaching. As such, our chapter is pleased to offer our highest endorsement and sincere wish that the project be granted Priority Projects status, and that it moves forward to implementation as soon as possible.

Sincerely and Respectfully Yours,

Michael E. Miller,
President

Scott I. MacDonald,
Vice President/Conservation Committee Chairman

Cc: Thomas F. Robinson, Landowner and Lead Project Sponsor
Paul G. Beaulieu, Chairman, MA/RI Council of Trout Unlimited
Ronald S. Amidon, Commissioner, Massachusetts Department of Fish and Game
Matthew A. Beaton, Secretary, Executive Office of Energy and Environmental Affairs

Attachment B: Letter 3

MILLERS RIVER WATERSHED COUNCIL
100 Main Street, Athol, MA 01331 * 978-248-9491

May 21st, 2018

Beth Lambert, Director
Division of Ecological Restoration
Massachusetts Department of Fish and Game
251 Causeway Street, Suite 400
Boston, Massachusetts 02114
(via email)

RE: Bowen's Pond Dam Removal Project -- Wendell, Massachusetts

Dear Ms. Lambert,

The Millers River Watershed Council (MRWC) strongly endorses the Bowen's Pond Dam Removal Project in Wendell, MA for selection as a Priority Project by the Division of Ecological Restoration (DER). The project will substantial increase cold water fisheries habitat in the Millers watershed, while enhancing the protection and resiliency of the local sub-watershed and its terrestrial wildlife.

The Bowen's Pond Dam currently impounds the upper reaches of Osgood Brook, a tributary of the Millers River--and a state designated Coldwater Fisheries Resource (CFR). Removal of the dam will reconnect Osgood Brook over its entire length from its headwaters to its confluence with the Millers River, re-establishing a continuous stream corridor. In total, nearly five miles of stream length, encompassing over two square miles of watershed area, will be reconnected upstream of the dam site and restored to cold water fisheries habitat for the benefit of Eastern Brook Trout and other cold water species.

In addition, removal of the dam and the improvements in stream continuity will improve habitat for several migratory fish species including Sea Lamprey and American Eel, which also inhabit the brook. These species are listed as "Species of Greatest Conservation Need" in the Massachusetts 2015 State Wildlife Action Plan (SWAP).

In conjunction with the dam removal project, over 200 acres of forested and undeveloped watershed land adjacent to the brook will be protected, benefitting a wide variety of local wildlife species. That newly protected land will directly abut lands from the Audubon Whetstone Wood Wildlife Sanctuary and Wendell State Forest and will help to serve as a connecting wildlife corridor between these two existing conservation areas. The protection of these watershed lands is an important aspect of the project: doing so will help sustain the brooks' cold water fisheries habitat over time, and help to buffer the effects of future climate change on the brook.

The project also has strong educational value beyond the immediate project area as a practical example of ecological restoration, and MRWC welcomes opportunities to collaborate with project partners in areas such as education, research and restoration.

In closing, MRWC considers this an outstanding project and opportunity, and offers its strongest support for the project receiving Priority Status from DER. Please let me know if I can provide any additional information, and thank you for your consideration.

Sincerely,

Ivan Ussach

Ivan Ussach
MRWC Director
ivan@millersriver.net
413-773-3830 - direct

Cc: Thomas F. Robinson, Landowner and Lead Project Sponsor
Ronald S. Amidon, Commissioner, Mass Department of Fish and Game

Attachment B: Letter 4

Mass Audubon
Protecting the Nature of Massachusetts

June 6, 2018

Tom Robinson
PO Box 36
Hubbardston, MA 01452

Re: property in Wendell; Map 413, Parcel 1 (B2950, P309) 212 acres and Parcel 2 (B4044, P285) 18 acres, on Wendell Depot Road, including Bowen's Pond

Dear Tom:

In connection with your property referenced above which includes the dam on Osgood Brook, I met with several representatives of the Town of Wendell last year to get a sense of the Town's position on the possible removal of the dam and the removal of Bowen's Pond as a result. I indicated that Mass Audubon was excited to conserve this property, but could not take ownership of the dam. I suggested that if Wendell was willing, Mass Audubon could work with the town to get state funds to remove the dam. There was discussion of these issues but no final votes or decisions were made at these meetings.

I met with the Select Board on 3/23/17. They recommended that I speak to the Conservation Commission and the Open Space Committee. They said it was unlikely that the Town would want to own the dam.

I met with the Wendell Conservation Commission on 4/18/17. The Commission was not in favor of the town owning another dam due to the maintenance expense. If the pond were to remain, they were in favor of public access.

Because of the presence of a dry hydrant at the pond, I spoke to Joe Cuneo of the Fire Department in July, 2017. He said that if the dam were removed, they would find another water source for the northern area of Wendell.

I met with the Open Space committee on 8/14/17. They indicated that the dam was in the Millers River Watershed, and that the pond had never been used by the public in Wendell and as a result, there were no strong feelings for preserving it. They supported the conservation of the property for open space with public access and said they would consider supporting removal of the dam. (At a subsequent meeting on 9/11/17, minutes indicate that a member of the Committee reconsidered and did not support removal of the dam. I was not present at that meeting.)

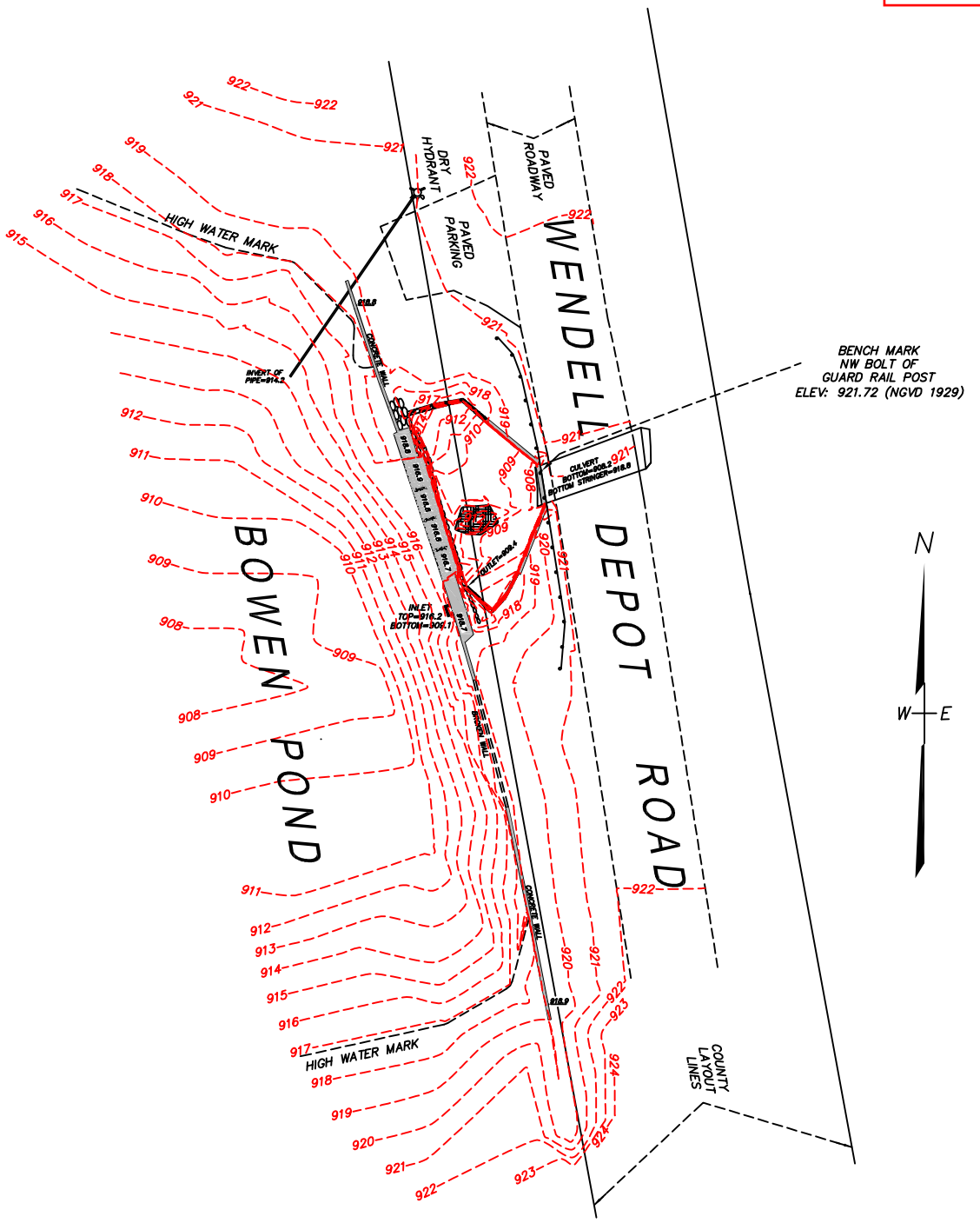
I hope this summary is helpful. If you need any further information, please do not hesitate to ask.

Sincerely,

Kate Buttolph
Land Preservation Specialist

127 Combs Road ▲ Easthampton, Massachusetts 01027 ▲ tel 413-276-7617 ▲ fax 413-584-0250 ▲ www.massaudubon.org

Attachment B: Plan 1



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

LEGEND:

- IRON PIPE
- IRON PIN
- DRILL HOLE
- STONE BOUND
- STONE WALL
- WETLAND

COMMONWEALTH OF MASSACHUSETTS
EDMOND J. BOUCHER
No. 34300
PROFESSIONAL LAND SURVEYOR

SITE PLAN
PREPARED FOR

TOM & MARY ROBINSON

WENDELL, MA

SCALE 1 INCH = 20 FEET OCTOBER 28, 2015

EDMOND J. BOUCHER, PLS, 4 JOLLY ROAD, ROYALSTON, MA, 01368
JOB NO. H 538 TEL. 978-249-6685, FAX 978-249-4517

June 19, 2020

Secretary Kathleen Theoharides
Executive Office of Environmental Affairs
Attention: MEPA Office
100 Cambridge Street Suite 900
Boston, MA 02114

RE: **MEPA File #: 16209**
Bowen's Pond Dam Removal and Osgood Brook Restoration Project

Dear Secretary Theoharides:

Trout Unlimited Chapter 725 – Millers River supports the request for a waiver of an Environmental Impact Report (EIR) under 301 CMR 11.11(5) for the Osgood Brook Restoration Project to restore fish passage and wildlife habitat. The project will also have excellent community resiliency benefits for the Town of Wendell by eliminating an aging Low Hazard Dam upstream from the Wendell Depot Road crossing.

As you know, the Secretary may waive an EIR if preparation of the EIR would result in "undue hardship" to the project proponent or would "not serve to avoid or minimize damage to the environment" as described under 301 CMR 11.11(1). Furthermore, we understand that when mandatory EIR review thresholds have been exceeded, the Secretary may grant a waiver of the EIR as described under 301 CMR 11.11(2) based on determination that preparation of an EIR would not provide increased benefit to the project and the environment. Based upon the scientific and engineering analysis included in the EENF, preparation of an EIR for this project would not serve to avoid or minimize damage to the environment, nor would its preparation provide increased benefit to the project and the environment for reasons listed below.

Determinations for an EIR Waiver are based on whether "the project is likely to cause no damage to the environment" and "ample and unconstrained infrastructure facilities exist to support the project" (301 CMR 11.11(3)). Dam removal projects like this one restore natural ecological function and maximizes environmental benefit. The basis of this waiver request is founded upon the extensive data collection and analysis of environmental impacts that have been conducted in support of this project to date. These analyses support the overwhelming environmental benefit of the project, and have resulted in the development of strategies to minimize and avoid negative environmental impacts as discuss in the alternatives analysis. This project is also supported by experts from the Division of Ecological Restoration who have decades of restoration experience.

This project triggers mandatory EIR threshold under 301 CMR 11.03(3), namely (3.a.4) structural alteration of an existing dam that causes and expansion of 20% or any decrease in impoundment capacity and (3.b.1.d) alteration of 5,000 or more SF of boarding or isolated vegetated wetlands. The dam is a run-of-river dam and does not provide any flood storage. Removal of the dam will restore the natural and historical ecological function of Osgood Brook,

a MassWildlife-certified Coldwater Fishery Resource. Dam removal has many environmental benefits, including improved water quality, restoration of natural sediment and nutrient transport regimes, improvement to aquatic habitat, aquatic species passage, creation of wetlands, and increased floodplain connectivity. While it is scenic, the impoundment is privately-owned and currently does not support public recreation, nor does the dam provide any flood protection.

The permitting associated with this project will enable additional public and regulator input as well as a mechanism for application of conditions to ensure compliance with MEPA regulations. This project will require a number of environmental permits, including the 401 Water Quality Certificate (Department of Environmental Protection), Wetland Protection Act Notice of Intent/Order of Conditions (Wendell Conservation Commission), Section 106 Historical Certificate (Mass Historic and other signatories), and Section 404 dredge and fill Permit (U.S. Army Corps of Engineers).

Is addition, project partners have already repeatedly connected with several Town officials, local non-profits, and neighbors to the site. In this manner, public interests are being addressed and incorporated in the project development process.

The Bowen's Pond Dam Removal and Osgood Brook Restoration Project will have many environmental and community benefits. On behalf of the dam owner and its restoration partners, I urge you to favorably consider this waiver request. If you have any questions, please don't hesitate to contact me at 413-522-0914 or millersrivertu725@gmail.com.

Sincerely,

Scott I. MacDonald
President, Trout Unlimited Chapter 725-Millers River