

May 29, 2024

Ms. Breeka Lí Goodlander, Agent
Town of Franklin Conservation Commission
355 East Central Street
Franklin, MA 02038

**Re: Beaver Pond Hydro-Raking
MassDEP File No. 159-1293
Notice of Intent Peer Review**

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed revised documents and plans for the Notice of Intent (NOI) seeking approval for proposed hydro-raking (the Project) within a portion of **Beaver Pond** in Franklin, Massachusetts. This letter is provided to present BETA's findings, comments, and recommendations.

BASIS OF REVIEW

The following supplemental documents were received by BETA and will form the basis of the review:

- Notice of Intent entitled **Notice of Intent for Beaver Pond Hydro-Raking**; prepared by the Town of Franklin Department of Public Works, dated February 2024.
Attachments include:
 - Cover Letter
 - Local and State Filling Form
 - Environmental Monitor Public Notice
 - Request for Determination of Applicability dated March 2017
 - Abutter Notification Documents
 - Site Photographs.
- Plans (1 sheet) entitled **Beaver Pond Hydro-Raking**; dated February 6, 2024, revised March 29, 2024; prepared by The Town of Franklin Department of Public Works; unstamped.
- Email entitled **Beaver Pond NOI Peer Review 2024-03-19**; dated March 25, 2024; prepared by The Town of Franklin Recreation Department.
- Document entitled **Aquatic Invasive Species Decontamination Protocol for MWRA/DCR Reservoirs**; dated January 16, 2024; prepared by the Water Resources Authority of Massachusetts and the Department of Conservation and Recreation.
- Peer Review Responses entitled **Beaver Pond Hydro-Raking – Peer Review Comments Amendment**; dated April 3, 2024; prepared by Brook Morganelli, PE, Assistant Town Engineer for the Town of Franklin.
- Response Letter to MassDEP Comments entitled **Beaver Pond Hydro-Raking – MassDEP Amendment – 159-1293**; dated May 9, 2024; prepared by Brook Morganelli, PE, Assistant Town Engineer for the Town of Franklin.

Review by BETA included the above items along with the following, as applicable:

- *Massachusetts Wetlands Protection Act 310 CMR 10.00* effective October 24, 2014
- *Wetlands Protection Chapter 181 From the Code of the Town of Franklin*, dated August 20, 1997
- *Conservation Commission Bylaws Chapter 271 From the Code of the Town of Franklin*, dated July 11, 2019
- *Town of Franklin Conservation Commission Regulations*, dated October 3, 2019
- *Town of Franklin Best Development Practices Guidebook*, dated September 2016

PEER REVIEW UPDATE—MAY 29, 2024

The Applicant has provided revised materials and written comment responses pursuant to BETA's March 19, 2024 peer review letter. BETA's original comments from the March 19, 2024 peer review letter are included in plain text, and comment responses attributed to the Town of Franklin Department of Public Works are provided in *italics* and are prefaced with "DPW:". BETA's most recent responses are provided in **bold text** and are prefaced with "BETA2:".

BETA's responses in this letter identify that the Applicant should ensure that all impacts associated with multi-year dredging activities are quantified and that the applicability of the Section 401 Water Quality Certification process is confirmed with MassDEP.

SITE AND PROJECT DESCRIPTION

The Site includes one (1) parcel located at 380 Beaver Street in Franklin, Massachusetts, further identified by the Franklin Assessor's Office as Assessor's Parcel 288-002-000-000. The Site is bounded to the north by the Beaver Pond Recreation Area and Beaver Street, to the south and east by undeveloped wetland/forest complexes, and to the west by Interstate-495. Existing improvements at the Site include a bituminous concrete parking area, a beach, and a designated swimming area. Topography at the Site is generally flat.

Resource Areas Subject to Protection under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its implementing regulations at 310 CMR 10.00 (collectively "the Act"), as well as the Town of Franklin Wetlands Protection Bylaw (Chapter 181) and its associated regulations (collectively "the Bylaw") are present at the Site and include:

- Inland Bank (to Pond);
- Land Under Water (LUW);
- Bordering Land Subject to Flooding (BLSF); and
- Buffer Zone.

There are no Outstanding Resource Waters (ORWs) or Areas of Critical Environmental Concern (ACEC) present, and the most recent Natural Heritage and Endangered Species Program (NHESP) mapping does not depict any Priority Habitat of Rare Species or Estimated Habitat of Rare Wildlife at the Site. There are no NHESP-mapped Certified or Potential Vernal Pools located within 100 feet of the Site. The Site is not located within Surface Water Protection Areas (Zone A, B, or C) or an Interim Wellhead Protection Areas. The entire Pond is located within a Zone II Wellhead Protection Area and portions of the Pond are located within a Zone I Wellhead Protection Area.

Natural Resource Conservation Service (NRCS) soil maps indicate the presence of various soil groups at the Site including Udorthents, sandy with a Hydrologic Soil Group (HSG) rating of A, and Hinckley loamy sand with a HSG rating of A.

Proposed work is associated with the removal of aquatic invasive species and include the following activities (collectively referred to as “the Project”):

- Launching the hydro-rake barge from the boat launch area at Chilson Park;
- Hydro-raking approximately 26,722 square feet of Land Under Water to remove invasive fanwort (*Cabomba caroliniana*) and other non-native aquatic plants;
- Stockpiling of vegetation;
- Disposing of materials off-site, preferably within 24 hours of Project completion;
- Surrounding materials that remain for more than 24-hours with compost filter tubes; and
- Completion of Site restoration/stabilization.

Proposed work will result in impacts to LUW, including raking of 26,722 square feet of LUW within Beaver Pond. The Project was filed as an Ecological Restoration Limited Project under provisions at 310 CMR 10.53(4)5 for the removal of aquatic nuisance vegetation to impede pond eutrophication; a WPA Form 3 Appendix A was provided, and notification was published in the Environmental Monitor as required.

ADMINISTRATIVE AND PLAN COMMENTS

The plan set (as identified above) is missing information and requires additional information for clarity.

Table 1. NOI Plan

NOI Plan Requirements	Yes	No
Scale of 40'=1" or larger	✓	
North Arrow (with reference)	✓	
Topographic contours (2' intervals)	✓	
Existing Conditions Topography (with source and date of survey)	BETA2: ✓ (See Comment A3.a.)	
Proposed Topography	✓	
Existing and Proposed Vegetation	✓	
Existing Structures and Improvements	✓	
Resource Areas and Buffer Zones labeled	✓	
Location of Erosion Controls	✓	
Details of Proposed Structures	✓	
Construction Sequence and Schedule	✓	
Registered PLS Stamp (Existing Condition Plans Only)		✓ (See Comment A3.b.)
Assessors' Reference	BETA2: ✓ (See Comment A3.c.)	
Abutting Property Assessors' Reference	BETA2: ✓ (See Comment A3.d.)	
Survey Benchmark	✓	
Accurate Plan Scale	✓	

PLAN AND GENERAL COMMENTS

A1. MassDEP has not issued a file number as of this writing.

DPW: A file number has still not been issued.

BETA2: A file number (No. 159-1293) with the following technical comments have been issued. For ease of review, the Applicant has provided responses to the comments as follows:

MassDEP: How frequently will hydroraking be performed under this NOI (one time only, annually, another frequency)?

DPW: Hydro-raking under this NOI is anticipated to be performed once this year and every three to four years following. This would be the same frequency that hydro-raking has been executed in Beaver Pond since the 1980's.

MassDEP: The applicant should evaluate whether hydroraking is an appropriate technique for controlling the target plant species, particularly fanwort.

DPW: Hydro-raking has been an effective method for removing the disruptive plant species from Beaver Pond in the past. In our alternatives analysis we did consider other methods including no action, dredging, and aquatic herbicide but ultimately felt that hydro-raking was best.

MassDEP: A barrier should be installed to control the migration of plant fragments and turbidity from the hydroraking area into adjacent areas of Beaver Pond.

DPW: The company that would perform the work, Solitude, will contain turbidity and floating debris within the hydro-rake management area with a turbidity/fragment scurtain.

MassDEP: Your project involved dredging amounts greater than 100 cubic yards of sediment from Land Under Water and will require a 401 Water Quality Certification (WQC) (314 CMR 9.00). 401 WQC forms are available online at: <https://www.mass.gov/lists/water-quality-certification-forms-massdep>."

DPW: The proposed area to be hydro-raked is 26,722 square feet. Assuming that an average depth of 1-inch of sediment remains attached to the root system over the entire area to be raked, that would result in a volume of 82.5 cubic yards of material, which is less than the 100 cubic yard requirement that would trigger an individual 401 Water Quality Certification (WQC) filing. Based on this calculation we feel that s WQC would not be required.

A2. The plan should be revised to include a note stating the source(s) and date(s) of the wetland delineation.

DPW: The source and date of the wetland delineation has been added.

BETA2: Comment resolved.

A3. The following elements are missing from the provided plans:

- a. The source and date of the topography on the plans should be stated (Bylaw Regulations Section 7.18.1.4).

DPW: The source is listed, a date has been added.

BETA2: Comment resolved.

- b. The Plans should be stamped by a Professional Land Surveyor registered in the state of Massachusetts. BETA defers to the Commission on this requirement given the nature/scope of the Project.

DPW: The basemap was derived from Town of Franklin GIS data. The site was not surveyed so cannot be stamped by a PLS.

BETA2: Comment resolved; however, BETA defers to the Commission on this requirement.

- c. An Assessors Reference for the parcel of land on which the Project will occur should be provided on the plans.

DPW: The parcel number was added to the plan.

BETA2: Comment resolved.

- d. The abutting properties Assessors' Reference should be provided on the plans.

DPW: No abutting properties are shown on the plan.

BETA2: Comment resolved.

WETLAND RESOURCE AREAS AND REGULATORY REVIEW

BETA has conducted a regulatory review of the submitted documents and plans, focusing on compliance with Resource Area definitions and Performance Standards set forth in the Act and Bylaw.

The NOI application generally requires the submission of additional materials to meet all submission requirements of the Act and Bylaw. The Applicant should clarify the how dredging volumes were determined, and show compliance with the LUW Performance Standards and the Ecological Restoration Limited Project provisions. In addition, details provided in responses should be included within the NOI application and the Plans. Other comments made in the original peer review letter should be responded to. Compliance with the Massachusetts Stormwater Management Regulations is still required. At this time, the Applicant has not provided the Conservation Commission with sufficient information to describe the Site, the work, and the effect of the work on the interests identified in the Bylaw.

BETA2: The Applicant has addressed the administrative requirements outlined in BETA's original peer review letter. However, further information should be provided to support how the anticipated volume of dredging was determined and how work in the field will be monitored to ensure that proposed impacts are not exceeded. In addition, the Applicant should disclose the total number of proposed future dredging activities in order to quantify the total volume of dredging impacts resulting from the Project. It is anticipated that a 401 Water Quality Certification may be required based on MassDEP's comments.

At this time, additional information is required to demonstrate compliance with the Act and the Bylaw.

RESOURCE AREA BOUNDARY COMMENTS

Portions of the boundary of Bank associated with Beaver Pond were previously confirmed by a Request for Determination of Applicability (RDA) for the "Beaver Pond Recreation Area Field Renovation Project" in March of 2017, including flags D1 OHW through D15 OHW.

An onsite review by BETA of delineated Resource Areas was not requested for this Project. The flags depicted on the plan do not encompass the entire limits of the proposed hydro-raking; however, the Applicant has noted that no Bank impacts will occur as part of the Project. Hydro-raking equipment will enter Beaver Pond via the existing boat ramp. BETA defers to the Commission on whether further delineation is warranted.

In addition, BLSF appears to be depicted via overlay rather than by surveyed elevation. Should the Commission accept this method of depicting BLSF, it is recommended that a finding be included within the Order of Conditions stating that the boundary of BLSF is not approved.

BETA2: It is recommended that the Commission include a finding in the OOC stating that BLSF boundaries are not approved as part of this filing.

CONSTRUCTION COMMENTS

- W1. If stockpiles are left onsite for more than 24-hours, the location of the stockpiles should be moved outside of the 25-foot Buffer Zone and BLSF. A secondary stockpile location should be identified on the plans.

DPW: DPW will be handling the removal of all material from the beach. They will remove these piles daily and/or move to a secondary on-site dewatering area outside of the 25-foot buffer zone and BLSF. These stockpiles are shown on the plans on both sides of the beach.

BETA2: Comment resolved.

- W2. The Applicant should clarify how material will get from the pond to the stockpile area, as it appears that equipment will be required to transport it given the distance from the Pond Bank.

DPW: The DPW uses a loader/backhoe to remove material placed at the beach shoreline from the hydro-rake, and will place it into a dump truck for off-site composting. This is always done within 24 hours.

BETA2: Comment resolved; however, if a 401 Water Quality Certification is secured for the Project, the Commission should be aware that analytical sampling of dredged materials is required in order to inform the disposal location.

- W3. Hydro-raking will generate turbidity that can impact the water column outside of the work area. It is recommended that a turbidity curtain be required along the extents of the dredge area and remain in place until sediment settles out of the water column.

DPW: Solitude will contain turbidity and floating debris within the hydro-rake management area with a turbidity / fragment curtain.

BETA2: The Commission could consider a Special Condition requiring the Applicant to install a turbidity curtain for review and approval in the field by the Conservation Agent prior to commencing work.

MITIGATION COMMENTS

- W4. Within the Draft Construction Sequence on the provided plan, the Applicant states that restoration/stabilization will occur. The Applicant should specify exactly what type of restoration/stabilization is being proposed. Based on the proposed work, there appears to be minimal risk of exposed soils.

DPW: The material is placed on the beach sand area. There is no exposure to bank erosion, since the sand grade is gradual from shore into the water column. The sand also provides good drainage to dewater the material.

BETA2: BETA defers to the Commission on the acceptance of the Construction Sequence.

- W5. The Commission should consider including a Special Condition in the Order of Conditions requiring the contractor to clean all machinery used as part of the Project and provide a signed statement indicating the date and method of cleaning, to ensure that there is no spread of invasive species.

DPW: Solitude follows equipment decontamination protocol between each waterbody, attached is an example form we could use to document the decon process. This form is completed for any MA DCR or MWRA waterbody.

BETA2: BETA defers to the Commission on the use of the attached document for the decontamination process and recommends including the above-stated Special Condition.

WPA PERFORMANCE STANDARDS COMMENTS

The Project was filed as an Ecological Restoration Limited Project under 310 CMR 10.53(4)5 and will result in 26,722 square feet of impacts to LUW.

- W6. The NOI is missing the required narratives addressing the Project's compliance with the LUW Performance Standards and the applicability of the Ecological Restoration Limited Project provisions to the Project. The Applicant should revise the NOI to include this information for the Commission's review.

DPW: The project does not involve removing, filling, dredging or altering Land Under Water Bodies. Hydro-raking has been performed every few years in Beaver Pond since the 1980's. The site is not located within a natural heritage program estimated or priority habitat area.

BETA2: Comment not addressed. The specific filing requirements of 310 CMR 10.53(4) must be met in order for a Project to be considered an Ecological Restoration Limited Project. Furthermore, as noted in the Applicant's response to DEP's comments, the Applicant has quantified approximately 82.5 CY of dredging per hydroraking event.

- W7. The WPA Form 3 indicates that work within LUW will not involve dredging. BETA has been informed by MassDEP on similar projects that hydro-raking does constitute dredging, as there is no method to completely avoid removal of sediment from the substrate when disposing of the harvested vegetation. Dredge volumes should be provided as part of the NOI application.

Should the volume of dredged sediment exceed 100 cubic yards, an individual 401 Water Quality Certification from MassDEP will be required. The requirement for a state permit would create Massachusetts Environmental Policy Act (MEPA) jurisdiction over the Project, and it is anticipated that the areal extent of LUW impacts would exceed a MEPA threshold, requiring the submission of an Environmental Notification Form at a minimum.

DPW: The proposed area to be hydro-raked is 26,722 square feet. Assuming that an average depth of 1-inch of sediment remains attached to the root system over the entire area to be rake, that would result in a volume of 82.5 cubic yards of material, which is less than the 100 cubic yard requirement that would trigger an individual 401 Water Quality Certification filing.

BETA2: The Applicant should provide information regarding how the average depth of 1-inch of sediment removal was determined and how it will be monitored in the field to corroborate the estimated dredging volume. Regardless, if this Order of Conditions would approve several years of this work, the total impacts must be reviewed cumulatively. BETA recommends that the Applicant meet with MassDEP to further discuss permitting requirements under Section 401 of the Clean Water Act. Given the dredging frequency, the Commission should be aware that the Applicant will be required to secure future OOC extensions.

BYLAW REGULATORY COMMENTS

W8. BETA defers to the Commission on the approval of the project narrative, as the narrative does not provide specific Bylaw requirements including who is performing the work, when the proposed activity will be completed, and what measures will be used to mitigate any impacts to the functions and characteristics of the Resource Area (Bylaw Regulations Section 7.9.1).

DPW: Solitude Lake Management will be performing the work with an anticipated schedule of finishing in spring, before June 20, 2024. See Functions and Characteristics Statement in Section D of the NOI submittal for any notes on mitigation.

BETA2: BETA defers to the Commission on whether the Applicant should revise the narrative with this information or if it can be included in the Order of Conditions as a Finding of Fact.

STORMWATER MANAGEMENT

The Project is subject to the Massachusetts Stormwater Management Regulations and Standards; however, it is not anticipated to have any measurable effect on stormwater runoff patterns and it will not involve any development activities. It is recommended that the Applicant provided a stamped and signed Stormwater Checklist to meet MassDEP filing requirements and a brief narrative documenting which Standards apply and do not apply to the Project.

DPW: Since work is strictly related to hydro-raking (the removal of aquatic invasive species with a floating barge) we feel this would be unnecessary. This project is not a development project and will have no effect on stormwater runoff or the existing stormwater management system.

BETA2: BETA concurs that the Project will not result in development that generates additional stormwater runoff and defers to the Commission on the MassDEP filing requirements for a stamped and signed Stormwater Checklist.

REVIEW SUMMARY

Based on our review of the NOI submittal and Project plans, the Applicant has not provided the Conservation Commission with sufficient information to describe the Site, the work, and the effect of the work on the interests identified in the Act and the Bylaw. Specifically, the Applicant should provide a revised WPA Form 3 with dredging impacts included and contact MassDEP regarding Section 401 permitting requirements.

Ms. Breeka Lí Goodlander, Agent

May 29, 2024

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If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.



Anna Haznar
Staff Scientist



Jonathan Niro
Senior Project Scientist

cc: Amy Love, Town Planner

Bryan Taberner, AICP, Director of Planning & Community Development

Matt Crowley, P.E., BETA

