

May 4, 2023

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

**Re: Spruce Pond
MassDEP File No. 159-1267
Notice of Intent Peer Review**

Dear Ms. Goodlander:

BETA Group, Inc. (BETA) has reviewed documents and plans for the project entitled: ***Spruce Pond Aquatic Management Program*** located in Franklin, Massachusetts (the “Site”). 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 Application, Spruce Pond Aquatic Management Program***; prepared by SÖlitude Lake Management, dated March, 2023.

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

- Site visit on April 25, 2023
- ***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
- ***Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act***, dated April 2004.
- ***Eutrophication and Aquatic Plant Management in Massachusetts: Final Generic Environmental Impact Report***, dated June 2004
- ***Practical Guide to Lake Management in Massachusetts***, dated 2004.

SITE AND PROJECT DESCRIPTION

Spruce Pond (the Site) is a 5.25-acre waterbody bisected by Quince Island Road in Franklin, Massachusetts. The northern portion of the Pond is 4.75 acres, and the southern portion is 0.50 acres. The Site is bounded to the north by King Street, to the south by a wetland complex, and to the east and west by multi-family residential properties. Spruce Pond is fed by stormwater runoff and a wetland complex to the south and flow is conveyed under Kings Street through a weir structure to another wetland complex to the north.

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”) present at the Site include Land Under Water (LUW), Bordering Vegetated Wetlands (BVW), and inland Bank.

The Site is not located within any Wellhead Protections Areas (Zone I, Zone II, & Interim) or Surface Water Protection Areas (Zone A, B, or C). There are also 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. According to the FEMA Flood Insurance Rate Map (FIRM) community panel number 25021C0309E, dated July 17, 2012, the parcel is located within a Zone X floodplain.

The Applicant seeks approval for the treatment of invasive and nuisance species, particularly variable-leaved water milfoil (*Myriophyllum heterophyllum*), purple loosestrife (*Lythrum salicaria*), and filamentous algae species, using registered herbicides and algaecides (collectively referred to as the “Project”). A regular monitoring plan is additionally proposed to gauge treatment effectiveness. Specific herbicides and algaecides are proposed as follows:

- The application of three (3) herbicides, diquat (Tribune), glyphosate (Aqua Pro for use in Spruce Pond and Rodeo for use along its banks), and Fluridone (Sonar); and
- The application of three (3) copper based algaecides (Captain, SeClear, and GreenClean PRO).

The Project will result in temporary impacts within the LUW Subject to Protection under the Act and the Bylaw.

ADMINISTRATIVE AND PLAN COMMENTS

PLAN AND GENERAL COMMENTS

- A1. MassDEP has issued DEP File No. 159-1267 for the Site and provided the following technical comment “Higher value wildlife habitat is achieved when there is less than 100% open water surface and at least 30% coverage of native aquatic plant species. MassDEP recommends that treatment be limited to areas where invasive non-native species are dominant.”
- A2. BETA defers to the Commission on the plan requirements presented in Section 7.18 of the Bylaw and if a variance should be requested.
- A3. The WPA Form 3 notes 228,690 sf of impacts to LUW, but the Resource Area Impact Summary Form notes 1,306,800 sf of impacts. The Applicant should clarify which impact number is accurate.
- A4. The Notice of Intent provides general information regarding the use of the proposed chemicals but does not provide information such as anticipated Site access, staging areas, application rates, or other information specific to this Site. The Applicant should describe any staging areas and anticipated Site access and show these areas on the Project plans¹.

¹ Refer Section IV Part C of *Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act* for additional information describing the work that should be provided.

- A5. Beyond the statement that application of the proposed chemicals will be completed by Certified Applicators, information typically presented in the Material Safety Data Sheet(MSDS) regarding the safe use and handling of the proposed chemicals has not been provided. The MSDS or equivalent should be provided for each of the chemicals discussed in the NOI for use at the Site.
- A6. The Applicant should provide a narrative discussing factors contributing to the development of nuisance aquatic vegetation at the Site, as well as additional factors that should be considered for long-term management (i.e. nutrient control), instead of repeated use of short term management methods².
- A7. Monitoring of the Site before, during, and after chemical application should also include monitoring of water quality such as temperature and pH to provide a comparative benchmark. The Application should provide a more robust monitoring plan that is inclusive of water quality testing in addition to visual observations³.
- A8. "Figure 2: Vegetation Assemblage" appears to depict treatment within the Kings Street Right of Way. The Applicant should provide documentation showing the Town's approval for work on their property.

WETLAND RESOURCE AREAS AND REGULATORY REVIEW

BETA conducted an onsite and completed a regulatory review of the submitted document, focusing on compliance with Resource Area definitions and Performance Standards set forth in the Act and the Bylaw. The Project is proposed within Land Under Water and as such is subject to specific Performance Standards under the Act. Additionally, the Project is adjacent to Bordering Vegetated Wetlands (BVW) and inland Bank but no discussion of these Resource Areas at the Site or how the work may or may not impact these Resource Areas has been provided.

The NOI application includes narrative information describing the Project, and the proposed impacts associated with the chemical treatments have been generally described. Methods of chemical application specific to Site have not been discussed, and detailed information for the proposed chemicals such as Material Safety Data Sheets have not been provided. Therefore, additional information is required to describe the work and the effects of the work on the interests of the Act and the Bylaw.

RESOURCE AREA AND BOUNDARY COMMENTS

BETA conducted a Site visit on April 26, 2023 to assess existing conditions at the Site with specific focus on proposed management areas.

- W1. BETA observed water lilies at the northern extent of Spruce Pond along Kings Street as mapped on the Site plan; however, the time of year is not appropriate to provide comment on the extent of the nuisance vegetation described in the NOI.
- W2. Although work is proposed to generally occur within Spruce Pond, the surrounding Resource Areas including BVW and inland Bank were not identified or specifically discussed. BETA defers

² Section IV Part A of *Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act*

³ Section 4.6.6.3 of *Eutrophication and Aquatic Plant Management in Massachusetts: Final Generic Environmental Impact Report*.

to the Commission on whether they will require the identification of these Resource Areas through field delineation, or if they will accept approximation through orthoimagery⁴.

MITIGATION COMMENTS

- W3. The NOI requests the use of an algaecide should nuisance algae conditions develop in the pond but provides no analysis supporting that use of algaecide is preferred over other methods of algae control. As suggested in *Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act* "Control of nutrients is used to achieve control of algae and associated water quality problems (e.g., oxygen depletion, taste and odor), but as algae tend to be the symptom and nutrients constitute the real problem, the focus is on nutrient control". The Alternatives Analysis within the NOI should be revised to discuss alternatives to the use of algaecide including nutrient control methods⁵.
- W4. The Commission could consider requiring advanced notification for algaecide applications, with a requirement that the Applicant demonstrate establishment of algae onsite.
- W5. The Applicant should provide a detailed alternative analysis for the proposed chemicals, outlining why certain herbicides and algaecides were selected, and which will be used in certain conditions.
- W6. A more detailed vegetation assessment than that provided on "Figure 2: Vegetation Assemblage" should be provided for the pond, noting areas of specific native and invasive aquatic vegetation, with the relative abundance. As an Ecological Restoration Limited Project, native aquatic vegetation should be preserved to the extent practicable, and the Applicant should demonstrate how they plan to preserve native vegetation.

WPA PERFORMANCE STANDARDS COMMENTS

- W7. The Project is an Ecological Restoration Limited Project proposed within LUW of Spruce Pond. The Applicant has provided *Appendix A: Ecological Restoration Limited Project Checklists* as part of the NOI submission as instructed on the WPA Form 3.
- W8. The discussion of how the proposed Project will protect the interests of the Act should include more detailed information relating the protection of fisheries, such as spawning periods of species present at the Site to avoid potential fish kills⁶.

BYLAW REGULATORY COMMENTS

- W9. The interests of the Act are generally discussed within the NOI, but this information is not specific enough to demonstrate that the proposed project will not negatively impact the functions and characteristics on onsite Resource Areas. A Function and Characteristics statement should be provided per Section 7.10 of the Bylaw that is specific to the Site.

⁴As suggested in Section IV Part B of *Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act*

⁵ Methods as presented in Section 3.1 through 3.7 of *Eutrophication and Aquatic Plant Management in Massachusetts: Final Generic Environmental Impact Report* and discussed in greater detail in the *Practical Guide to Lake Management in Massachusetts*.

⁶ Per Section IV Part E of *Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act*.

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- W10. A sequence and schedule of the proposed chemical application should be provided pursuant to Section 7.15 of the Bylaw that is inclusive of the time of year, methods of application (i.e. via boat or on land), and application rate.
- W11. The Bylaw Regulations state that no work is permitted within 25 feet of a Resource Area. A portion of the Project includes management of purple loosestrife populations within the Bylaw 25-foot buffer zone. The Applicant must submit a Variance Request that meets the provisions of Section 5 of the Bylaw Regulations.

REVIEW SUMMARY

Based on our review of the NOI submittal and Project plans, the Applicant is required to provide the Conservation Commission with additional information to describe the Site, the work, and the effect of the work on the interests identified in the Act and the Bylaw.

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

Very truly yours,

BETA Group, Inc.



Elyse Tripp
Staff Scientist



Laura Krause
Project Manager

cc: Amy Love, Town Planner
Bryan Taberner, AICP, Director of Planning & Community Development
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