



**GODDARD
CONSULTING**
Strategic Ecological Consulting

Notice of Intent

for
287 Westford Rd,
Concord, MA, 01742

DATE:

October 31st, 2025

ADDRESSED TO:

Concord Natural Resources Commission,
141 Keyes Road
Concord, MA 01742

PREPARED BY:

Goddard Consulting LLC
1442 North Main Street
Palmer, MA 01069

PREPARED FOR:

Eugene Soltes,
287 Westford Rd,
Concord, MA 01742



October 31st, 2025

Concord Natural Resources Commission
141 Keyes Road
Concord, MA 01742

Re: Notice of Intent
287 Westford Rd
Concord, MA 01742

Dear Concord Natural Resources Commission,

On behalf of Eugene Soltes (the Applicant), Goddard Consulting, LLC (Goddard) is hereby submitting this Notice of Intent (NOI) application for an Ecological Limited Restoration Project for the pond at 287 Westford Road, Concord, MA. The overall goal of this project is to develop and implement a comprehensive pond management plan that includes ongoing monitoring, herbicide and algaecide application as needed, and aeration to improve water quality and habitat conditions. The project would involve the application of herbicide and algaecide across the extent of the pond with the goal of managing plant assemblages, which are currently dominated by common duckweed. The proposed project has been filed as an Ecological Restoration Limited Project under 310 CMR 10.53(4) and will protect the interests of the Wetlands Protection Act by controlling nuisance species, improving fish habitat, enhancing water quality, and slowing pond eutrophication.

Wetland resources affected by the proposed work include Land under Water Bodies and Waterways.

This NOI application is a filing under the MA Wetlands Protection Act (WPA) and the Concord Natural Resources Commission Wetland Bylaw. Enclosed are the WPA Form 3 and additional supporting documentation for the project for your review and approval.

Sincerely,
Goddard Consulting, LLC

Steven Riberdy, MS, PWS, CWB, CE, CERP, PSS
Senior Ecologist / Palmer Office Manager

Owen Kramer, CESSWI
Lead Wetland Scientist

CC: MassDEP Northeastern Regional Office, 150 Presidential Way, Woburn, MA 01801

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LIST OF ATTACHMENTS

Attachment A: WPA Form 3 – Notice of Intent & Fee Transmittal Form
Appendix A: Ecological Restoration Limited Project Checklists
Copy of Checks

Attachment B: Abutter Information
Certified Abutters List
Notification to Abutters
Environmental Monitor Publication

Attachment C: Locus Maps & Figures
USGS Map of the Locus Site, Goddard Consulting, LLC, 10/20/2025
Orthophoto of the Locus Site, Goddard Consulting, LLC, 10/20/2025
NRCS Map of the Locus Site, Goddard Consulting, LLC, 10/20/2025
FEMA Flood Hazard Map, Goddard Consulting, LLC, 10/20/2025
Pond Bathymetry Sketch, Goddard Consulting, LLC, 10/30/2025

Attachment D: Safety Datasheets
Diquat Treatment
Flumioxazin Treatment
Chelated Copper Formulations Treatment
Glyphosate Treatment
Polyaluminum Chloride Treatment

Attachment E: Water Quality and Vegetation Reports
Water & Wetland - Field Notes Summary
SePRO Lab - Laboratory Report

1.0 INTRODUCTION

On behalf of the Eugene Soltes, Goddard Consulting, LLC (Goddard) is hereby submitting this Notice of Intent (NOI) application for an Ecological Restoration Limited Pond Management Project for the pond at 287 Westford Rd, Concord, MA. Goddard and Water and Wetland both assessed the pond in 2025, but the pond has never received any previous management.

The pond has a history of problematic growth of common duckweed (*Lemna minor*) and algal species (microscopic and filamentous) and has been tested and determined to be eutrophic due to a high level of phosphorus. These plants have the ability to proliferate to nuisance densities, as has been observed by the landowner seasonally in the pond. Vegetation densities such as this can have the effect of overcrowding and depriving other species of dissolved oxygen. This can result in monoculture and increases the potential for further eutrophication and anoxic events when the dense vegetation dies off at the end of summer.

The pond has never previously been managed. This current proposal describes management of the pond with the implementation of an occasional selective and targeted herbicide and algaecide treatment as needed, paired with monitoring of the pond. To remediate the pond to ecologically balanced conditions, herbicides and algaecides including diquat, flumioxazin, and chelated copper formulations will be used as treatments. Glyphosate will be reserved for use on upland invasive species including observed on-site multiflora rose (*Rosa multiflora*), Japanese barberry (*Berberis thunbergii*), and Oriental bittersweet (*Celastrus orbiculatus*) if and as necessary. Additionally, polyaluminum chloride (PAC) could be used to combat excess phosphorous. All of these products won't be applied at the same time, and some may not be used at all depending on the present conditions. Application will be used to address nuisance species to increase the proportion of open water. The goal is to reach a maximum of 30% summer vegetation cover wherever suitable throughout the pond to ensure habitat integrity. In addition to chemical treatments, the installation of an aeration system is proposed to improve dissolved oxygen levels, reduce internal nutrient loading, and limit algal growth. Aeration will promote a more balanced aquatic ecosystem by supporting fish and invertebrate populations while helping to prevent stratification and stagnation. Regular inspections (monthly) will take place after the application to confirm the success of treatment. Treatment will be done within the pond and thus within Land Under Waterways and Waterbodies (LUWW).

This report describes existing conditions, resource areas present on site, the proposed work, and project compliance with the Massachusetts Wetlands Protection Act and the Concord Natural Resources Commission Wetland Bylaw. We request that the Concord Natural Resources Commission issue an Order of Conditions through this project's compliance, described in the sections below. A 5-year approval is requested for the implementation and monitoring of the aquatic management program at the pond.

2.0 EXISTING CONDITIONS

The pond at 287 Westford Road in Concord (herein referred to as the pond) is located in the southeastern portion of the lot (Parcel ID: 1575-2). The parcel is located on a partially forested lot and has a high degree of riparian cover. The pond is connected to a small intermittent stream which runs off-parcel to the south which likely connects to Spencer Brook. The pond's riparian cover consists of mostly upland plants and the bank of the pond is distinct and steep in the southeast, south, and west of the pond. Riparian cover is about 25% overall and includes white pine (*Pinus strobus*), red oak (*Quercus rubra*), burning bush (*Euonymus alatus*) (invasive), silky dogwood (*Swida amomum*), multiflora rose (*Rosa multiflora*) (invasive), sensitive fern (*Onoclea sensibilis*), soft rush (*Juncus effusus*), common alder (*Alnus glutinosa*), glossy buckthorn (*Frangula alnus*) (invasive), and sugar maple (*Acer saccharum*). The pond is utilized for recreation and enjoyment by the landowner. The pond itself is approximately .43 acres (18,730 SF) and lies within the Concord River Watershed. It has an average depth of approximately 4 feet, and a maximum depth of approximately 8 feet, being quite deep for its size outside of the edges which are generally shallow. A rough bathymetry of the pond as assessed

by Goddard is included with this application. The pond is completely owned by the landowner and is partially restricted at its outflow by some old, medium sized stones.

The pond has a significant soft-bottom of about 1-2' deep, underlain by sandy soils. The pond is eutrophic as is shown in the included pond water quality report conducted by Water & Wetland. The pond is fairly clear and otherwise has decent water quality by most metrics. However, it is also covered in a substantial population of common duckweed and algae, which pose a seasonal threat to water quality and would benefit from spring control. The pond was previously equipped with an aeration system installed by a former owner, but it has not been in operation for several years, contributing to reduced circulation and water quality conditions that this project seeks to address.

2.1 OVERVIEW

The pond has historically experienced growth of common duckweed and various algal species, which can proliferate rapidly, often spreading across the water surface and concentrating along the perimeter. These conditions block sunlight and reduce dissolved oxygen and nutrients available to beneficial submersed vegetation, potentially leading to near-monocultures that dominate large portions of the pond. Left unmanaged, nuisance floating vegetation can significantly reduce aquatic plant diversity, degrade water quality, exacerbate eutrophication, impair habitat function, and limit recreational use.

Aquatic vegetation is a critical component of pond ecology, providing food, structural habitat, and cover for fish, invertebrates, and other wildlife, including mammals and waterfowl. A diverse mix of vegetated communities and open water areas enhances ecosystem function, supports biodiversity, and contributes to the pond's recreational and ecological value. However, dense floating-leaf vegetation such as duckweed, along with unchecked algal growth, can create low-diversity coverage and degrade pond conditions. Negative impacts of dense, monotypic vegetation include oxygen depletion leading to fish kills, organic infilling from seasonal die-back that accelerates eutrophication, and obstructed fish movement that reduces habitat quality. For these reasons, effective management is essential to maintain habitat quality, support aquatic life and wildlife, and preserve both the ecological and recreational value of the pond.

Two pond surveys were conducted by Water & Wetland in May and September 2025 to assess water quality, overall pond health, and vegetation types, distributions, and densities. Common duckweed (*Lemna minor*) and microscopic or filamentous algae were identified as dominant throughout the pond. Water samples were collected and sent to SePRO Lab for algae identification and water quality analysis. The dominant algal species was *Ceratium sp.*, present at 260 cells/mL, with additional groups including *Scenedesmus*, *Phacus*, and *Synechococcus* found at lower densities. Water quality showed near-neutral pH, soft water, low alkalinity, and low turbidity. Nutrient analysis shows high total phosphorus concentrations, resulting in eutrophic conditions, while nitrogen levels remain low and chlorophyll is moderate, further suggesting algal productivity. Overall, the pond shows signs of nutrient enrichment primarily from phosphorus, which will contribute to increased growth of algae and floating vegetation.

The pond is generally shallow along its edges, with soft-bottom areas of 1–2 feet, while depths reach an average of approximately 4 feet and a maximum of about 8 feet, making it relatively deep for its size. These physical conditions, combined with limited outflow, can promote nutrient accumulation and low oxygen levels, encouraging the growth of algae and emergent vegetation, which makes the pond susceptible to increased eutrophication if left unmanaged.

The Applicant is seeking an OOC to ensure the ability to actively manage the pond for recreation and wildlife habitat integrity under all current laws and local regulations. Management will include selective and targeted herbicide and algaecide treatments to control nuisance species while maintaining approximately 30% aquatic vegetation cover in the managed areas. The reinstallation of an aeration system is also proposed to improve water circulation, increase dissolved oxygen levels, and help prevent stratification and algal blooms. Aeration will support healthier aquatic habitat conditions, improve water clarity, and enhance the effectiveness of other management measures. Approved

herbicides may also be required for surrounding upland areas to manage invasive plants when and if necessary as listed in section one. Without these management measures, problematic vegetation would continue to expand, further degrading the aquatic environment and reducing the pond's ecological and recreational value. These methods are in compliance with the Massachusetts DCR's 2004 *Generic Environmental Impact Report on Eutrophication and Aquatic Plant Management in Massachusetts* (GEIR) and *The Massachusetts Guide to Lake Management* (MassGLM).

2.2 RESOURCE AREAS ON-SITE

2.2.1 LAND UNDER WATER BODIES AND WATERWAYS

Under the Wetlands Protection Act, Land under Water Bodies and Waterways is defined as “the bottom of, or land under, the surface of the ocean or any estuary, creek, river, stream, pond, or lake.” These areas are also protected under the Town of Concord's Natural Resources Commission Wetland Bylaw. No significant changes or alterations to this resource area will happen as a result of the treatment. This resource area is expected to be enhanced through the removal of excessive nuisance species, and subsequent improvement of water quality and habitat, as well as lessening eutrophic conditions. In the short term, during and immediately after treatment, there will likely be a small short term impact to the Land under Water Bodies underneath the pond surface, as, in order to treat and restore the pond, there is some necessity to use minimal drawdown and appropriate treatments within the surface and littoral zone of the pond, which will cause temporary impacts to this resource.

2.2.2 BANK

Under the Wetlands Protection Act, Bank is defined as “the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland.” Bank is also a protected resource area under the Town of Concord's Natural Resources Commission Wetland Bylaw. No significant changes or alterations to this resource area will happen as a result of the treatment.

2.2.3 HABITAT AREA

The pond is not located within an Area of Critical Environmental Concern (ACEC), nor is the pond located within NHESP Priority Habitat of Rare Species or Estimated Habitats of Rare Wildlife.

2.2.4 WATER QUALITY

The pond is not an Outstanding Resource Water (ORW) area nor is it considered a Great Pond. The pond is also not listed in the 314 CMR 4.06 Table 12 (Surface Water Quality Standards (11/12/21)) and thus, per 314 CMR 4.06(5), as “Other Waters” it can be presumed to be a Class B Water representing its recreational, habitat, and aesthetic value. All proposed treatments are suitable for such waters per Massachusetts and USAEPA guidelines and regulations, and, once an Order of Conditions has been issued by the Concord Natural Resources Commission, the licensed applicator will complete the filing for a State Pesticide Use Permit (WM04) with the Massachusetts Department of Environmental Protection (MA-DEP).

3.0 **PROPOSED PROJECT**

3.1 GENERAL OVERVIEW

The applicant proposes to manage the pond using a combination of herbicides and algaecides, applied as needed based on ongoing monitoring, to control nuisance and invasive aquatic vegetation. This Notice of Intent requests approval for the use of diquat, flumioxazin, chelated copper formulations, glyphosate, and polyaluminum chloride.

These products will not be applied simultaneously, and some may not be used at all, depending on site conditions and the selected management approach.

The proposed treatments specifically affect the target species to be controlled and have a negligible effect on the non-target species and wildlife when applied in accordance with the label directions. All treatments will be applied at or below suggested doses according to the product label. All doses are based on plant types and densities as well as the volume of the pond, so that the minimum suitable concentration for efficacy of treatment material is introduced into the waterbody. The herbicides and algaecides will be applied within the limit of work and below the bank of the pond. In addition to herbicide treatments, the reinstallation of an aeration system is proposed to promote better water circulation and higher dissolved oxygen level and reduce algal blooms. By enhancing these water quality conditions, aeration will support healthier aquatic habitats, improve water clarity, and increase the overall effectiveness of the pond management plan. Combined, these treatments are proposed for the purpose of ecological restoration to restore and maintain the aquatic habitat and water quality of the pond and allow continued use.

Management and treatment of the vegetation will be paired with pre- and post- treatment surveys to assess and confirm appropriate management conditions, physical and chemical properties of the lake, treatment areas, and timing, as well as determine the effectiveness of treatment. The information and summaries from these pre- and post-treatment surveys will be supplied to the Concord Natural Resources Commission and paired with treatment area maps and information on the used herbicide and/or algaecide.

The pond has experienced extensive growth of floating-leaf vegetation and algae for many years prior to this proposed treatment. Since the pond has received no previous management efforts, aquatic vegetation densities in the pond have been increasing, and continued treatment is required to avoid degradation of habitat in the future. If left untreated, nuisance vegetation will proliferate to problematic densities. When this vegetation dies in the fall, cyanobacteria may flourish and feed on the decaying plants, leading to a potentially anoxic and/or toxic event. Goddard anticipates that the management program proposed in this document will be successful in reduction and maintenance of nuisance species within the pond, while maintaining a dynamic composition and healthy beneficial distribution of suitable aquatic vegetation throughout the remainder of the pond.

3.2 POND MANAGEMENT

As stated above, once an Order of Conditions has been issued by the Concord Natural Resources Commission, the licensed applicator will complete the filing for a State Pesticide Use Permit (WM04) with the Massachusetts Department of Environmental Protection (MA-DEP).

The applicant's goal is to maintain the pond as a passive recreational resource and as viable habitat for fish and wildlife. To achieve this goal, proactive and ongoing management of nuisance vegetation is essential.

The following management schedule is proposed under this Notice of Intent. The phases outlined below provide a general framework and may be adjusted as needed based on field conditions, weather, and applicator availability.

Activity	Month	Target Species	Possible Products Utilized
Monitoring	April – October		
Floating-leaf vegetation and algal herbicide treatment	June-September	- Common duckweed - Microscopic and filamentous algae	- Diquat - Flumioxazin - Chelated Copper Formulations
Pond Aeration	Year-round as needed		
Upland invasive herbicide treatment	June-September	Various potential upland invasives	- Glyphosate
Excess phosphorous	June-September		- Polyaluminum chloride (PAC)

Future Management

Due to the nature of managing nuisance species, annual long-term management is required for the continued control of these species and subsequent restoration of the pond.

Annual pre-treatment surveys will be undertaken in the following years around Spring and early-Summer. If there is regrowth of the target species, it will be handled with appropriate management practice.

3.3 ECOLOGICAL RESTORATION PROJECT

This project has been filed as an Ecological Restoration Project in accordance with 310 CMR 10.53(4). As per 310 CMR 10.04, “Ecological Restoration Limited Project means an Ecological Restoration Project that meets the eligibility criteria set forth in 310 CMR 10.24(8) or 10.53(4).” 310 CMR 10.53(4)(e)(5) states that, “An Ecological Restoration Project that is not listed in 310 CMR 10.54(4)(e)2. Through 4., that will improve the natural capacity of a Resource Area(s) to protect the interests identified in M.G.L. c. 131, § 40, may be permitted as an Ecological Restoration Limited Project provided that the project meets the eligibility criteria set forth in 310 CMR 10.54(4)(a) through (d). Such projects include, but are not limited to, the restoration, enhancement, or management of Rare Species habitat, the restoration of hydrologic and habitat connectivity, the removal of aquatic nuisance vegetation to retard pond and lake eutrophication, the thinning or planting of vegetation to improve habitat value, riparian corridor re-naturalization, river floodplain reconnection, in-stream habitat enhancement, fill removal and regarding, flow restoration, and the installation of fish passage structures.”

This project clearly fits under this definition, as it seeks to remove aquatic nuisance vegetation to slow pond eutrophication and includes thinning vegetation to improve habitat value. It aims to restore and maintain habitat which is anthropogenically impounded and thus, modified.

3.4 RARE SPECIES HABITAT & FEMA FLOOD DESIGNATIONS

The entirety of the pond and the property parcel is not mapped within priority habitat on the most recent habitat map of State-listed Rare Wildlife published by Natural Heritage and Endangered Species Program. The site is neither located in an Area of Critical Environmental Concern (ACEC), nor is it located within a regulated FEMA flood zone.

3.4.1 TREATMENTS

Diquat (Tribune - EPA # 100-1390 or equivalent):

Tribune (diquat) is an effective herbicide for partial-pond treatments due to its rapid mode of action and short herbicide concentration-exposure-time requirements. Even though diquat is considered to be a contact-herbicide, longer term control may be seen as plants' root crowns will not be allowed to develop.

The USEPA/MA registered herbicide diquat dibromide (Tribune) will be applied to the area at or below the permissible label dose. Tribune is applied to more than 500 lakes and ponds annually, throughout the northeast, to control nuisance submerged aquatic plants. Diquat can be applied to control nuisance submersed plants at the application rate of 1.0-2.0 gal/acre, if necessary. Temporary water use restrictions for diquat are now: 1) No drinking or cooking for 3 days. 2) No irrigation of turf for 3 days and of food crops for 5 days, and 3) No livestock watering for 1 day. There are no restrictions on swimming, boating, or fishing, but prudent herbicide/algacide management, suggest that the applicant avoid using the pond on the day of treatment.

Diquat is translocated to some extent within the plant. Its rapid action tends to disrupt the leaf cuticle of plants and acts by interfering with photosynthesis. Upon contact with the soil, it is adsorbed immediately and thereby biologically inactivated. Residual levels of diquat in treated water decline rapidly and their reduction is due to the uptake by the targeted vegetation and adsorption to suspended soil particles in the water or on the bottom mud. Photochemical degradation accounts for some loss under conditions of high sunlight and clear waters.

Flumioxazin (Flumigard SC – EPA #81927-68 or equivalent):

Flumioxazin provides control of various submerged, emergent, and floating aquatic plants and filamentous green algae. Flumioxazin-based aquatic herbicides may be broadcast applied to the water surface or injected below the water surface. This herbicide is classified as a PPO (Protoporphyrinogen oxidase) inhibitor that initiates cell membrane disruption, providing control of a broad range of susceptible plants. This herbicide provides a quick and effective control of targeted plant species. It is fast acting, and has a very short half-life, being effective for spot-treatments.

There are no post-treatment restrictions on water use for swimming, fishing, or pet/livestock drinking water. There is a five-day restriction on irrigation. This herbicide is moderately toxic to freshwater fish on a short-term basis, but will be used at low, controlled dosages. It is also non-toxic to birds and small mammals on a short-term basis, and only poses a risk to chemical applicators.

Chelated Copper algacides (Captain XTR – EPA #67690-9 or equivalent):

Copper-based algacides are proposed for use as needed, based on ongoing monitoring and sampling results. Modern copper complexes are formulated to reduce the availability of free copper ions in the water column through chelation. In natural conditions, ionic copper tends to bind with carbonates; however, chelated copper complexes prevent the formation of copper carbonates, thereby reducing toxicity to non-target organisms such as fish and humans. These algacides are widely used throughout the state, including in drinking water reservoirs, and have no associated water use restrictions. The liquid algacides would be diluted with pond water prior to application and evenly distributed across the pond surface. They would only be applied if algae reached nuisance levels following herbicide treatment.

Glyphosate (AquaPro - EPA # 62719-324-67690, Rodeo – EPA # 62719-324 or equivalent):

Glyphosate is a broad-spectrum, systemic herbicide that can be used to control both upland and aquatic vegetation. It works by inhibiting protein synthesis and new tissue growth, leading to complete plant death following direct contact with foliage. In this instance, glyphosate will be used only via direct application to manage invasive upland plant species and will not be applied directly to the water. At recommended application rates, glyphosate is relatively

non-toxic to aquatic and terrestrial fauna and rapidly degrades into non-toxic components through microbial activity, posing no threat to the adjacent pond or water resources. Glyphosate does have potential to kill non-target species if it comes into direct contact with their leaves.

Polyaluminum Chloride (PAC) (AWWA B408-18 or equivalent):

Polyaluminum chloride (PAC) is an inorganic coagulant used to reduce phosphorus levels in surface waters by binding and precipitating dissolved phosphorus into insoluble forms that settle to the pond bottom. This process effectively limits nutrient availability for algal growth and helps control eutrophic conditions. PAC is commonly used in pond and lake restoration projects, drinking water treatment, and wastewater management due to its high efficiency and low toxicity to aquatic organisms. In this instance, PAC will be applied as needed based on monitoring results to reduce phosphorus concentrations contributing to excessive aquatic plant and algal growth. Applications will be carefully controlled to maintain appropriate pH and alkalinity levels and to ensure protection of aquatic life.

Prior to all treatments, signs will be posted along the pond and channel shoreline to warn of any temporary water use restrictions. Additional information on the proposed treatments is provided in the attached Safety Data Sheets and product summaries included at the end of this submittal.

Pond Aeration:

The reinstallation of an aeration system is proposed for use as part of ongoing pond management, with operation guided by regular monitoring of water quality and dissolved oxygen levels. Aeration systems function by introducing oxygen into the water column and promoting circulation, which helps prevent thermal stratification, reduces nutrient accumulation, and limits the growth of algae and nuisance vegetation. By maintaining higher oxygen levels throughout the pond, aeration supports fish, invertebrates, and other aquatic organisms while improving overall water quality. Over time, consistent aeration can help reduce conditions that favor excessive plant and algae growth, potentially decreasing reliance on herbicide and algaecide treatments in the future. These systems are widely used in ponds and lakes across the state and pose no risk to human health or non-target wildlife when properly installed and maintained. The aeration system would be operated at the discretion of the owner or pond management team, year-round as needed based on water quality and vegetation conditions but would not be used when the pond is frozen.

3.4.2 RISKS – MONITORING & PREVENTION

All potential treatments have some degree of temporary risk to water quality and fish safety. Risks associated with herbicide and algaecide application within the ponds include oxygen depletion, water quality degradation, noxious odors, fish kills, and potentially impacting non-targeted species. However, when treatment is done properly by a qualified herbicide applicator, risks are significantly minimized. In addition, regular monitoring of the site will be conducted through evaluating the following characteristics of the pond to prevent the following problems from occurring.

3.4.3 IMPACTS TO RESOURCE AREAS

LUWW Impacts (Temporary)	Bank Impact	Riverfront Area Impact
18,730 SF of Pond Surface Area	0	0

Impacts to the resource areas on & around the pond include LUWW. Impacts to the LUWW will be temporary, and there are not expected to be any impacts to Bank, or any surrounding Riverfront Area cast off the streams flowing out of the pond. Impacts to LUWW will include the targeting, and removal, of the problematic species within the pond.

4.0 REGULATORY COMPLIANCE WITH WETLANDS PROTECTION ACT

Work within resource areas protected by the Wetlands Protection Act is being proposed. The project has been designed to meet the Wetlands Protection Act's general performance standards for work within resource areas and to minimize impacts to the extent practicable. Table 1 below outlines impacts to the resource area on site. Explanation on how the project meets the performance standards of each resource follows.

4.1 LAND UNDER WATER BODIES AND WATERWAYS

§ 10.56	Land Under Water Bodies and Waterways	
	Performance Standards	Compliance
10.56 (4)(a)(1)	<p><i>Any proposed work within Land under Water Bodies and Waterways shall not impair the following:</i></p> <p><i>The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks.</i></p>	Treatment involved will not affect the carrying capacity of the pond.
10.56 (4)(a)(2)	<i>Ground and surface water quality.</i>	Ground water quality is not expected to be impacted from work. Surface water quality has the potential to be adversely impacted during treatment, but by following the procedures listed above in the Treatments section, water quality will not be impaired beyond the extreme short term.
10.56 (4)(a)(3)	<i>The capacity of said land to provide breeding habitat, escape cover and food for fisheries.</i>	Vegetation management through treatment is expected to improve the habitat and cover quality of the pond, as the current dense coverages are at nuisance levels that obstruct fish movement. Biodiversity will also be improved.
10.56 (4)(a)(4)	<p><i>The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.</i></p>	As listed above, treatment is expected to improve the quality of the pond's wildlife habitat functions by improving biodiversity, removing nuisance weeds that can obstruct dissolved oxygen levels, and clear up the pond so fish have improved visibility and less obstructions.

5.0 ALTERNATIVE ANALYSIS

Since some work is proposed within the Wetlands Protection Zone, the applicant has provided the following analysis of alternatives for pond treatment. Alternatives were analyzed for potential viability and practicality given the site's environmental constraints.

5.1 ALTERNATIVE A: NO MANAGEMENT

Performing zero management of the pond was considered as an alternative to the application of herbicides. However, due to the growth of nuisance vegetation and current eutrophic conditions from excessive phosphorus, a no-management approach is not recommended. Continued lack of management limits biodiversity within the pond can lead to depleted dissolved oxygen levels, and may further degrade overall water quality. In addition, allowing nutrient-rich conditions to persist can promote the transport of phosphorus and organic matter downstream, negatively affecting water quality and ecological balance in connected waterbodies. No management of this waterbody also threatens its function as a recreational resource for the property owner.

5.2 ALTERNATIVE B: SEDIMENT EXCAVATION/DREDGING

Dredging nutrient-rich sediment from the pond bottom is sometimes used to control excessive aquatic vegetation growth. However, both conventional and hydraulic dredging are extensive and expensive undertakings compared to herbicide treatments. Access and staging limitations further constrain the feasibility of dredging, and the process can cause severe short-term impacts to aquatic organisms with no guarantee of complete nuisance species removal. Additionally, permitting dredging is significantly more costly and time-consuming. Therefore, dredging is not recommended or required at this time.

5.3 ALTERNATIVE D: BOTTOM WEED BARRIERS

Physical controls, such as the use of bottom weed barriers can be effective for small dense patches of nuisance vegetation but are not cost effective or feasible for large areas. Weed barriers are expensive to install and maintain at ~\$1.75/ft² (material & installation). Semi-annual maintenance to retrieve, clean and re-deploy the barriers would be required. All this would be expensive for a pond of this size relative to the return on investment. Additionally, covering expansive areas of the pond bottom would very likely also have detrimental impacts on native plants, invertebrates, and other types of wildlife.

5.4 ALTERNATIVE E: BIOLOGICAL

There are no proven biological controls available or approved by the State of Massachusetts for the control of the nuisance aquatic plant species present in the pond.

5.5 ALTERNATIVE F: POND MANAGEMENT VIA HERBICIDE AND ALGAECIDE TREATMENT AND AERATION

While no approach is perfect, the preferred alternative, which is holistic pond management including monitoring, supplemental aeration, and subsequent treatment as needed with a carefully chosen suite of herbicide and algaecide treatments to be applied when and where appropriate, represents the best balance of cost, efficacy, safety, and reliability in the eyes of the applicant. The risks outlined in section 3.4 are preventable with qualified personnel and regular, consistent monitoring of the pond's water quality and vegetation. The proposed plan stands out as the most conventional, tried-and-tested method, with a long track record of success in comparable ponds that are valuable both for their ecological benefits and recreational use.

6.0 CONCLUSION

In summary, Goddard Consulting and Water & Wetland believe that the proposed treatment and management will not have any adverse impact on the interests identified in the Wetlands Protection Act or the Town of Concord Wetland Bylaw in the long term. The pond is expected to be enhanced through the removal of excessive nuisance species and subsequent improvement of water quality and habitat. The proposed project meets all regulatory compliance standards under the Wetlands Protection Act; therefore, Goddard Consulting respectfully requests that the Concord Natural Resources Commission issue an Order of Conditions approving the proposed project.

Please feel free to contact us if you have any questions about this Notice of Intent submission.

Sincerely,

Goddard Consulting, LLC and Water & Wetland



Steven Riberdy, MS, PWS, CWB, CE, CERP, PSS
Principal Ecologist / Director of Operations



Owen Kramer, CESSWI
Lead Wetland Scientist



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

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



Note:
 Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

_____	_____	_____
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
_____	_____	_____
d. Latitude	e. Longitude	
_____	_____	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

_____	_____	
a. First Name	b. Last Name	

c. Organization		

d. Street Address		
_____	_____	_____
e. City/Town	f. State	g. Zip Code
_____	_____	_____
h. Phone Number	i. Fax Number	j. Email Address

3. Property owner (required if different from applicant): Check if more than one owner

_____	_____	
a. First Name	b. Last Name	

c. Organization		

d. Street Address		
_____	_____	_____
e. City/Town	f. State	g. Zip Code
_____	_____	_____
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

_____	_____	
a. First Name	b. Last Name	

c. Company		

d. Street Address		
_____	_____	_____
e. City/Town	f. State	g. Zip Code
_____	_____	_____
h. Phone Number	i. Fax Number	j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

_____	_____	_____
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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Provided by MassDEP:

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A. General Information (continued)

6. General Project Description:

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- 1. Single Family Home
- 2. Residential Subdivision
- 3. Commercial/Industrial
- 4. Dock/Pier
- 5. Utilities
- 6. Coastal engineering Structure
- 7. Agriculture (e.g., cranberries, forestry)
- 8. Transportation
- 9. Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

_____	_____
a. County	b. Certificate # (if registered land)
_____	_____
c. Book	d. Page Number

B. Buffer Zone & Resource Area Impacts (temporary & permanent)

- 1. Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- 2. Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

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

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bank, Bordering Vegetated Wetland, and Land Under Waterbodies and Waterways.

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bordering Land Subject to Flooding and Isolated Land Subject to Flooding.

- f. Riverfront Area
1. Name of Waterway (if available) - specify coastal or inland
2. Width of Riverfront Area (check one):
- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: square feet

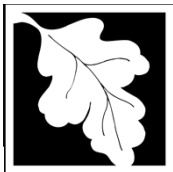
4. Proposed alteration of the Riverfront Area:
a. total square feet b. square feet within 100 ft. c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI? Yes No

6. Was the lot where the activity is proposed created prior to August 1, 1996? Yes No

3. Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Note: for coastal riverfront areas, please complete Section B.2.f. above.



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B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users: Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area, Size of Proposed Alteration, Proposed Replacement (if any)
a. Designated Port Areas
b. Land Under the Ocean
c. Barrier Beach
d. Coastal Beaches
e. Coastal Dunes
f. Coastal Banks
g. Rocky Intertidal Shores
h. Salt Marshes
i. Land Under Salt Ponds
j. Land Containing Shellfish
k. Fish Runs
l. Land Subject to Coastal Storm Flowage
4. Restoration/Enhancement
5. Project Involves Stream Crossings



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Provided by MassDEP:

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C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

- a. Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

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

b. Date of map _____

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:
 - (a) within wetland Resource Area _____ percentage/acreage
 - (b) outside Resource Area _____ percentage/acreage

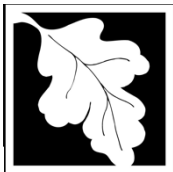
2. Assessor's Map or right-of-way plan of site

2. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **
 - (a) Project description (including description of impacts outside of wetland resource area & buffer zone)
 - (b) Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

** MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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Provided by MassDEP:
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Document Transaction Number
City/Town

Online Users:
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

C. Other Applicable Standards and Requirements (cont'd)

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
 a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
-
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
 a. Yes No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
 a. Yes No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
 a. Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
 1. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
 2. A portion of the site constitutes redevelopment
 3. Proprietary BMPs are included in the Stormwater Management System.
 b. No. Check why the project is exempt:
 1. Single-family house
 2. Emergency road repair
 3. Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

D. Additional Information

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

Online Users: Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

D. Additional Information (cont'd)

3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

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

a. Plan Title

b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

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

6. Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

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

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

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40



Provided by MassDEP:

MassDEP File Number
Document Transaction Number
Webster
City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

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

	<u>10/30/25</u>
1. Signature of Applicant	2. Date
	<u>12/8/2025</u>
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	6. Date

For Conservation Commission:

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

For MassDEP:

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

Other:

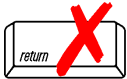
If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

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



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:

a. Street Address _____ b. City/Town _____
 c. Check number _____ d. Fee amount _____

2. Applicant Mailing Address:

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

3. Property Owner (if different):

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

B. Fees

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

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

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

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

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

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

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

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



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 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee: _____
 a. Total Fee from Step 5

State share of filing Fee: _____
 b. 1/2 Total Fee **less** \$12.50

City/Town share of filing Fee: _____
 c. 1/2 Total Fee **plus** \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

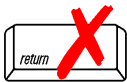
City/Town

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

Eligibility Checklist

This Ecological Restoration Limited Project Eligibility Checklist guides the applicant in determining if their project is eligible to file as an Inland or Coastal Ecological Restoration Limited Project (310 CMR 10.53(4) or 310 CMR 10.24(8) respectively). These criteria must be met when submitting the Ecological Restoration Limited Project Notice of Intent to ensure that the restoration and improvement of the natural capacity of a Resource Area(s) to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

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



Note:
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

Regulatory Features of All Coastal and Inland Ecological Restoration Limited Projects

- (a) May result in the temporary or permanent loss of or conversion of Resource Area: An Ecological Restoration Limited Project that meets the requirements of 310 CMR 10.24(8) may result in the temporary or permanent loss of Resource Areas and/or the conversion of one Resource Area to another when such loss is necessary to the achievement of the project's ecological restoration goals.
- (b) Exemption from wildlife habitat evaluation: A NOI for an Ecological Restoration Limited Project that meets the minimum requirements for Ecological Restoration Projects and for a MassDEP Combined Application outlined in 310 CMR 10.12(1) and (2) is exempt from providing a wildlife habitat evaluation (310 CMR 10.60).
- (c) The following are considerations for applicants filing an Ecological Restoration Limited Project NOI and for the issuing authority approving a project as an Ecological Restoration Limited Project:
 - The condition of existing and historic Resource Areas proposed for restoration.
 - Evidence of the extent and severity of the impairment(s) that reduce the capacity of the Resource Areas to protect and sustain the interests identified in M.G.L. c. 131, § 40.
 - The magnitude and significance of the benefits of the Ecological Restoration Project in improving the capacity of the affected Resource Areas to protect and sustain the other interests identified in M.G.L. c. 131, § 40.
 - The magnitude and significance of the impacts of the Ecological Restoration Project on existing Resource Areas that may be modified, converted and/or lost and the interests for which said Resource Areas are presumed significant in 310 CMR 10.00, and the extent to which the project will:
 - a. avoid adverse impacts to Resource Areas and the interests identified in M.G.L. c. 131, § 40, that can be avoided without impeding the achievement of the project's ecological restoration goals.
 - b. minimize adverse impacts to Resource Areas and the interests identified in M.G.L. c. 131, § 40, that are necessary to the achievement of the project's ecological restoration goals.
 - c. utilize best management practices such as erosion and siltation controls and proper construction sequencing to avoid and minimize adverse construction impacts to resource areas and the interests identified in M.G.L. c. 131, § 40.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8))

Complete this Eligibility Criteria Checklist **before** filling out a Notice of Intent Application to determine if your project qualifies as a Coastal Ecological Restoration Limited Project. (310 CMR 10.24(8)) Sign the Eligibility Certification at the end of Appendix A, and attach the checklist with supporting documentation and the Eligibility Certification to your Notice of Intent Application.

General Eligibility Criteria for All Coastal Ecological Restoration Limited Projects

Notwithstanding the requirements of 310 CMR 10.25 through 10.35, 310 CMR 10.54 through 10.58, and the Wildlife Habitat evaluations in 310 CMR 10.60, the Issuing Authority may issue an Order of Conditions permitting an Ecological Restoration Project listed in 310 CMR 10.24(8)(e) as an Ecological Restoration Limited Project and impose such conditions as will contribute to the interests identified in the WPA M.G.L. provided that the project meets all the requirements in 310 CMR 10.24(8).

- The project is an Ecological Restoration Project as defined in 310 CMR 10.04 and is a project type listed below [310 CMR 10.24(8)(e)].
- Tidal Restoration.
- Shellfish Habitat Restoration.
- Other Ecological Restoration Limited Project Type.
- The project will further at least one of the WPA (M.G.L. c. 131, § 40) interests identified below.
 - Protection of public or private water supply.
 - Protection of ground water supply.
 - Flood control.
 - Storm damage prevention.
 - Prevention of pollution.
 - Protection of land containing shellfish.
 - Protection of fisheries.
 - Protection of wildlife habitat.
- If the project will impact an area located within estimated habitat which is indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands, a NHESP preliminary written determination is attached to the NOI submittal that the project will not have any adverse long-term and short-term effects on specified habitat sites of Rare Species or the project will be carried out in accordance with an approved NHESP habitat management plan.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8)) (Cont.)

General Eligibility Criteria for All Coastal Ecological Restoration Limited Projects (cont.)

- If the project is located in a Coastal Dune or Barrier Beach, the project avoids and minimizes armoring of the Coastal Dune or Barrier Beach to the maximum extent practicable.
- The project complies with all applicable provisions of 310 CMR 10.24(1) through (6) and 310 CMR 10.24(9) and (10).

Additional Eligibility Criteria for Specific Coastal Ecological Restoration Limited Project Types

These additional criteria must be met to qualify as an Ecological Restoration Limited Project to ensure that the restoration and improvement of the natural capacity of a Resource Area to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

- This Ecological Restoration Limited Project application meets the eligibility criteria for Ecological Restoration Limited Project [310 CMR 10.24(8)(a) through (d) and as proposed, furthers at least one of the WPA interests is for the project type identified below.

Tidal Restoration Projects

- A project to restore tidal flow that will not significantly increase flooding or storm damage impacts to the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure.

Shellfish Habitat Restoration Projects

- The project has received a Special Projects Permit from the Division of Marine Fisheries or, if a municipality, has received a shellfish propagation permit.
- The project is made of cultch (e.g., shellfish shells from oyster, surf or ocean clam) or is a structure manufactured specifically for shellfish enhancement (e.g., reef blocks, reef balls, racks, floats, rafts, suspended gear).

Other Ecological Restoration Projects that meet the criteria set forth in 310 CMR 10.24(8)(a) through (d).

- Restoration, enhancement, or management of Rare Species habitat.
- Restoration of hydrologic and habitat connectivity.
- Removal of aquatic nuisance vegetation to impede eutrophication.
- Thinning or planting of vegetation to improve habitat value.
- Fill removal and re-grading.
- Riparian corridor re-naturalization.
- River floodplain re-connection.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8)) (Cont.)

Additional Eligibility Criteria for Specific Coastal Ecological Restoration Limited Project Types

- In-stream habitat enhancement.
- Remediation of historic tidal wetland ditching.
- Eelgrass restoration.
- Invasive species management.
- Installation of fish passage structures.
- Other. Describe: _____
- This project involves the construction, repair, replacement or expansion of public or private infrastructure (310 CMR 10.24(9)).
 - The NOI attachment labeled _____ is an operation and maintenance plan to ensure that the infrastructure will continue to function as designed.
 - The operation and maintenance plan will be implemented as a continuing condition in the Order of Conditions and the Certificate of Compliance.
- This project proposes to replace an existing stream crossing (310 CMR 10.24(10)). The crossing complies with the Massachusetts Stream Crossing Standards to the maximum extent practicable with details provided in the NOI. The crossing type:
 - Replaces an existing non-tidal crossing that is part of an Anadromous/Catadromous Fish Run (310 CMR 10.35)
 - Replaces an existing tidal crossing that restricts tidal flow. The tidal restriction will be eliminated to the maximum extent practicable.
- At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the following criteria have been consider site constraints in meeting the standard, undesirable effects or risk in meeting the standard, and the environmental benefit of meeting the standard compared to the cost, by evaluating the following:
 - The potential for downstream flooding;
 - Upstream and downstream habitat (in-stream habitat, wetlands);
 - Potential for erosion and head-cutting;
 - Stream stability;
 - Habitat fragmentation caused by the crossing;
 - The amount of stream mileage made accessible by the improvements;
 - Storm flow conveyance;



Provided by MassDEP:
MassDEP File Number
Document Transaction Number

WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town _____

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

Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8)) (Cont.)

Additional Eligibility Criteria for Specific Coastal Ecological Restoration Limited Project Types

- Engineering design constraints specific to the crossing;
- Hydrologic constraints specific to the crossing;
- Impacts to wetlands that would occur by improving the crossing;
- Potential to affect property and infrastructure; and
- Cost of replacement.

Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4))

Complete this Eligibility Criteria Checklist **before** filling out a Notice of Intent Application to determine if your project qualifies as an Inland Ecological Restoration Limited Project. (310 CMR 10.53(4)) Sign the Eligibility Certification at the end of Appendix A, and attach the checklist with supporting documentation and the Eligibility Certification to your Notice of Intent Application.

General Eligibility Criteria for All Inland Ecological Restoration Limited Projects

Notwithstanding the requirements of any other provision of 310 CMR 10.25 through 10.35, 310 CMR 10.54 through 10.58, and 310 CMR 10.60, the Issuing Authority may issue an Order of Conditions permitting an Ecological Restoration Project listed in 310 CMR 10.53(4)(e) as an Ecological Restoration Limited Project and impose such conditions as will contribute to the interests identified in M.G.L. c. 131, § 40, provided that:

- The project is an Ecological Restoration Project as defined in 310 CMR 10.04 and is a project type listed below [310 CMR 10.53(4)(e)].
 - Dam Removal
 - Freshwater Stream Crossing Repair and Replacement
 - Stream Daylighting
 - Tidal Restoration
 - Rare Species Habitat Restoration
 - Restoring Fish Passageways
 - Other (describe project type): _____



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4)) (cont.)

General Eligibility Criteria for All Inland Ecological Restoration Limited Projects

- The project will further at least one of the WPA (M.G.L. c. 131, § 40) interests identified below.
 - Protection of public or private water supply
 - Protection of ground water supply
 - Flood control
 - Storm damage prevention
 - Prevention of pollution
 - Protection of land containing shellfish
 - Protection of fisheries
 - Protection of wildlife habitat
- If the project will impact an area located within estimated habitat which is indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands, a NHESP preliminary written determination is attached to the NOI submittal that the project will have no adverse long-term and short-term effects on specified habitat sites of Rare Species or the project will be carried out in accordance with an approved NHESP habitat management plan.
- The project will be carried out in accordance with any time of year restrictions or other conditions recommended by the Division of Marine Fisheries for coastal waters and the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3).
- If the project involves the dredging of 100 cubic yards of sediment or more or dredging of any amount in an Outstanding Resource Water, a Water Quality Certification has been applied for or obtained.
- The project complies with all applicable provisions of 310 CMR 10.53(1), (2), (7), and (8).



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4)) (cont.)

Additional Eligibility Criteria for Specific Inland Ecological Restoration Limited Project Types

These additional criteria must be met to qualify as an Ecological Restoration Limited Project to ensure that the restoration and improvement of the natural capacity of a Resource Area to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

- This project application meets the eligibility criteria for Ecological Restoration Limited Project in accordance with [310 CMR 10.53(4)(a) through (d) and as proposed, furthers at least one of the WPA interests is for the project type identified below:
 - Dam Removal**
 - Project is consistent with MassDEP's 2007 Dam Removal Guidance.
 - Freshwater Stream Crossing Repair and Replacement.** The project as proposed and the NOI describes how:
 - Meeting the eligibility criteria set forth in 310 CMR 10.13 would result in significant stream instability or flooding hazard that cannot otherwise be mitigated, and site constraints make it impossible to meet said criteria.
 - The project design ensures that the stability of the bank is NOT impaired.
 - To the maximum extent practicable, the project provides for the restoration of the stream upstream and downstream of the structure as needed to restore stream continuity and eliminate barriers to aquatic organism movement.
 - The project complies with the requirements of 310 CMR 10.53(7) and (8).
 - Stream Daylighting Projects**
 - The project meets the eligibility criteria for Ecological Restoration Limited Project [310 CMR 10.53(4)(a) through (d)] and as proposed the NOI describes how the proposed project meets to the maximum extent practicable, consistent with the project's ecological restoration goals, all the performance standards for Bank and Land Under Water Bodies and Waterways.
 - The project meets the requirements of 310 CMR 10.12(1) and (2) and a wildlife habitat evaluation is not included in the NOI.
 - Tidal Restoration Project**
 - Restores tidal flow.
 - the project, including any proposed flood mitigation measures, will not significantly increase flooding or storm damage to the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4)) (cont.)

- Other Ecological Restoration Projects** that meet the criteria set forth in 310 CMR 10.53 (4) (a) through (d).
 - Restoration, enhancement, or management of Rare Species habitat.
 - Restoration of hydrologic and habitat connectivity.
 - Removal of aquatic nuisance vegetation to impede eutrophication.
 - Thinning or planting of vegetation to improve habitat value.
 - Riparian corridor re-naturalization.
 - River floodplain re-connection.
 - In-stream habitat enhancement.
 - Fill removal and re-grading.
 - Flow restoration.
 - Installation of fish passage structures.
 - Invasive species management.
 - Other. Describe: _____
- This project involves the construction, repair, replacement or expansion of public or private infrastructure. (310 CMR 10.53(7))
 - The NOI attachment labeled _____ is an operation and maintenance plan to ensure that the infrastructure will continue to function as designed.
 - The operation and maintenance plan will be implemented as a continuing condition in the Order of Conditions and the Certificate of Compliance.
- This project replaces an existing stream crossing (310 CMR 10.53(8)). The crossing type:
 - Replaces an existing non-tidal crossing designed to comply with the Massachusetts Stream Crossing Standards to the maximum extent practicable with details provided in the NOI.
 - Replaces an existing tidal crossing that restricts tidal flow. The tidal restriction will be eliminated to the maximum extent practicable.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4)) (cont.)

- At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the following criteria have been consider site constraints in meeting the standard, undesirable effects or risk in meeting the standard, and the environmental benefit of meeting the standard compared to the cost, by evaluating the following:
 - The potential for downstream flooding;
 - Upstream and downstream habitat (in-stream habitat, wetlands);
 - Potential for erosion and head-cutting;
 - Stream stability;
 - Habitat fragmentation caused by the crossing;
 - The amount of stream mileage made accessible by the improvements;
 - Storm flow conveyance;
 - Engineering design constraints specific to the crossing;
 - Hydrologic constraints specific to the crossing;
 - Impacts to wetlands that would occur by improving the crossing;
 - Potential to affect property and infrastructure; and
 - Cost of replacement.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Required Actions (310 CMR 10.11)

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

- Massachusetts Environmental Policy Act (MEPA) / Environmental Monitor**
<https://www.mass.gov/service-details/the-environmental-monitor>

For Ecological Restoration Limited Projects, there are no changes to MEPA requirements.

- Submit written notification at least 14 days prior to the filing of a Notice of Intent (NOI) to the Environmental Monitor for publication. A copy of the written notification is attached and provides at minimum:
 - A brief description of the proposed project.
 - The anticipated NOI submission date to the conservation commission.
 - The name and address of the conservation commission that will review the NOI.
 - Specific details as to where copies of the NOI may be examined or acquired and where to obtain the date, time, and location of the public hearing.

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

- Preliminary Massachusetts Endangered Species Act Review from the Natural Heritage and Endangered Species Program (NHESP) has been met and the written determination is attached.

- Supplemental Information for Endangered Species Review has been submitted.

1. Percentage/acreage of property to be altered:
 - a. Within Wetland Resource Area _____
Percentage/acreage
 - b. Outside Wetland Resource Area _____
Percentage/acreage
2. Assessor's Map or right-of-way plan of site
3. Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work.
4. Project description (including description of impacts outside of wetland resource area & buffer zone)
5. Photographs representative of the site
6. MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>)



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Required Actions (310 CMR 10.11) (cont.)

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

Natural Heritage & Endangered Species Program

MA Division of Fisheries & Wildlife
1 Rabbit Hill Road
Westborough, MA 01581

- 7. Projects altering 10 or more acres of land, also submit:
 - a. Vegetation cover type map of site
 - b. Project plans showing Priority & Estimated Habitat boundaries

OR Check One of the Following:

- 1. Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/ma-endangered-species-act-mesa-overview>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59 – see C4 below)

- 2. Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

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

Estimated Habitat Map of State-Listed Rare Wetlands Wildlife

If a portion of the proposed project is located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP), complete the portion below. To view habitat maps, see the **Massachusetts Natural Heritage Atlas** or view the maps electronically at: <https://www.mass.gov/guides/masswildlife-publications#-massachusetts-natural-heritage-atlas->

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

Project will NOT have long- or short-term adverse effect on the actual Resource Area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP.

Project will have long- or short-term adverse effect on the actual Resource Area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP. A copy of NHESP’s written preliminary determination in accordance with 310 CMR 10.11(2) is attached. This specifies:

Date of the map: _____



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Required Actions (310 CMR 10.11) (cont.)

- If the Rare Species identified is/are likely to continue to be located on or near the project, and if so, whether the Resource Area to be altered is in fact part of the habitat of the Rare Species.
- That if the project alters Resource Area(s) within the habitat of a Rare Species:
- The Rare Species is identified;
- NHESP's recommended changes or conditions necessary to ensure that the project will have no short or long term adverse effect on the habitat of the local population of the Rare Species is provided; or
- An approved NHESP habitat management plan is attached with this Notice of Intent.

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

Division of Marine Fisheries

- If the project will occur within a coastal waterbody with a restricted Time of Year, [see Appendix B of the Division of Marine Fisheries (DMF) Technical Report TR 47 "Marine Fisheries Time of Year Restrictions (TOYs) for Coastal Alteration Projects" dated April 2011 <https://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/MA/TR-47.pdf>].
- Obtain a DMF written determination stating:
 - The proposed work does NOT require a TOY restriction.
 - The proposed work requires a TOY restriction. Specific recommended TOY restriction and recommended conditions on the proposed work is attached.
- If the project may affect a diadromous fish run [re: Division of Marine Fisheries (DMF) Technical Reports TR 15 through 18, dated 2004: <https://www.mass.gov/service-details/marine-fisheries-technical-reports>]
- Obtain a DMF written determination stating:
 - The design specifications and operational plan for the project are compatible with the passage requirements of the fish run.
 - The design specifications and operational plan for the project are not compatible with the passage requirements of the fish run.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Required Actions (310 CMR 10.11) (cont.)

Send the request for a written or electronic determination to:

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

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

- Division of Fisheries and Wildlife** – <https://www.mass.gov/orgs/division-of-fisheries-and-wildlife>
 - Projects that involve silt-generating, in-water work that will impact a non-tidal perennial river or stream and the in-water work will not occur between May 1 and August 30.
 - Obtain a written determination from the Division of Fisheries and Wildlife (DFW) as to whether the proposed work requires a TOY restriction.
 - The proposed work does NOT require a TOY restriction.
 - The proposed work requires a TOY restriction. The DFW determination with TOY restriction and other conditions is attached.

- MassDEP Water Quality Certification**
 - Project involves dredging of 100 cubic yards or more in a Resource Area or dredging of any amount in an Outstanding Resource Water (ORW). A copy and proof of the MassDEP Water Quality Certification pursuant to 314 CMR 9.00 is attached to the NOI.
 - This project is a Combined Permit Application for 401 Dredging and Restoration (BRP WW 26).

- MassDEP Wetlands Restriction Order**
Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
 Yes No

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



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40 Required Actions (310 CMR 10.11) (cont.)

Areas of Critical Environmental Concern (ACECs)

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

Yes No

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

Name of ACEC

Minimum Required Documents (310 CMR 10.12)

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

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

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

- Description of the project’s ecological restoration goals;
- The location of the Ecological Restoration Project;
- Description of the construction sequence for completing the project;
- A map of the Areas Subject to Protection Under M.G.L. c. 131, § 40, that will be temporarily or permanently altered by the project or include habitat for Rare Species, Habitat of Potential Regional and Statewide Importance, eel grass beds, or Shellfish Suitability Areas.
- The method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.) is attached with documentation methodology.
- List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title

b. Prepared by

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

- If there is more than one property owner, attach a list of these property owners not listed on this form.
- Attach NOI Wetland Fee Transmittal Form.



WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

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

Minimum Required Documents (310 CMR 10.12)

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

- An evaluation of any flood impacts that may affect the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure as well as any proposed flood impact mitigation measures;
- A plan for invasive species prevention and control;
- The Natural Heritage and Endangered Species Program written determination in accordance with 310 CMR 10.11(2), if needed;
- Any Time of Year restrictions and/or other conditions recommended by the Division of Marine Fisheries or the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3), (4), (5), if needed;
- Proof that notice was published in the Environmental Monitor as required by 310 CMR 10.11(1);
- A certification by the applicant under the penalties of perjury that the project meets the eligibility criteria set forth in 310 CMR 10.13;
- If the Ecological Restoration Project involves the construction, repair, replacement or expansion of infrastructure, an operation and maintenance plan to ensure that the infrastructure will continue to function as designed;
- If the project involves dredging of 100 cubic yards or more or dredging of any amount in an Outstanding Resource Water, a Water Quality Certification issued by the Department pursuant to 314 CMR 9.00;
- If the Ecological Restoration Project involves work on a stream crossing, information sufficient to make the showing required by 310 CMR 10.24(10) for work in a coastal resource area and 310 CMR 10.53(8) for work in an inland resource area; and
- If the Ecological Restoration Project involves work on a stream crossing, baseline photo-points that capture longitudinal views of the crossing inlet, the crossing outlet and the upstream and downstream channel beds during low flow conditions. The latitude and longitude coordinates of the photo-points shall be included in the baseline data.
- This project is subject to provisions of the MassDEP Stormwater Management Standards. A copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) is attached.
- Provide information as to whether the project has the potential to impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:
MassDEP File Number
Document Transaction Number

WPA Form 3 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

City/Town _____

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

Certification that the Ecological Restoration Project Meets the Eligibility Criteria

I hereby certify under penalties of perjury that the Ecological Restoration Project Notice of Intent application does not meet the Eligibility criteria for an Ecological Restoration Order of Conditions set forth in 310 CMR 10.13, but does meet the Eligibility Criteria for a Ecological Restoration Limited Project set forth in 10.24(8) or 10.53(4) whichever is applicable. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

Owen Kramer

Signature of Applicant or Authorized Agent

Printed Name of Applicant or Authorized Agent

Date

The certification must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 2) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.



Attachment B: Abutter Information



Town of Concord
Board of Assessors
24 Court Lane
Concord, Massachusetts 01742
Tel: (978) 318-3070
www.concordma.gov

ABUTTERS LIST

PROPERTY : 287 Westford Rd.
Concord, MA 01742

PARCEL: 1575-2

As per Massachusetts General Laws Chapter 131, Section 40 whereas the “abutters” included shall be:

Any person filing a notice of intention with a conservation commission shall at the same time give written notification thereof, by delivery in hand or certified mail, return receipt requested, to all abutters within one hundred feet of the property line of the land where the activity is proposed, at the mailing addresses shown on the most recent applicable tax list of the assessors, including, but not limited to, owners of land directly opposite said proposed activity on any public or private street or way, and in another municipality or across a body of water.

The Board of Assessors hereby certifies that the attached list contains the record owners as of January 1, 2025, recorded on the current tax rolls. In addition, the Board certifies that the list includes owners, as per recorded deeds as received up to September 30, 2025.

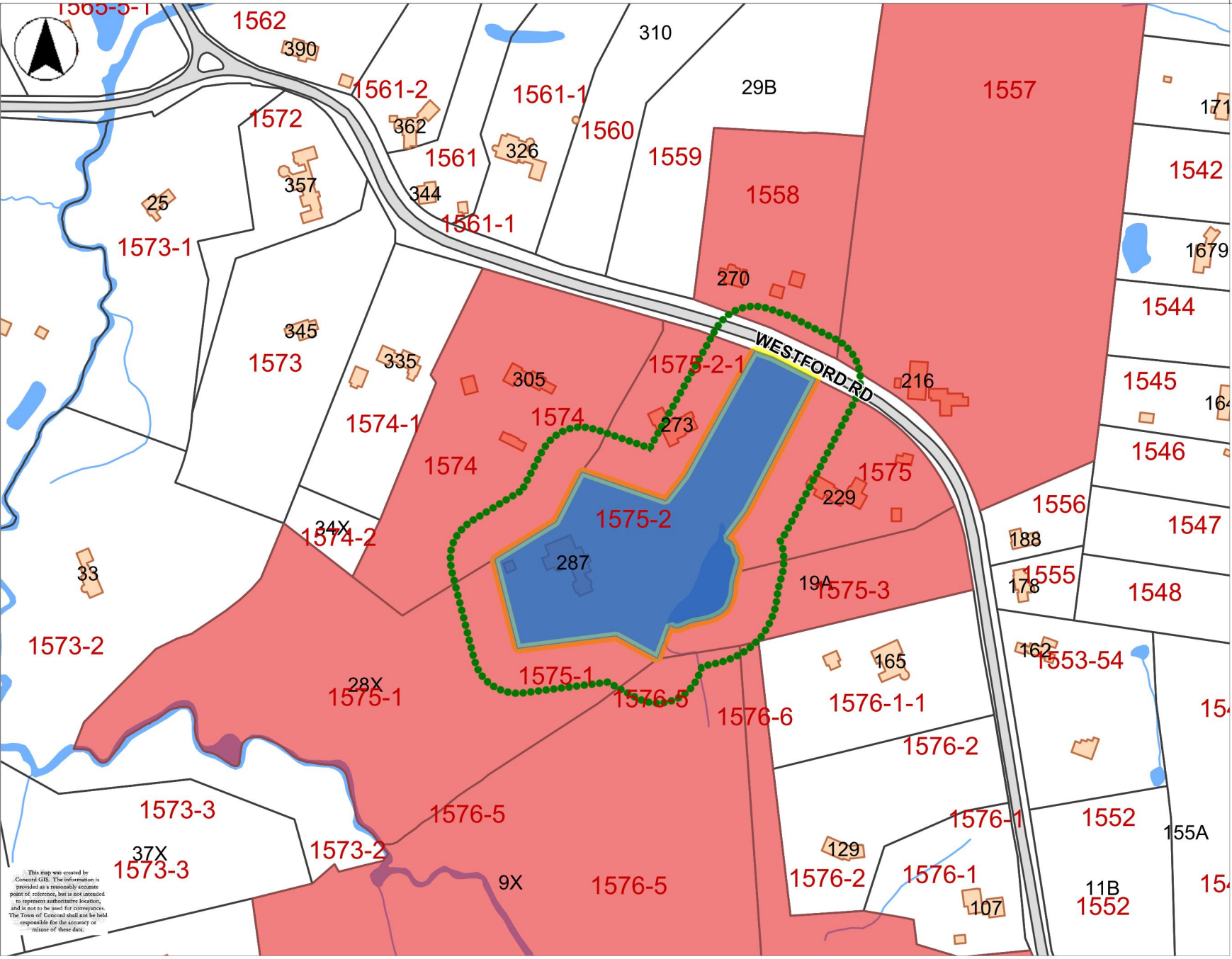
Carolyn Dee
Office Administrator

October 24, 2025

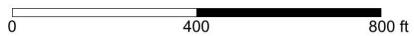
Parcel #	Owner	Co-Owner	Mailing Address	City	State	Zip	Property Address
1576-6	PATRICK TR ROBERT N	PATRICK TR KATHLEEN M	95 WESTFORD RD	CONCORD	MA	01742	95 WESTFORD RD
1576-5	CONCORD LAND CONSERVATION TR		PO BOX 141	CONCORD	MA	01742	9X WESTFORD RD
1575-1	CONCORD LAND CONSERVATION TR		PO BOX 141	CONCORD	MA	01742	28X WESTFORD RD
1557	TYLER II MORRIS TR		216 WESTFORD RD	CONCORD	MA	01742	216 WESTFORD RD
1558	CRONIN MARIA G		270 WESTFORD RD	CONCORD	MA	01742	270 WESTFORD RD
1574	KIMM FLORENCE Y TR		305 WESTFORD RD	CONCORD	MA	01742	305 WESTFORD RD
1575	KENNETH A MOSKOW 2002 TRUST		2 PARK PLAZA STE 405	BOSTON	MA	02116	229 WESTFORD RD
1575-2	SOLTES EUGENE	NASHEL JENNIFER MEARA	287 WESTFORD RD	CONCORD	MA	01742	287 WESTFORD RD
1575-3	KENNETH A MOSKOW 2002 TRUST		2 PARK PLAZA STE 405	BOSTON	MA	02116	19A WESTFORD RD
1575-2-1	JOHNSON TR NEWTON S		373 WESTFORD RD	CONCORD	MA	01742	273 WESTFORD RD



- Town Boundary - State Survey
- Address Numbers
- Tax Map Parcel ID Labels
- Buildings (ft)
- Parcel Polygons
- MA Highways
- Interstate
- US Highway
- Numbered Routes
- MBTA Commuter Rail Station
- Railroad
- Streams
- Streets Area
- Rivers & Ponds



This map was created by Concord GIS. The information is provided as a reasonably accurate point of reference, but is not intended to represent authoritative location, and is not to be used for conveyance. The Towns of Concord shall not be held responsible for the accuracy or misuse of these data.



Printed on 10/24/2025 at 09:31 AM

287 WESTFORD RD

Notification to Abutters Under the Massachusetts Wetlands Protection Act and the Concord Wetlands Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, and Article 43 of the 2009 Annual Town Meeting, you are hereby notified of the following:

Applicant's Name: _____

The applicant has filed an Abbreviated Notice of Resource Area Delineation with the Natural Resources Commission, acting as its Conservation Commission for the municipality of Concord, seeking confirmation of resource area delineations subject to protection under the Wetlands Protection Act (General Laws Chapter 131, Section 40) and/or the Concord Wetlands Bylaw.

Address where activity is proposed: _____

Brief description of proposed project:

The Abbreviated Notice of Resource Area Delineation may be viewed on the Natural Resources Commission's webpage under Current Meeting Documents at <https://concordma.gov/2254/Current-Meeting-Documents>. Plans may also be viewed at the Natural Resources Division office at 141 Keyes Road Monday through Thursday between the hours of 8:00 a.m. and 4:00 p.m. and Friday between 8:00 a.m. and 12:00 p.m., or by appointment. You may also email nr@concordma.gov for more information or to obtain copies.

A public hearing will be held on _____. The hearing will be a hybrid in-person/Zoom meeting with a quorum of the Commission physically present at 141 Keyes Road, 1st Floor Conference Room. The public is invited to attend in person or via Zoom. Information on how to participate via Zoom will be provided on the agenda at <https://concordma.gov/AgendaCenter/Natural-Resources-Commission-25>.

Notice of this public hearing will also be published at least five (5) days in advance of the meeting in the Concord Bridge and posted at the Town House not less than forty-eight (48) hours in advance of the meeting.

You may also contact the Department of Environmental Protection, Northeast Region, for more information at (978) 694-3200.

To: The Environmental Monitor

From: Goddard Consulting, LLC

Date: 11/17/2025

Re: Notification of filing a Notice of Intent (NOI) for 287 Westford Road - Concord, MA

Anticipated Date of Submission: 12/01/2025

The proposed project is seeking approval to implement a pond monitoring and vegetation management plan for the pond at 287 Westford Road, Concord, MA. The focus of this management will be to reduce, control, and proactively manage nuisance aquatic vegetation through herbicide treatment and aeration. This project aims to protect the objectives of the Wetlands Protection Act by slowing eutrophication and improving habitat value.

Reviewing Conservation Commissions

Concord Natural Resources Commission

141 Keyes Road

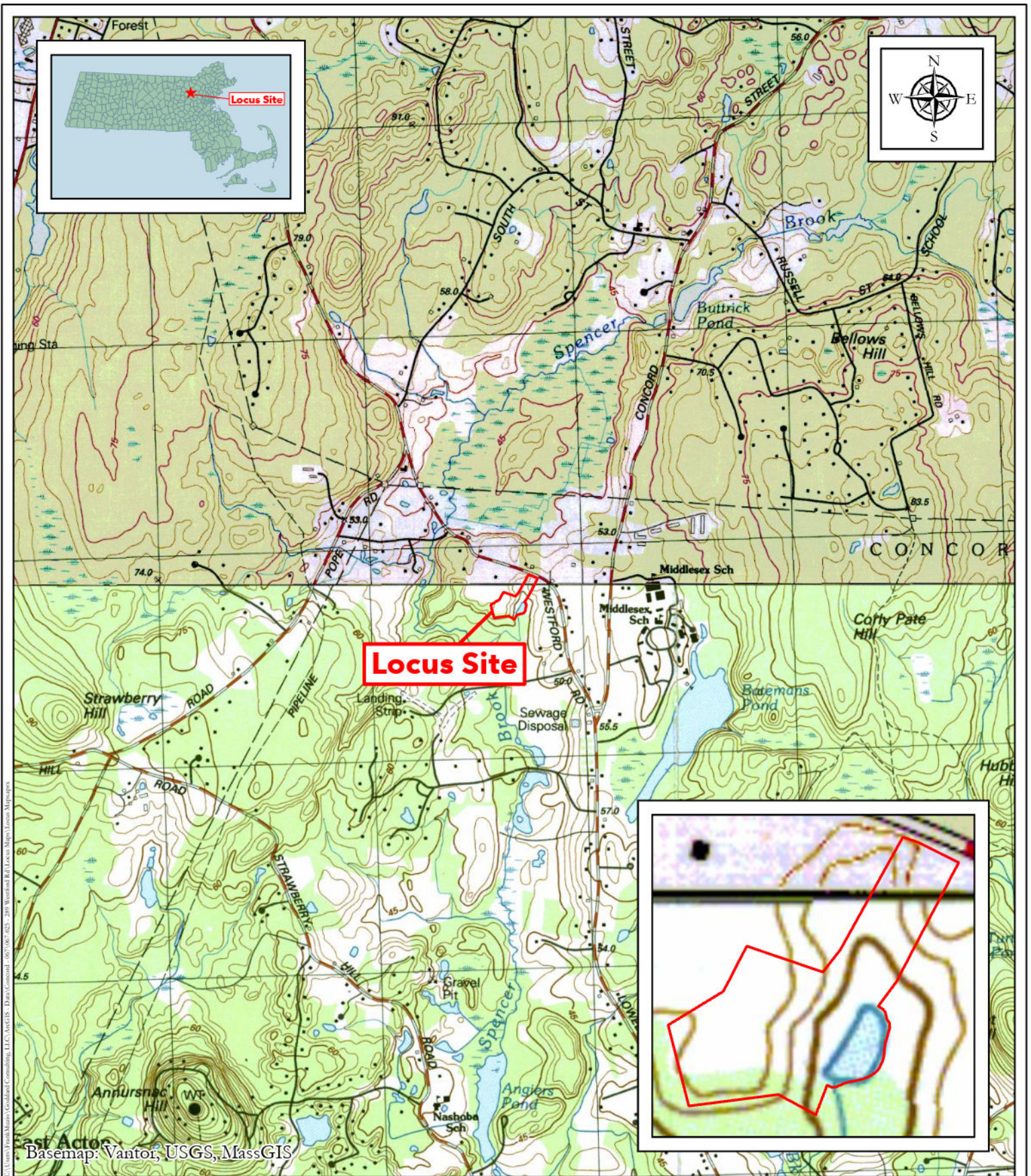
Concord, MA 01742

Copies of the Notice of Intent may be examined or acquired by contacting the applicant's representative, Goddard Consulting, LLC, at (508) 393-3784.

Please see the Concord Natural Resources Commission website for the meeting schedule to confirm exact dates and agendas.



Attachment C: Locus Maps & Figures



C:\Users\Frank\My Documents\Goddard Consulting\LLCA\GIS\7.5 - 287 Westford Rd Locus Map\Locus_Maps\Map



USGS of Locus Site



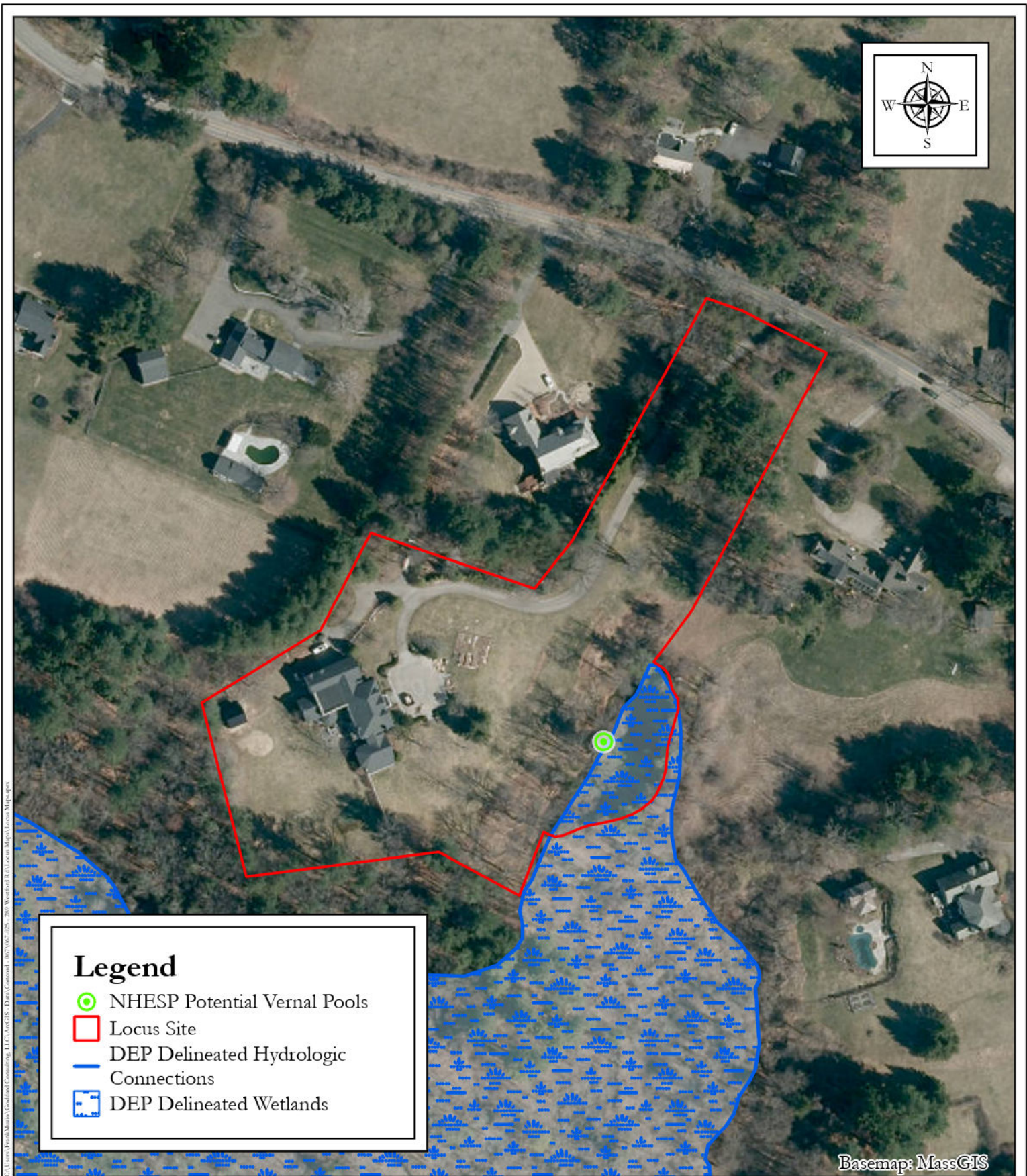
71.3765594°W, 42.4995599°N

Date: 12/08/2025

287 Westford Road
Concord, MA 01742



Parcel ID: 1575-2

Figure 1



G:\Users\Frank.Martin\Goddard Consulting, LLC\ArcGIS - Data\Concord - 0601\0601_025 - 287 Westford Rd (Locus Map)\Locus_Maps.aprx

Legend

-  NHESP Potential Vernal Pools
-  Locus Site
-  DEP Delineated Hydrologic Connections
-  DEP Delineated Wetlands

Basemap: MassGIS



Orthophoto of Locus Site

0 75 150 Feet 1" = 150'

71.3765594°W, 42.4995599°N

Date: 10/20/2025

287 Westford Road
Concord, MA 01742

Parcel ID: 1575-2

Figure 2



Legend

- Locus Site
- FEMA National Flood Hazard Layer
- 1% Annual Chance Flood Hazard
- Regulatory Floodway

Basemap: MassGIS



FEMA Flood Map
of Locus Site

0 75 150 Feet 1" = 150'

71.3765594°W, 42.4995599°N

Date: 10/20/2025

287 Westford Road
Concord, MA 01742

Parcel ID: 1575-2

Figure 3



C:\Users\joshua.morris\OneDrive\Documents\Goddard Consulting\GCS\GIS\287 Westford Rd\Locust Maps\Locust Maps.mxd



Pond Bathymetry Sketch



71.3761104°W, 42.4991808°N

Date: 10/30/2025

287 Westford Road
Concord, MA 01742

Parcel ID: 1575-2



Attachment D: Safety Datasheets

Diquat product label

<https://www.cdms.net/ldat/mp9UM003.pdf>

Flumioxazin Product Label

<https://aquaticcontrol.com/wp-content/uploads/2023/02/Flumigard-SC-Label.pdf>

Chelated Copper Product Label

<https://aquaticcontrol.com/wp-content/uploads/2023/02/CaptainXTR-Label.pdf>

Glyphosphate Product Label

https://cms2.revize.com/revize/claytownship/AquaPro_MSDS.pdf

Polyaluminum Chloride (PAC) Product Label

https://www.poyaluminium-chloride.net/pubfiles/2016/07/MSDS-Poyaluminium-Chloride_rev002.pdf



Attachment E: Water Quality and Vegetation Reports



BIOLOGIST:
 COLIN GOSSELIN
 C: (508) 259-3153
 COLIN@WATERANDWETLAND.COM
 CALL/TEXT WITH ANY QUESTIONS!



FIELD NOTES SUMMARY

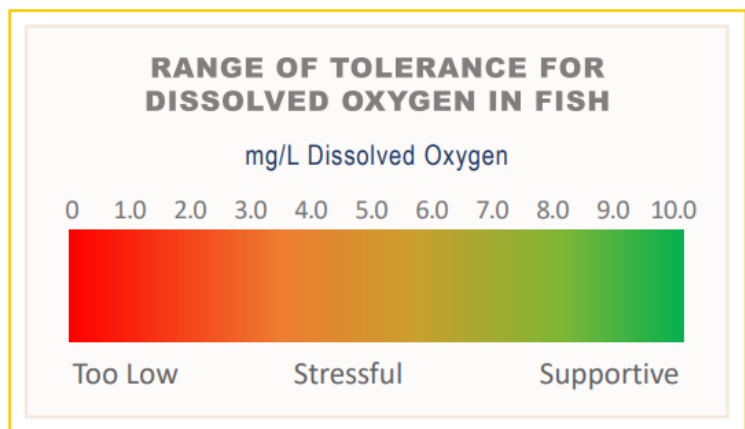
Customer: Eugene Soltes
Pond Name: Solutes Pond
Site Location: Concord, MA
Date: 5/14/25

On 5/14/25, Senior Aquatic Biologist, Colin Gosselin, made a visit to Solutes Pond. The following services were completed during the visit:

Upon arrival to the site, a survey was conducted using visual observation paired with a standard throw-rake and handheld GPS/ArcGIS Field Maps, as applicable. Plants documented during the survey are documented in the table below. (*) denotes an invasive species. Invasive species are non-native to the ecosystem and are likely to cause economic harm, environmental harm, or harm to human health.

Species Identified	
Common Name	Latin Name
Water Starwort	<i>Callitriche</i>
Filamentous Algae	
Cattails	<i>Typha</i>
Asiatic Bittersweet*	<i>Celastrus orbiculatus</i>

While on-site, dissolved oxygen (DO) and temperature readings were collected using a calibrated YSI meter with optical sensor. Dissolved oxygen is the amount of oxygen in water that is available to aquatic organisms. DO is necessary to support fish spawning, growth, and activity. Tolerance varies by species, but the figure below provides a general range of fish tolerance (Source: epa.gov). Dissolved oxygen can be affected by



many outside factors, such as: temperature, time of day, and pollution. Dissolved oxygen levels are typically lowest early in the morning. Healthy water should generally have concentrations of about 6.5-8+ mg/L.

Results from the visit are included in the table below:

Temperature & Dissolved Oxygen	
Surface Temp (°C)	Surface DO (mg/L)
18.3	7.09

Water Quality Parameters
Algae ID - Classification - Biomass, Alkalinity, Chlorophyll A, Conductivity, Hardness, Nitrates and Nitrites, Nitrogen - Total (Kjeldahl), pH, Phosphorus - Free Reactive (water), Phosphorus - Total (Water), Turbidity, Total Coliforms and E. Coli

Additional samples were collected from the contracted location (mid-pond). The samples were properly preserved, and shipped on-ice via FedEx Overnight, or transported directly to the most appropriate lab. The lab will analyze the samples for the contracted/required parameters which are listed in the table above. Results will be provided

upon receipt from the lab, as applicable. Any concerning results will immediately be brought to the attention of the Client.

Additional Notes from the Biologist
The site visit consisted of collecting basic water quality data in addition to water samples and conducting a survey. Overall, the pond looked clean and healthy. A small amount of filamentous algae was located on the shoreline closest to the house (this is a common algal species to observe in waterbodies throughout New England and is not considered a harmful species). An abundance of pollen was also noted on the surface of the pond. A few small starwort plants were observed in the shallow sections of the pond. This is a native and beneficial plant and was considered non-problematic at the moment. Water quality appeared good with a slight tannic color. This is also common in New England especially with oak trees around the perimeter. A small outflow to the south had a trickle and there were no visible inflows. A small patch of cattails was observed to the north of the pond. Bittersweet could be found in moderate densities around the Pond as well. A small Airmax aeration unit was present at the time of inspection, but the power was off. This unit appears to be ~ 3-5 years old. Overall, the pond appeared to be in healthy condition.

As always, we will notify you prior to any upcoming visits, as applicable. Please feel free to reach out to us directly with any questions.

Photo 1



Photo 2



Photo 3

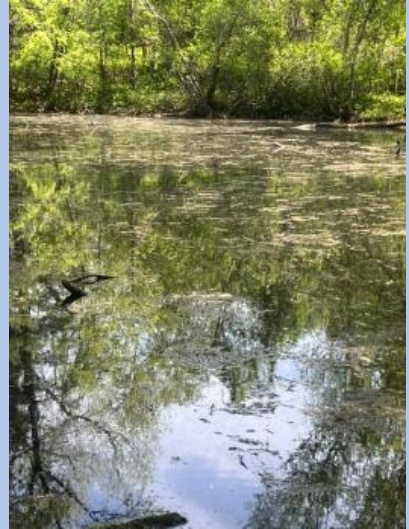


Photo 4



Photo 5



Photo 6





SePRO Lab

Water Diagnostics for Lakes & Ponds

SeSCRIPT*

16013 Watson Seed Farm Road, Whitakers, NC 27891

LABORATORY REPORT

Chain of Custody: eCOC17031

Customer Contact Information

Company Name: Water and Wetland	Contact Person: James Lacasse
Address: 134 Ferry St., South Grafton, MA 01560	E-mail Address: james@waterandwetland.com
	Phone: 888-493-8526

Waterbody Information

Waterbody:	Soltes Pond - MA
Waterbody size:	0.35
Depth Average:	

Sample ID	Sample Location	Test	Method	Results	Sampling Date / Time
CTM62856-1	Soltes Pond	Turbidity (NTU)	EPA 180.1	2.8	05/14/2025
		Conductivity (µS/cm)	EPA 120.1	415.3	
		Free Reactive Phosphorus (µg/L)	EPA 365.3	5.5	
		Chlorophyll a (µg/L)	EPA 445	<10	
		Total Phosphorus (µg/L)	EPA 365.3	41.8	
		Alkalinity (mg/L as CaCO3)	EPA 310.2	<10	
		Total Hardness (mg/L as CaCO3)	EPA 130.2	47.0	
		Total Nitrate (mg/L) and Nitrite (mg/L)	Campbell et al 2004	0.11	
		Nitrite (mg/L)	Campbell et al 2004	<0.02	
		Nitrate (mg/L)	calculated	0.11	
		Total Kjeldahl Nitrogen (mg/L)	EPA 351.2	0.4	
		Total Nitrogen (mg/L)	calculated	0.51	
		pH	EPA 150.1	6.7	

ANALYSIS STATEMENTS:

SAMPLE RECEIPT /HOLDING TIMES: All samples arrived in an acceptable condition and were analyzed within prescribed holding times in accordance with the SRTC Laboratory Sample Receipt Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis and any qualifiers will be noted in the report.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: No significant observations were made unless noted in the report.

MEASUREMENT UNCERTAINTY: Uncertainty of measurement has been determined and is available upon request.

Laboratory Information

Date / Time Received: 05/15/25 12:00 PM

Date Results Sent: Tuesday, May 20, 2025

Disclaimer: The results listed within this Laboratory Report relate only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a dry weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the exclusive use of SRTC Laboratory and its client. This report shall not be reproduced, except in full, without written permission from SRTC Laboratory. The Chain of Custody is included and is an essential component of this report.

This entire report was reviewed and approved for release.



Reviewed By: Laboratory Manager

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SePRO Lab

Water Diagnostics for Lakes & Ponds

Water Quality Analysis Explanation

These water quality parameters are essential to document the condition of a water body and design custom treatment prescriptions to achieve the desired management objective.

pH: Measure of how acidic or basic the water is (pH 7 is considered neutral).

<6 Notably Acidic

6 - 9 Standard for Typical Freshwaters

>9 Notably Basic



1 2 3 4 5 6 7 8 9 10 11 12 13 14

Hardness: Measure of the concentration of divalent cations, primarily consisting of calcium and magnesium in typical freshwaters.

0-60 mg/L as CaCO₃ soft; 61-120 mg/L as CaCO₃ moderately hard; 121-180 mg/L as CaCO₃ hard; > 181 mg/L as CaCO₃ very hard

Alkalinity: Measure of the buffering capacity of water, primarily consisting of carbonate, bicarbonate, and hydroxide in typical freshwaters. Waters with lower levels are more susceptible to pH shifts.

< 50 mg/L as CaCO₃ low buffered; 51-100 mg/L as CaCO₃ moderately buffered; 101-200 mg/L as CaCO₃ buffered; > 200 mg/L as CaCO₃ high buffered

Conductivity: Measure of the waters ability to transfer an electrical current, increases with more dissolved ions.

< 50 μ S/cm relatively low concentration may not provide sufficient dissolved ions for ecosystem health; 50-1500 μ S/cm typical freshwaters; > 1500 μ S/cm may be stressful to some freshwater organisms, though not uncommon in many areas

Phosphorus: Essential nutrient often correlating to growth of algae in freshwaters.

Total Phosphorus (TP): is the measure of all phosphorus in a sample as measured by persulfate strong digestion and includes: inorganic, oxidizable organic and polyphosphates. This includes what is readily available, potential to become available and stable forms. *<12 μ g/L oligotrophic; 12-24 μ g/L mesotrophic; 25-96 μ g/L eutrophic; > 96 μ g/L hypereutrophic*

Free Reactive Phosphorus (FRP): is the measure of inorganic dissolved reactive phosphorus (PO₄-3, HPO₄-2, etc). This form is readily available in the water column for algae growth.

Nitrogen: Essential nutrient that can enhance growth of algae.

Total N is all nitrogen in the sample (organic N+ and Ammonia) determined by the sum of the measurements for Total Kjeldahl Nitrogen (TKN) and ionic forms.

Nitrites and Nitrates are the sum of total oxidized nitrogen, often readily free for algae uptake.

< 1 mg/L typical freshwater; 1-10 mg/L potentially harmful; >10 mg/L possible toxicity, above many regulated guidelines

Chlorophyll a: primary light-harvesting pigment found in algae and a measure of the algal productivity and water quality in a system.

0-2.6 μ g/L oligotrophic; 2.7-20 μ g/L mesotrophic; 21-56 μ g/L eutrophic; > 56 μ g/L hypereutrophic

Turbidity: Measurement of water clarity. Suspended particulates (algae, clay, silt, dead organic matter) are the common constituents impacting turbidity.

< 10 NTU drinking water standards and typical trout waters; 10-50 NTU moderate; > 50 NTU potential impact to aquatic life.




**Fast.
Accurate.
Reliable.**

SePRO Lab
Water Diagnostics for Lakes & Ponds

SeSCRIPT Analysis Report: Soltes Pond

Company: Water and Wetland

Address: 134 Ferry St. South Grafton, MA. 01560

Contact Person: Jame Lacasse

Phone: (774)-276-6098

Email: james@waterandwetland.com

Project Name: Eugene Soltes Pond

Surface Area: 0.35 acres

Average depth: NA

Date Algae Sample Received: 9/17/2025

SeSCRIPT Analysis Performed: Algae ID and Water
Quality Baseline Plus

eCOC: 19591

Algae ID Results

Soltes Pond

Identification	Classification	Description	Density/Biomass (cells/mL)
<i>Ceratium</i> sp.	Dinophyta- Dinoflagellates	Single-celled, flagellated, planktonic	260

Other algae observed at densities less than 40 cells/mL: *Scenedesmus* (Chlorophyta); *Phacus* (Euglenophyta); *Synura* (Synurophyceae)

Some particulate matter





Water Quality Results

Soltes Pond

Analysis	Measurements	Description
pH (SU)	6.6	Near neutral
Conductivity ($\mu\text{S}/\text{cm}$)	447.6	Typical for freshwaters
Alkalinity (mg/L as CaCO_3)	29.5	Low buffered
Hardness (mg/L as CaCO_3)	45.1	Soft
Turbidity (NTU)	3	Low



Nutrient Results

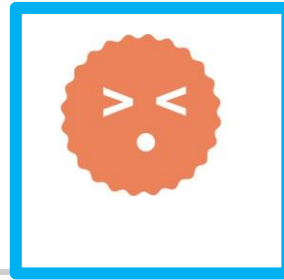
Soltes Pond

Analysis	Measurements	Description
Total Phosphorus ($\mu\text{g/L}$)	43.4	High amount: Eutrophic
Free Reactive Phosphorus ($\mu\text{g/L}$)	7.6	Low
Total Kjeldahl Nitrogen (mg/L)	0.66	Low
Nitrates & Nitrites (mg/L)	< 0.02	Low
Total Nitrogen (mg/L)	0.66	Low
Chlorophyll a ($\mu\text{g/L}$)	10.9	Moderate

SeSCRIPT Discussion



Healthy



Polluted

The algae and water sample collected from *Soltes Pond* was received on 9/17/2025. Based on results from the water quality and algae analyses, proposed treatment recommendations for control of the problematic algae and nutrient management in *Soltes Pond* were determined (see below).

For the purpose of this report, the health rating reflects water quality concentrations detected at the time of collection and should only be used as a guide for treatment purposes. Follow product label instructions. Check with the appropriate local and state agencies for product restrictions and permit regulations prior to use.

SeSCRIPT Diagnostic Guidance

Soltes Pond

To restore *Soltes Pond* to a more balanced natural state, it is recommended to manage the nuisance algae and the nutrient pollution (or prevent pollution levels to rise to unhealthy levels).

STEP 1: ALGAE MANAGEMENT

In order to control the targeted algae at this site, apply:

Citrine Plus at a rate range of 0.6-1.2 gallons/acre-foot (0.2-0.4 mg Cu/L).

Contact your SePRO Aquatic Specialist for further guidance on final application rate selection, technique and frequency based on project objectives, site conditions, algae location and density at treatment time.

STEP 2: PHOSPHORUS MANAGEMENT

Analysis of the water quality parameters in this pond revealed this system is eutrophic (**nutrient polluted water**). Based on these site-specific water parameters, consider implementing one of the following EutroSORB phosphorus removal solutions to restore water quality in your water body.

- a. Recovery Solution: Improve or prevent further nutrient pollution by applying EutroSORB WC on an annual basis. The recommended starting dose is 10 PDUs per acre. Integrate with SePRO algaecide applications as needed to control algae and achieve desired water quality objectives.
- b. Reset Solution: Reset the ecological clock and restore water quality in your pond by implementing a Reset application strategy customized by water body. EutroSORB G permanently binds phosphorus pollution both in the water and at a source, the sediments.

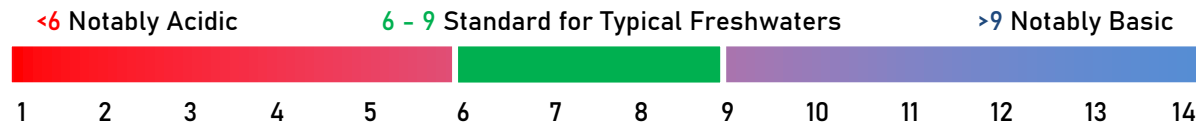
Always read and follow product labels and applicable permits. Contact your SePRO Technical Specialist for assistance on developing a custom prescription based on site conditions and water quality management objectives



Water Quality Analysis Explanation

These water quality parameters are essential to document the condition of a water body and design custom treatment prescriptions to achieve desired management objectives.

pH: Measure of how acidic or basic the water is (pH 7 is considered neutral).



Hardness: Measure of the concentration of divalent cations, primarily consisting of calcium and magnesium in typical freshwaters. *0-60 mg/L as CaCO₃ soft; 61-120 moderately hard; 121-180 hard; > 181 very hard*

Alkalinity- Measure of the buffering capacity of water, primarily consisting of carbonate, bicarbonate and hydroxide in typical freshwaters. Waters with lower levels are more susceptible to pH shifts. *50 mg/L as CaCO₃ low buffered; 51-100 moderately buffered; 101-200 buffered; > 200 high buffered.*

Conductivity- Measure of the waters ability to transfer an electrical current, increases with more dissolved ions. *50 uS/cm relatively low concentration may not provide sufficient dissolved ions for ecosystem health; 50-1500 typical freshwaters; > 1500 may be stressful to some freshwater organisms, though not uncommon in many areas.*

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Total Phosphorus (TP) is the measure of all phosphorus in a sample as measured by persulfate strong digestion and includes: inorganic, oxidizable organic and polyphosphates. This includes what is readily available, potential to become available and stable forms. *12 µg/L oligotrophic; 12-24 µg/L mesotrophic; 25-96 µg/L eutrophic; > 96 µg/L hypereutrophic*

Free Reactive Phosphorus (FRP) is the measure of inorganic dissolved reactive phosphorus. (PO₄⁻³, HPO₄⁻², etc.). This form is readily available in the water column for algae growth.

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SePRO Lab

Water Diagnostics for Lakes & Ponds

SeSCRIPT*

16013 Watson Seed Farm Road, Whitakers, NC 27891

LABORATORY REPORT

Chain of Custody: eCOC19591

Customer Contact Information

Company Name: Water and Wetland	Contact Person: James Lacasse
Address: 134 Ferry St., South Grafton, MA 01560	E-mail Address: james@waterandwetland.com
	Phone: 888-493-8526

Waterbody Information

Waterbody:	Soltes Pond - MA
Waterbody size:	0.35
Depth Average:	

Sample ID	Sample Location	Test	Method	Results	Sampling Date / Time
CTM68519-1	Soltes Pond	Turbidity (NTU)	EPA 180.1	3	09/16/2025
		Conductivity (µS/cm)	EPA 120.1	447.6	
		Free Reactive Phosphorus (µg/L)	EPA 365.3	7.6	
		Chlorophyll a (µg/L)	EPA 445	10.9	
		Total Phosphorus (µg/L)	EPA 365.3	43.4	
		Alkalinity (mg/L as CaCO ₃)	EPA 310.2	29.5	
		Total Hardness (mg/L as CaCO ₃)	EPA 130.2	45.1	
		Total Nitrate (mg/L) and Nitrite (mg/L)	Campbell et al 2004	<0.02	
		Nitrite (mg/L)	Campbell et al 2004	<0.02	
		Nitrate (mg/L)	calculated	<0.02	
		Total Kjeldahl Nitrogen (mg/L)	EPA 351.2	0.66	
		E. coli (CFU/100mL)	EPA 9223B	.0	
		Total Coliforms (CFU/100mL)	EPA 9223B	11.8	
		Total Nitrogen (mg/L)	calculated	0.66	
pH	EPA 150.1	6.6			

ANALYSIS STATEMENTS:

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MEASUREMENT UNCERTAINTY: Uncertainty of measurement has been determined and is available upon request.

Laboratory Information

Date / Time Received: 09/17/25 12:00 PM

Date Results Sent: Tuesday, September 23, 2025

Disclaimer: The results listed within this Laboratory Report relate only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a dry weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the exclusive use of SRTC Laboratory and its client. This report shall not be reproduced, except in full, without written permission from SRTC Laboratory. The Chain of Custody is included and is an essential component of this report.

This entire report was reviewed and approved for release.



Reviewed By: Laboratory Manager

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SePRO Lab

Water Diagnostics for Lakes & Ponds

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