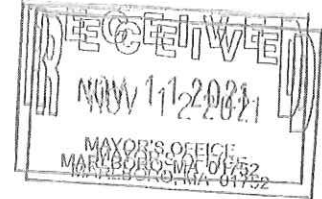




OMNI ENVIRONMENTAL GROUP

November 3, 2021

Office of the Mayor
City of Marlborough
140 Main St.
Marlborough, MA 01752



**Re: Release Notification Form BWSC-103 & PSNC
181 BOSTON POST ROAD, LOT NO. 32
MARLBOROUGH, MASSACHUSETTS
MassDEP RTN 2-21696**

*CC: Breen
Ryder
Gerside
Divoil*

To Whom It May Concern,

In accordance with section 310 CMR 1403(3)(f) of the Massachusetts Contingency Plan (MCP), this letter is intended to notify you that documentation in support of a Release Notification Form (RNF) and Permanent Solution with No Conditions (PSNC) Statement was submitted in November 2021 to the MassDEP for a release of up to 180-gallons of #2 fuel oil due to the failure of the on-Site 275-gallon aboveground storage tank (AST) discovered in September 2021. The release occurred at 181 Boston Post Road, Lot No. 32. The MassDEP assigned Release Tacking Number (RTN) 2-21696 to the release, which has been cleaned up, assessed, and remediated to a condition of No Significant Risk (NSR). The MCP requires that the Chief Municipal Officer and Board of Health in the city or town in which a disposal Site is located be notified of the PSNC Statement submittal to MassDEP.

Further information may be obtained by entering RTN 2-21696 in the MassDEP Searchable Sites Database [<https://eeaonline.eea.state.ma.us/portal#!/search/wastesite>]. Alternatively, you may arrange a file inspection by contacting MassDEP's Central Regional Office at 8 New Bond Street, Worcester, MA.

Please do not hesitate to contact the undersigned at (978) 256-6766 if you have any questions, comments, or require additional information.

Sincerely,

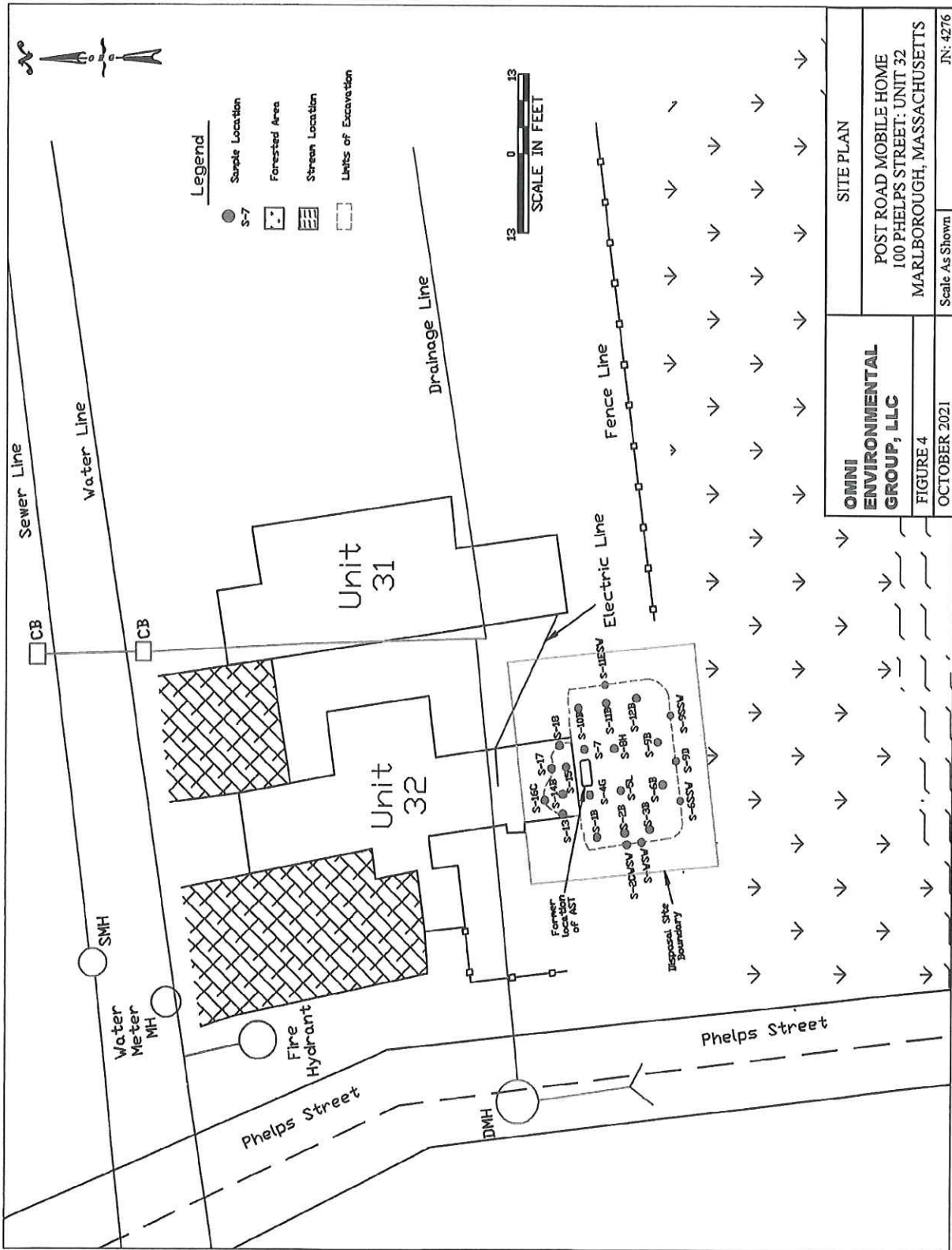
Omni Environmental Group

Gregory R. Morand

Gregory R. Morand, LSP
Principal

cc: City of Marlborough, Board of Health, 140 Main St., Marlborough, MA 01752

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7/2



OMNI ENVIRONMENTAL GROUP, LLC FIGURE 4 OCTOBER 2021	SITE PLAN
	POST ROAD MOBILE HOME 100 PHELPS STREET: UNIT 32 MARLBOROUGH, MASSACHUSETTS

Scale: As Shown JN: 4276

Rec 11-16-2021

nationalgrid

November 9, 2021

Marlborough City Council
140 Main Street
Marlborough, MA 01752

Dear City Council:

In compliance with 333 CMR 11.06, 45 Day Yearly Operational Plan Public Notice, Review and Comment, please review National Grid's Yearly Operational Plan (YOP) at the following website (hard copy available upon request): <https://www.mass.gov/doc/national-grid-2022-yop/download>

The map(s) for your municipality can be found on National Grid's website (scroll through the pdf to your municipality): https://www9.nationalgridus.com/non_html/2022%20MA%20YOP%20Maps.pdf
If you have any trouble viewing the maps, please send me an email at mariclaire.rigby@nationalgrid.com.

Please review the YOP map(s) that locate the right-of-way corridors and the plotted location of known sensitive areas including public and private drinking water supplies. If there are any additional sensitive areas located on or near the rights-of-way, please advise us as soon as possible so we may establish GIS permanent records and implement appropriate field protective actions. **We particularly rely on this process to collect corrections to the public wells and to record the location of private wells.**

A copy of the Environmental Monitor Notice is enclosed and published under the Massachusetts Environmental Policy Act (MEPA).

National Grid's YOP details specific information pertaining to the intended 2021 program. Please note that the YOP also lists the rights-of-way from the 2020 treatment program in case National Grid needs to request a "touch-up" retreatment of scattered locations from our contractor(s). If upon review of the previous year's treatments, National Grid finds a site(s) within your municipality that need follow-up treatments, this letter serves as notification of that follow-up treatment. The individual landowner(s) will be also be notified about this work. *Please note that scheduled rights-of-way are subject to change based on workplan constraints.*

This notification also serves as a 21-day herbicide application notification. As detailed in National Grid's Five-Year Vegetation Management Plan (VMP) and Yearly Operational Plan (YOP), this treatment is conducted as a component of an integrated vegetation management (IVM) program that also utilizes mechanical and natural control techniques. National Grid's current Five-Year Vegetation Management Plan (2019-2023) is posted at the following website (hard copy available upon request): <https://www.mass.gov/doc/national-grid-vmp-2019-2023/download>

As described in the VMP and YOP, the program will consist of a late winter-spring mechanical control, cut surface (CST), basal treatment, or dormant stem; a summer selective foliage or cut stubble, and, as necessary, fall CST, basal, or dormant stem treatments.

In compliance with 333 CMR 11.06-11.07, no herbicide applications will occur before the conclusion of the 45-day YOP review period, the 21 day treatment notice and the 48 hour newspaper notice. At the end of

Municipality: Marlborough ROW: 1693 1694 4205

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these review periods, which can run concurrently, no application shall commence more than ten days before nor conclude more than ten days after the treatment periods listed above.

Potential Treatment Periods*

January 17, 2022 – May 30, 2022	May 30, 2022 - Oct 15, 2022	Oct 15, 2022 – Dec 31, 2022
CST	Foliar	CST
Basal	CST	Basal
Dormant stem	Basal	Dormant Stem
	Cut stubble	

* The exact treatment dates are dependent upon weather conditions and field crew progress.

Commonwealth of Massachusetts recommended herbicides for use in sensitive areas listed in Section 7 (pages 13-15) of the YOP will be selectively applied to target vegetation by experienced, Massachusetts' licensed/certified applicators that walk along the rights-of-way using backpack equipment. Copies of the manufacturers' herbicide labels and fact sheets are also included in the YOP, Appendices 8 and 9.

The work will be performed by one of the following vegetation management vendors:

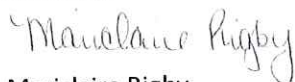
Lewis Tree Service, Inc. 300 Lucius Gordon Drive West Henrietta, NY 14586 (585) 436-3208	Stanley Tree 662 Great Road North Smithfield, RI (401) 765-4677	Vegetation Control Service, Inc. 2342 Main Street Athol, MA 01331 (978) 249-5348
Lucas Tree Experts 12 Northbrook Drive Falmouth, ME 04105 (800) 339-8873	BluRoc 15 Alwood Dr, Suite 301 Northampton, MA 01060 (413) 887-3653	

This informational 21-day notification follows Chapter 132B, section 6B of the Massachusetts General Laws, 333 CMR 11.05-11.07 Rights of Way Management and Chapter 85, Section 10 of the Acts of 2000. National Grid's vegetation management program is subject to federal and state regulations only. By statute, local permits or rulings are not applicable.

For inquiries concerning safety of the herbicides, please contact:
MDAR-Pesticide Division-ROW Coordinator
251 Causeway Street, Suite 500
Boston, MA 02114-2151
Telephone: (617) 626-1782

Please contact me if you have any questions about the application and monitoring of the vegetation management program. Email: mariclaire.rigby@nationalgrid.com Office: 508-860-6282

Sincerely,



Mariclaire Rigby
Lead Vegetation Strategy Specialist

Enclosures: Environmental Monitor Notice

CC: Board of Health, Conservation Commission, Private and Public Water Suppliers
Massachusetts Department of Agricultural Resources
Assigned vegetation management vendor

Municipality: Marlborough ROW: 1693 1694 4205

THE COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS



Department of Agricultural Resources

251 Causeway Street, Suite 500, Boston, MA 02114
617-626-1700 fax: 617-626-1850 www.mass.gov/agr



CHARLES D. BAKER
Governor

KARYN E. POLITO
Lt. Governor

KATHLEEN A. THEOHARIDES
Secretary

JOHN LEBEAUX
Commissioner

NOTICE

Pursuant to the provisions of the Rights-of-Way Management Regulations, 333 CMR 11.00, to apply herbicides to control vegetation along rights-of-way, a five year Vegetation Management Plan (VMP) and a Yearly Operational Plan (YOP) must be approved by the Massachusetts Department of Agricultural Resources (MDAR). National Grid has submitted and holds a current VMP, therefore, notice of receipt of a YOP and procedures for public review is hereby given as required by Section 11.06 (3).

National Grid has submitted a YOP to MDAR for 2022 and National Grid's YOP identifies the following municipalities as locations where they intend to use herbicides to treat their electric Rights-of-Way in 2022:

Abington	Cheshire	Lancaster	Oakham	Southbridge
Adams	Clinton	Lanesborough	Paxton	Spencer
Andover	Conway	Leicester	Pelham	Sterling
Attleboro	Deerfield	Leominster	Pepperell	Sunderland
Auburn	Dudley	Leverett	Princeton	Sutton
Ayer	Dunstable	Lowell	Randolph	Tewksbury
Barre	East Bridgewater	Lunenburg	Rockland	Uxbridge
Belchertown	East Brookfield	Lynn	Rowley	Ware
Berlin	Fall River	Marlborough	Rutland	Webster
Beverly	Georgetown	Melrose	Saugus	West Boylston
Billerica	Grafton	Millbury	Scituate	West Bridgewater
Boxford	Groton	Millville	Seekonk	West Brookfield
Braintree	Groveland	North Adams	Shelburne	Westborough
Bridgewater	Hanover	North Brookfield	Shirley	Westport
Brockton	Haverhill	Northborough	Shrewsbury	Weymouth
Buckland	Hingham	Northbridge	Shutesbury	Whitman
Charlton	Holbrook	Norton	Somerset	Worcester
Chelmsford	Holden	Norwell	Southborough	Wrentham

In 2022 National Grid will conduct a selective herbicide treatment program on their rights-of-way as part of an Integrated Vegetation Management (IVM) program on transmission and distribution lines.

The intended vegetation control program will be consistent with the guidelines set forth in National Grid's VMP and YOP. Herbicides will be selectively applied to target vegetation by licensed/certified applicators carrying backpack or hand held application equipment.

National Grid will only use herbicides recommended by MDAR for use in sensitive areas for their IVM program. Pursuant to 333 CMR 11.04, no herbicides will be sprayed within any designated "no spray sensitive sites." Instead, mechanical only methods will be used to control vegetation in these areas.

Public notification will be provided to each "affected" municipality at least twenty-one days prior to any herbicide application and in a newspaper notification at least 48 hours before the beginning of the spray season.

In accordance with 333 CMR 11.06 (2), National Grid's YOP includes the identification of target vegetation; methods of identifying, marking and protecting sensitive areas; application techniques; the herbicides, application rates, carriers and adjuvants proposed for use; alternative control measures, a list of the application companies and YOP supervisor; procedures for handling, mixing and loading herbicides; emergency resources including local, state and federal emergency telephone numbers; maps of the rights-of-way that include mapped sensitive areas, and herbicide fact sheets and labels.

PUBLIC REVIEW

MDAR seeks to verify the location of sensitive areas defined in Section 11.02 and reported in the YOP. MDAR itself has a limited ability to survey the geography, land use and water supplies in all the communities through which rights-of-way pass. Municipalities have most of this information readily available, and the particular knowledge with which to better certify the sensitive areas in their communities. MDAR, therefore, requests, and urges the assistance of the "affected" municipalities in reviewing the completeness and accuracy of the maps contained in the submitted YOP.

The YOP can be viewed on MDAR's website: <http://www.mass.gov/eea/agencies/agr/pesticides/vegetation-management-and-yearly-operation-plans.html> or National Grid's website: https://www9.nationalgridus.com/non_html/National%20Grid_2022%20YOP.pdf

MDAR has established the following procedures for this review:

Copies of the YOP and this *Notice* will be sent by the applicant to the Conservation Commission, Board of Health (or designated health agent), the Head of Government (Mayor, City Manager, Chair of the Board of Selectman) and appropriate water suppliers of each municipality where herbicides are to be applied during the calendar year of 2022; and if applicable, to the Natural Heritage Endangered Species Program of the Massachusetts Department of Fisheries and Wildlife, the Massachusetts Water Resource Authority and the Massachusetts Department of Conservation and Recreation. Municipal agencies and officials will have forty-five days, following receipt of the YOP, to review its map for inaccuracies and omissions in the location of "sensitive areas not readily identifiable in the field."

Municipal agencies and officials are requested to forward the YOP to the appropriate official(s) in their municipality who are qualified to certify the accuracy of the sensitive areas indicated on the maps. The maps should then be "corrected" and returned to the applicant and a copy should be sent to MDAR, at the address listed below, within the forty-five day review period. If a city or town needs more time to carry out this review, it should send a written request for an extension to MDAR and cite why there is a "good cause" for requesting additional time.

The applicant is required to make corrections and the corrected maps will be sent back to the city/town that requested the disputed changes within fifteen days of receipt of the request. MDAR will decide whether or not the YOP should be approved without the requested changes. MDAR will consider the "final approval" of a YOP individually for each municipality.

The twenty-one day public review period of the Municipal Notification Letter may serve concurrently with the forty-five day YOP review period in order to provide public notifications as required by 333 CMR 11.06-7, if the applicant has an approved VMP and if all the requisite city-town offices that received copies of the YOP completed their review and all corrections were duly made by the applicant and approved by MDAR.

A failure by the city/town to respond to the applicant's submission of the YOP within the forty-five day period will automatically be considered by MDAR to indicate agreement by the municipal officials with the sensitive area demarcations provided by the applicant in their YOP.

Any questions or comments on the information provided in this *Notice* and the procedures established for the municipal review outlined above should be addressed to:

Clayton Edwards, Rights-of-Way Programs
Massachusetts State Pesticide Bureau
251 Causeway Street, Suite 500
Boston, MA 02114-2151

Any questions or comments regarding the YOP should be addressed to:

Mariclaire Rigby
Lead Vegetation Strategy Specialist
National Grid Vegetation Management Strategy
939 Southbridge Street, Worcester, MA 01610

COMMENT PERIOD ENDS AT THE CLOSE OF BUSINESS (5pm) Friday, December 24, 2021

**Fort Meadow Reservoir
Aquatic Management Program
2021 Annual Summary Report
Hudson & Marlborough, MA**

Prepared for: Fort Meadow Commission
c/o Lee Thompson, Chairman
c/o Marlborough Conservation Commission
140 Main Street, City Hall
Marlborough, MA 01752

Submitted: December 7, 2021

Introduction

SOLitude Lake Management was contracted by the City of Marlborough/Hudson to conduct an aquatic vegetation management program at Fort Meadow Reservoir. Fort Meadow Reservoir is a waterbody comprised of three interconnecting basins. The management program consisted of targeting invasive variable watermilfoil (*Myriophyllum heterophyllum*) and common reed (*Phragmites australis*) as well as completing pre- and post-management vegetative surveys. Management was accomplished by performing a series of herbicide treatments using the USEPA/MA DEP registered aquatic herbicides Reward (active ingredient: diquat) and AquaNeat (active ingredient: glyphosate).

All work performed at Fort Meadow Reservoir this season was conducted in accordance with the current Order of Conditions (OOC) issued by the Conservation Commissions (DEP #190-0582 Hudson; 212-1146 Marlborough), and the License to Apply Chemicals issued by the MA DEP – Office of Watershed Management (#WM04-0000319). An outline of the 2021 program, along with our recommendations for ongoing management follow.

A chronology of this year's management and brief description of events is as follows:

2021 Program Chronology

- MassDEP Permit Application Filed 02/01/21
- MassDEP Permit received 02/16/21
- Pre-Treatment Survey 05/27/21
- Initial Herbicide Treatment 06/09/21
- Post-Treatment Inspection 09/10/21 & 10/06/21
- Treated Phragmites growth and conducted additional inspection 10/06/21
- Additional Phragmites Treatment 10/21/21

Early Season Pre-Treatment Survey

On May 27, a SOLitude biologist conducted the pre-treatment survey to assess the aquatic vegetation composition. The survey was accomplished by using a jon boat to navigate around the connected basins to record visible observations of plant growth. In areas where the submersed vegetation could not be seen (either due to depth or algae surface cover), a specialized throw rake was used to gather plant matter for inspection. The intent of the inspection was to document dominant vegetation growth during pre-treatment conditions in order to have a baseline by which to evaluate the efficacy of the herbicide treatment,

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determine the best method of treatment, gauge non-target impacts - if any, and assess future management needs and/or necessary program modifications.

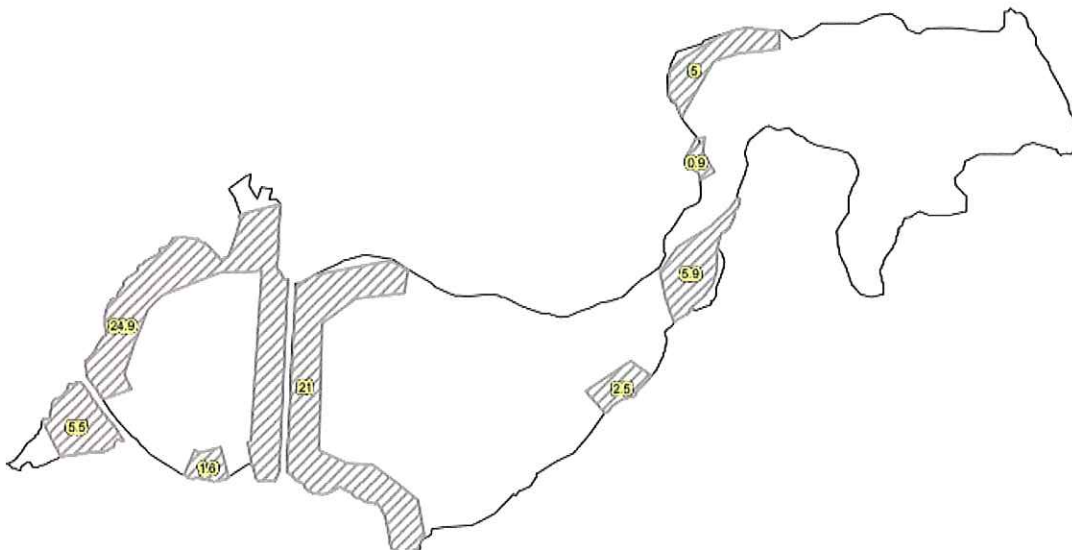
As in previous years, the dominant plant species observed was variable milfoil. It was found in substantial quantities in the two smaller western basins, and in sparse, localized amounts in the other basins. Curly-leaf pondweed was also observed as a sparse population in the smallest basin. Trace presence of fanwort was observed in the West basin and in the narrow section of the lake. Treatment areas were designated based on the presence of milfoil and curlyleaf pondweed. Fanwort was not targeted due to its limited early-season presence.

Besides the vegetation noted above, we also saw sparse amounts of Quillwort (*Isoetes sp.*), ribbon leaf pondweed (*Potamogeton epihydrus*), thinleaf pondweed (*Potamogeton pusillus*) and clasping leaf pondweed (*Potamogeton perfoliatus*). There also was a healthy presence of big leaf pondweed (*Potamogeton amplifolius*).

Submersed Vegetation Herbicide Treatment

On June 9, the submersed vegetation herbicide treatment was conducted utilizing diquat herbicide. Prior to treatment, posters warning of water-use restrictions following the treatment were posted around the shoreline and access points of the lake. Additionally, abutter notices were mailed to all lake residents prior to treatment as well as publication of the notice in the local newspaper. Areas of variable milfoil were treated. Overall, diquat herbicide was applied to eight treatment areas, totaling approximately 67.3 acres (Figure 1).

Figure 1. 2021 Treatment Areas



The large basin was treated using an 18-foot Jon Boat equipped with a low-pressure pump and a calibrated spray system. The two smaller basins were treated using a 12-foot jon boat equipped with a similar calibrated spray system. The liquid herbicide was diluted onboard with lake water in a mixing



tank and applied subsurface, to reduce drift, using trailing hoses. Pre-defined treatment areas were pre-loaded onto a GPS unit to allow for real-time tracking of the treatment boat to ensure even application through the designated areas. SŌLitude's state licensed aquatic applicators completed the treatment in accordance with the product label and the MA DEP License to Apply Chemicals. At no time during the treatment were there any observations or reports of any significant non-target impacts to fish or other aquatic organisms.

Post-Treatment and Phragmites Locative Surveys

On September 10th, a SŌLitude Project Manager conducted the post-treatment survey of the large basin. On October 6, two SŌLitude project managers conducted a post-management survey of the two smaller basins at Fort Meadow Reservoir. These surveys served to assess the overall effectiveness of the treatment and document the overall plant assemblages in order to plan for next year. Hudson Conservation Commission agent, Pam Helinek, attended the September survey and Marlborough Conservation Officer Priscilla Ryder attended the October inspection.

The treatment worked well as there was minimal milfoil observed within the treatment areas. In the large basin, the milfoil was found in very sparse densities in the large cove to the right of the Reservoir Street boat launch, and a small amount was found at the east end of the narrow section. Native vegetation was present at healthy densities and did not seem to be impacted as a result of the diquat herbicide treatment. A significant increase in fanwort was observed in sections of the large basin and throughout much of the larger sub-basin. A couple sparse locations of fanwort were observed in the smallest basin.

At the time of the surveys, the locations of Phragmites growth were also noted with respective addresses. The growth was scattered, with most areas having 5-10 stems each except for the larger patch adjacent to the northwest corner of Paquin Drive which had over 100 stems. The addresses were later provided to the Commissions for waiver notification purposes.

Other Phragmites locations were noted in the basin located between the two causeways. These are shown on the attached map. The main infestations were seen near the small boat ramp/steps in this basin, near the north end of the Reservoir St. Causeway, and in a few small pockets near the Bolton Street Tavern. A few other Phragmites pockets were noted in the shallow cove that extends toward the rear of Walmart. All of these Phragmites locations were treated.

Phragmites Management

Based on the survey results, the treatments were completed on October 6 & 21st. Prior to treatment, property owners with Phragmites growth on their land were sent a waiver form to allow access onto their property for treatment; all areas for which access was granted were treated. All areas of growth that were below the normal mean water line were also treated as that property is considered to be owned by the Towns. Treatment was conducted from a jon boat using a low-pressure backpack sprayer. The herbicide was applied topically to the plants and allowed to dry for at least 24 hours before the treatment areas were re-entered by anyone.

SŌLitude's state licensed aquatic applicators completed the treatment in accordance with the product label, Orders of Conditions and the MA DEP License to Apply Chemicals. At no time during the treatment did we observe or receive reports of any significant non-target impacts to fish or other aquatic organisms.



Summary & Management Recommendations

Variable Watermilfoil Management

The diquat herbicide treatment conducted in 2021 provided excellent control of the variable milfoil within each basin of the reservoir. However, regrowth of this species did occur later in the season, which was anticipated and usual for Fort Meadow. Due to the long-standing history of growth of this species in Fort Meadow, it is our presumption that some regrowth will continue due to the plants' extensive root crowns within the sediment. Although regrowth was present within historically problematic areas, the level of regrowth was observed at a significantly lesser density than growth prior to treatment, which is ideal.

Based on this year's treatment, we anticipate a similar level of required acreage to be treated in 2022. Again, we recommend that treatment target the most problematic milfoil growth areas and higher use areas within the large basin to minimize fragmentation and further spread of the species. We anticipate treating approximately the same acreage in the small and middle basin as well.

Diquat herbicide continues to be the most cost-effective herbicide for annual management of several invasive species within Fort Meadow. Milfoils, curlyleaf pondweed and spiny naiad are all susceptible to diquat. Fanwort is the only invasive species established in the reservoir that is not impacted by diquat. Unfortunately, diquat does not impact the root structures of the susceptible plants and requires annual treatments to manage active growth. Systemic herbicides are available for use but carry a significantly higher cost and historically have had longer water-use restrictions following treatment. However, a recent systemic herbicide, ProcellaCOR EC, is available for use in Massachusetts and provides excellent control of variable milfoil. We could work with both Conservation Commissions to get this added via a minor change request if its use is of interest to the Fort Meadow Commission. Through the last two seasons, it has been utilized at seven waterbodies throughout Massachusetts, and significantly more throughout New England and New York, with excellent success.

Fanwort Management

Trace evidence of fanwort was observed early on during the 2021 season, but significant growth was observed, especially in the western sub-basin, during the post treatment surveys. The attached map shows all the locations of milfoil and fanwort as observed during the post treatment survey. Clipper (flumioxazin) remains the best spot-treatment option available to manage fanwort as ProcellaCOR does not impact fanwort. However, depending on the configuration of the treatment area(s), larger scale or whole basin treatments utilizing Sonar (fluridone) herbicide can also be highly effective as it is a systemic herbicide option. Based on the results of the post-treatment survey, Sonar should be considered for the western sub-basin due to the widespread growth of fanwort in this area and the systemic, multiple year control provided by this product as compared to Clipper

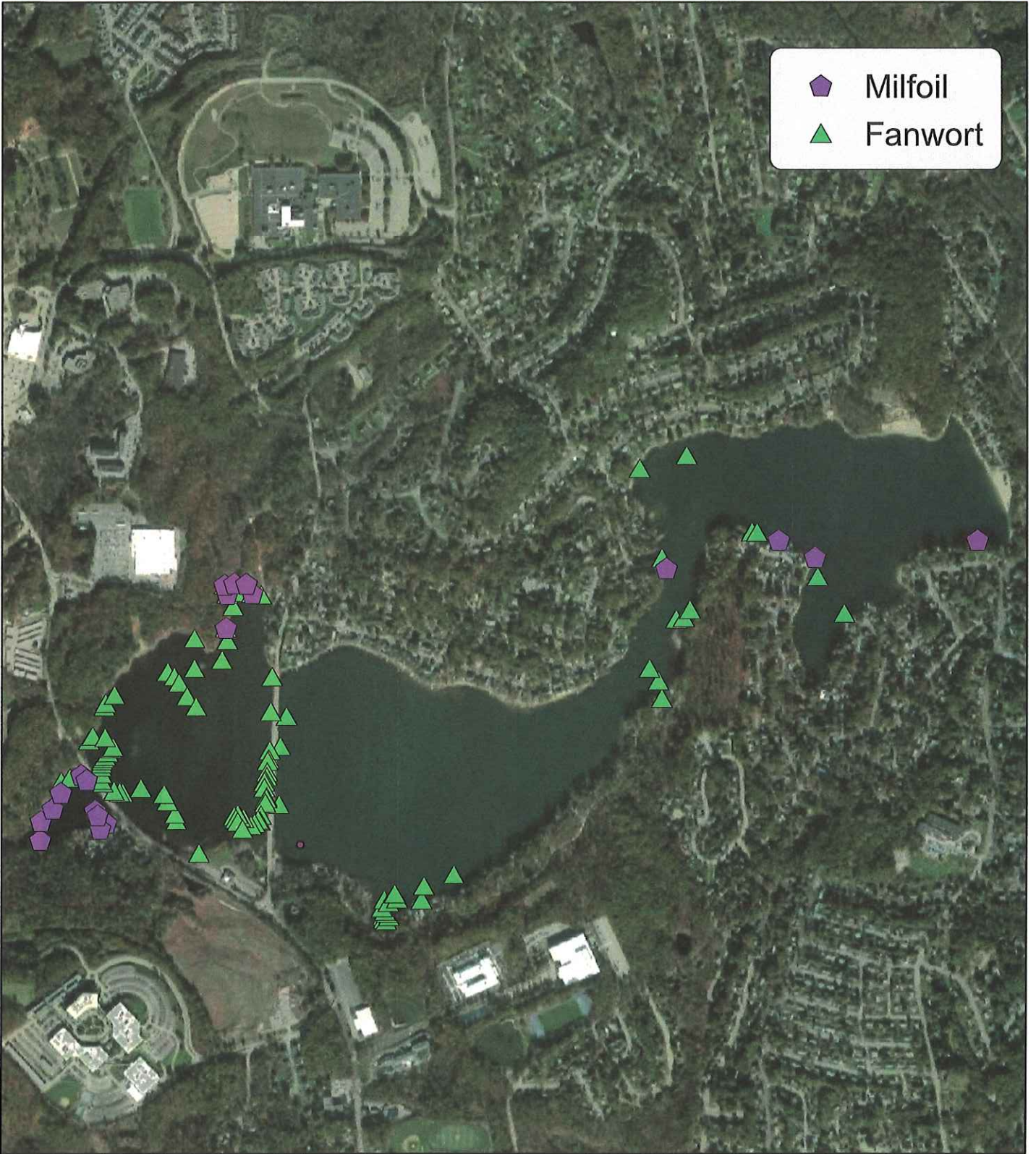
Phragmites Management

The impact and success of the 2021 Phragmites treatment will be most evident during the 2022 season, when any re-growth can be observed. This is the fifth consecutive year of treatment, and only a few areas of regrowth remained in 2021. We strongly recommend continuing to spot-treat any re-growth on an annual basis.

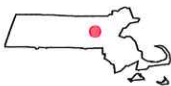
Consistent with prior years, we would perform the treatment as late as possible prior to the two Town public beaches opening. Delaying treatment until mid-June helps to ensure that longer control is achieved through the season.



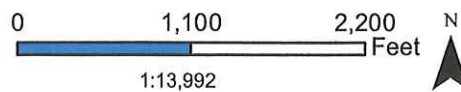
We feel that our additional recommendations will help continue to enhance the reservoir's aesthetic, ecological and recreational values. We truly appreciate your business and look forward to working with you again next season in 2022.



Fort Meadow Reservoir
Marlborough/Hudson, MA

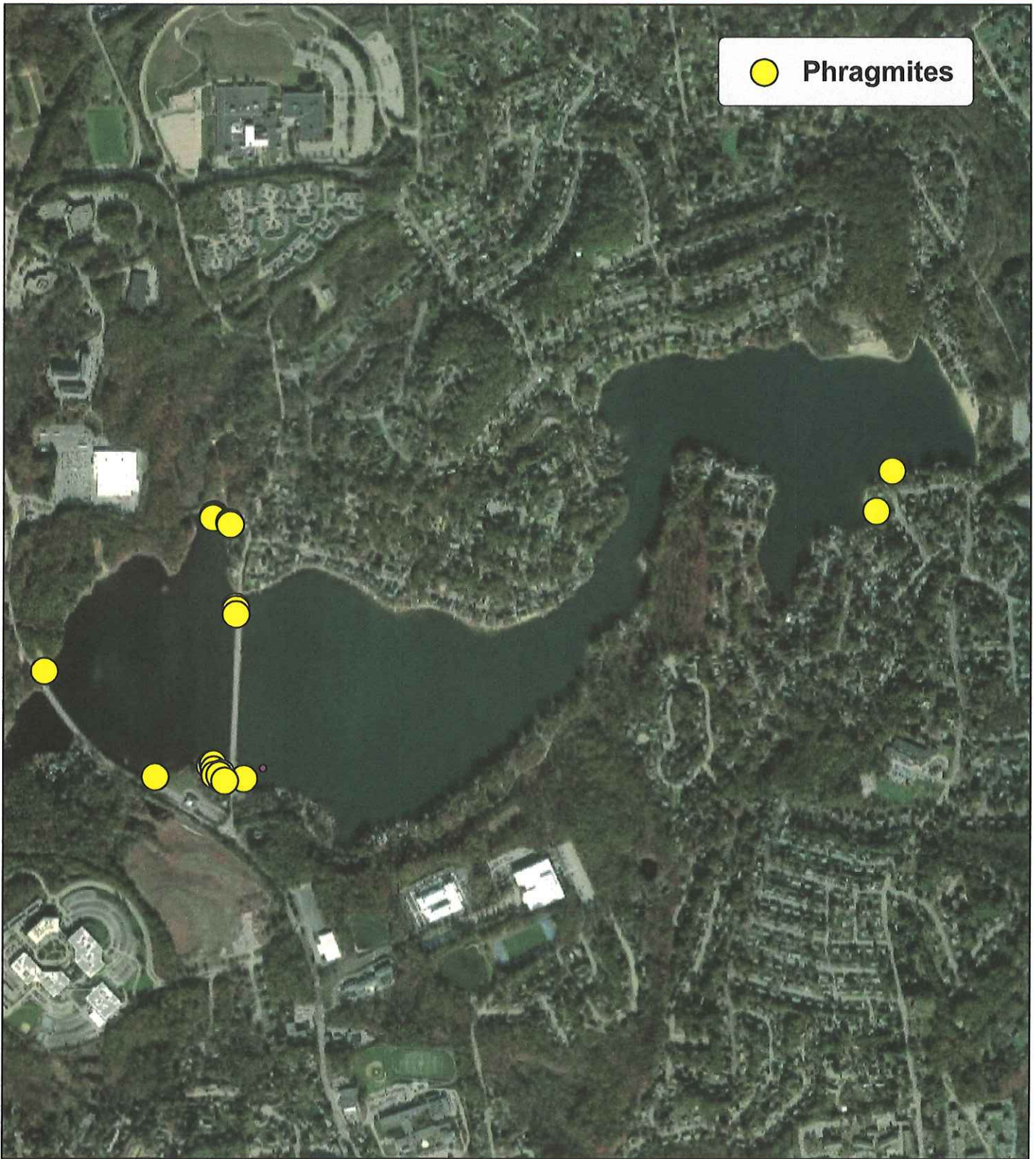


Fort Meadow Reservoir

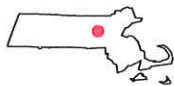


Map Date: 11/19/21
Prepared by: SM
Office: SHREWSBURY, MA

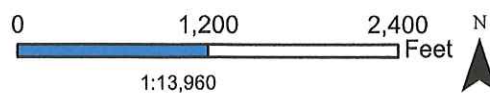
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Fort Meadow Reservoir
Marlbrough/Hudson, MA



Fort Meadow Reservoir



Map Date: 12/7/21
Prepared by: DM
Office: SHREWSBURY, MA

Conservation Meeting dates

2022

January 6

January 20

February 3

February 17

March 3

March 17

April 7

April 21

May 5

May 19

June 2

June 16

July 7

July 21

August 4

August 18

September 1

September 15

October 6

October 20

November 3

November 17

December 1

December 15

**City of Marlborough
Conservation Commission
140 Main St.
Marlborough, MA 01752**

WETLANDS SETBACK POLICY

Unless proven otherwise by the applicant, the Conservation Commission shall presume that any proposed activity within 20 ft. of any wetland will have a significant adverse impact on the wetland and shall not be permitted.

Purpose of Policy

The Conservation Commission has found that activity in the 20 ft. buffer zone bordering wetland resource areas poses a serious threat to such areas. As a result, the Conservation Commission strongly discourages such activity within 20 ft. of wetland boundaries. This undisturbed zone will provide a minimum buffer to prevent negative impacts on wetlands.

Basis of Policy

Scientific research, and the Conservation Commission's own experience in reviewing a wide variety of projects, demonstrates that alteration or construction activities within the buffer zone consistently result in destructive effects on the wetlands themselves. These include, but are not limited to, disturbance of natural vegetation along the wetlands boundary, run-off of pollutants, fill materials, and other substances into the wetlands, stockpiling or dumping of materials or debris which migrate over time into the wetlands, and disturbance of wildlife habitat, such as nesting sites and corridors which are important to wetland species. The Conservation Commission has also noted a tendency on the part of many project proponents to design the project so that it goes to the absolute limit of the wetland boundary. Particularly given the difficulty which often arises in defining that boundary, in most instances it is vital to protect an adjacent section of the buffer zone and prevent the inevitable destructive impacts on the wetlands which go to the boundary.

The Policy

As used herein:

"**Alteration**" shall mean any removal (grading, filling and /or excavation) of vegetative cover, soil or other naturally occurring materials.

"**Construction**" shall mean the construction of any permanent or temporary structure or building, including, without limitation, any residential or commercial building, garage, shed, barn, tennis court, deck, swimming pool, parking area, driveway, fence, or landscaping project.

In acting upon Notices of Intent and Determination of Applicability, the Conservation Commission will presume that any **alteration or construction** within 20 ft. of a wetland boundary would have a significant adverse impact on the wetlands, and such **alteration or construction** shall not be permitted unless the applicant demonstrates that (1) such activity would not have such an impact, or (2) public benefits, such as health or safety, outweighs any such impact, or (3) the activity involves the maintenance of existing structures, or (4) the activity is the installation of the stormwater outlet structure. The applicant will have the burden of proof by clear and convincing evidence on this issue. Factors to be considered by the Conservation Commission in determining whether the applicant has met this burden shall include, but are not limited to, the following:

1. Slope of the buffer zone
2. Type and structure of vegetation, soil type and hydrology in the buffer zone
3. Degree and scale of past alterations in the buffer zone
4. Ecological integrity of the adjacent wetlands
5. Importance of the buffer zone to wildlife utilizing the wetland
6. Whether the proposed activity in the buffer zone would be permitted if it were in the wetland

7. Any ecological benefits arising from the proposed activity, such as removal of exotic vegetation or creation of enhanced wildlife habitat
8. Any public benefits arising from the proposed activity
9. Alternatives have been considered and in the judgment of the Commission no practical alternative is available. However, restoration or plantings in the zone may be required, to help define and protect the remainder of the buffer zone.
10. Project scope and design minimized the work in close proximity to resource area
11. Project will not lead to encroachment on the resource area after the project is completed
12. Commission may impose a wider undisturbed buffer zone to ensure protection of wetland resource areas if the project involves: sensitive habitats, steep slopes, highly erodible soils, extensive disturbed area or hydraulic conditions likely to promote significant erosion

Applicants wishing to rebut the presumption set forth in this policy shall provide the Conservation Commission with the following information, together with any additional relevant information which the Conservation Commission may require:

1. A cross-sectional profile of elevation change in any area of the buffer zone within 20 ft. of a wetland which would be disturbed by the proposed activity.
2. A list of all vascular plant species occurring in the 20 ft. area of the buffer zone and adjacent wetland areas including data on relative abundance of each species.
3. A wildlife habitat evaluation of the 20 ft. area of the buffer zone and adjacent wetlands including data on observed wildlife utilization of such area, such as breeding bird use, occurrence of fish, reptiles, amphibians and mammals.
4. A description of the nature of any public or ecological benefits which may arise from the proposed activities.
5. A photograph of the area to be disturbed.

It is the Conservation Commission's policy, where it has discretion, to prohibit any activity in the wetlands except where there are exceptional circumstances, where no other practical alternative exists, and where satisfactory replication takes place prior to any **alteration or construction**. Activity within the 100 ft. buffer zone will continue to be reviewed on an individual case basis.

Existing Conditions

Maintenance (but, no further alteration or expansion) of yards which existed on or before 8/1/96, within the 20 ft. buffer will be permitted, however homeowners are encouraged to maintain natural vegetation within 20 ft. of the wetland edge to help improve the water quality of wetlands and streams. A list of wetland vegetation which could enhance wildlife and water quality can be obtained from the Conservation Office at City Hall. The Commission encourages homeowners to allow a natural vegetation buffer to establish itself along the edge of streams, ponds and wetlands.

Further, the use of herbicides/pesticides, inorganic fertilizers (excluding lime or other soil treatments) where labels indicate they are toxic to aquatic organisms, which may alter the adjacent resource area, should not be used adjacent to wetlands. It is likely that the use of these chemicals over time will have an impact on the adjacent wetlands.

7. Any ecological benefits arising from the proposed activity, such as removal of exotic vegetation or creation of enhanced wildlife habitat
8. Any public benefits arising from the proposed activity
9. Alternatives have been considered and in the judgment of the Commission no practical alternative is available. However, restoration or plantings in the zone may be required, to help define and protect the remainder of the buffer zone.
10. Project scope and design minimized the work in close proximity to resource area
11. Project will not lead to encroachment on the resource area after the project is completed
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3. A wildlife habitat evaluation of the 20 ft. area of the buffer zone and adjacent wetlands including data on observed wildlife utilization of such area, such as breeding bird use, occurrence of fish, reptiles, amphibians and mammals.
4. A description of the nature of any public or ecological benefits which may arise from the proposed activities.
5. A photograph of the area to be disturbed.

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Further, the use of herbicides/pesticides, inorganic fertilizers (excluding lime or other soil treatments) where labels indicate they are toxic to aquatic organisms, which may alter the adjacent resource area, should not be used adjacent to wetlands. It is likely that the use of these chemicals over time will have an impact on the adjacent wetlands.

**City of Marlborough
Conservation Commission
140 Main St.
Marlborough, MA 01752**

WETLANDS SETBACK POLICY

Unless proven otherwise by the applicant, the Conservation Commission shall presume that any proposed activity within 20 ft. of any wetland will have a significant adverse impact on the wetland and shall not be permitted.

Purpose of Policy

The Conservation Commission has found that activity in the 20 ft. buffer zone bordering wetland resource areas poses a serious threat to such areas. As a result, the Conservation Commission strongly discourages such activity within 20 ft. of wetland boundaries. This undisturbed zone will provide a minimum buffer to prevent negative impacts on wetlands.

Basis of Policy

Scientific research, and the Conservation Commission's own experience in reviewing a wide variety of projects, demonstrates that alteration or construction activities within the buffer zone consistently result in destructive effects on the wetlands themselves. These include, but are not limited to, disturbance of natural vegetation along the wetlands boundary, run-off of pollutants, fill materials, and other substances into the wetlands, stockpiling or dumping of materials or debris which migrate over time into the wetlands, and disturbance of wildlife habitat, such a nesting sites and corridors which are important to wetland species. The Conservation Commission has also noted a tendency on the part of many project proponents to design the project so that it goes to the absolute limit of the wetland boundary. Particularly given the difficulty which often arises in defining that boundary, in most instances it is vital to protect an adjacent section of the buffer zone and prevent the inevitable destructive impacts on the wetlands which go to the boundary.

The Policy

As used herein:

"**Alteration**" shall mean any removal (grading, filling and /or excavation) of vegetative cover, soil or other naturally occurring materials.

"**Construction**" shall mean the construction of any permanent or temporary structure or building, including, without limitation, any residential or commercial building, garage, shed, barn, tennis court, deck, swimming pool, parking area, driveway, fence, or landscaping project.

In acting upon Notices of Intent and Determination of Applicability, the Conservation Commission will presume that any **alteration or construction** within 20 ft. of a wetland boundary would have a significant adverse impact on the wetlands, and such **alteration or construction** shall not be permitted unless the applicant demonstrates that (1) such activity would not have such an impact, or (2) public benefits, such as health or safety, outweighs any such impact, or (3) the activity involves the maintenance of existing structures, or (4) the activity is the installation of the stormwater outlet structure. The applicant will have the burden of proof by clear and convincing evidence on this issue. Factors to be considered by the Conservation Commission in determining whether the applicant has met this burden shall include, but are not limited to, the following:

1. Slope of the buffer zone
2. Type and structure of vegetation, soil type and hydrology in the buffer zone
3. Degree and scale of past alterations in the buffer zone
4. Ecological integrity of the adjacent wetlands
5. Importance of the buffer zone to wildlife utilizing the wetland
6. Whether the proposed activity in the buffer zone would be permitted if it were in the wetland



Formstack Submission For: [FY22 MassWildlife Climate Change Resilience Grant Opportunity](#)

Submitted at 11/22/21 11:40 AM

Applicant's Name: Priscilla Ryder

Applicant's Title: Conservation /Sustainability Officer

Applicant Type: Municipality

"Other" applicant type:

Organization: Conservation Commission, City of Marlborough

Is the applicant the owner, or one of the owners, of the project site parcel(s)?: Yes

If the applicant is not the owner of one of the parcels, please describe the relationship between the owner and the applicant.:

Upload letter of permission and endorsement for the applicant to conduct the proposed management from the parcel owner.:

Address:	140 Main Street City Hall Marlborough, MA 01752
Applicant's Phone Number:	508-460-3768
Applicant's Email:	pryder@marlborough-ma.gov
Applicant's Email Confirmation:	pryder@marlborough-ma.gov
Project Title:	Desert Natural Area Pitch Pine Scrub Oak Habitat Management Phase II
City/Town:	Marlborough
Nearest road to treatment unit(s)::	Concord Road, Marlborough
Does the proposed project occur across multiple properties?:	Yes
List the locations of the other properties/parcels in the proposal::	Memorial Forest, Sudbury Valley Trustees
Level of Protection::	Town Conservation Land Organization whose primary mission is conservation
Who owns the Conservation Restriction?:	
Letter of approval for the proposed management from Conservation Restriction holder.:	

Include the Organization's mission statement::

Sudbury Valley Trustees works to protect natural areas and farmland for wildlife and people in the 36 communities that surround the Sudbury, Assabet, and Concord Rivers.

Brief summary of proposed project.:

The Desert Natural Area, located in Sudbury and Marlborough, is a 900-acre ecosystem complex located within a larger area of over 4,000 acres of protected conservation land. This 4,000-acre ecosystem complex contains fire and disturbance-dependent natural communities of pitch pine – scrub oak barrens in a habitat mosaic of white pine/hardwood forest, red maple swamps, two cold-water streams (Cranberry and Trout Brooks) and associated wetlands. The City of Marlborough manages the Desert Natural Area (DNA) Conservation Land (88-acres) and the Sudbury Valley Trustees (SVT) manages the 220-acre Memorial Forest. The balance of these conservation lands is managed by the DCR, Bureau of Forestry (Marlborough-Sudbury State Forest), USFWS (Assabet River National Wildlife Refuge), Greater Federation of Women's Clubs (Memorial Forest) and Town of Sudbury (Hop Brook Marsh Conservation Land). In 2009, these abutting conservation land managers developed overall management goals* for this ecosystem complex and in 2010, Marlborough, Sudbury, GFWC and SVT had Forest Stewardship Plans prepared based on the ecological goals established by this group.

The currently proposed project would continue with implementation of these management goals to restore the degraded pitch pine-scrub oak (PPSO) barrens found in both the Marlborough DNA and the SVT Memorial Forest parcels. Pine barrens are among the most endangered natural communities in our area and in the world. Wildlife dependent on pine barrens has evolved to survive in this fire adapted community and has become endangered as a result of habitat loss. The barrens habitat is endangered in large part due to fire suppression as well as development pressure. Restoring fire to this fire adapted ecosystem will enhance PPSO habitat diversity and quality and increase climate resilience.

The City of Marlborough and SVT are proposing 3 management activities to further the goals of PPSO barrens restoration and reduction of fire hazard on these parcels:

1. Logging - thinning of Stands 8 and 2c in Marlborough approximately 21 acres in accordance with the silvicultural prescription in the Marlborough Forest Stewardship Plan, 2010.

2. Removal of log piles and most snags created during the original 2014 prescribed burn in the Marlborough and Sudbury burn units (14 acres) especially those within 50 feet of firebreaks. Snags and log piles may not be left on site as they would present safety hazards and logistical problems in a future prescribed burn. These snags and logs are excess fuel on this site. These activities were the recommendation of the burn professional who prepared the 2019 Burn Plan and will not only improve safety and efficacy of the subsequent burn but will also reduce risk of wildfire.

3. Clearing firebreaks in Sudbury Memorial Forest parcel in Stands 4 and 5a as shown on the Forest Stand Map of the Memorial Forest Stewardship Plan, 2010.

***Ecological Goals for the Desert Natural Area:**

- Restore pitch pine-scrub oak barrens
- Control invasive species
- Enhance habitats for migratory bird species that are declining in population
- Maintain rare turtle habitat
- Maintain high-quality cold-water streams
- Maintain vernal pools and associated upland habitat

How will the proposed habitat enhancement activities improve resilience of the habitat to climate change and

The proposed habitat improvement project continues efforts by the City of Marlborough and the Sudbury Valley Trustees (SVT) to restore and expand Pitch Pine Scrub Oak (PPSO) habitat in the Desert Natural Area. The PPSO barrens on this property provide habitat for a diversity of

overall climate adaptation?:

state listed plants and animals which require a more open shrubby habitat or are dependent on the plant species in this natural community. Restoration of pine barrens habitat will enhance diversity and quality of this habitat and support wildlife dependent on pine barrens habitat, particularly rare and declining species.

Logging operations in stands on the Marlborough parcels are in preparation for future treatments, both mechanical and prescribed fire, to restore pine barrens habitat.

Removal of log piles and an overabundance of snags found in the original 2014 burn units will increase safety and improve fire implementation for a future prescribed burn on these parcels. Additionally, these management activities will reduce fuel load and thus reduce the risk of future wildfires expected to become more common as the climate warms.

Due to the stressors of warming temperatures and increased droughts, as well as changes in precipitation patterns, the recommended action is to promote adapted trees in pitch pine-scrub oak barrens. Both pitch pine and scrub oak are well adapted to drought and heat.

Therefore, the plan is to maintain both of these current species which are predicted to do well. We plan to reduce stressors on these systems, including management of invasive species and browse by deer or other wildlife. The City of Marlborough and other abutting conservation lands allow deer hunting on their property. Both the City of Marlborough and SVT have been active in controlling invasive species on these lands for the last ten years.

In addition, to protect the ecological integrity of the cold-water streams, vernal pools and wetlands, the project activities will maintain a buffer of at least 100ft from these resource areas.

List the Species of Greatest Conservation Need (State Wildlife

Ten (10) Species of Greatest Conservation Need that occur in the Desert Natural Area.
The Eastern Box Turtle and Wood Turtle occur at this site.

Action Plan species) that occur in the area and are expected to have a net benefit from the proposed habitat enhancement actions of the project. Describe the direct connection between the habitat enhancement being conducted and the benefit to the identified SWAP species.:

Both of these turtles benefit from the open sandy areas created in pitch pine-scrub oak barrens because they use these openings for nesting. Confirmed breeding birds include Eastern whip-poor-will, American woodcock, Eastern towhee, prairie warbler. Birds that have been observed during one breeding season, but not confirmed as breeding, include Nashville warbler and common nighthawk. All of these birds, except for the woodcock, are known to utilize pitch pine-scrub oak barrens for breeding habitat. Creation and maintenance of this type of habitat will benefit these bird species.

Moths documented at the site include Coastal Swamp Metarranthis, Pine Barrens Zanclognatha, and Gerhard's Underwing. Two of these species are specialists of pine barrens habitat and all will benefit from the creation and maintenance of the PPSO.

One remnant population of lupine is found at this site. Lupine requires these sandier soils and open barrens habitat. SVT has been actively collecting seed and re-establishing some additional local populations at the site.

These rare and declining species depend on the pine barrens for their survival and the proposed management activities will maintain the more open PPSO barrens and prepare the area for a future expansion of this habitat type.

Describe any written partnership agreements or collaborations with other conservation or education groups that benefit habitat management on this site or on the nearby landscape.:

The City of Marlborough, the Sudbury Valley Trustees, DCR Bureau of Forestry, USFWS Assabet River National Wildlife Refuge, Town of Sudbury and Massachusetts Natural Heritage and Endangered Species Program (MNHESP) have been working together in the Desert Natural Area on habitat management plans since 2009. Management goals include the restoration of globally rare Pitch Pine Scrub Oak Barrens (PPSO) found in this area. In 2014 a prescribed burn was completed on 14 acres in Marlborough and Sudbury to restore degraded PPSO habitat. City of Marlborough, SVT and USFWS were

partners on this project. Since that time SVT and City of Marlborough have continued management efforts by conducting mechanical treatments on this 14-acre parcel as well as thinning operations on abutting parcels in Memorial Forest to the southeast (another 50 acres) in preparation for a future prescribed burn in this area. In 2017 City of Marlborough completed a project to treat and remove non-native invasive plants on approximately 15 acres along the south and southwestern boundaries of the currently proposed treatment units (Funded by Mass Wildlife Grant). SVT has also been conducting extensive invasive plant control on their parcel. In 2019 SVT had an updated burn plan prepared for 56 acres on SVT's Memorial Forest and 8 acres of City of Marlborough's Desert Natural Area. A subsequent prescribed burn is planned for the original 14 acres as well as the 50-acre units to the southeast.

DCR Bureau of Forestry plans to conduct forestry operations on six stands of their Hansen lot which abuts the City of Marlborough parcel. The goal on approximately 25 acres of this parcel is to restore native Pitch Pine Scrub Oak Barrens and to provide habitat for endangered species. A thinning operation on the remaining stands will demonstrate that thinning will leave the healthiest and most well-formed trees to reproduce the next generation of trees.

The City of Marlborough PPSO Habitat Management Phase II project would continue with planned management activities to promote PPSO habitat improvement for this fire adapted natural community. The proposed management activities will also significantly reduce the fuel load to help reduce the risk of future wildfires in this area, predicted to occur more frequently as climate gets warmer and drier.

An excellent overview and chronology for this project can be found at

<https://www.svtweb.org/properties/stewardship/desert-na-restoration#Project%20Description>

Is the proposed project within an Environmental Justice Community?:	No
Total Parcel Size Acreage::	308
Treatment Unit(s) Combined Acreage:	85
Treatment Unit 1: Acreage:	21
Treatment Unit 1: Existing Habitat Type:	Pitch Pine-Oak Upland Forest
Treatment Unit 1: Target Habitat Type:	Pitch Pine-Oak Upland Forest
Treatment Unit 1: Proposed management activities for this unit:	<p>Stand 8 from Marlborough Forest Stewardship Plan Removal of competing species particularly white pine and midstory hardwoods. Future management includes treating the site mechanically and with fire to encourage the scrub oak component. Volume of wood removed is estimated at 14MBF. The objective is to reduce the basal area by 50% and create more open understory conditions. Residual overstory will include widely spaced pitch pine and mature oaks with thick bark. The logging operation must occur between December 1 and March 31 according to Conservation Management Practices for Box Turtle.</p> <p>Stand 2c from Marlborough Forest Stewardship Plan Thinning operation to remove approximately 30% of the basal area focusing on stems competing with white pine crop trees, poorly formed stems and some of the larger mature sawtimber. In addition to white pine crop trees, vigorous pitch pine and a percentage of the large mast producing hardwoods like white oak will be retained. There is a seasonal equipment restriction in the eastern portion of this stand.</p>

Do you have more than one treatment unit?:	Yes
Treatment Unit 2: Acreage:	14
Treatment Unit 2: Existing Habitat Type :	Pitch Pine-Oak Upland Forest
Treatment Unit 2: Target Habitat Type:	Pitch Pine-Oak Upland Forest
Treatment Unit 2: Proposed management activities for this unit:	<p>Stand 7 from Marlborough Forest Stewardship Plan (8 acres) and Stand 1 from SVT Memorial Forest Stewardship Plan</p> <p>The burn professional that prepared the burn plan recommends two activities that will improve safety and create better burn conditions in these stands. These activities will also reduce the risk of wildfire.</p> <ol style="list-style-type: none"> 1. Removal of white pine log piles created during the prescribed burn in 2014 from Stand 7 (8 acres) in Marlborough and Stand 1 in Sudbury (6 acres). These log piles must be removed before the next prescribed burn in this area. The objective is to remove these piles offsite in conjunction with the logging operation in Marlborough. An alternative would be to pile them outside the proposed future burn units. There are 18 log piles on the Marlborough parcel and 10 on the Sudbury parcel, these are located mainly close to the trails on both parcels. 2. Remove most snags, especially those within 50 feet of the firebreaks. The snags are a potential hazard during a burn and must be removed from the site. Selective removal of snags that are greater than 50 feet from the firebreaks - removing those in advanced state of decay as they pose a risk during a prescribed burn. Some snags in the central area will be left for habitat value.

Do you have more than 2 treatment units?:	Yes
Treatment Unit 3: Acreage:	50
Treatment Unit 3: Existing Habitat Type:	Pitch Pine-Oak Upland Forest
Treatment Unit 3: Target Habitat Type:	Pitch Pine-Oak Upland Forest
Proposed management activities for Treatment Unit 3::	Clearing and redefining firebreaks mainly in Memorial Forest Stands 4 and 5a. Clearing firebreaks is necessary in preparation for the subsequent prescribed burn as recommended by the burn professionals.
Do you have more than 3 treatment units?:	No
Treatment Unit 4: Acreage:	
Treatment Unit 4: Existing Habitat Type:	
Treatment Unit 4: Target Habitat Type:	
Treatment Unit 4: Proposed management activities for this unit:	
Total reimbursement amount request (dollars)::	26667

<p>Who will be conducting the proposed management activities?:</p>	<p>Subcontractors</p>
<p>The budget request built upon (select all that are applicable):::</p>	<p>Subcontractor quotes. NRCS Rates.</p>
<p>Upload subcontractor quote::</p>	<p>View File</p>
<p>How many additional subcontractor quotes would you like to upload?:</p>	<p>None One</p>
<p>Second subcontractor quote.:</p>	<p>View File</p>
<p>Third subcontractor quote.:</p>	
<p>Upload budget worksheet showing all proposed expenses, including staff name(s), positions, and base hourly rate (excluding fringe) and proposed number of hours for each staff member. Includes supplies if applicable. If using NRCS rates, include rate per acre and acreage. Include subcontractor quotes. :</p>	<p>View File</p>
<p>Map:</p>	<p>View File</p>

How many additional maps would you like to upload?:	2
Second map.:	View File
Third map.:	View File
Project Photo:	View File
How many additional photos would you like to upload?:	1
Second photo.:	View File
Third photo.:	
Fourth photo.:	
Upload Shapefiles (Save folder as a .zip):	
How many supporting documents do you need to upload? (as applicable):	none
Supporting Documents :	
Supporting Documents:	
Supporting Documents:	
Supporting Documents:	
:	I hereby declare that the above information is true to the best of my knowledge and belief. By submitting this

application, I acknowledge the terms and specifications contained within this RFR.

Signature:

[Direct Link to Image](#)

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Formstack, 11671 Lantern Road, Suite 300, Fishers, IN 46038

FOREST MANAGEMENT PROPOSAL



Broad Arrow Forestry

P.O. Box 322
Hubbardston, MA 01452
Telephone: 508-792-2414

proposal # 21-022
sheet # 1 OF 1
date: 11/16/21

PROPOSAL SUBMITTED TO:

Priscilla Ryder, Marlborough Cons. Commission
140 Main Street
Marlborough, MA 01752
508-460-3768 (w)

WORK TO BE PERFORMED AT:

Concord Road
Marlborough, MA

We hereby propose to furnish the materials and perform the labor necessary for the completion of:

TIMBER SALE PREPARATION AND ADMINISTRATION

1. Field visit to locate harvest areas and flag boundary lines within 200' of harvest area. Lines not readily located with hand compass will require work beyond the scope of this proposal.
2. It will be the responsibility of the City to request a ruling from NHESP as to whether logging will constitute a taking and if so what the restrictions to logging will be imposed.
3. One sale area is determined and NHESP regulations are known, I will contact one or two regional whole tree chip harvesters to confirm interest in the project and ability to complete harvest this winter. Bids will be sought based on acreage and estimated volumes (or per MBF). Project will not proceed unless contractor with ability to complete logging before June 30, 2022 is secured.
4. Mark trunk and stump of trees to be harvested in compliance with forest management recommendations outlined in the Forest Stewardship Plan for stands 2c & 8 (approx. 21.2 acres). Modifications to these recommendations will not be made without approval of the conservation agent.
5. Measure and tally marked trees and provide a written estimate of volume to be harvested broken down by species and diameter class.
6. Primary skid trails will be flagged prior to sale. Wetland crossings, if necessary, will be identified, flagged and mapped. Final layout may be adjusted during pre-harvest meeting with logger.
7. Conduct field visit with conservation agent and selected logging contractor.
8. Preparation and filing of state forest cutting plan in accordance with MGL Ch.132 including notification of abutters with 200' of harvest area via certified mail. This proposal does not include the cost of compliance with local bylaws, should they exist, such as attending public hearings and filing fees.
9. Discussion of procedures for administering the sale of timber incl. review of sale contract.
10. Prepare and execute timber sale contract with chosen logging firm.
11. Oversee logging operation until completion to ensure compliance with contract.
12. Unfavorable weather conditions in southern New England frequently delay logging operations. This possibility should be understood.

All work completed in a substantial workmanlike manner for the sum of:
\$3000 plus \$175/ac after the first 10 acres. If the harvest is limited to St.8 the fee will be \$3000.00. If St 2c is added (total area 21.2 ac.) the fee will be \$4960.00.

Payments to be made as follows:

1) 10% deposit. 2) 50% upon completion of marking. 3) Remaining 40% upon completion of logging

Respectfully submitted

Note-This proposal may be withdrawn by us if not accepted within 30 days

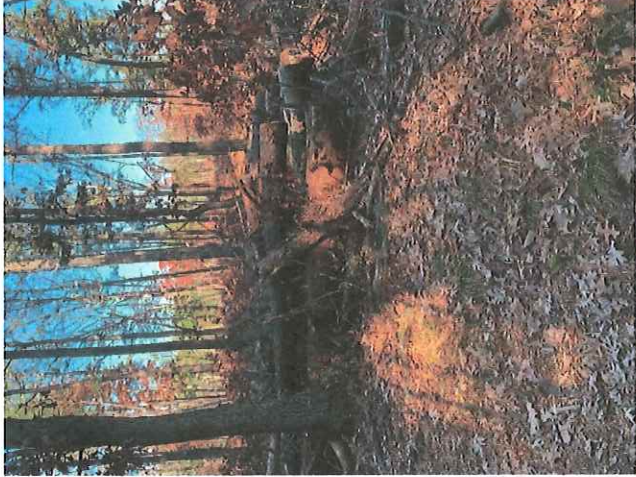
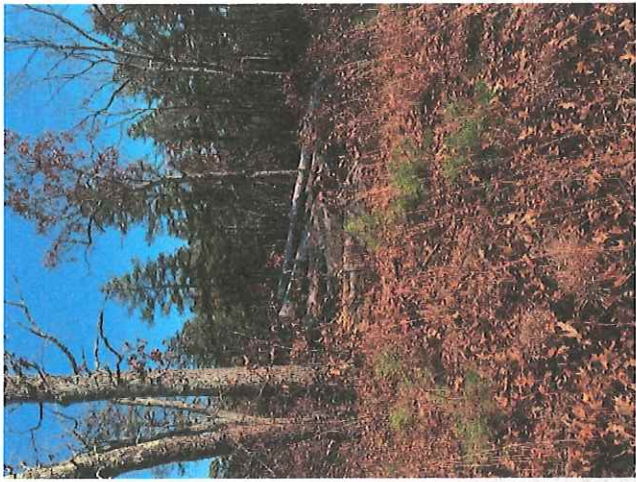
ACCEPTANCE OF PROPOSAL

The above prices, specifications, and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Date _____

Signature _____

Signature _____



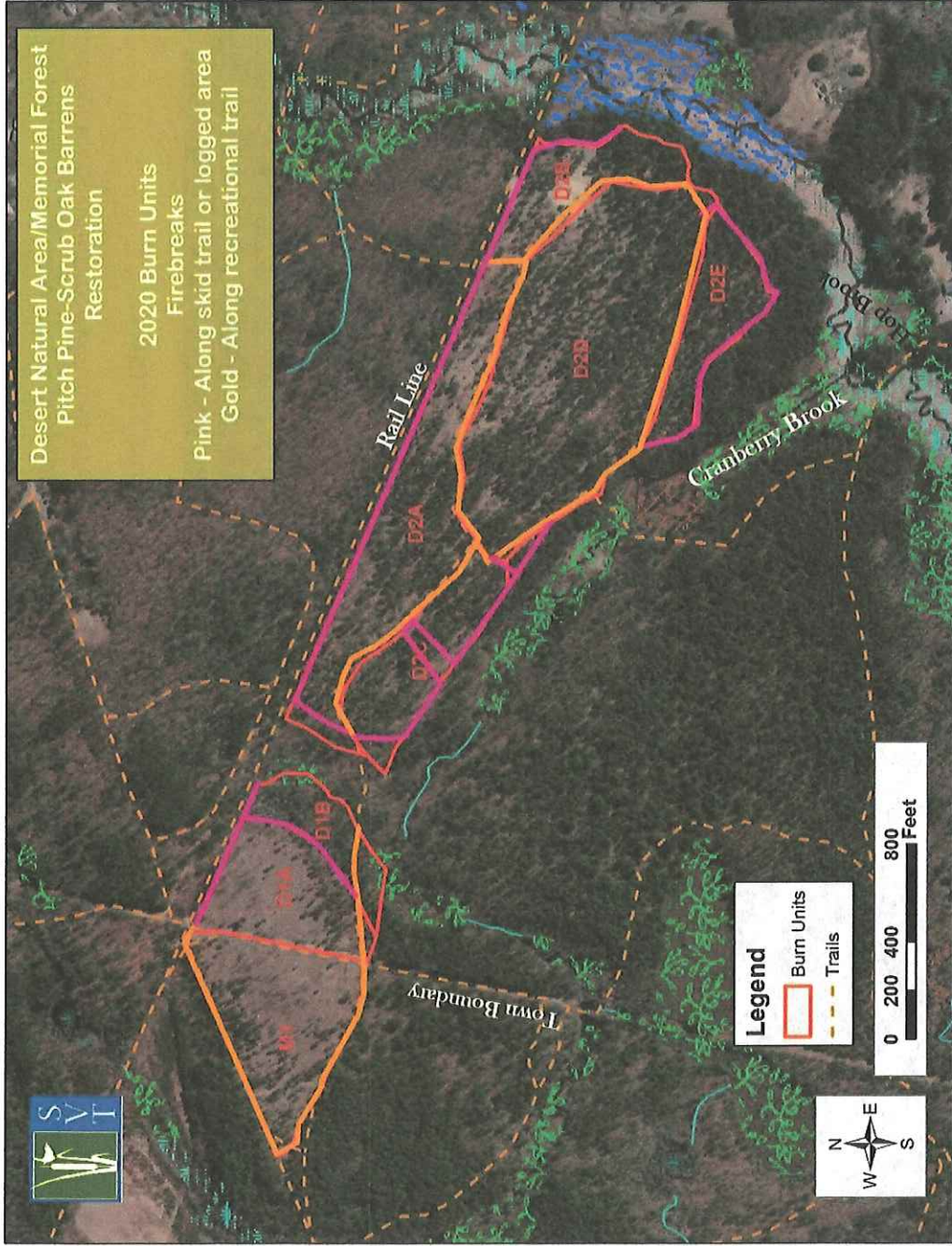
Typical Log Piles in original 2014 Burn Unit. Current Treatment Unit 2



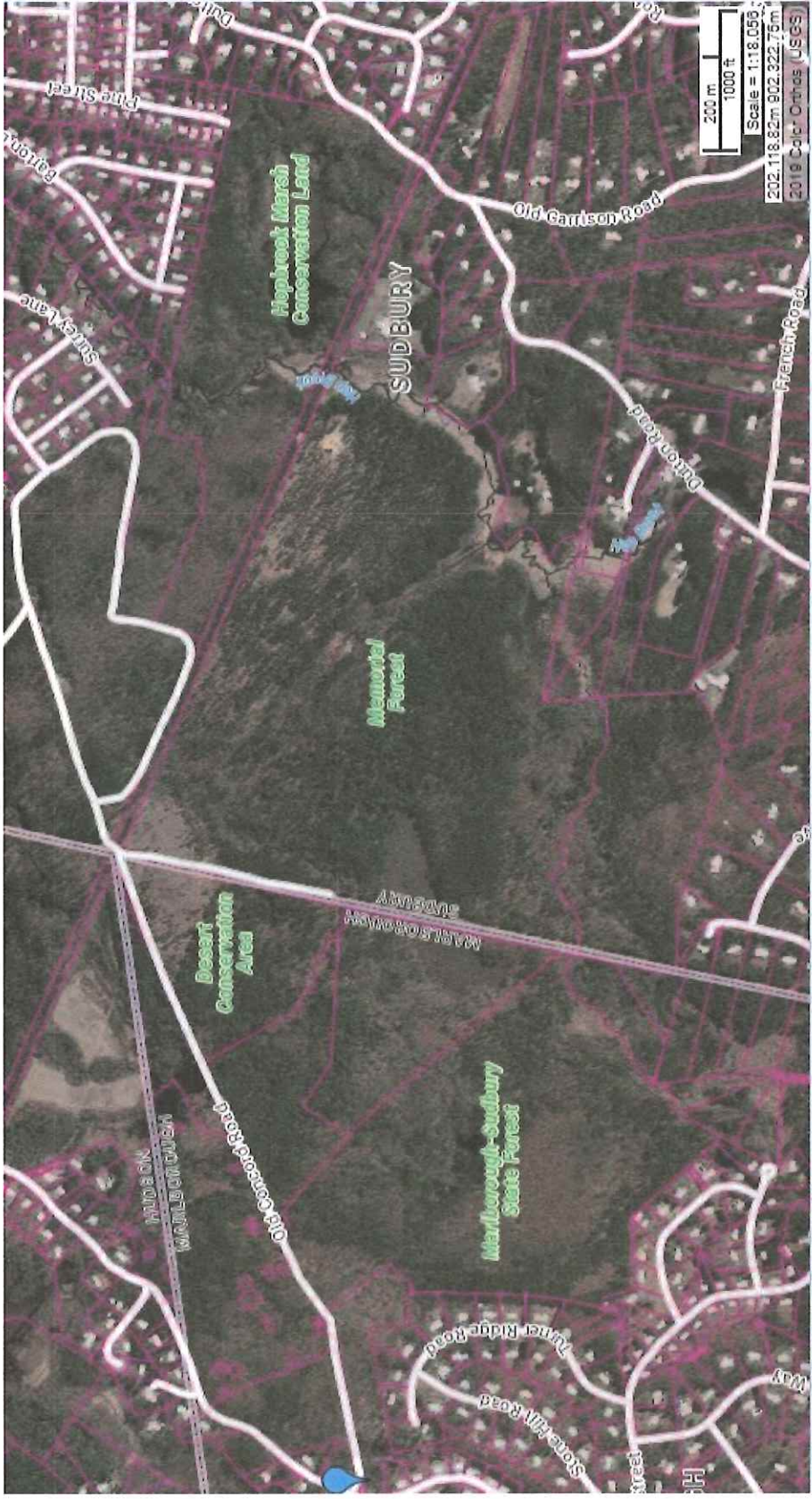
Typical standing snag



View along firebreak



Ortho Map of Firebreak routes - proposed Treatment Unit 3



Desert Natural Area Partners:

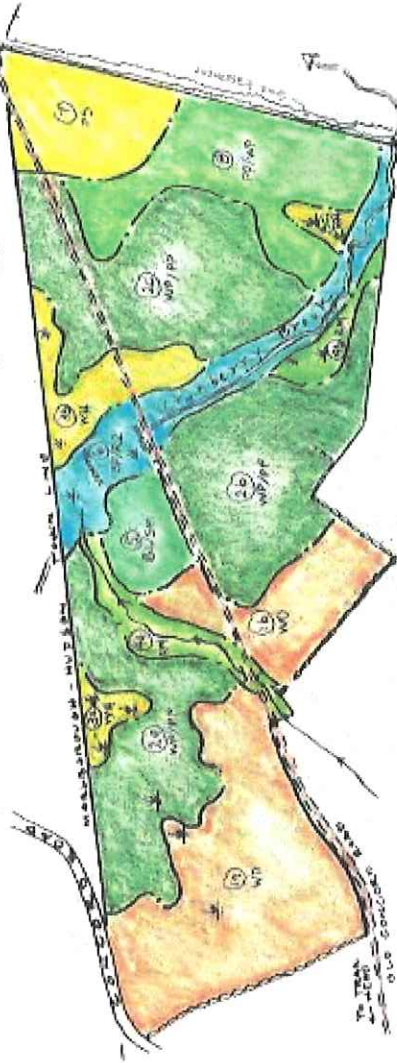
Marlborough Desert Natural Area; SVT Memorial Forest; DCR Marlborough-Sudbury State Forest; USFWS Assabet River National Wildlife Refuge and Town of Sudbury Hop Brook Marsh Conservation Land

2010 Forest Stewardship Plan: Forest Stand Maps

FOREST STAND MAP

PROPERTY OF
 THE CITY OF MARLBOROUGH
 DESERT NATURAL AREA
 CONCORD ROAD/OLD CONCORD ROAD
 MARLBOROUGH, MA

Parcel Size: 88.2± acres



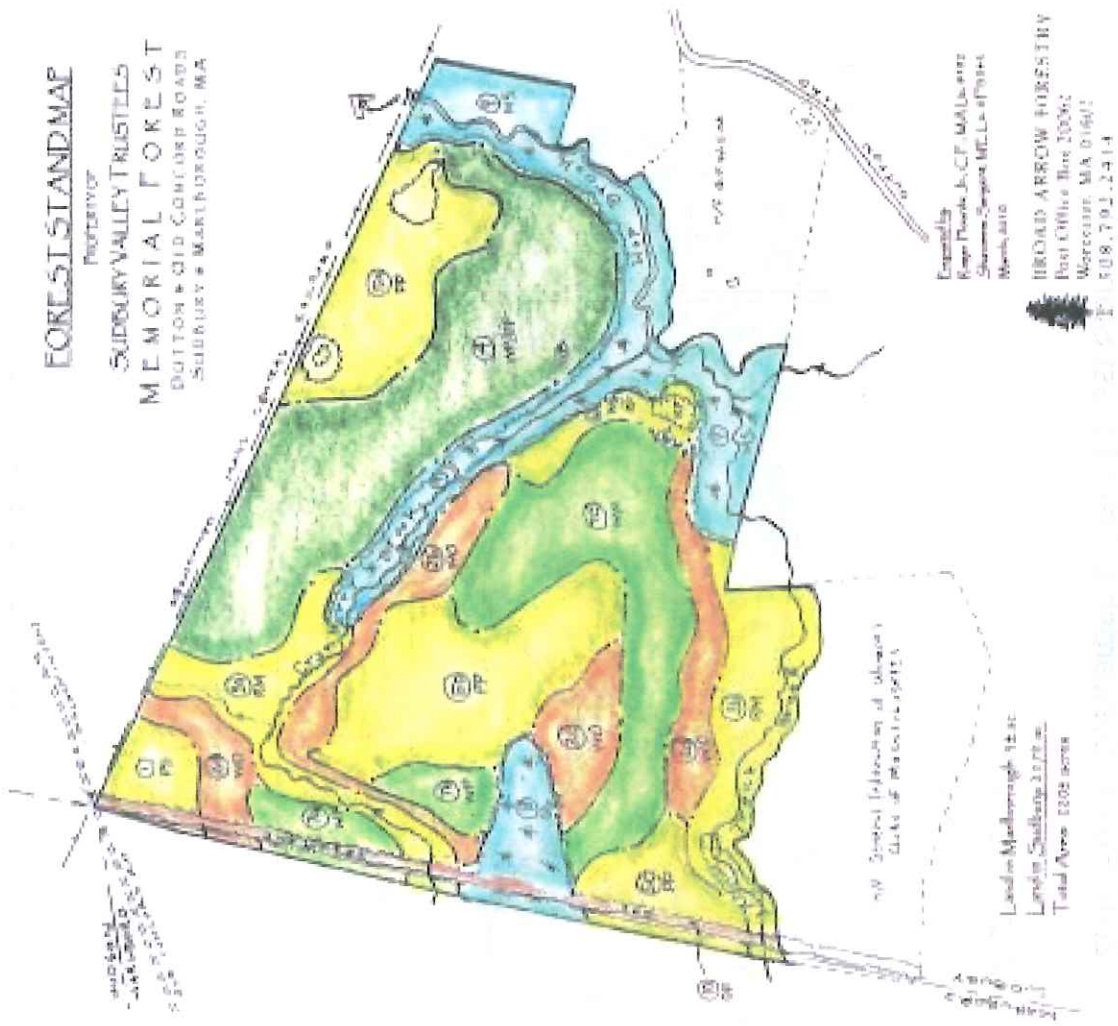
Parcel Size: 4.3± acres

Code	Species	Stand Type
WD	White Pine-Oak	PS
WP	White Pine	BL
PT	Park Pine	SM
WH	White Pine-Hardwood	BM
RM	Red Maple	RZ
	Swamp Hardwoods	
		Pink Pine-Spice Oak
		Black Locust
		Sugar Maple
		Gray Birch-Red Maple
		Recreation Zone

LEGEND	
—	Town Boundary
—	Town Road
—	Gravel Road
—	Stone Wall
—	Property Boundary
—	Stand Boundary

Marlborough DNA parcel – 88 acres

FOREST STAND MAP
 PREPARED BY
SUDBURY VALLEY TRUSTEES
MEMORIAL FOREST
 DUTTON & OLD CONCORD ROADS
 SUDBURY & MARLBOROUGH, MA



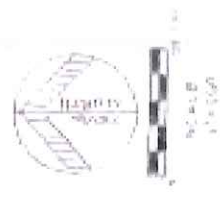
Prepared by
BRAD ARROW FORESTRY
 Post Office Box 20062
 Worcester, MA 01602
 508.793.2414

Land in Marlborough 12.42
 Land in Sudbury 2177.18
 Total Area 2202 acres

Code	Stand Type
PS	Pine/White Birch Oak
WP	White Pine
RP	Red Pine
WO	White Pine, Oak
WT	White Pine, Hardwood
RM	Red Maple
MS	Swamp Hardwoods
DM	Shadblow Marsh
OP	Open (spruce)

Symbol	Feature
---	Tree Boundary
---	Tree Road
---	Current Road
---	Proposed/Revised
---	Stone Wall
---	Property Discontinuity
---	Stream/Runway
---	Stream Marker
---	Seasonal Stream
---	Firewood Driveway
---	Wooded Area
---	Wooded Trail
---	Significant Tree
---	Setback/Inclusion
---	Forest Edge

Scale:
 Actual photos
 1/2" = 100 feet
 1/4" = 50 feet



SVT Memorial Forest parcel - 220 acres



DIVISION OF FISHERIES & WILDLIFE

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

December 30, 2021

Priscilla Ryder
Town of Marlborough Conservation Officer
140 Main St
City Hall, 3rd Floor
Marlborough MA 01752

RE: Project Location: Desert Natural Area, Marlborough
Project Description: Prepare for Prescribed Burning
NHESP Tracking No.: **12-31347**

Dear Applicant:

Thank you for submitting the Habitat Management Plan to the Natural Heritage and Endangered Species Program of the MA Division of Fisheries & Wildlife (the Division) for review pursuant to the Massachusetts Endangered Species Act (MESA) (MGL c.131A) and its implementing regulations (321 CMR 10.00).

The Division hereby approves the submitted management plan, provided the following conditions are met:

1. Operation of motorized vehicles site-wide shall occur only during the time period beginning November 1 and ending April 15 of any year.
2. Intentional soil scarification shall not be conducted with use of motorized tools/equipment, unless otherwise approved by the Division in writing. To the greatest extent practical equipment should remain on established skid roads and trails so as to minimize the amount of ground impacted by equipment tracks or tires.
3. Any timber harvesting that triggers the filing of a Forest Cutting Plan with DCR shall also be submitted to the Division for review.

Therefore, the proposed activities are **exempt from MESA review** pursuant to 321 CMR 10.14 which states: "[t]he following Projects and Activities shall be exempt from the requirements of 321 CMR 10.18 through 10.23...".

(15) The active management of State-listed Species habitat, including but not limited to mowing, cutting, burning, or pruning of vegetation, or removing exotic or invasive species, for the purpose of maintaining or enhancing the habitat for the benefit of rare species, provided that the management is carried out in accordance with a habitat management plan approved in writing by the Division"

Any changes to the proposed activities or any additional work beyond that described in the approved management plan may require a filing with the Division pursuant to MESA. This approval is valid for five

(5) years from the date of issuance. If you have any questions about this letter, please contact Emily Holt, Endangered Species Review Assistant at 508-389-6385 or Emily.Holt@mass.gov.

Sincerely,



Everose Schlüter, Ph.D.
Assistant Director