



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):

Lake Wyola	Shutesbury	01072
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	42.501059	-72.429114
	d. Latitude	e. Longitude
B	B-803	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

Mark	Rivers	
a. First Name	b. Last Name	
Lake Wyola Advisory Committee		
c. Organization		
1 Cooleyville Rd.		
d. Street Address		
Shutesbury	MA	01072
e. City/Town	f. State	g. Zip Code
413-367-9945	riversmarkh@gmail.com	
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	
Town of Shutesbury		
c. Organization		
1 Cooleyville Rd		
d. Street Address		
Shutesbury	MA	01072
e. City/Town	f. State	g. Zip Code
413-259-1204	townadmin@shutesbury.org	
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

a. First Name	b. Last Name	
c. Company		
d. Street Address		
	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):

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

A. General Information (continued)


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

A. General Information (continued)

6. General Project Description:

This project seeks to protect the earthen dam and shoreline from damage by ice in Lake Wyola in Shutesbury, MA, through annual, 2-foot drawdown.

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

- | | |
|---|---|
| 1. <input type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input checked="" type="checkbox"/> 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 CMR 10.24(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:

Franklin

a. County

1198

c. Book

b. Certificate # (if registered land)

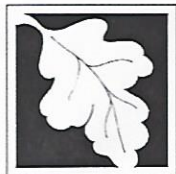
552

d. Page Number

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

- 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.
- 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.



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 _____

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.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input checked="" type="checkbox"/> Bank	12,000 ft 1. linear feet	0 2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	0 2. square feet
c. <input checked="" type="checkbox"/> Land Under Waterbodies and Waterways	688,000 (temporary) 1. square feet 0 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced

- 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.



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

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. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. <input type="checkbox"/> Coastal Banks	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. cubic yards dredged 1. square feet	

4. Restoration/Enhancement
If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

_____ a. square feet of BVW
 _____ b. square feet of Salt Marsh

5. Project Involves Stream Crossings

_____ a. number of new stream crossings
 _____ b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

WPA Form 3 – Notice of Intent

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

MassDEP File Number

Document Transaction Number

City/Town

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

- (c) MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/ mesa/ mesa_fee_schedule.htm). Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

Projects altering 10 or more acres of land, also submit:

- (d) Vegetation cover type map of site
- (e) Project plans showing Priority & Estimated Habitat boundaries
- (f) 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, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/ mesa/ mesa_exemptions.htm; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)
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.
3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
- a. Not applicable – project is in inland resource area only b. Yes No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

WPA Form 3 – Notice of Intent

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

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

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

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 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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

City/Town

WPA Form 3 – Notice of Intent

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

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.

Mark Piven, Chair LWAC
1. Signature of Applicant

9/27/18
2. Date

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.

NOTICE OF INTENT

Shutesbury, MA

Lake Wyola Shutesbury, MA

October, 2018

Introduction

This Notice of Intent (NOI) is being submitted on behalf of the Town of Shutesbury's Lake Wyola Advisory Committee to the Town of Shutesbury's Conservation Commission and the Department of Environmental Protection for the annual 2-foot lowering of Lake Wyola in Shutesbury, MA. This project, via an annual 2-foot lake lowering, seeks to reduce ice damage to the lake's bank, resident's docks and the earthen dam and its spillway. We are requesting draw down approval for the next 5 years.

Lake Wyola is 129 acres in size and has a maximum depth of 33 feet, with an average depth of 11 feet. Fiske Brook (in Wendell) contributes eighty percent of the water entering the lake. The lake was a mill pond in the eighteenth and nineteenth centuries that supplied a series of mills in Leverett via its outflow stream, the Sawmill River. The current dam was built in 1888 and its creation approximately doubled the surface area of the original pond. The dam, which was rebuilt in 2008, has both a spillway and a manually-operated gate that allows the release of additional water during annual draw-downs. See Figure #1, MassGIS Topographic Map for the project's location

Massachusetts Wetlands Protection Act Resource Area Descriptions

As Lake Wyola is designated as a Great Pond, projects in and around the lake, such as aquatic weed control and the lowering of water levels, are subject to the Massachusetts Wetlands Protection Act Regulations promulgated at 310 CMR 10.00.

Bordering Vegetated Wetlands

As stated in 310 CMR 10.55 (2) (a), "*Bordering Vegetated Wetlands are freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants....*"

Bank

Bank, as stated in 310 CMR 10.54(2) (a), is "*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 floodplain, or, in the absence of these, it occurs between a water body and an upland.*"

Land Under Water Bodies and Waterways

"LUW is defined at 310 CMR 10.56 as the land which occurs below the mean annual low water level of a waterbody, which provides substrate for aquatic plant growth and habitat for aquatic animals"

Bordering Land Subject to Flooding (BLSF)

As stated in 310 CMR 10.57(2)(a)1., "Bordering Land Subject to Flooding is an area with low, flat topography adjacent to and inundated by flood waters rising from creeks, rivers, streams, ponds or lakes. It extends from the banks of these waterways and water bodies; where a bordering vegetated wetland occurs, it extends from said wetland."

Buffer Zone

Buffer Zone as defined in 310 CMR 10.04 is "that area of land extending 100 feet horizontally outward from the boundary of any areas specified in 310 CMR 10.02(1)(a)".

Aquatic Vegetation

In June, 2007 federal grant money was used to fund an aquatic vegetation study by Geosyntec Consultants, Inc. In addition, volunteers from the Lake Wyola Association, who were trained by DCR staff, have been participating in a Weed Watchers Program to keep an eye on invasive weed growth in the lake. The most recent DCR training class was held in 2018. To date, Lake Wyola is currently devoid of invasive submergent aquatic vegetation.

The following table list the species identified during the 2007 survey.

Scientific	Common	Type
Utricularia Vulgaris	Common Bladderwort	Submerged
Utricularia purpurea	Purple Bladderwort	Submerged
Priseroubaca pakystris	Mermaid Weed	Submerged
Myriophyllum humile	Low Water Milfoil	Submerged
Potamogeton epiydrus	Ribbonleaf Pondweed	Submerged
Potamogeton	Big-leaf Pondweed	Submerged
Potamogeton natans	Floating Leaf Pondweed	Submerged
Eleocaris robbinsil	Robbins' Spike Rush	Submerged
Nuphar sp.	Yellow Water illy	Submerged
Nymphaea spp.	White Water Lily	Submerged
Elodea canadensis	Waterweed	Submerged
Nitella sp.	Stonewort	Submerged
Isoete sp.	Quillwort	Submerged
Pontederai cordata	Pickereelweed	Emergent
Brasenia schreberi	Watershield	

Lemna minor	Lesser Duckweed	
Saittaria latifolia	Arrowhead	
Sparganium sp.	Burr-reed	
Typha latifolia	Cattail	
Gratiola aurea	Golden Hedge Hyssop	Submerged

Proposed Project Description

Draw Down

As has been the historic practice for the past 30 years, the annual, 2-foot lake lowering is being proposed in accordance with the Division of Fisheries and Wildlife's Drawdown Performance Standards for the Protection of Fish and Wildlife Resources. The standard is included in Appendix 1. The Lake Wyola drawdown will begin on November 1 and be completed by December 1. Absent significant rainfall, the drawdown will take approximately 8 days (3 inches per day) and will remaining down through the winter. Refilled will be completed by April 1.

Water release during draw down and refilling is manually controlled by the dam keeper (Howard Kinder). Flow rate and valve are maintain by Mr. Kinder and are available for review upon request.

Spring Refilling

During refilling, half of the inflow from Fiske Brook and Ames pond will be released into the Sawmill River, while the remainder is retained in the lake. For example, if 4 cubic feet per second (cfs) of water is flowing into Lake Wyola from Fiske brook, during refilling, a minimum of 2 cfs will be allowed to leave Lake Wyola and enter the Sawmill River. At no time will the release to the Sawmill River be less than half of the inflow to Lake Wyola.

Historical flow rate measurements indicate that the water flowing into Lake Wyola from Fiske Brook is equal to 50% of the water flowing in the West Branch of the Swift River. During the month of March, when the lake will be refilling, the West Branch of the Swift River flows at a rate of approximately 45 to 50 CFS (see figure 3, USGS flow rate - West Branch of the Swift River). Therefore, approximately 22 to 25 cfs is flowing into lake Wyola. Given 129 acres and a 2-foot draw down, approximately 11.2 million cubic feet of water is need to refill the lake. At an input rate of 25 cfs (or 2.1 million cfs per day) while discharging 50% of the input, the lake can be refilled in 10 day

Public and Private Water Supplies

For the past 30 years, during the annual 2-foot draw-down period, there have been no

reported effects on private well. The draw-down does reduce the surface area of the lake by 12%, however, as evident by the lack of residential feedback, it appears not to have a significant effect on groundwater supply.

Lake Wyola is not used as a public water supply reservoir.

Estimated Habitats of Rare Wildlife

Lake Wyola is not mapped as Priority and Estimated Habitat by the Natural Heritage Endangered Species Program (NHESP). See Figure 2, MassGIS NHESP Map.

Impacts to MA WPA Protected Resource Areas

General Performance Standard Analysis

The proposed project will have minimal effect on Resource Areas and Buffer Zones. Annual drawdowns for the past 30 years, plus 8 to 9 foot drawdowns in 2008 and 1998 have proven to have no temporary or permanent impacts. This was the finding of a 2007 NOI authored by New England Environmental. No effort will be made to coordinate this annual draw-down with any maintenance work by others.

Bank

The shoreline for the 129 acre lake when it is full to its normal capacity is 12,000 linear feet. No work is proposed within Bank and there is no expected permanent impact on this resource area.

BVW

No work is proposed within Bordering Vegetated Wetlands and there will be no permanent or temporary impact on this resource area.

LUW

Lowering the water level by 2 feet, exposes the approximately 15 acres of and under the water. Based on the Mass Division of Fish and Wildlife's Bathymetry map of Lake Wyola (see Figure 5,) a 5-foot lowering would expose approximately 39 acres of land under the water. It is estimated that the 2-foot lowering would exposed 2/5th of this area; equaling ~15.6 acres.

There have been no fish kills reported during all previous drawdowns. 88% of the land under water will remain submerged leaving ample deep-water pools with sufficient dissolved oxygen to prevent fish kills.

No work is proposed within the Land under Water Bodies and therefore no permanent impacts to this resource area will occur. Lowering the water level slower than 3 inches per

day eliminates potential impact to macroinvertebrates and results in no disturbed sediments. Also, the project will not alter the water carrying capacity of Lake Wyola.

The proposed project does not involve:

- a) aquatic nuisance plant management
- b) stream crossing
- c) sediment disturbance
- d) Buffer Zone modifications.

Conclusion

The overall goal of the proposed project is to protect the shoreline, dam and residential docks from ice damage and will have no adverse impact on protected resource areas.

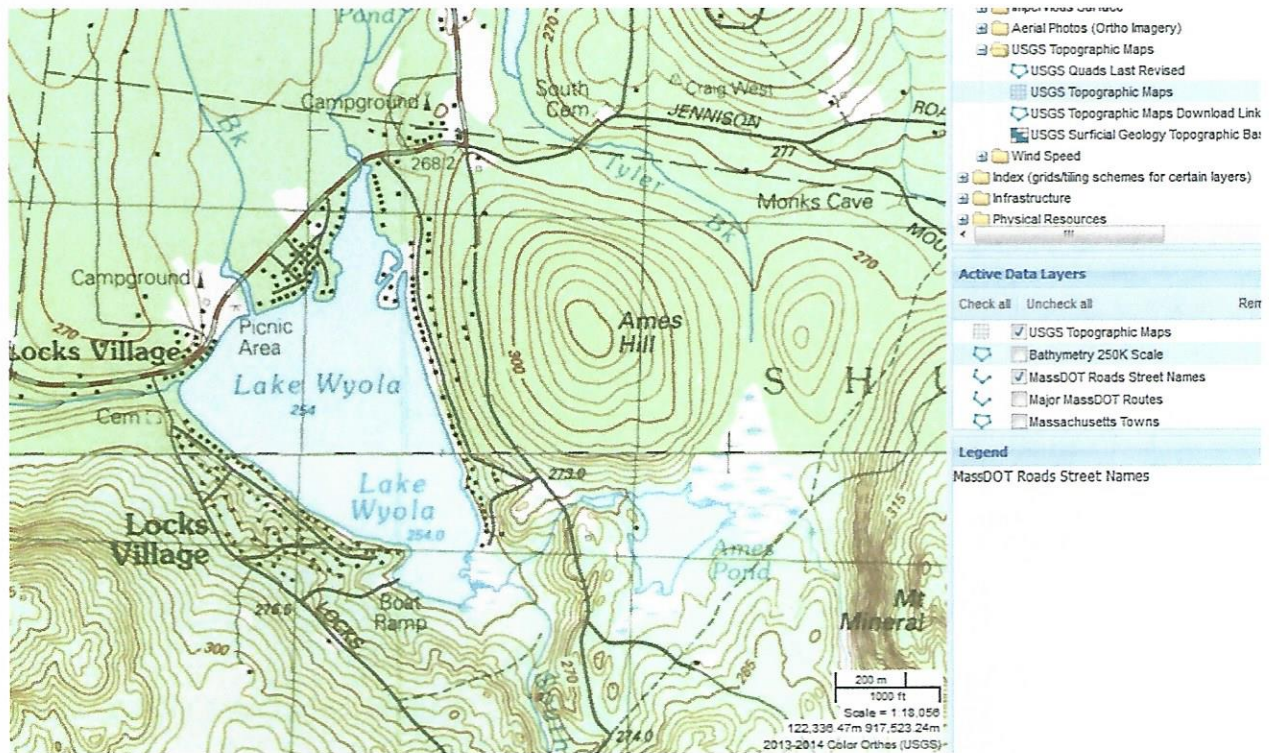


Figure #1.
MassGIS Topographic Map



Figure #2.
MassGIS NHESP Map

USGS 01175500 SWIFT RIVER AT WEST WARE, MA

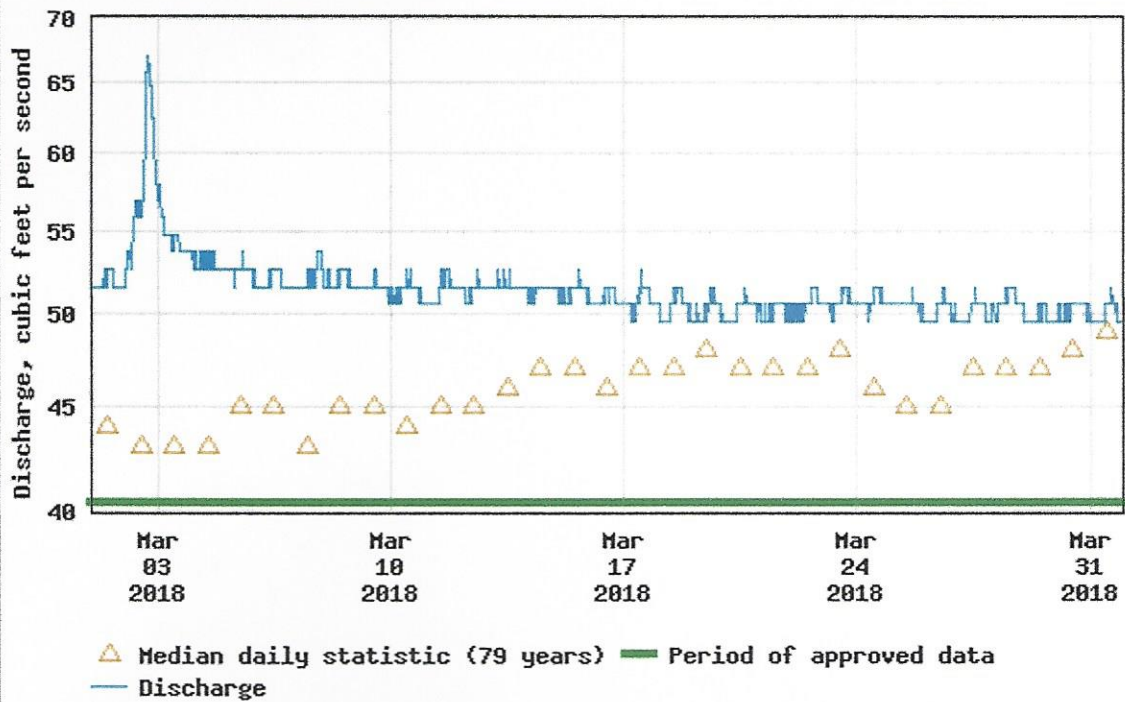


Figure 3
USGS flow rate
West Branch of the Swift River

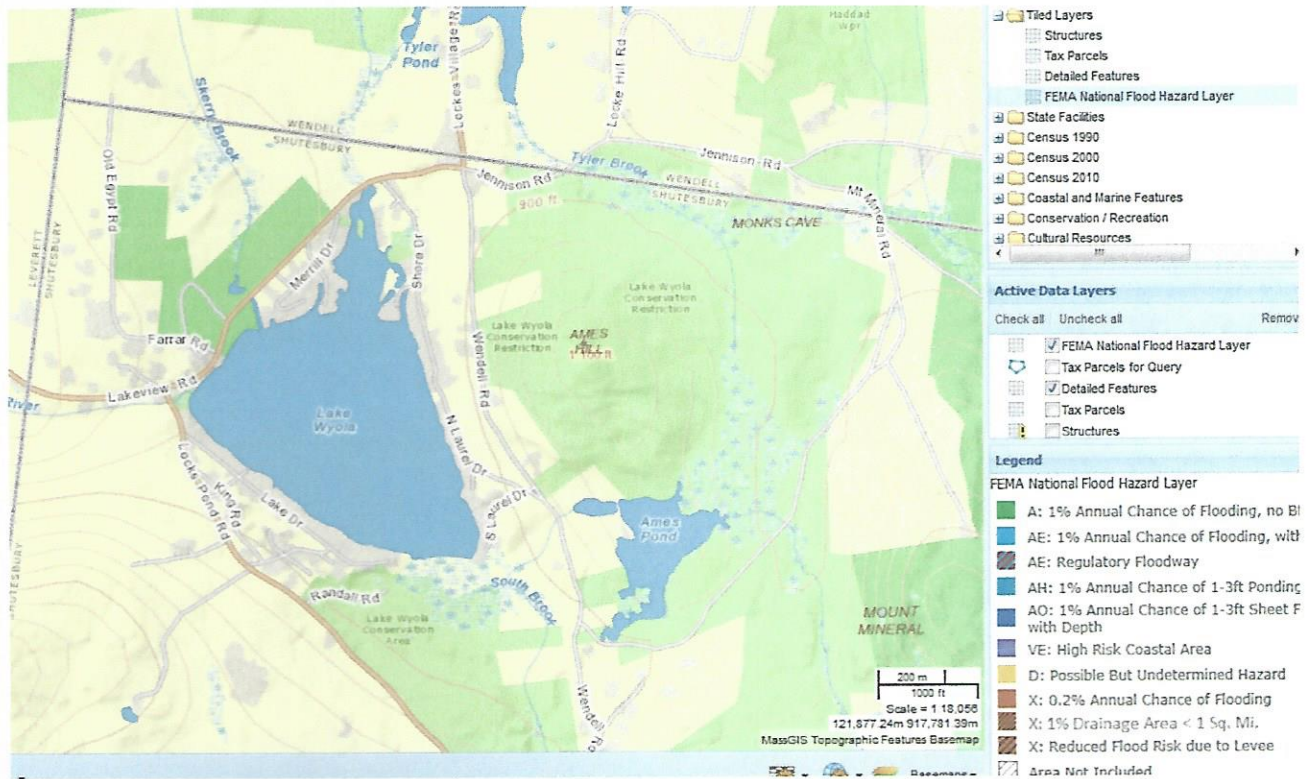


Figure #4.
MassGIS FEMA Flood Map

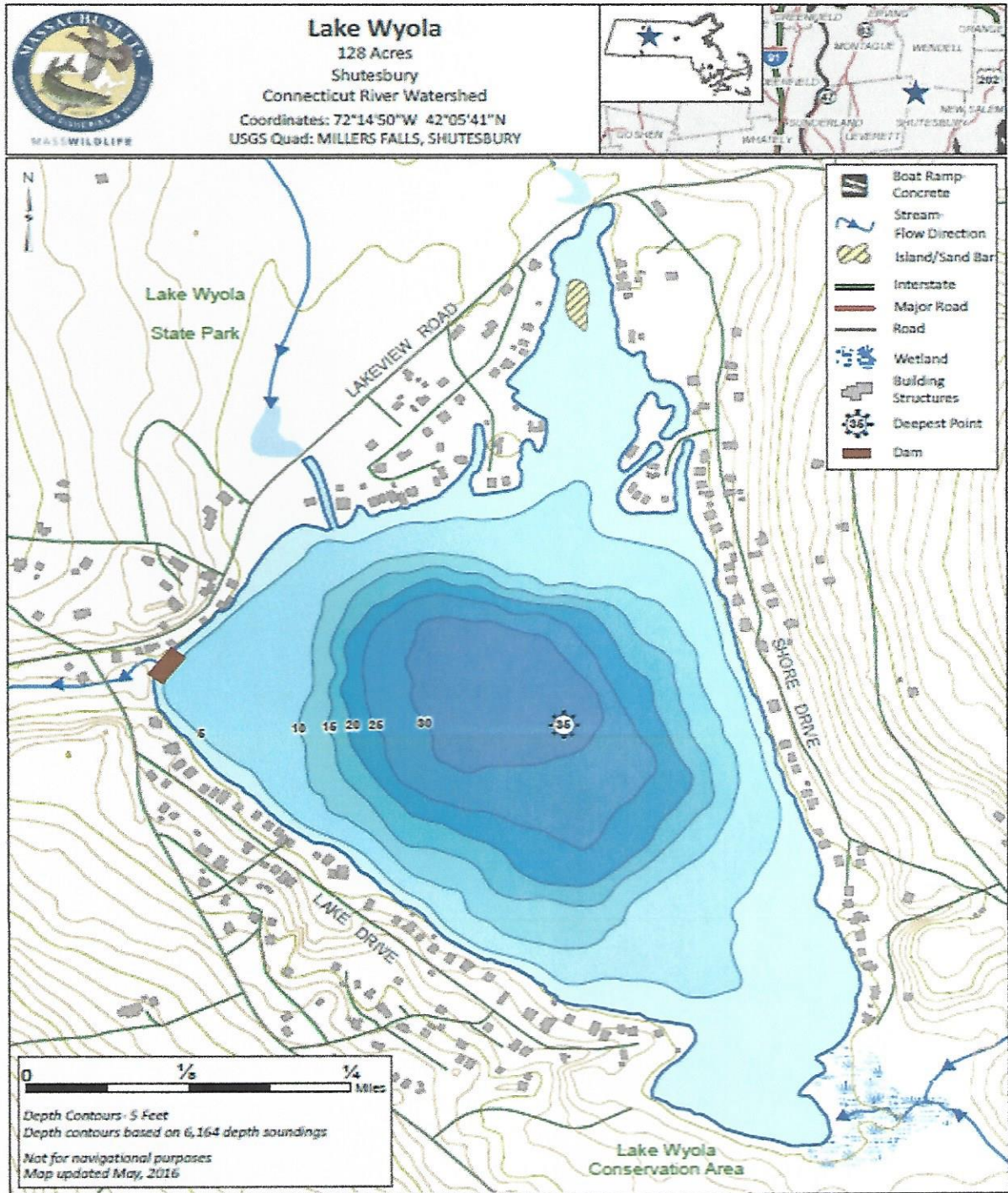


Figure 5
 Mass Fish and Wildlife
 Depth Contours

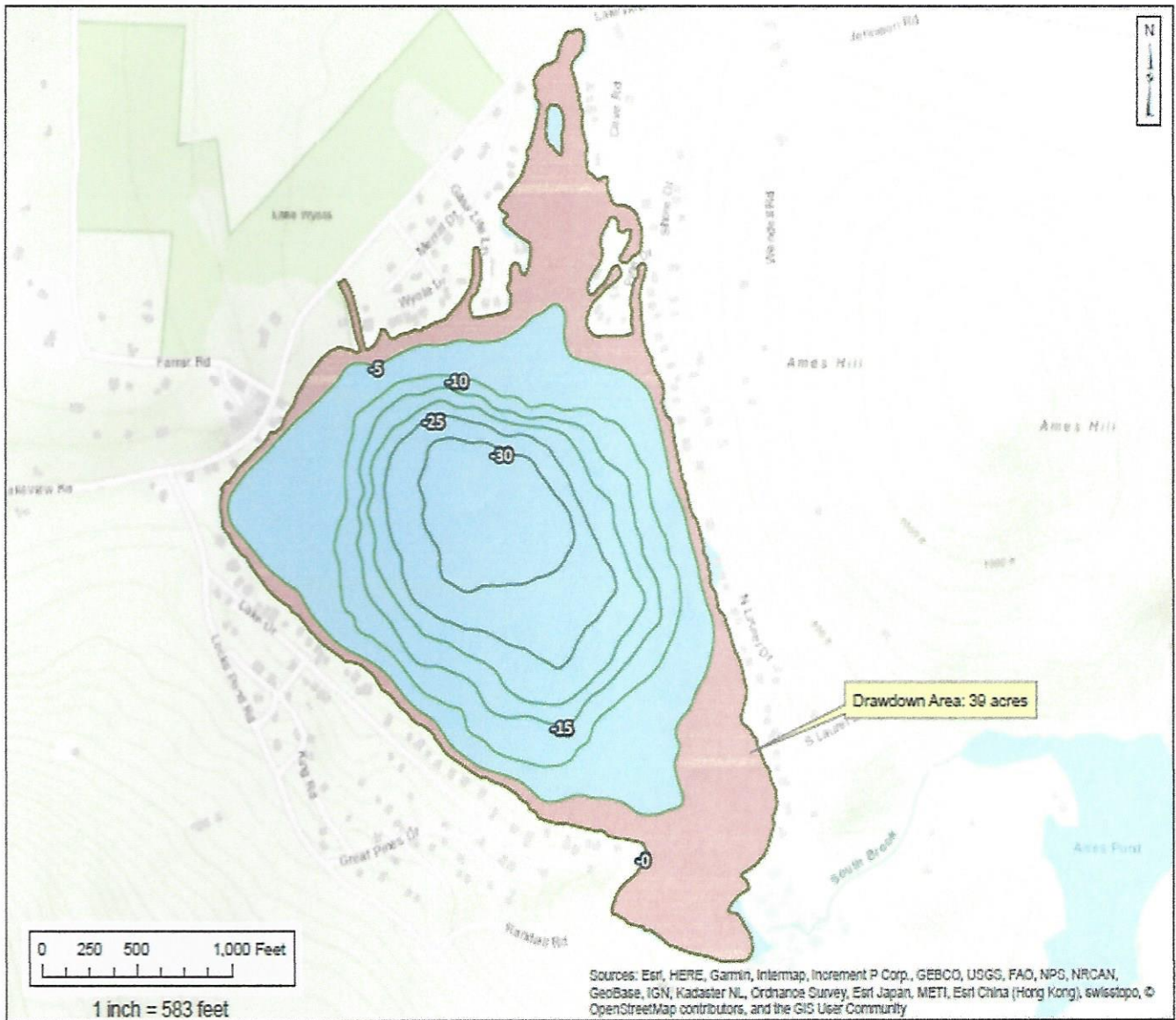


Figure #6
Area between 0 and 5 feet Deep

Division of Fisheries and Wildlife
Drawdown Performance Standards



Commonwealth of Massachusetts

Division of Fisheries & Wildlife

Wayne F. MacCallum, Director

Division of Fisheries and Wildlife

Drawdown Performance Standards for the Protection of Fish and Wildlife Resources

Approved by the Fisheries and Wildlife Board on September 23, 2002

The Wetlands Protection Act requires that the Division of Fisheries and Wildlife be notified of any proposed drawdown where rare species habitat is involved. To identify areas of rare species habitat, consult the most recent edition of the "Massachusetts Natural Heritage Atlas" which contains maps of Estimated Habitats and Priority Habitats of rare wildlife.

Drawdowns are commonly used as a technique to control aquatic vegetation in many Massachusetts waterbodies. The Division has statutory authority for regulating the take of these resources under Massachusetts General Law Chapter 131 and Chapter 321 of the Code of Massachusetts Regulations. Based on the Division of Fisheries and Wildlife's knowledge and understanding of aquatic ecosystems, the following performance standards were developed to protect fish and wildlife resources when a lake drawdown is proposed.

For drawdowns exceeding 3 feet the Division of Fisheries and Wildlife must be contacted directly for a site-specific review of potential impacts to fish and wildlife resources. For drawdowns of 3 feet or less, the proponent must either 1) contact the Division of Fisheries and Wildlife for a site-specific review; or 2) meet the performance standards below:

1. Drawdowns must commence after November 1st.

Drawdowns have been documented to be effective for vegetation control in certain situations but still constitute an artificial disturbance. Consequently, any drawdown should take place for the minimum amount of time required to accomplish the lake-management goal for which the drawdown is conducted. A November 1st start date for the drawdown will allow the following conditions to be met:

- The pond can be drained at the appropriate rate.
- Sufficient time will be provided for the drawdown to be effective.

- The pond can be filled prior to the refill deadline.

Maintaining full pool elevation until this date will also minimize the risk of in-lake and downstream fish kills caused by temperature stress and low dissolved oxygen. Fish kills that occur during the warm weather months are often caused by the interaction between water temperature and oxygen depletion in shallow, heavily vegetated lakes (Bennett, 1970). These lakes tend to have elevated oxygen concentrations during the daytime while vegetation is photosynthesizing, yet experience oxygen depletions at night while live plants are respiring and large amounts of decaying organic matter create excessive biological oxygen demand (Wetzel, 1975). Low dissolved oxygen situations are common in numerous small, shallow lakes in Massachusetts. A reduction of the surface water elevation under these conditions could further exacerbate an already critical condition. Temperature-induced fish kills can also be caused by the release of large volumes of warm surface water into a coldwater fishery resource during summer or early fall. One recent example occurred in Coal Mine Brook in Worcester, resulting in a significant kill of brook trout.

Part of the Division's management responsibilities is to provide recreational opportunities. Initiating the drawdown after November 1st will minimize impacts on fall recreation by maintaining public boat ramp access and other recreational opportunities. Anglers, seeking to take advantage of stocked trout resources, or warmwater fish species that become more active in the fall, will launch boats or fish from shore. Low water levels can expose boat ramps and hinder safe boat launching. Likewise, exposed mud flats or accumulated dying vegetation can limit access to shore fishing.

2. The drawdown must be completed (reach its lowest elevation) by December 1st.

Amphibians, reptiles and other aquatic organisms need to be able to move to deeper water before ice formation and substrate freezing. Completion by December 1st will also allow aquatic mammals to locate alternate lodge sites and for beaver to relocate food caches before ice formation.

3. Lake refill must be achieved by April 1st.

This refill date will ensure that the resource is impacted for the shortest time period while still allowing the drawdown to be effective. Establishing stable pool elevations by April 1st will provide suitable spawning habitat for littoral spawning fish species. Also, spring traditionally signals the beginning of the fishing season for most Massachusetts anglers pursuing both cold and warmwater fish species. Many ponds are also scheduled for trout stocking in the early spring. For the same reasons previously described, access to public boat ramps (for boats and stocking trucks) and shoreline fishing must be maintained.

4. The drawdown rate must not exceed 4 cubic feet per second per square mile of drainage area (cfs/m), as measured at the outlet structure, or must not exceed three

inches of lake elevation change per day, whichever results in the lower downstream flow rate. Once the drawdown level has been achieved, lake outflow must equal lake inflow. During the lake refill period, 0.5 cfs must be maintained at the outflow.

A major biological concern and priority for the Division is protecting instream flows for fish and wildlife resources. Working in conjunction with researchers at Cornell University, the Division is utilizing the target fish community approach to assess stream fisheries resources and establish restoration goals in flow-stressed streams. An important component of restoration or maintenance of any stream fish community is the establishment of seasonal stream flow requirements. In the absence of site-specific stream flow data, we utilize the United States Fish and Wildlife Service Aquatic Base Flow (ABF) Policy to protect fish and wildlife resources.

The ABF Policy focuses on measuring the flows in healthy, unregulated streams and rivers in New England to determine average seasonal flows for the region. Seasonal recommendations, from typical low summer flows to typical spring runoff (referred to as the natural hydrograph) can then be applied during the appropriate time of year in regulated resources or in instances where water withdrawal or manipulation is proposed. The seasonal ABF recommendations are 0.5 cfs in the summer, 1.0 cfs in the fall/winter, and 4.0 cfs in the spring.

Most drawdowns are conducted during the winter for vegetation control. This creates flow rates that will be greater than the winter ABF recommendation during pond drawdown and less than the winter ABF recommendation during refill. The drawdown rates listed above, although outside the value for the winter ABF recommendation, will maintain stream flows within the range that would be expected in the natural hydrograph.

Providing the flows listed in the performance criteria will prevent the stream from going dry during pond refill, minimize downstream erosion and prevent fish stranding in the pond.

References

Bennet, G. W. 1970. Management of lakes and ponds. Van Nostrand Reinhold Company, New York, NY.

Wetzel, R. G. 1975. Limnology. W. B. Saunders Company, Philadelphia, PA.

Appendix 2

Wildlife Habitat Evaluation

We are in the process of obtain quotes for the Wildlife Habitat Evaluation from qualified contractors. The evaluation will be completed as soon as possible however for technical reasons, this may not be until the Spring of 2019 when plants are actively growing

Appendix 3

List of Abutters & Abutter Notification

Parcel ID	Grantee	Co_grantee's Name	Mailing Address	City	State	Zip
ZB 0 43	BURNS, KAREN E., TRUSTEE	THE 58 LAKE DRIVE REALTY TRUST	51 EVERGREEN RD	TEWKSBURY	MA	01876
D 0 109	CRAWFORD MOORE LLC	MCQUEEN JEFF & KAHN AMY CUPAK JR DARRYL, CUPAK DUSTIN	156 SHUTESBURY RD 1447 EAST MOUNTAIN RD	AMHERST	MA	01002
B 0 809	CUPAK THERESA	K, CIMINI	1447 EAST MOUNTAIN RD	WESTFIELD	MA	01085
ZB 0 810	CUPAK THERESA	CUPAK JR DARRYL, CUPAK DUSTIN K, CIMINI	1447 EAST MOUNTAIN RD	WESTFIELD	MA	01085
B 0 93	DABROWSKI ALTHEA S	SMITH SIBYL	9 SQUIRE LANE 5412 WILLOWMERE WAY	AMHERST	MA	01002
ZB 0 41	DALLMUS, STEPHEN R.	BILLS, LINDA C	5412 WILLOWMERE WAY	BALTIMORE	MD	21212
C 0 5	DEM DEPARTMENT OF CONSERVATION & RECREATION	LAKE WYOLA PARK	251 CAUSEWAY ST	BOSTON	MA	02114
B 0 803			251 CAUSEWAY ST	BOSTON	MA	02114
ZD 0 7	DESTROMP SHELDON DOUGLAS MARY E TRUSTEE MARY E DOUGLAS	O'CONNELL SUSAN	55 LAKEVIEW RD	SHUTESBURY	MA	01072
B 0 49		C/O DOUGLAS ROBERT J	163 STOWE RD	HARVARD	MA	01451
ZB 0 74	FINN HAROLD W.	SALONEN MARTHA E.	PO BOX 674	SHUTESBURY	MA	01072
B 0 107	GOREY JOHN C		P.O. BOX 241	SHUTESBURY	MA	01072
ZB 0 103	GOREY, JOSEPH W.		5 HILLCREST AVE	SO. DEERFIELD	MA	01373
B 0 100	HAMEL, FRANK G & PATRICIA A		37 SANDRA RD	EASTHAMPTON	MA	01027
B 0 91	HARDAKER RALPH W. & HARDAKER-STASINOS K	C/O STAFFORD JUDITH	29 RIVER STREET	ERVING	MA	01344
B 0 94	HUMPHRISS GLENN K	TYGARD TONI A	PO BOX 8142	FORT MOHAVE	AZ	86427
ZB 0 45	JONES EVAN D		64 LAKE DR	SHUTESBURY NORTH	MA	01072
ZB 0 47	JONES, EVAN D.		P O BOX 9311	AMHERST	MA	01059
B 0 92	KEEGAN, KAREN H.		P O BOX 419	SUNDERLAND	MA	01375

B 0						
823	KINDER JOHN R	KINDER BARBARA	P O BOX 563	SHUTESBURY	MA	01072
B 0	LAKE WYOLA					
57	ASSOCIATION	C/O ROBERT BLANCHETTE	13 EAST ST	SOUTHAMPTON	MA	01073
B 0	LAKE WYOLA					
58	ASSOCIATION	C/O ROBERT BLANCHETTE	13 EAST ST	SOUTHAMPTON	MA	01073
B 0						
90	LAUDER SHIRLEY	THAYER DONALD E	418 SHAYS STREET	AMHERST	MA	01002
B 0						
815	LAW JAMES M	LAW ROYANNA G	63 CHARRON TERRACE	SOUTH HADLEY	MA	01075
B 0						
108	LEHANE AUDREY		4 LAKE DR	SHUTESBURY	MA	01072
ZB 0						
96	LINDQUIST LAURENCE	LINDQUIST BARBARA	26 LAKE DR	SHUTESBURY	MA	01072
ZB 0						
106	MACNICOL DONNA L		PO BOX 985	GREENFIELD	MA	01301
ZB 0	MCCALLUM, ANDREW					
104	K.	MCCALLUM, DONNA K	15 MORROW LANE	AMHERST	MA	01002
B 0						
812	MCMAHILL LYNN M	WEISS PETER H	221 BIRCH HILL RD	PATTERSON	NY	12563
ZC 0	MIKOLAJCZUK, STEVEN					
27	& MEAGHEN		4 CANTERBURY RD	WINDHAM	NH	03087
A 0						
14	MILLER THOMAS	MILLER ROBERTA	20 MORNING DEW LANE	STRATFORD	CT	06497
A 0						
15	MILLER, THOMAS	MILLER, ROBERTA	20 MORNING DEW LANE	STRATFORD	CT	06497
B 0			119 CENTRAL PARK			
42	MOSKAL EDWARD J	MOSKAL LEONARD A	DRIVE	HOLYOKE	MA	01040
ZA 0	MROZINSKI WALTER F					
16	& JOAN	C/O MROZINSKI, MARY L	138 SLATE RD	CHICOPEE	MA	01020
B 0						
95	PANLILIO, SUSAN M		28 LAKE DR	SHUTESBURY	MA	01072
B 0	PERKINS JEAN D					
816	TRUSTEE	THE KCM 2018 REVOCABLE TRUST	83 LAKEVIEW RD	SHUTESBURY	MA	01072
B 0				WEST		
89	PERRY ANITA M		247 PROSPECT AVE	SPRINGFIELD	MA	01089
C 0	PICHANICK FRANCIS					
31	N.J.	BURRESS DEBRA	80 LAKEVIEW RD	SHUTESBURY	MA	01072
B 0						
59	PICKERING DIANNE M		P O BOX 533	SHUTESBURY	MA	01072
B 0	POIRIER, DENIS &					
101	MARY ANN		262 EAST ST	SOUTH HADLEY	MA	01075
B 0	POIRIER, DENIS &					
102	MARY ANN		262 EAST ST	SOUTH HADLEY	MA	01075
ZB 0						
50	RIVERS MARK	RIVERS THERESA NOLIN	P.O. BOX 521	SHUTESBURY	MA	01072
ZB 0	SALVADOR, KATHLEEN					
669	& JOSEPH		P O BOX 653	SHUTESBURY	MA	01072
ZB 0	SHUTESBURY DAD'S					
804	PLACE, LLC	C/O K.A.Z. ASSOCIATES	46 GOLDEN HILL ST	TRUMBULL	CT	06611
B 0						
117	SMITH RANDALL P	SMITH ELIZABETH C	349 LEVERETT RD	AMHERST	MA	01002
B 0						
56	SMITH, TERRANCE W.	PERITZ-SMITH, IVY M.	78 OLD POOR FARM RD	WARE	MA	01082
B 0	STOCKTON, GLENN E &					
808	JEANNETE M		2 PINEY POINT AVE	CROTON	NY	10520
ZB 0	STOCKTON, GLENN E &					
806	JEANNETTE M		2 PINEY POINT AVE	CROTON	NY	10520
A 0						
52	TOWN OF SHUTESBURY	CONSERVATION COMMISSION	1 COOLEYVILLE ROAD	SHUTESBURY	MA	01072
B 0						
801	TOWN OF SHUTESBURY	CONSERVATION COMMISSION	1 COOLEYVILLE ROAD	SHUTESBURY	MA	01072
B 0						
817	TOWN OF SHUTESBURY	CONSERVATION COMMISSION	1 COOLEYVILLE ROAD	SHUTESBURY	MA	01072
D 0						
10	TOWN OF SHUTESBURY		1 COOLEYVILLE ROAD	SHUTESBURY	MA	01072
B 0	TRYBULSKI, WALTER J.					
53	JR	TRYBULSKI, MARYJANE	14 CARLTON AVE	CHICOPEE	MA	01020
B 0	TRYBULSKI, WALTER J.					
54	JR	TRYBULSKI, MARYJANE	14 CARLTON AVE	CHICOPEE	MA	01020
B 0	TRYBULSKI, WALTER J.					
55	JR	TRYBULSKI, MARYJANE	14 CARLTON AVE	CHICOPEE FALLS	MA	01020

ZB- 0 98 B 0 814	WHITNEY, KENT A.	WHITNEY, JEAN H.	24 LAKE DR	SHUTESBURY	MA	01072
	WOODS, CAITLIN R		79 LAKEVIEW RD	SHUTESBURY	MA	01072

OFFICIAL 100 FT ABUTTERS LIST TO B-805 PARCEL (Dam)

prepared for Conservation
Commission by:

Kenneth Holmberg
Administrative Assessor
9/13/2018

NOTIFICATION TO ABUTTERS

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act (G.L. Ch. 131 §40), and §10.05(4)(a) of 310 CMR 10.00, and the Shutesbury Wetlands Protection Bylaw and regulations, you are hereby notified of a public hearing on the matter described below.

- A. A Notice of Intent has been filed with the Shutesbury Conservation Commission seeking permission to remove, fill, dredge or alter an area subject to protection under G.L. Ch. 131 §40 and the Shutesbury Wetlands Protection Bylaw.
- B. The name of the applicant is: Lake Wyola Advisory Committee
- C. The address of the land where the activity is proposed: Locks Pond Road
- D. The work proposed is: Annual 2-foot lake drawdown beginning on November 1
- E. Copies of the Notice of Intent may be examined Shutesbury Town Hall on Tuesdays and Thursdays from 10am to 12 noon.
- F. For more information, call: Mark Rivers 413-367-9945
- G. Copies of the Notice of Intent may be obtained from either by calling the Conservation Commission at 259.3792 Tuesday and Thursdays 10am-12noon or leave a message.
- H. The Public Hearing for this Notice of Intent will be held at Shutesbury Town Hall on Thursday, October 11, 2018 at 7:30 PM

Notice of the public hearing, including date, time, and place will be published at least five business days in advance in *The Daily Hampshire Gazette*.

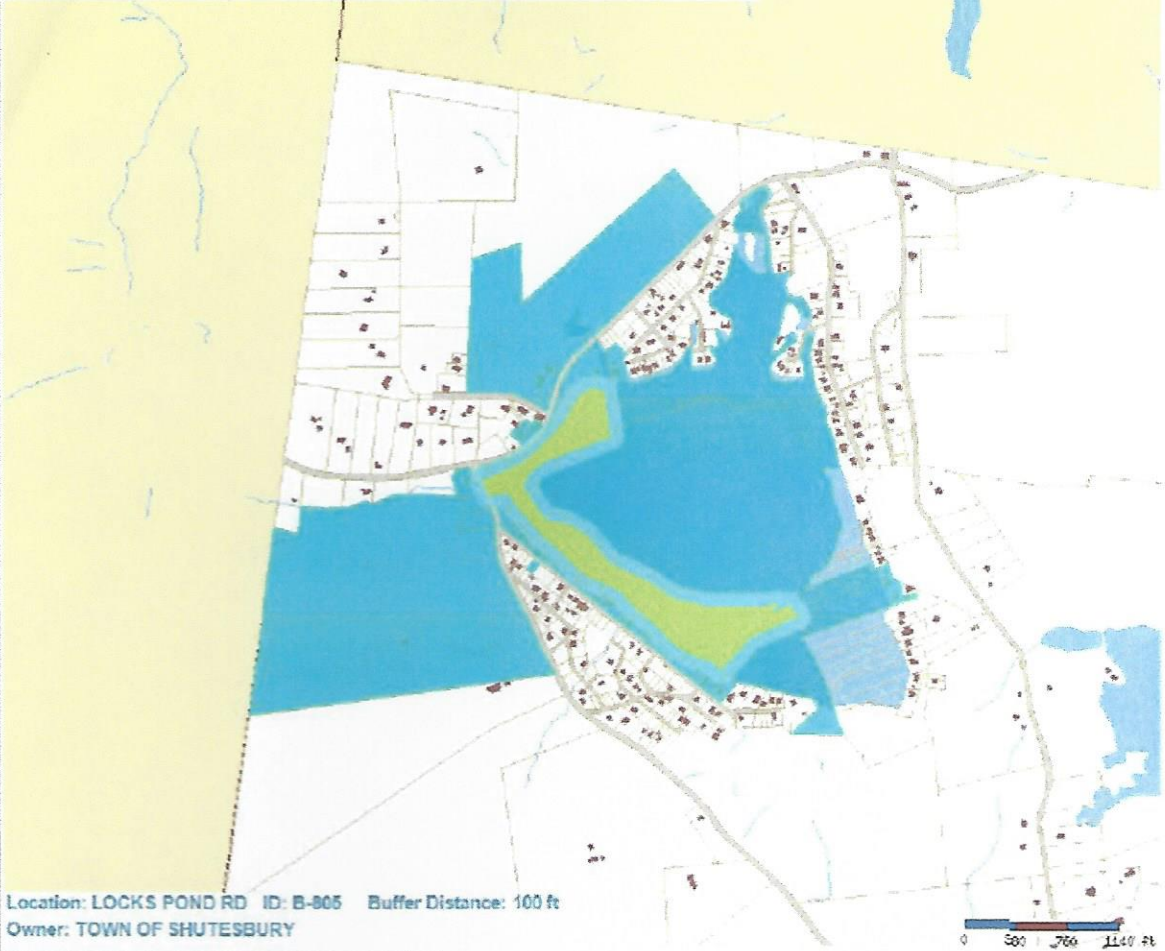
For more information about this application or the Wetlands Protection Act, contact the Shutesbury Conservation Commission (Tuesday and Thursday 10am – 12 noon or leave a message 413 259-3792) or the Department of Environmental Protection (DEP) Western Region Office at (413 784-1100).

For information about the Shutesbury Wetlands Protection Bylaw, contact the Commission.

Town of Shutesbury, MA - LAKE WYOLA 100 FT ABUTTERS MAP



- Zone
- Water
- Wetlands
- WYOLA_ma



Location: LOCKS POND RD ID: B-805 Buffer Distance: 100 ft
Owner: TOWN OF SHUTESBURY

MainStreetGIS, LLC - www.mainstreetgis.com / info@mainstreetgis.com
Disclaimer: This map is for assessment purposes only. It is not valid for use as a survey or for conveyance.



North arrow
Twp = 004.15 N
Printed: 09/13/18



100 Foot Abutters Map

Town of Shutesbury, MA - LAKE WYOLA DAM PARCEL BOUNDARIES



Location: LOCKS POND RD ID: B-805
Owner: TOWN OF SHUTESBURY

MainStreetGIS, LLC - www.mainstreetgis.com / info@mainstreetgis.com

Disclaimer: This map is for assessment purposes only. It is not valid for use as a survey or for conveyance.

Lake Wyola Dam Parcel Boundaries