

**HARVARD CONSERVATION COMMISSION
MINUTES OF MEETING
SEPTEMBER 1, 2022
APPROVED: JANUARY 5, 2023**

Chair Don Ritchie called the meeting to order at 7:01pm, virtually, pursuant to Chapter 107 of the Acts of 2022, An Act Relative to Extending Certain COVID-19 Measures Adopted during the State of Emergency, and signed into law on July 16, 2022, under MGL Chapter 131 §40 Wetland Protection Act and Code of the Town of Harvard Chapter 119 Wetland Protection Bylaw

Members Present: Don Ritchie, Eve Wittenberg, Paul Willard, Janet Waldron, Joanne Ward, Jim Burns, Mark Shaw and John Iacomini (Associate Member)

Others Present: Liz Allard (Land Use Boards Administrator/Conservation Agent), Nathan Bailey, Art Allen (EcoTec), Robert Schmidt, William Duckett, Bob Douglas (Deer Management Subcommittee), Marty Green (Harvard Press), Daniel Tracey, Kelvin Wiebe, Dave Pinard, Joe Pulido (Deer Management Subcommittee), Michael Brown, Bruce Leicher (Bare Hill Pond Watershed Management Committee), Wendy Gendron (Aquatic Restoration Consulting), Don Osmer, Megan Glew (Bare Hill Pond Watershed Management Committee), Laura Ruoff, & Rendueles Villalba

Deer Management Subcommittee Update

Bob Douglas, chair of the Deer Management Subcommittee (DMS), explained there are a number of ways to monitor deer browsing, including placing cameras in the woods. There is graduate student completing a study in Massachusetts that DMS would engage to conduct these surveys as a pilot project. Members of the Commission wondered how many cameras would be needed to determine if it is worthwhile to do on all of the lands approved for the management program. Mr. Douglas will do some more research into the method and its long-term outcome. Paul Willard wondered why we care how many deer there are in these areas; regardless of the number the deer, they are doing damage to the forest. The results would provide the density of deer in a particular area. John Iacomini stated the easiest way to count deer is to put cameras on the edge of crop fields.

With time approaching the opening of a public hearing at 7:30pm the Commission paused this discussion until later this evening as time permitted.

Approve Minutes

There were no minutes for approval this evening.

ZBA Request for Comments - 110 Warren Avenue

This application will require a filing with the Commission for work within the 100' wetland buffer zone. The additions to the existing house are outside the 75' buffer zone, however the plan details an expansion of the driveway that appears to be within the 75' buffer zone. In addition, when the house was re-constructed in 2007 the Zoning Board of Appeals decision required a 15' no disturb strip along the property line adjacent to the abutting conservation land. The plans do not detail this area. With the ZBA hearing scheduled for September 12th Liz Allard will further review the plan for comments to be discussed at the September 1st meeting of the Commission and alert Ross Associates to the 15' no disturb area.

Ayer Road Meadow Access Improvements

There was no update on this matter this evening.

Pine Hill Village Update

The Commission has received a proposal for the management of invasive plants on the property today. The proposal will be reviewed and discussed at the September 15th meeting. The developer has

requested to dredge silt out of constructed wetland; this will require a plan from the developer for approval by the Commission as required by the Order of Conditions.

Notice of Intent Hearing – Nathan Bailey, 131 Bolton Road, DEP#177-714, Harvard#0622-02. Opened at 7:30pm

Request for Determination of Applicability Hearing – Laura Ruoff & Rendueles Villalba, 277 Stow Road, Harvard#0822-02. Opened at 8:01pm

Deer Management Subcommittee (DMS) Update Continued

A checklist of all the appropriate tasks that need to be completed and who the responsible parties are has been drafted and reviewed by the DMS. Minor edits were made to the checklist.

The bow hunting season for zone 10 starts in early October. The rules for hunting on conservation land have been updated. The DMS will have two meetings with the qualified hunters prior to the season. Seven new hunters qualified this year, with 13 returning hunters. The DMS requested a total 18 hunters and adding additional properties for this year's hunting season. The DMS is recommending the addition of the Prospect Hill Management Area. This Area was not approved last year due to concerns with the proximity of the Ryan playing fields and hunter interactions. There are other accesses into the Area, including on Prospect Hill Road, as well as the transfer station. Eve Wittenberg indicated the initial program was intended to be executed on areas that are not highly used, with limited trails. This is a highly used area, especially in the fall. Liz Allard asked if the lands being requested have been vetted by the Land Stewardship Subcommittee (LSS); they have not. Ms. Allard stated without advice from LSS the Commission should not approve additional lands for the program. Mr. Douglas will reach out to the chair of the LSS to discuss the additional lands. Ms. Wittenberg asked about deer browse surveys, have any been done; surveys were not done last year.

Jim Burns made a motion to accept the Deer Management Program checklist as amended. Mark Shaw seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Mark Shaw, aye; Joanne Ward, aye; Eve Wittenberg, aye; and Don Ritchie, aye.

Returning to the discussion pertaining to the camera pilot program, there was the sense of the Commission that this program may not provide a good representation of all the areas. Bob Douglas stated the DMS has spent a lot of time researching different ways to conduct surveys and believes this is most cost-effective option. DMS can prepare a presentation. Dan Tracey noted the DMS has also reviewed the 10-oaks method and it might be useful to get a cost estimate of that as well to compare. Jim Burns noted his concerns with having cameras in the woods that the general public is unaware of; he would not be in favor of that.

Continuation of a Determination of Applicability Hearing - Richard Fellows, 328 Still River Road, Harvard#0522-01. Opened at 8:25pm

Bare Hill Pond Watershed Management Committee (BHPWMC) Annual Report & Request to Draw Down Bare Hill Pond, DEP#177-659, Harvard#0817-02

Bruce Leicher, chair of the BHPWMC, stated the draw down last year was successful, with a normal refill in the spring. However, like a few years ago, a drought and warm summer has had an impact on the health of the pond. BHPWMC is working with the Board of Health on measuring cyanobacteria. Levels have not gone up despite the elevated temperatures. Mr. Leicher believes the pumping of water out of the pond assisted in removing the Phosphorus loading to the downstream marsh. Eve Wittenberg stated she appreciates all of the work done by the BHPWMC. Wendy Gendron, consultant for the BHPWMC, agreed there was some benefits from the flushing.

Ms. Gendron, of Aquatic Restoration Consulting (ARC), reviewed the Bare Hill Pond In-Lake Water Quality and Plant Survey - 2022 report with the following information coming directly from this report:

In-situ water depth profile measurements of temperature, dissolved oxygen (DO), and specific conductivity were recorded at all five locations. ARC collected samples for total phosphorus (TP), dissolved phosphorus (DP), and total suspended solids (TSS) at the surface and approximately 0.5 feet above the sediment water interface (bottom) at BHP-2, at the surface at BHP-1 and TP at stations BHP-3, 4 & 5. A plant survey was conducted on August 20, 2022 using the same methods employed during the previous surveys conducted in 1998 through 2021. ARC mapped pond aquatic vegetation along the five transects (A through E) established in 1998. They also repeated the eight points added in 2016 (F through I). Each transect was divided into a series of observation points and were located using Global Positioning System (GPS). A total of 60 points were assessed during the survey. Dominant species at observation points included filamentous algal mats, Macro algae, brittle water nymph, white-flower waterlily, yellow-flower waterlily, spiral pondweed, and tapegrass.

Table 6 provided a comparison between the last five surveys of cover and biovolume relative change. Data for 2022 were expected to be more desirable than 2021 given the lack of drawdown depth maintained in the prior year. The survey data indicate cover conditions were slightly higher than 2021 (increased at eight locations and decreased at three locations) but five of the eight locations with increased cover occurred outside the drawdown. Biovolume increased at five locations and decreased at five locations from 2021. All five of the sites with decreases occurred in the drawdown zone. Inside the drawdown zone the increases in biovolume in 2022 were attributable to more native pondweed, non-native brittle naiad, and macro algae (Chara and Nitella). Nitella and Chara have been successful in occupying the drawdown zone and are considered a beneficial replacement for fanwort and milfoil because they are low growing (creating a carpet-like condition) and rarely impede contact recreation. While brittle naiad is non-native, it too is low growing and is unlikely to impede recreation. Increases outside the drawdown were primarily due to denser non-native fanwort in Transect E. The decreased biovolume observed in the drawdown zone was primarily due to decreased fanwort in Transect D, which was partially replaced by Chara and native tapegrass.

The monitoring program was expanded this year to better understand the cause of recent algal blooms. The lake may have reached a tipping point where the warming summers and increased availability of phosphorus from sediments will continue to result in more frequent and severe blooms. The sediment results from 2021 showed that phosphorus in the lake could increase by 0.02 mg/L if 20% of the sediment iron-bound phosphorus is released under anoxic conditions. Thankfully, the lake has been bloom-free thus far and we may have avoided a potential bloom that was exhibited by early August fluorometer readings. The atypical windy August might have mixed the lake enough to lessen the accumulation of algae in deep water.

The pond's plant community is dense and diverse enough to support fish and wildlife, there are shifts in species composition between years but the drawdown has proven to improve conditions; reduced dense monocultures of fanwort and milfoil in the drawdown zone and encouraging growth of low growing beneficial plants that are less of a nuisance for recreation. The drawdown is likely improving flushing and ridding the lake of accumulated phosphorus from internal recycling over the summer. Conditions may become worse if algae and associated nutrients are not flushed out of the system.

Given the success of the drawdown over the years in minimizing non-native fanwort and milfoil density within the drawdown zone and improved flushing, the Committee wishes to implement a 6.5-foot drawdown this coming winter. This will reduce non-native species abundance and provide an added benefit of reduced phosphorus retention. The aquatic macrophyte survey and other fauna surveys performed by the Committee will continue on an annual basis to assess year to year changes.

Paul Willard made a motion to approve the requested draw down of 6.5 feet. Jaye Waldron seconded the motion. The vote was 5-1 in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Mark Shaw, nay; Joanne Ward, aye; Eve Wittenberg; aye; and Don Ritchie; aye.

Adjournment

Eve Wittenberg made a motion to adjourn the meeting at 9:05pm. Mark Shaw seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Jim Burns, aye; Mark Shaw, aye; Joanne Ward, aye; Eve Wittenberg; aye; and Don Ritchie; aye.

Respectfully submitted,

Liz Allard,
Land Use Administrator/
Conservation Agent

EXHIBITS & OTHER DOCUMENTS

- Conservation Commission Agenda, dated September 1, 2022
- Bailey Residence 131 Bolton Road, Harvard, Massachusetts Master Plan, prepared by Fieldstone Design, 8-17-2022
- Conservation Commission & Deer management Subcommittee 2022 Annual Checklist
- Bare Hill Pond In-Lake Water Quality and Plant Survey – 2022

**Harvard Conservation Commission
Notice of Intent Hearing
Nathan Bailey, 131 Bolton Road, DEP#177-714, Harvard#0622-02
September 1, 2022**

The public hearing was opened at 7:30pm by Chair Don Ritchie under MGL Chapter 131 §40 Wetland Protection Act and the Code of the Town of Harvard Chapter 119 Wetland Protection Bylaw virtually, pursuant to Chapter 22 of the Acts of 2022, An Act Relative to Extending Certain COVID-19 Measures Adopted during the State of Emergency, and signed into law on February 15, 2022.

Members Present: Don Ritchie, Eve Wittenberg, Paul Willard, Jaye Waldron, Joanne Ward, Jim Burns, Mark Shaw and John Iacomini (Associate Member)

Others Present: Liz Allard (Land Use Administrator/Conservation Agent), Art Allen (EcoTec), Nathan Bailey and Bob Schmidt

This hearing was continued from August 18, 2022 for a Notice of Intent filed on behalf of Nathan Bailey for the construction of a pool, patio, deck, pool house and landscaping within the 100' wetland buffer zone at 131 Bolton Road, Harvard.

Art Allen, EcoTec, stated a new master plan has been provided to the Commission that details the proposed work limited between the two wings of the house and includes a patio, stairs, plantings, and screening on the south side of the property. All new proposed work is outside the 50' buffer zone. The previously proposed pool, pool house and associated patio around the pool have been eliminated. An existing deck within the 50' buffer zone will be extended by two feet, however disturbance in the buffer zone will remain unchanged. The proposed planting plan will assist in naturalizing the area.

Bob Schmidt, a direct abutter, stated the wetlands and buffer zone reach well into his property. There has been no direct control over what takes place on the Bailey's property. Anything proposed on the Bailey's property is a major concern to the Schmidts. Mr. Schmidt thought the Wetland Protection Bylaw Regulations did not allow for activity within 75' and if it is in fact 50' then regulations should state so. Mr. Schmidt is not sure the previous restoration plan has been approved and the status of other approvals on the site.

Don Ritchie explained the design has been scaled back significantly, including putting a patio right up next to the house. The planting plan is going to be a wonderful addition to the site. Liz Allard explained an applicant can request a waiver to the regulations, therefore at times the Commission can allow for structures within 75' of the wetland depending on the circumstances related to the site, the proposal and the resource area. Mr. Schmidt asked if the restoration had been signed off on; it has not. Mr. Schmidt's concerns he expressed at the August 8th meeting still worry him. Paul Willard explained under the current regulations this house would never be allowed, however it was built prior to those regulations, therefore the Commission has been working toward a positive outcome out of all of the bad that occurred on the site.

Eve Wittenberg made a motion to grant waiver to allow the installation of a patio structure within 75' – 100' wetland buffer zone. Jim Burns seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Jim Burns, aye; Mark Shaw, aye; Joanne Ward, aye; Eve Wittenberg, aye; and Don Ritchie, aye.

Eve Wittenberg made a motion to close the hearing and issue an Order of Conditions that include the installation of permanent protected marker along the 25' wetland buffer zone, which is to remain

vegetated. Joanne Ward seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Jim Burns, aye; Mark Shaw, aye; Janet Waldron, aye; Joanne Ward, aye; Eve Wittenberg; aye; and Don Ritchie; aye.
Respectfully submitted,

Liz Allard,
Land Use Administrator/
Conservation Agent

Harvard Conservation Commission
Request for Determination of Applicability Hearing
Laura Ruoff & Rendueles Villalba, 277 Stow Road, Harvard#0822-02
September 1, 2022

The public hearing was opened at 8:01pm by Chair Don Ritchie under MGL Chapter 131 §40 Wetland Protection Act and the Code of the Town of Harvard Chapter 119 Wetland Protection Bylaw virtually, pursuant to Chapter 22 of the Acts of 2022, An Act Relative to Extending Certain COVID-19 Measures Adopted during the State of Emergency, and signed into law on February 15, 2022.

Members Present: Don Ritchie, Eve Wittenberg, Paul Willard, Jaye Waldron, Joanne Ward, Jim Burns, Mark Shaw and John Iacomini (Associate Member)

Others Present: Liz Allard (Land Use Administrator/Conservation Agent), Laura Ruoff & Rendueles Villalba

This hearing is for the removal of vegetation and installation of fencing within the 100' wetland buffer zone at 277 Stow Road, Harvard.

The application before the Commission was a result of an enforcement order issued in August after a review of the property for a certificate of compliance by the Conservation Agent. The applicants have been cooperative in providing the necessary remediation within the area where vegetation was removed. The Commission has viewed the site and had no additional comment or concerns.

Joanne Ward made a motion to close the hearing and issue a Negative#3 with the condition that once planted the Conservation Agent reviews the site for compliance. Eve Wittenberg seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Jim Burns, aye; Mark Shaw, aye; Joanne Ward, aye; Eve Wittenberg, aye; and Don Ritchie, aye.

Respectfully submitted,

Liz Allard,
Land Use Administrator/
Conservation Agent

Harvard Conservation Commission
Continuation of a Request for Determination of Applicability Hearing
Richard Fellows, 328 Still River Road, Harvard#0522-03
September 1, 2022

The public hearing was opened at 8:39pm by Chair Don Ritchie under MGL Chapter 131 §40 Wetland Protection Act and the Code of the Town of Harvard Chapter 119 Wetland Protection Bylaw virtually, pursuant to Chapter 22 of the Acts of 2022, An Act Relative to Extending Certain COVID-19 Measures Adopted during the State of Emergency, and signed into law on February 15, 2022.

Members Present: Don Ritchie, Eve Wittenberg, Paul Willard, Jaye Waldron, Joanne Ward, Jim Burns, Mark Shaw and John Iacomini (Associate Member)

Others Present: Liz Allard (Land Use Administrator/Conservation Agent)

This hearing was continued from August 18, 2022 for the restoration of an open meadow and removal of invasive plants within the 100' wetland buffer zone 328 Still River Road, Harvard.

Although the applicant was unable to attend this evening the Commission' general consensus was that the proposed activity would require a Notice of Intent and therefore there was no need to continue the hearing. Joanne Ward made a motion to close the hearing and issue Positive Determination of Applicability. Jim Burns seconded the motion. The vote was unanimously in favor of the motion by a roll call, Jaye Waldron, aye; Paul Willard, aye; Jim Burns, aye; Mark Shaw, aye; Joanne Ward, aye; Eve Wittenberg; aye; and Don Ritchie; aye.

Respectfully submitted,

Liz Allard,
Land Use Administrator/
Conservation Agent