



TOWN OF HARVARD

**BARE HILL POND WATERSHED MANAGEMENT COMMITTEE
MEETING AGENDA & MINUTES**

Date:	11/7/22 Monday
Time:	7:30PM-
Location:	Zoom
Meeting Chair:	Bruce Leicher
Meeting Purpose:	November 7, 2022 Committee Meeting
Attendees:	Bruce Leicher (chair), Kerry Shrives, Peter Von Loesecke, Rainer Park, Joe Pettrossi
Absent:	Morey Kraus (Alternate member), Megan Glew, Pablo Carbonell, Ben Baron
Others Present:	

MEETING AGENDA			
#	AGENDA ITEM	ALLOTTED TIME	PRESENTER
1	Secretary Report		Kerry Shrives
2	Treasurer Report		Peter Von Loesecke
3	Drawdown update		Bruce Leicher
4	Aeration Technology Discussion-Update From Joe		Bruce Leicher
5	Review of Open Space Plan Action items		
6	Meeting Dates & Activities Discussion		

MEETING NOTES	
#	NOTES
1	<ul style="list-style-type: none"> Bruce opened meeting at 7:44PM
2	<ul style="list-style-type: none"> Associate member Rainer was approved as a 4th voting member for the meeting to establish a quorum.
3	Secretary's Report
4	<ul style="list-style-type: none"> Meeting minutes from 10/3 meeting were approved.
5	
6	
7	Treasurer's Report
8	<ul style="list-style-type: none"> Paid for Alphagraphics (\$213.11), Applewood controls repairs (\$586.47) and National Grid September Bill (\$99.56)
12	<ul style="list-style-type: none"> Have not received any recent invoices from Wendy After she completed her September phosphate measurements, Wendy indicated it was not necessary to do another reading in October. Need to get complete update from Wendy in January regarding her findings on the pond bottom and other data



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	<ul style="list-style-type: none"> • Wendy had indicated that phosphate level continues to be really low in the pond. • Why? Last year, phosphate levels were really high. We also had a very effective drawdown last year. A lot of the phosphates might have drained out with the water during last year’s drawdown and there was not as much remaining in the pond sediment to be released over this past year. • The Pond Committee is still reviewing alternative options on how to deal with algal blooms on the pond. • OST is just one potential solution the committee was reviewing. • It was noted that OST might not be a good fit as Barehill pond has more organic matter than iron bound matter at the bottom of the pond. • Sediment composition of the pond really drives what options should be considered for dealing with algal blooms. • Peter inquired whether National Grid electricity costs would increase. The Town has a 3 year contract and would not see any changes in rates for at least another year or so. • Pond committee budget would request an additional \$7K for additional monitoring for weeds and cyanobacteria • While most town department generally increase their budgets by 2.5% a year (which is what is generally allowed by the proposition 2.5) over the past 20 years, Pond committee has intentionally NOT increased the budget by that amount. • In fact, the pond committee budget of \$28K in 2022 is actually less than what it was in 2001 (\$33.5K) • Pond Committee is keeping the funds in the project account for capital repairs. • Pond Committee is requesting a budget increase of \$7K due to the increased cost of draw downs, management of invasive species, increased risk of algal blooms due to climate change and the increase in monitoring required by the conservation committee. • If the select board did not approve the budget increase, the fall back option would be to request a reserve fund transfer. • There was concern that the select board would ask Pond committee to dip into the Project account funds.
13	<p>Draw Down Update</p> <ul style="list-style-type: none"> • Drawdown is doing amazingly well. The pump is doing about 2 inches a day now-- better than in most years. May not spend as much on electricity this year. • To date, Pond had been drawn down by about 4ft with another 2 ¼ feet to go by Thanksgiving... • Target depth is 6.5 feet. • Rain and the height of water table dictate how much water can be pumped per day. When the water table is higher, you are pumping more because it is filling faster while you are pumping. • The water table is a little lower this year. Historically, the water table has been around 5ft. The water table controls how much the pond fills up without rain. if you didn’t have rain, the pond would be at about 5ft and you wouldn’t have to do much to keep it level. Once you go to 6.5 feet, you have to run the pump to keep it from refilling. Rainfall fills the pond beyond the 5ft. The water table does too



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	<p>because of the dam. If the water table is a little lower, the amount of pumping you have to do to keep it at 6.5 feet will be less (and likely require less energy).</p>																
14																	
15	<p>Algal Bloom Remediation--Oxygen Saturation Technology (OST) Update</p> <ul style="list-style-type: none"> • OST came back with capital investment in the \$500-700K range investment range—a big price tag. • Joe was provided more reference areas that have been using the technology to investigate • There will likely be other solutions to deal/control/prevent Algal blooms that the committee would look at first. 																
	<p>Discussion of Open Space Plan Action Items</p> <ul style="list-style-type: none"> • Pond Committee was asked to review prior 7 year action plan to see if anything should be modified or added to the document. • <table border="1" data-bbox="196 926 1357 1213"> <thead> <tr> <th colspan="4">Objective 2b: Preserve and maintain view sheds</th> </tr> </thead> <tbody> <tr> <td>Modify the Open Space Community – Planned Residential Development (OSC-PRD) zoning bylaw to promote clustering of new housing units in order to maintain views of Harvard landscapes, protect scenic resources on the site and increase open space.</td> <td>Planning Board</td> <td>n/a</td> <td>2017</td> </tr> <tr> <td>Adopt a Bare Hill Pond zoning overlay district to manage growth, protect environmental quality and preserve scenic views</td> <td>Planning Board</td> <td>n/a</td> <td>2019</td> </tr> <tr> <td>Determine the protection status of properties identified in the Freedom's Way 2007 Landscape Inventory Report. When development threatens unprotected sites, consider acquisition or work with developers to minimize alteration of the view shed.</td> <td>Conservation Agent, ConCom</td> <td>CPA, Town Meeting</td> <td>2016-2023</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Creating an overlay district is like creating a water district. It creates a government authority which allows it to regulate certain activities within that district like manage growth, require people not to use certain kinds of fertilizers etc. • The authority for the overlay district would most likely be elected positions like the park and rec commission or it could also be done under the zoning laws where it be the planning board or zoning board which would oversee. • Concern was expressed that creation of an overlay district could lead to more political battles vs constructive activities because it would force regulatory approaches on things which may or may not make sense. • Pond Committee would welcome more conversation with the planning board to understand the proposal better before making it an actual goal. • Why create an overlay district? The gap is on the forested land that is outside the wetlands. • Example: If there was an overlay district and the Park and Rec commission had come forward with a proposal to cut down the trees in Barehill woods for a soccer field, the overlay district would probably have the authority to deny the proposal. 	Objective 2b: Preserve and maintain view sheds				Modify the Open Space Community – Planned Residential Development (OSC-PRD) zoning bylaw to promote clustering of new housing units in order to maintain views of Harvard landscapes, protect scenic resources on the site and increase open space.	Planning Board	n/a	2017	Adopt a Bare Hill Pond zoning overlay district to manage growth, protect environmental quality and preserve scenic views	Planning Board	n/a	2019	Determine the protection status of properties identified in the Freedom's Way 2007 Landscape Inventory Report. When development threatens unprotected sites, consider acquisition or work with developers to minimize alteration of the view shed.	Conservation Agent, ConCom	CPA, Town Meeting	2016-2023
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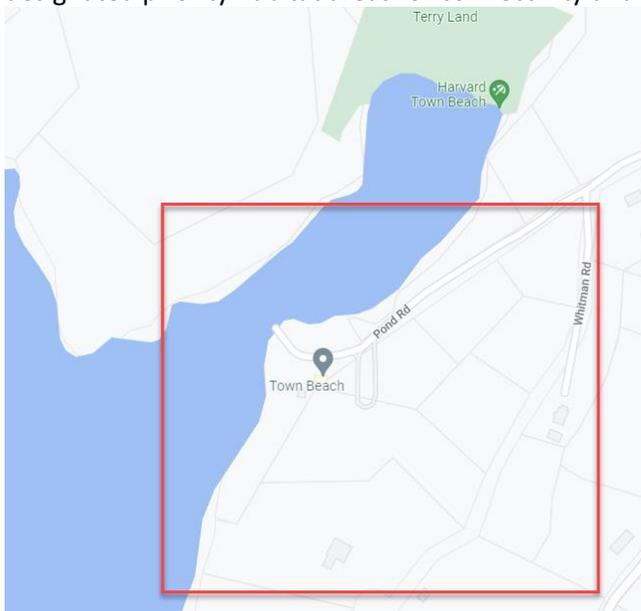
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- However, an overlay district might not be required to have such a conversation to deal with such an issue. We just adopted stormwater by-law but we don't have a forestry protection by-law and those laws shouldn't be just limited to just Barehill pond.
- Conservation Commission is only responsible for wetlands and what do you if you want to protect land outside the wetlands? Wetland's protection act doesn't apply beyond the buffer zone.

Objective 9b: Preserve habitat for native plants, animals and threatened species			
Review known priority habitat areas referring to Massachusetts Priority Habitats of Rare Species as guide	ConCom	n/a	2017
Identify priority habitat areas, and prioritize those most in need of protection	ConCom	n/a	2018
Develop a guide for public use on creating and maintaining wildlife habitat	ConCom	Department Budget	2019
Purchase Horse Meadows Knoll on Sherry Road which is designated as NHESP Priority Habitat for rare and endangered species	HCT	Private funding	2017-2018
Objective 9c: Educate townspeople on invasive plants			
Develop invasive plant brochures for distribution to public	ConCom	CPA, Grant	2017-2018
Organize annual invasive plant removal days	ConCom, BHPWMC	Department Budget	ongoing
Organize lectures on invasive plants	ConCom	Department Budget	ongoing

- Recommendation to designate Barehill woods (between Beach and Whitman road) could be designated priority habitat areas for connectivity and rare species



- We no longer need do organized annual invasive plant removal days on the pond.



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16	<p>Activities Discussion</p> <ul style="list-style-type: none"> • Discussed moving Pond Committee Meeting schedule January '23 to Tuesday or Wednesday nights due to Bruce's teaching schedule and meet during the 4th week of the month • Monday December 12th is next meeting. • Reviewed pond committee activities related to Pumping, Recording draw down levels, taking photos around pond, budget etc. • Meeting adjourned at 8:30PM.
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NEW MEETING ACTION ITEMS			
#	ACTION ITEM	RESPONSIBLE	DUE DATE
1	Kerrie to follow up with Megan to talk to Liz/Con Com to prepare first draft of NOI	Kerrie	File in Mach 2023
2	Invite Wendy to 12/12 meeting to discuss her findings and her thoughts on algal blooms.	Kerry	
3	Peter to finalize Pond Committee budget for 12/1/ due date.	Peter	12/1
4	Send Pond Committee comments to Liz regarding Open Space Plan	Bruce	
5	Align on Pond Committee Meeting days—(Tuesday or Wednesdays from Mondays every 4 th week of the month starting in January 2023)	Bruce	Next Committee Meeting on December 12 th .
6	Follow up with Tim Kilhort to file his maintenance report of BMPs (rain gardens- to have the sand collected in them scooped out)	Peter	Due in December 2022
7			