

Meeting Minutes

SORENSEN

Project Name: Hamilton Reservoir Watershed-Based Plan
Project #: SP #1078
Location: Hamilton Reservoir Watershed (Holland, MA)

Meeting Date, #: 2021-3-17 Meeting Time: 2:00 PM - 3:30 PM
Prepared By: Marie Sorensen, RA Meeting Location: Zoom videoconference per
Distribution: All listed below Sorensen Partners invitation

Attendees:

Name	Organization
JoAnne Higgins	Town of Holland Highway Department
Brian Johnson	Town of Holland Highway Department
Stacy Stout	Town of Holland Administrator
Mark Stadnicki	SVE Associates
Dawn Kamay	Holland Conservation Commission
Sam Spratlin	Holland Conservation Commission
Tom Wilhelm	Friends of Hamilton Reservoir Association (FHRA)
Bob Kamay	Friends of Hamilton Reservoir Association (FHRA)
Jean Pillo	The Last Green Valley
Matt Reardon	Massachusetts Department of Environmental Protection (MassDEP)
Julia Keay	Geosyntec Consultants, Inc.
Adam Questad	Geosyntec Consultants, Inc.
Marie Sorensen	Sorensen Partners Architects + Planners, Inc.

“This project has been financed with Federal Funds from the Environmental Protection Agency (EPA) to the Massachusetts Department of Environmental Protection (the Department) under an s. 319 competitive grant. The contents do not necessarily reflect the views and policies of EPA or of the Department, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use.”

Minutes to be considered final unless comments are received within five (5) business days.

AGENDA

- Greeting – Matt Reardon, MassDEP & Marie Sorensen, Sorensen Partners
- Watershed & Goals Overview (15 min) – Julia Keay & Adam Questad, Geosyntec
- s.319 Grant Project Spotlight (15 min) – Town of Hamilton
- Brief Introductions from All Participants (15 min) – All
- Discussion of Existing BMPs (15 min) – All
- Strategy (30 min) – All

WATERSHED & GOALS OVERVIEW

- Adam Questad, Engineer at Geosyntec, discussed the goals of the meeting. Geosyntec has been working with MassDEP to create Watershed-based Plans, which are required for grantees to be eligible for s.319 grant funding. The goal of the call is to better understand what is happening in the watershed and to identify collaborative project opportunities.
- Julia Keay, Water Resources Engineer at Geosyntec, briefly presented the MassDEP Watershed-based Plans Tool. Link: <http://prj.geosyntec.com/prj/MADEPWBP/Home>. Discussed the nine required elements of a Watershed-based Plan.

- Julia Keay briefly presented background on the Hamilton Reservoir Watershed-based Plan. Geosyntec is preparing the Watershed-based Plan. Along with receiving a s.319 grant, the watershed must have a Watershed-based Plan. Geosyntec understands that sediment is the big issue, mostly concentrated around the lake. Geosyntec is interested in understanding if there are any other sources of pollutants around the lake.

s.319 GRANT PROJECT SPOTLIGHT

"Hamilton Reservoir Watershed Improvement Project"

Timeframe: FY 2021

Budget: \$125,000 design; \$554,000 build (\$256,871 s.319 funds)

Purpose: Reduce sediment & nutrient loading

Members of the Town of Holland (s.319 grantee) described the project and questions were asked:

- JoAnne Higgins. Project location is Mountain Road, Sandy Beach Road, and Sandy Beach Road Extension.
- Mark Stadnicki. Sandy Beach Road Extension is an option. Project consists of re-paving and reclaiming the road, and introducing curbs and deep-sump catch basins to reduce storm and sediment load to the reservoir. The total number of catch basins (10) and drop inlets (6) may be revised higher. There will be approximately 1,300 ft of roadway/pavement improvements.
- Tom Wilhelm. Sandy Beach Road Extension has a lot of wash-out into the lake. Fire Department said they can't get their fire trucks down there anymore. It would be great if it could be included.
- Brian Johnson. Yes the Extension is included.
- Matt Reardon. Is there a possibility of putting a BMP at the end of Sandy Beach Road Extension to treat for phosphorous. Is there real estate available?
- Brian Johnson. Not really.
- Mark Stadnicki. The right-of-way of these roads is already smaller than what is allowed by the Town. Could try to do something but it would be in the right-of-way. Doesn't know if there will be enough room to do something vertically within the road because the ledge is shallow.
- Matt Reardon. Thank you for looking at possibilities. Please try to do what you can.
- Brian Johnson. These roads were private roads. We're turning them into town roads and limiting the sediment problems.
- Tom Wilhelm. A lot of the roads are driveways that people built to access their houses.
- Bob Kamay. Are there any requirements from the State on turning a private road into a Town road?
- Brian Johnson. They are following the Town bylaws. They have to come up with a design, have abutters come to a meeting. Town has to vote for it to become a Town road.
- Mark Stadnicki. There will be some deviations in the road design for which the project will need a waiver through the Planning Board: minimum turning radius, widths and grade.
- Bob Kamay. What is the timing to complete the grant project?
- Matt Reardon. MassDEP's agreement with the grantee extends through June 30, 2022. There is possibility for up to two 1-year extensions.

BRIEF INTRODUCTIONS FROM ALL PARTICIPANTS

Participants were asked to briefly address the following prompts:

- ⇒ Name?
- ⇒ Affiliation?
- ⇒ Connection to Hamilton Reservoir?
- ⇒ Specific projects, public outreach, and/or monitoring work in the watershed?

JoAnne Higgins, Holland Highway Department, Clerk; and Town of Holland Assessor.

Brian Johnson, Holland Highway Department, Surveyor. Goal for the last few years has been to slow down the sediment going into the reservoir. Sediment has been entering the reservoir at a high speed. Focus has been on picking private roads to convert into Town roads and implement BMPs.

Stacy Stout, Town Administrator. Supporting Highway Department on administration of this project. Supports all Town departments.

Tom Wilhelm, Friends of Hamilton Reservoir Association. Has been a property owner on the lake for 7 years. Eyes and ears for weed issues, sediment issues and other topics. Working with Sam Spratlin of Conservation Commission to develop a mitigation plan. Has seen a big increase in weeds in the last few years. Sent report from weed assessment company to Geosyntec to include in Watershed-based Plan.

Sam Spratlin, Holland Conservation Commission and Lake Oversight Committee.

Dawn Kamay, Holland Conservation Commission and Lake Oversight Committee. Has been living on Hamilton Reservoir for 7 years. Very interested in preserving the lake and its water quality.

Bob Kamay, Friends of Hamilton Reservoir Association. Main focus has been making improvements to south basin boat launch. Next project is to work with Brian Johnson on dam maintenance.

Mark Stadnicki, SVE Associates. Design engineering firm designing the s.319 grant project.

Jean Pillo, The Last Green Valley. Works in the Eastern Connecticut Conservation District. Coordinates the volunteer water quality monitoring program for The Last Green Valley. Has not been any volunteer water quality monitoring yet for the Hamilton Reservoir.

DISCUSSION OF EXISTING BMP PROJECTS

Julia Keay of Geosyntec showed a map of several recent BMP projects and requested information about other recent BMP projects that have been completed in the watershed. JoAnne Higgins and Brian Johnson commented:

- There was a culvert replacement project on Leno Road. Also a culvert replacement project on Leno Road near Sturbridge line;
- A replacement of drainage structures project was done through Ch.90 on May Brook Road close to the CT state line.
- Brian Johnson recommends they review a draft so they can include projects that were not included.
- Julia Keay will send over a draft.

A discussion was held for 20 minutes on the following topics: 1. Pollutant Load Estimates for existing BMP Projects; 2. Current Monitoring Efforts; and 3. Status of Dredging.

1B. Pollutant Load Estimates for existing BMP Projects

- Julia Keay. Geosyntec has pollutant load information for most of the projects. Missing information for Sturbridge Road and Over the Top Road projects.
- JoAnne Higgins. Doesn't know if that information is available.

2. Current Monitoring Efforts

- Julia Keay. Has received 2018, 2019, 2020 Solitude Reports. Also notes that the Town website shows E.Coli monitoring data done by Board of Health for the summer months; was able to access 2020 data.
- Brian Johnson. The only monitoring they do is with the Board of Health.
- Matt Reardon. MassDEP had a deep hole monitoring site in the south basin in 2018, and will share this data [correction, data is from north basin].
- Jean Pillo. (via chat) Does the MA DEP WBP tool have a load reduction BMP calculator for pathogens?
- Julia Keay. (via chat) Currently it just calculates load reductions for TN, TP, and TSS.
- Jean Pillo. (via chat) Are there any known impairments for E. coli in the lake?
- Matt Reardon. (via chat) It has not been assessed in integrated list for recreational uses.

3. Status of Dredging

- Tom Wilhelm. Dredging Study from 2018 showed that it doesn't make any sense to dredge the lake until two causes are taken care of: 1. drainage off of the roads; and 2. at the causeway, making sure culvert sizes are increased between the two sides of the lake.
- Brian Johnson. There were other studies done years ago. Conway Study (18 years ago) talked about fertilizers and people's septic systems going into the lake. Also talked about the size of the boats and the waves from boats, leading to erosion of the banks. Some of the new boats are trying to create large waves for wakeboarding. Suggested not to have any boats on the lake.
- Matt Reardon. Have you thought about a motor size limit on the lake?
- *General comment that this hasn't been discussed but would be a hard sell with the local waterskiing club being on the lake.*
- Tom Wilhelm. Boats definitely suspend a lot of sediment.
- Brian Johnson. We're not going to dredge the lake fully. That requires an unrealistic amount of funding. But can't we do small dredging where the worst problems are, such as May Brook Cove? or where Stevens Brook comes in?
- Tom Wilhelm. The Dredging Study did have areas of focus.
- Sam Spratlin. Brandon Cove is really silted in.
- Stacy Stout. Is there an opportunity to commission a dredging study for specific areas rather than the whole lake?
- Tom Wilhelm. Can identify 3-4 areas in the south basin that are silted in.
- Sam Spratlin. Undersized culvert on the causeway is a definite cause of sedimentation.

STRATEGY

A strategy discussion was held for 30 minutes on the following topics: 4. Other Areas with High Sediment Loading/Erosion; 5. Public education and outreach; 6. Additional grant funding available.

4. Other Areas with High Sediment Loading/Erosion

- JoAnne Higgins. As Town Assessor, I'm in the neighborhoods quite a bit. Property owners could do something. Lots of property owners are hardscaping, paving entire parking areas and areas around cottages. Does not allow for water to percolate into the soil. Also sees a lot more outdoor showers, which are being built without any way for phosphates from shampoos and body wash to be prevented from washing into the lake. Also lawn fertilization and artificial seeding is coming into the lake.
- Tom Wilhelm. Has been putting recommendations for residents into the FHRA Newsletter.
- Sam Spratlin. We have large houses on very small lots and that's a problem.
- Brian Johnson. Can identify multiple other multiple areas with a lot of sediment problems. Pine Tree Drive. Craig Road. Old Acres Road. Goal is private roads that are at the low end of town, install BMPs to prevent sediment going into lake.
- Tom Wilhelm. Hamilton Drive flows right down the hill into the boat launch.
- Bob Kamay. At the end of Leisure Drive there's a private beach. It's a steep hill and comes to the middle of the beach. There are a few poorly placed basins. Washes out each area constantly. Leisure Drive could use some attention.
- Matt Reardon. Water bars could be used. Has a project in Manchaug Pond, Sutton. Some people are putting them in their driveways as a pilot project. Diverts the water off.
- Adam Questad. (via chat) shared information from the Massachusetts Clean Water Toolkit about water bars. <https://megamanual.geosyntec.com/npsmanual/waterbar.aspx>
- Jean Pillo. (via chat) I work with the Webster Lake Association. They are having a horrible experience with wake boats and shoreline erosion. They have an active water quality monitoring program. Wake boats are a huge issue. Webster Lake Association is looking for a trend in water clarity. They are using secchi data and a multi-parameter probe, measuring dissolved oxygen, pH, temperature, turbidity, nutrients at surface, along the thermocline, and at lake bottom, 3 times a year. Do you have any secchi depth data to show any trends in water clarity? Are the majority of homes along the lakeshore on unpaved roads? I have seen many runoff issues impacting sedimentation if the roads are not properly maintained.

- Tom Wilhelm. (via chat) Yes. Unpaved or partially paved.
- Jean Pillo. (via chat) Improving the flow under the causeway may improve flow from the south part of the lake to the northern part of the lake, won't it move the problem to more rapid sedimentation to the north pond? The sediment will settle in the north pond due to the dam at the outlet.
- Jean Pillo. South Charlton Reservoir was successful at working with the Town of Charlton at installing a water bar at the boat launch area to divert the water to a settling area to reduce the sediment loading into the pond.
- Julia Keay. What would be the process if Hamilton Reservoir wanted to do volunteer water quality monitoring with the Last Green Valley?
- Jean Pillo. Explained the process and recommended contacting Ziggy Waraszkiewicz (Waraszkiewicz@aol.com)
- Jean Pillo. (via chat) shared information on Environmentally Sensitive Road Maintenance Practices for Dirt and Gravel: [Roadshttps://www.fs.fed.us/eng/pubs/pdf/11771802.pdf](https://www.fs.fed.us/eng/pubs/pdf/11771802.pdf)
- Adam Questad. Going back to the potential BMP opportunity discussion, are there any locations where a larger project could be implemented where it's not in a highly erosive area but potentially runoff could be routed to that location? Low-lying spots that could be targeted that are publicly-owned and closer to the water body that could be targeted for BMPs? Best locations would be low-lying and public spots, but other locations could also be explored.
- Stacy Stout. Conservation Commission does an excellent job making sure everyone's aware of that.
- Dawn Kamay. Trying to improve bank erosion, it's all sand that comes down to the water. If it's not properly managed it keeps coming into the lakebed.
- Stacy Stout. Do we see good compliance with people coming before the Conservation Commission? A lot of new property owners get going on their projects and fortunately get steered to the Conservation Commission by building department and Board of Health.
- Dawn Kamay. Still learning how to protect our banks. Most of the things that hold the banks back now are flat surfaced timbers or flat stone faces that are just bouncing the water back and forth. So banks that are not protected are in bad shape. Trying to get people to think about a less flat surface to their banks so we have more energy absorption.
- Julia Keay. Showed MassDEP Clean Water Toolkit, specifically focusing on how to see examples of residential Best Management Practices (BMPs). Link: https://megamanual.geosyntec.com/NPSManual_2013/HTML/residential.htm

5. Public education and outreach

- Marie Sorensen. Initiated discussion of what is presently being done for public education and outreach and what could be done.
- JoAnne Higgins. It would be possible to look at some of the Clean Water Toolkit strategies that could be produced as a pamphlet to distribute in bulk through FHRA meetings.
- Marie Sorensen. Is there any education being done through the public schools?
- Stacy Stout & JoAnne Higgins. Lots of residents are seasonal.
- Tom Wilhelm. Does regular posts on the Facebook page for FHRA.
- Stacy Stout. On the Town Facebook page, and posts about and holds a lot of lake events at the north and south basins. Seasonal residents don't come to Town Meeting. They do read the FHRA newsletters (distributed by e-mail and snail mail). Lake Association Committee does a great job.
- Jean Pillo. Is FHRA an NPO?
- Tom Wilhelm. Yes.
- Jean Pillo. Then FHRA can receive grants from New England Grassroots Association for public outreach. Are most of the residents on septic or sewer?
- Tom Wilhelm. 100% septic and type tank.
- Jean Pillo. Outreach on septic tank maintenance is important for people who are guests and renters. Recommends using a QR code that people can access on their phones.
- Marie Sorensen. Are there any public cleanup events in town? It can be socially motivating to see others taking care of the reservoir area, might spur people to do something with their own yards or pick up a pamphlet.
- Stacy Stout. One of Holland residents started a cleanup day. Trails committee also cleans up trails.
- Adam Questad. Is there any public signage?
- Julia Keay. Is there any signage about dog waste cleanup?

- Marie Sorensen. Could have signs on curbs near storm drains. Reminder that water flows to the lake.
- *General discussion that most signage is at boat launches and boat ramps, and on trails.*
- Stacy Stout. There is also signage regulating what you bring in and out of the lake, and for weed control.
- Tom Wilhelm. There are no signs for dog waste management.

6. Additional grant funding available

- Marie Sorensen. Initiated discussion about grant opportunities that are available for BMPs and Public Education and Outreach.
- Matt Reardon. For monitoring and design of BMP projects, recommends MA 604B Water Quality Management Planning grants and s.319 grants. Also another big source of grants is MA Municipal Vulnerability Preparedness grants, if you can tie in climate change resiliency; people have used these grants as match for s.319 grants.
- Jean Pillo. Charlton Lakes and Ponds Association convinced their town that their homes assess higher than other similar homes in other parts of town so therefore they could get more tax funds if the ponds were in good health. Recommends contacting Ziggy (Waraszkiewicz@aol.com) and possibly doing fundraisers.
- Jean Pillo. Invites FHRA to become a part of The Last Green Valley (TLGV WAC), they meet quarterly. They will meet May 17 at 9 Am. Contact Jean.pillo@comcast.net.

an

Contact: [Julia Keay, JKeay@geosyntec.com](mailto:JKeay@geosyntec.com)
[Adam Questad, AQuestad@geosyntec.com](mailto:AQuestad@geosyntec.com)
[Matt Reardon, Matthew.Reardon@state.ma.us](mailto:Matthew.Reardon@state.ma.us)