

Highland Lake Leadership Team Meeting Minutes

Falmouth Town Hall, Large Conference Room

November 4, 2019

Attendance:

Kimberly Darling, Heather Huntt, Nancy Lightbody, Dennis Brown, Tom Verlee, Amanda Pratt, Jeff Dennis, Gretchen Anderson, Rosie Hartzler

Agenda Items:

1. Quorum established
2. Draft Minutes of September 17, 2019 were approved pending edits.
3. Public comment was opened and closed. No comments were made.

Action Item Update from 9/17 meeting:

1. October 1 deadline has passed for Heather to receive comments for Draft Watershed Management Plan Action Items. HLLT thanked Heather for a fantastic presentation at October public meeting.
 2. Dennis has followed up with Windham on status of BMP inspections. This may be a moot point depending on the current wording in the agreements' grantees sign. Dennis will work Rosie to clarify the issue.
 3. Dennis will be reaching out to identify HLLT members and other stakeholders to work toward better downstream fish passage solutions as soon as some basic questions to DMR are answered. Town representation is crucial for successful conversation on improving fish passage.
 4. Rosie will provide summary to HLLT from Oct. 10 HLA Q&A with Karen Wilson & Jeff Dennis.
 5. Dennis reached out to the Land Bureau Director regarding increased 'permit by rule' fee. The Director, Nick Livesay was concerned that pushing the legislature to increase funding to the Land Bureau instead of the fee increase would end in year-to-year funding inconsistencies. With the fee increase, the cash flow would be evenly sustainable. Nick requested that we not legislatively advocate to change the funding to solve the issue of high 'permit by rule' fees.
 6. Amanda is still following up on pollution mitigation versus enhancement and waiving fee.
4. E&O Committee Update

Nancy provided update from committee meeting. See E&O minutes for synopsis. Will be meeting to start drafting E&O plan November 30th 2-430pm. Members felt the plan seems timely as education needs were evident at Watershed Management Plan public meeting. Kimberly will update Falmouth teacher about PSA timeline (moved to spring).

5. Water Quality Committee Update

Committee activity has been limited due to other projects. Jeff has conflict on December 6th and asked if science roundtable be rescheduled. There was a brief discussion on who should be invited. Jeff said that a 'working' science roundtable should be conducted with scientists prior to 'education' roundtable with HLA and/or HLLT, and later with the general public. Perhaps a general target for the meetings would be to schedule the scientist meeting in December as planned and public science meeting in January. Jeff offered that there is still a lot to be done prior to the science roundtable, including modeling data from Keith's pre-2018 sampling and crunching numbers on data we have. So far, we only have some of the eDNA information from 2018. We have the prokaryote (cyanobium) eDNA but have yet to receive eukaryote (everything else in the water) eDNA. Pete

Countway is working on it but it's a tricky process. The more information that's been analyzed before the roundtable the better use of the scientists' time and, more importantly, the more likely to achieve some success in determining the bloom's cause and/or identify 2020 testing protocols.

Rosie offered to share the HLA October 10 board notes where Karen and Jeff provide water quality update. Jeff states that he may agree with Karen Wilson in that the lake could be adjusting to alewife re-introduction. Cochnewagon Lake experienced similar bloom characteristics following an alum treatment. Alum stripped the lake of phosphorus and much of the phytoplankton and blanketed the deep bottom sediments. Shortly after the treatment secchi depth was 6.5 to 7m, but in mid-September it dropped to 4.0 to 4.5m. Analysis of a phytoplankton sample taken in late September indicated a nearly pure culture of a single small flagellate, *Dinobryon divergens*. It is possible that after the alum treatment, the first algae to recover were picocyanobacteria because with reduced grazing pressure they can out compete other algae for available phosphorus and are very effective at reflecting and dispersing light, hence the relatively low secchi depth in a very low nutrient environment. Dinobryon is a mixotroph, meaning it not only produces its "food" via photosynthesis, but it can eat other organisms to get nutrition, and its principle prey food source is picoplankton. It would therefore have an advantage over other algae because in a low nutrient environment that was rich in picos, it could thrive. The lake recovered from the low secchi disk readings and returned to a 7.5-meter secchi disk reading, suggesting that the phytoplankton community is coming into balance after the major disruption of the alum treatment, and the first step in this recovery is a pico bloom. Lake Auburn also had an alum treatment that was completed in October and it had a similar, single species mixotrophic flagellate bloom, which probably followed a pico bloom. A similar process may be occurring in Highland Lake after each year's alewife migration depletes the large zooplankton, and the fact that the pico bloom in the past two summers has crashed before it peaked may be an indication that the phytoplankton community is adjusting to a new equilibrium situation – essentially learning how to live with alewives. At this point, this is all just circumstantial conjecture, but it may explain what's going on.

6. Technical Advisory Committee Update

Heather provided update on all public outreach efforts (Council meetings, public meeting, as well as individual comments) and presented HLLT with draft action items.

A discussion was held regarding Action Item #2 and how sites should be prioritized. Currently 1st, 2nd, 3rd tier. Jeff will conduct pollutant modeling based off NPS tracker and prioritization.

Tom Verlee floated the idea of creating working document to ensure the public can see the updated version. Heather said the document would not change that often and said the plan is only as good as what's implemented. The HLLT will be 'owner' of plan and cannot let this effort end up simply as a document on a shelf. Tom Verlee asked about procedure for requesting funds and who is responsible for organizing the effort. It was pointed out the plan tasks HLLT TAC as the organizer. Noted that there are several sources for funding and the approach may varied for each source.

It was determined that the City of Westbrook will be added as a stakeholder for Action Item #6.
Upcoming TAC meeting: Wednesday, November 13 from 1-3pm.

7. Progress Report on Priority Sites

Rosie provided update on NPS site remediation. Started by crediting multiple stakeholders (Towns, HLLT, HLA, watershed residents, TAC) for remediation success.

Pre-Remediation Data

Watershed survey = 129 sites identified

- 26 High Impact Sites (19%)
- 40 Medium Impact Sites (31%)
- 65 Low Impact Sites (50%)

High Impact	
12 Private Road Sites	6 Remediated – HS Shore (2 sites), Gravel Hill, Vista Road (2 sites), Little Duck Pond
3 Boat Access Sites	2 Remediated – Pride Farm, Swan Road 1 Pending – Cottage Road scheduled for 2020 with funding secured from residents & grant funding pending approval from WTC
2 Town Road Sites	Remediation pending
1 Stream Crossing Site	Remediated – 95/97 Johnson Road
8 Residential Sites	6 remediated – Winslow Commons, 171 Cottage Road, 410 Pride Farm Road, 89 Haven Road, 36 Pond Villa Road, 15 Lorn Drive. 1 ½ remediated – 8 Leighton Road, with remaining scheduled for 2020. 1 pending – 151 Cottage Road beach access to be addressed in 2020.

Medium Impact	Low Impact
11 Remediated	
9 Pending – expected completion in 2019	1 Pending – Hideway Lane boat access expected remediation in 2019.

Heather asked if NPS site tracker is being updated to reflect remediation efforts. HLA's Kevin McElearney is responsible for site tracker updates and is on top of it.

8. Alewife Egress Effort

Dennis met with Karen Wilson and Theo Willis. Both thought IF&W might have concerns with swapping fish passage from upstream and marginal downstream to downstream only after alewives have finished entering the lake because this may have an impact on indigenous fish species occasional fish passage usage. Dennis has reached out to experts on fishways about potential denial (HL's type of fish passage) fishway modifications to improve downstream passage and learned that there aren't many success stories, but still researching. We are awaiting response from IF&W and Gail Whipplehauser of DMR to determine next steps. Dennis will reach out to HLLT soliciting interested members to form a committee as soon as know more.

9. Next meeting will be tentatively held in second week of January. Dennis will send out doodle poll to set date and time.

10. Meeting was adjourned at 5:07pm.