



MEETING MINUTES
July 23, 2010
DOT I-93 Construction Field Office
9:00 a.m. – 2:00 p.m.

Members present:

Phil O'Brien, Ph.D., Chair
Wendell Berry
Diane Hanley
Mark Hemmerlein
Jeff King
Fred Murphy
Dennis Pavlicek
Robert Spoerl
Larry Sunderland, Vice Chair

Representing:

NH Lakes Association
NH Business and Industry Assn
NH Assn. of Conservation Commissions
Commissioner Rep., DOT
Exec. Dir. Rep, F & G
Planning Boards
Municipal Officials
Commissioner Rep. DRED
Conservation Community

Term:

August 1, 2012
July 8, 2010
August 22, 2010
Indefinite
Indefinite
August 1, 2011
August 1, 2011
Indefinite
September 19, 2010

Members not present:

Jennifer Czysz	Director Rep, Office of Energy & Planning	Indefinite
Mark Gallagher	Commissioner Rep, DOS	Indefinite
Jim Haney, Ph.D.	Scientific Community, UNH	August 22, 2010
Eric Orff	Fish & Game Commission	August 22, 2010
Bo Quackenbos	NH Association of Realtors	June 27, 2011
Ken P. Wilson	NH Marine Trades Association	August 22, 2011
Jim Morash	Tourism Industry	August 1, 2013
Vacant	Commissioner, Dept. of Agr., Markets & Food	Indefinite

Staff Present

Jacquie Colburn	Lakes Coordinator, Watershed Management Bureau (WMB)
Jenn Rowden	Lakes and Rivers Asst. Planner, WMB
Jocelyn Degler	NH DES Wetlands Bureau

Guests:

Don Kent	State Conservation Committee
Joe Farrelly	Former LMAC member
Jay Levine	DOT
Derek Munson	Director, Cobbett's Pond Improvement Association
Bud Sweetser	Cobbett's Pond Improvement Association
Ted Dyer	Cobbett's Pond Improvement Association
Dale Lattanzio	Cobbett's Pond Improvement Association
Bill Schroeder	President, Canobie Lake Protective Association
Kelly Abrams	VLAP Volunteer and Student Mentor
Eddie La Riviere	Student

Opening

Chairman O'Brien called the meeting to order and welcomed all those present. Jacquie distributed maps for Cobbetts and Canobie Lake. Bob Spoerl handed out a map to the Taylor Mill.

Minutes

- ***Bob Spoerl made a motion to accept the May 21, 2010 minutes as written, second by Diane Hanley. Motion passed unanimously. Fred Murphy abstained.***

Status of Committee Membership and Other Committee Business

Jeff King, the new Fish and Game department representative, was introduced. Jacquie explained that Jim Morash, with the NH Travel Council, has been appointed to represent the Tourism Community; however Jim could not attend this meeting. Jacquie added that we are still waiting to hear regarding Don Kent's appointment representing

the State Conservation Committee. Those members seeking reappointment are: Diane Hanley, Bud Berry, and Jim Haney. Dick Smith's appointment to represent Fishing Interests is moving forward. Jacquie will check with Ken Wilson regarding his appointment as the NH Marine Trades Association representative and she will speak to the Dept. of Agriculture regarding their representative.

The Governor has signed Senate Bill 441, which addresses changes to the Lakes Management and Protection Program. These changes will be reviewed at the September meeting. The Lakes Management Criteria Document, produced in 1996, now needs to be produced every 10 years; this will be discussed at the next meeting. A summary of other lake-related legislation that passed this year will also be given in September.

Key Discussion Issues

Jacquie Colburn gave a brief overview of the purpose and work of the Lakes Management Advisory Committee. While the committee tries to look at the bigger picture and the lake related issues that pertain to all waterbodies, to gain a better understanding of lake specific issues, the LMAC visits at least one waterbody every summer. Jacquie then gave a presentation of Canobie Lake and Cobbett's Pond highlighting the existing lake and watershed characteristics and the development that has occurred around the two waterbodies over the last 20 years.

Cobbett's Pond is a natural lake that has been raised by damming. The dam is owned by the village district. It is a 302 acre lake with a watershed covering 2,047 acres. The mean lake depth is 17 feet. Three trophic surveys have been conducted; the most recent reclassified the lake as eutrophic, but the 2010 report by Geosyntec Consultants, Inc. classifies the lake as mesotrophic. It has a densely developed shoreline and there is no public, conservation, or protected land along the shoreline. NH Fish and Game has classified the lake as a warm water fishery. According to the DES Surface Water Report Cards, as of 2010 the water quality impairments include chlorophyll-a, phosphorus, and cyanobacteria; prior impairments included dissolved oxygen saturation and exotic plants. All waters in the state are considered impaired for mercury. According to the Geosyntec report, there is 12.4% impervious surface within the entire watershed. Cobbett's Pond has been participating in Volunteer Lake Assessment Program (VLAP) since 1988 so there are many years of data. A cyanobacteria warning was issued in August 2009. An E. coli advisory was posted in mid-July at the Town Beach and is still in effect. Milfoil was found in 1995 and since then there have been various attempts to manage it; as of 2008, 50 acres of the lake was infested with milfoil. As of 2009 the lake has joined the DES Weed Watchers Program. Regarding watercraft, ski-craft were banned in 1989. A watershed protection ordinance was adopted by the town in 2009. A Total Maximum Daily Load (TMDL) Report for chloride was developed in 2008 by DES. The Geosyntec Cobbett's Pond Watershed Restoration Plan has been developed to address and reduce the phosphorus loading to the lake; the estimated cost to implement the plan is \$4 million dollars.

Canobie Lake is also a natural lake that has been raised by a dam. The dam owner is the town of Salem and it is the primary drinking water source for the town. The surface water area is 373 acres, but the watershed is only 1,400 acres. It is also a shallow lake with a mean depth of 18 feet. DES trophic surveys indicate that the lake water quality has changed and in turn the trophic classification has changed from mesotrophic to oligotrophic. It has a densely developed shoreline and very little undeveloped land. Swimming is not allowed in the lake. Boating is allowed but limited to town residents. Ski-craft were banned in 2003. According to NH Fish and Game it is a warm water fishery. The DES Surface Water Report Card shows dissolved oxygen saturation problems. They have been part of VLAP since 2002. An ongoing issue is the proposed water transfer from Arlington Pond which has been going on for close to 8 years, the transfer is not currently allowed. The DES Water Quality Standards Advisory Committee is working on this, in terms of general rules of transfer procedures. A TMDL report for chloride was developed in 2008 by DES. There are nesting loons on the lake.

Bill Schroeder, President of the Canobie Lake Association provided an overview of the lake. A little over half the lake is in Windham and the other part is in Salem. The lake is Salem's water supply, but they also use Arlington Pond seven months of the year. The watershed is about 1400 acres and being small, it is easier to control the things that are affecting the quality of the lake. There are no major tributaries into the lake. Bill said that he would like to know the percentage of impervious surface in the watershed. Aesthetic enjoyment is the top activity around the lake. There is fishing and boating, but no swimming on the lake. Most of the structures are served by septic systems around the lake. Some of the issues and positions of the Canobie Lake Protective Association include:

- 1) Maintaining high water quality with all the high development. The association works to educate lake residents regarding landscape practices, management practices, things that can be done.
- 2) I-93 construction is a concern.

- 3) They oppose the proposed transfer of water from Arlington to Canobie. The main reason of opposition is that they don't believe the Arlington Pond water is as high quality as Canobie. This is transferring water directly into the lake. They would like Salem to find other water resources.
- 4) There are concerned about the increase in aquatic plant growth in the lake.

Derek Munson, Director of the Cobbett's Pond Improvement Association provided a brief overview of the pond. He shared a pamphlet about the Watershed Restoration Plan that the association is working on. They are going to take their Watershed Restoration Plan and apply for grants to address the various issues affecting the lake. He noted that DES and DOT take a long time to work through issues. The I-93 project has caused a lot of water quality degradation. Specifically, the Association is concerned about the sediment loading that has and is affecting the lake, particularly during the time of significant storm events. A meeting attendee pointed out that public trust may factor into this discussion.

Jay Levine, I-93 Construction Coordinator for DOT, explained that the Exit 3 area is being worked on at this time and that there are currently 2 ongoing contracts worth about \$50 million dollars. There are potentially two more contracts for this area of the I-93 expansion. The new southbound off ramp is presently being constructed. Effects on the communities have included erosion control issues and cautions to protect the waterbodies. There are now weekly erosion control meetings to discuss onsite issues pertaining to water quality and the effects on the environment. Those attending represent Cobbett's Pond Association, Canobie Lake Association, DES, and DOT. The outcome is that these meetings will now be applied statewide on similar projects. The big rain storms caused major change orders. An additional ten percent (10%) of the contract quantity is now going to be used for environmental issues. They are developing more capacity during construction and new measures for water quality control. They are getting ready for the Exit 1 construction and are looking at potential problems in advance of jobs.

Efforts to address and reduce the sediment loading have been attempted and because of the high turbidity levels, DOT has decided to pursue the use of flocculants. Jay added that the application of flocculants is a touchy subject. It is a last resort type of issue. DES's stance is you need to do all the traditional best management practices (BMPs) first and then you do the flocculent. The issue that we have really learned here is that when you realize you've done all the traditional BMPs to the best of your ability, you don't want to be in the middle of a 6-inch rain storm to find out it isn't working right. Going forward on future contracts DOT wants to have the contractors develop a plan prior to the work so that a contingency plan is in place and ready if needed. If everything else fails, pre-designed engineered systems could be used and will be implemented.

Derek Munson added that it is too bad the lake is in such dire straits and we're the guinea pig, so to speak to learn these things. But it is happening and they (DOT) are going above and beyond. We are not displeased with what they're doing its just the time it takes to get things done hurts them.

Jocelyn Degler of DES explained that flocculants are a chemical that you run the water over and what it does is the particular chain of chemicals binds with the sediment that's in the water, makes it heavier and causes it to fall out; so it takes turbid water and cleans it up. You have to have a settling basin for the flocculent to work so there is an area for that sediment to fall out before the water is discharged back into a stream or pond. Jay Levine said flocculants are used by municipal water systems as a part of the treatment process. The source of our problem is that when you're in the middle of major construction and the associated impacts, that that is when the problems always happen in the 3-inch rain events. All of that water can't be held back. Time is needed to let the dirt and grit in that water settle out. We have designed for a 50 year storm and we are getting them every year. This spring there were three significant storms. Only way to rebuild capacity is treat the water somehow.

Fred Murphy asked Chairman O'Brien that at the next meeting the LMAC that we investigate the development of a letter to the Dept. of Transportation (and DES) to get in place a standard operating plan for any construction that is within a certain distance to any waterbody; the plan should set up time frames, stormwater treatment areas, flood control issues, the whole thing, regarding this issue. So you don't have to wait for a contractor to do something like this. Just put this in place from now on and the contractors bid on it.

Jocelyn added that one thing that DOT and DES have been doing is in our upcoming contracts we're now meeting preemptively and the Exit 1 contract is a very good example. DES has asked DOT to delineate some watersheds, come up with their permanent treatment basins, which they're building, but as series of temporary basins. DOT is working to get the flocculent language into the contract and that is something that DES is looking for in the Stormwater Pollution Protection Plan (SWPPP). DES reviews every contract before it goes out. We are also looking at granting certain mixing zones so they can release water when the storm is coming and the basins are

empty. We are working together on these efforts. Jocelyn said that a lot of the flocculants contain Polyacrylimides (PAMs) that once they are in the watershed, they are not coming out. This is an important piece that DES is balancing – is it more important to keep PAMs out of the system or the turbidity?

Don Kent commented that this is too narrowly focused. There is an uncertainty between water quality criteria and design standards for the roadways that goes back to the highway design, scheduling, and how much open (exposed) ground. He suggested that the two departments need to get together and start from ground zero on this or it will be repeated. What criteria to be held to? What kind of basic road construction design is necessary so there isn't an exceedance? Jay Levine responded that roads have been built with a need to include erosion controls that are compliant with the water quality standards. There are also so many new products out there that to review them takes time. Jocelyn Degler added that DES has now set up a product review. Since soil types affect the type of flocculants used, the application can be sent to the manufacturer for acceptance.

Chairman O'Brien asked that information from both organizations, DES and DOT, be compiled into a working document for the next meeting and that both DES and DOT be present at the meeting.

Other Business:

Due to time constraints, Jacquie summarized that for the September meeting the following topics will be discussed:

1. Discussion of Public Trust.
2. Changes to statute/work products
3. Water quality and construction discussion

➤ ***The meeting concluded at 10:45 a.m. The Cobbett's Pond and Canobie Lake representatives provided boats and hosted the LMAC for a tour of the two waterbodies.***