

Meeting adjourned at 8:45pm

Minutes of March 2, 2009 LBC meeting

Meeting called to order at 7:34

Lee and Conray Present

Only order of business was to decided on appeal of Stow Con Com meeting

Open forum no one present

Minutes deferred to next meeting because Cindy was absent.

Motion was made and seconded to appeal Stow Con Com denial of drawdown.

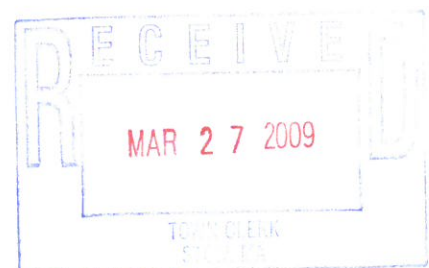
Cindy had sent an e-mail supporting the appeal

Conray and Lee voted to appeal knowing that Cindy supported the action.

A second motion was made to authorize Theresa to sign the appeal since Conray was traveling for work for the rest of the week.

It was seconded and passed by unanimous vote.

Meeting was adjourned at 7:40pm.



March 6, 2009

DEP Central
627 Main Street
Worcester, Massachusetts 01608

RE: Appeal Request for denied Order of Conditions, File No. 299-0490

Dear Case Administrator,

The Lake Boon Commission is requesting to appeal a denied Order of Conditions for File No. 299-0490, Lake Boon Lake-Level Drawdown Notice of Intent. We believe our Notice of Intent contributes to the protection of the interests identified in WPA (MGL c. 131 s.40) and is consistent with wetland regulations 310 CMR 10.00. We have written below our objections to the findings in the denied Order of Conditions in which we are appealing:

1. The Lake Boon Commission (LBC) was approved to do the drawdown of Lake Boon in 2001. Unfortunately, the Order of Conditions was conditioned so that it was impossible to carry out the drawdown. In fact, two of the Special Conditions was that the Lake Boon Commission was to "indemnify the town" and to "solve any long term water needs of the residents." These two conditions alone made it impossible to follow through with the drawdown plans. At that time two residents of Lake Boon were appealing the Order of Conditions for the herbicide treatment, so the Order of Conditions for the drawdown was never appealed when it should have been. See attached Order of Conditions File No. 299-316.
2. This is a statement of fact providing information.
3. This is a statement of fact providing information.
4. This is a statement of fact providing information.
5. Our three year phased drawdown was not written out completely in the denied Order of Conditions and lost some of its important features. And please note that the Town of Stow DPW removes 2 boards every winter to let Lake Boon drop 12 inches to mitigate winter flooding and ice damage.

As stated in our NOI:

- The first year the water level will be lowered 24". Any wells that are adversely affected will be identified and documented, and the water level will be raised 12" to restore water to those wells for the first year.
- The second year the water level will be lowered 40". Any wells that are adversely affected will be identified and documented, and the water level will be raised 16" to the 24" level.
- The third year the water level will be lowered 40" and will remain at the level until late December or early January.

Depending on the precipitations during the time when the boards are going to be removed, the amount of runoff flowing into the lake may vary, therefore the lake level may fall more slowly or more quickly than estimated. The lake level is to be monitored carefully by a

member of the LBC to make sure the 1.5 to 2 inches per day rate is accomplished. And the LBC had suggested to the Stow Conservation Commission (SCC) that it is possible to pull a 6 inch board and replace it with a 3 inch board to make the level of Lake Boon fall more slowly, if necessary.

6. It is partially untrue what the SCC wrote in this Condition. We said that there are a series of 6 inch boards in our dam and that in order to lower the lake level, the boards have to be taken out one at a time. The water is to be raised per our schedule in Finding 5, above. The LBC had offered to lower the lake more slowly in order to accommodate the Commission.

7. Statement of fact, except that Lake Boon drains into Bailey Brook before it enters the Assabet River.

8. Statement of fact stating that we provided information. And yes, *potamogeton crispus*, curly leaf pondweed, is affected and controlled by drawdown.

9. Statement of fact stating that we provided information.

10. The 2001 Well Impact Report was a survey conducted by volunteers along the perimeter of Lake Boon. Residents were asked their names, addresses, well type (ie. Artesian, shallow, or town water), is it driven, drilled, or dug, the depth of the well, the distance from the lake to their well, and where is their pump (inside vs. outside). Residents estimated what they had for wells and many did not know. There was no scientific data presented upon which Lycott Engineering could base their guess for how many wells would go dry as far as the LBC could determine. We believe they guessed how many wells might go dry based upon how far away the wells were from the lake, which again, were only estimated distances. No water was measured inside any well pipes and no flow measurements were taken. The SCC requested the LBC update this list of estimates but with a list of 139 shallow wells and 30 unknowns/non-participants listed, the LBC thought that this would take a huge effort that would make very little difference in the long run of the project. It is a large list of shallow wells regardless of whether it is 139 or 129 or 115 especially since this is an entire list of non-scientific data. This is why the LBC decided not to update this list. It is a page of nearly meaningless data that does not present any facts to the argument of which wells might go dry.

11. The LBC looked into getting a hydrologist (Dave Harwood from Stantec Consulting in Westford, MA) to give us an estimate for doing a well study to find out exactly which wells have the potential to be impacted. The hydrologist ended up declining to give us the estimate because the data they would need to collect may be impossible to get. In order to do a conclusive well study they would have needed to find out how many inches of water is in every shallow well on Lake Boon. There is too much liability in opening old rusty wells that may be harmed in the process. Many well pipes are choked with rust. If any of that rust was knocked off by sticking a tape measure inside it, there is a possibility that it could be sucked up and ruin their pump or other plumbing fixtures/equipment. Ultimately it was determined by the LBC that this well study is not feasible to do. The hydrologist suggested a slow gradual drawdown where problems are mitigated instead of a well study. This email is attached.

12. Public water supply is going to be only temporarily altered if any wells are affected. No wells will be permanently altered. The water will come back when the boards are replaced in the dam. Our Emergency plan is to supply water to homeowners if their well goes dry until the water level rises and their well is restored. Our Notice of Intent states that it will take one to two weeks for water to be restored once the boards are replaced in the dam. Plus, in

our NOI we offered a solution which would involve neighbors sharing their wells. This method has worked well in other lakes trying to accomplish drawdowns. By sharing wells, the water gets pumped into the effected home, into the home's water storage tank, and pressurized so that that home's showers, faucets, dishwasher, and other fixtures would work. This method was used on Forge Pond in Westford/Littleton, is effective, and is also the most economical and earth-friendly solution.

13. This section addresses a Board of Health issue. It is not within the jurisdiction in the WPA. CMR 410. 750 is part of the State Sanitary Code and it addresses Conditions to Endanger or Impair Health and Safety. By doing a drawdown, if any wells are affected, it is a temporary condition which is to be addressed immediately and corrected. We would not be creating a permanent situation where we are violating any "generally accepted plumbing...standards". See below applicable sections.

"410.750: Conditions Deemed to Endanger or Impair Health or Safety

The following conditions, when found to exist in residential premises, shall be deemed conditions which may endanger or impair the health, or safety and well-being of a person or persons occupying the premises. This listing is composed of those items which are deemed to always have the potential to endanger or materially impair the health or safety, and well-being of the occupants or the public. Because, 105 CMR 410.100 through 410.620 state minimum requirements of fitness for human habitation, any other violation has the potential to fall within this category in any given specific situation but may not do so in every case and therefore is not included in this listing. Failure to include shall in no way be construed as a determination that other violations or conditions may not be found to fall within this category. Nor shall failure to include affect the duty of the local health official to order repair or correction of such violations pursuant to 105 CMR 410.830 through 410.833 nor shall failure to include affect the legal obligation of the person to whom the order is issued to comply with such order.

(3) Any defect in the electrical, plumbing, or heating system which makes such system or any part thereof in violation of generally accepted plumbing, heating, gasfitting, or electrical wiring standards that do not create an immediate hazard."

14. Statement of fact stating that we provided information.

15. A wildlife habitat study was done in 2000 during the time when the LBC was filing a NOI to do chemical treatment and drawdown, both were approved. This study titled, "Lake Boon Wildlife Habitat Study 2000, Hudson/Stow, Massachusetts, June 30, 2000" prepared by Environmental Sciences Services, Inc. is in the files at the SCC's office. And as far as habit cover types are concerned, the timing in which the drawdown would occur is during a time when wetlands go dormant so those wetlands would not be adversely effected.

We were not asked to explore the impacts of Lake Boon's water entering the Assabet River. The subject was brought up by a citizen at a hearing and then never brought up again by the Commission. The Assabet River has much greater troubles than Lake Boon as far as phosphorous levels are concerned. It been in the press lately due to the possibility of the removal of a downstream dam in Maynard to reduce the high levels of nutrients in the river. There are many wastewater treatment plants that dump effluent into this river. The Assabet River is completely covered with blue/green algae during the summer except for where the

current is the strongest, suggesting they have many more nutrients than Lake Boon since our glue/green algae is not as numerous. The Stow CC did not ask us to explore the downstream impacts in the January 6, 2008 letter that the Stow Conservation Commission (SCC) sent to the LBC which, "requests additional information from the Lake Boon Commission (LBC) in order to complete it's evaluation of the Notice of Intent submitted for winter drawdown of Lake Boon."

16. Doing a drawdown would be protecting interests of the act. We have filed a NOI as a limited project under 310 CMR 10.53(4):

"(4) Notwithstanding the provisions of 310 CMR 10.54 through 10.58, the issuing authority may issue an Order of Conditions for projects which will improve the natural capacity of a resource area(s) to protect the interests identified in M.G.L. c. 131, § 40 (although no such project may be permitted which will have any adverse effect on specified wildlife habitat sites of rare vertebrate or invertebrate species as identified by procedures established under 310 CMR 10.59). Such projects include, but are not limited to, the removal of aquatic nuisance vegetation to retard pond and lake eutrophication and the thinning or planting of vegetation to improve habitat value."

A drawdown would not be adversely impacting private drinking water supply. A drawdown is a temporary situation that is easily reversed and would restore water to any effected wells, if there are any. Lake Boon was created by enlarging and raising a naturally occruing water body to supply water to the Maynard mills. Historically, this lake has been drawn down repeatedly over the years. If the LBC had been told by a hydrologist that is possible to discover if any wells are going to be effected, we would have had a study done. But we were told that the data may be impossible to obtain (see section 11 of this letter). The LBC has drawn up an emergency plan to temporarily supply water to homeowners that are affected until the water has risen to restore their well. This emergency plan was submitted on January 30, 2009:

1. The start of the drawdown will be advertised with this emergency plan, symptoms of a well about to go dry, and the names of 3 well installers for 2 consecutive weeks in the Stow Independent two weeks prior to the start of the drawdown (estimated start October 1). It will also be advertised in the Lake Boon Gazette, which goes out to all residents of Lake Boon in the spring and fall, on the sandwich boards (at the corners of Sudbury Road/Boon Road in Stow and Main Street/Old Colony Rd. in Hudson), on the Lake Boon Association's (LBA's) web site (www.lakeboon.org), and will also be sent around on the LBA's email list.
2. The LBC will have an emergency phone number for residents to call in case the water amount in their well seems to be decreasing (ie. Air in the line, pump pumping longer than usual, etc.).
3. A volunteer will be dispatched to the effected home within 3 hours to verify the problem is the drawdown and troubleshoot leaky pipes or any other troubles if applicable.
4. If the drawdown is affecting the home's well, the LBC will contact the Stow Highway department to replace one board in the dam so that the water will rise to the previous level where the well was not affected.

5. Water will temporarily be supplied to the homeowners for the period until the lake level rises six inches and the water in the well is restored. Belmont Springs or equivalent drinking water will be bought and delivered to the affected home by volunteers.
6. Depending on if/how quickly the effected well is fixed, the drawdown will be restarted and follow the drawdown schedule or the lake will remain at that level until it is time for the refill to begin (end of Jan/beginning of February).

The other plan filed in our NOI is for neighbors to share their water supply. This was discussed in Finding 12. A hose can be attached at a neighbor's house that is unaffected and led into a house that has a dry well. That way the "dry" house can still function until either the water is restored due to closing the dam or a new well is drilled. The only anticipated problem with this is early unexpected cold weather. In the case of a deep freeze, the hose will need to be taken up at night so that it will not freeze and crack, and then replaced in the morning. But we do not anticipate problems with freezing since our anticipated start date of the drawdown is October 1. By sharing well water, water tanks will be pressurized and people can use the showers, dishwaters, and other water fixtures/appliances in their homes.

17. The drawdown was never acted upon when it was approved in 2001 (DEP File No. 299-316). So the fact that all the conditions were not met should have no consequence on this filing. The Order of Conditions was so onerous that they were impossible to comply with. See section 1 of this document.

Please see attached plans and correspondence with the SCC associated with the Notice of Intent and hearings:

Notice of Intent includes:

- Lake Boon Hudson & Stow, Massachusetts, Lake-Level Drawdown Study dated December 28, 2000 prepared by Lycott Environmental, Inc.
- Visual Inspection-Boons Pond Dam, Stow, MA Report dated January 5, 2001 prepared by Goldsmith, Prest & Ringwald, Inc.
- Lake Boon Hudson & Stow, Massachusetts Lake-Level Drawdown Well Impact Report dated December 28, 2000 prepared by Lycott Environmental, Inc.
- Lake Boon Well Survey dated February 13, 2001 prepared by members of the Friends of Lake Boon within 100 feet of the lake.

Additional Correspondence:

- Aquatic Vegetation Summary, Lake Boon, Stow/Hudson, Massachusetts dated May 8, 2008 prepared by Lycott Environmental Inc.
- Email dated December 29, 2008 from Bruce Leicher, member of the Bare Hill Pond Watershed Management Committee regarding lake-level drawdown of Bare Hill Pond in Harvard
- Resume of Northeastern University graduate student submitted January 13, 2009

- Bare Hill Pond Terrestrial Habitat Monitoring Assessment Report for 2004 prepared by Dr. Richard A. Orson submitted January 13, 2009
- A Nutrient and Limnological Investigation of Lake Boon, Hudson/Stow, Massachusetts dated March 31, 1999 prepared for Lake Boon Commission by Environmental Science Services, Inc.
- Annual Groundwater Monitoring Program for Wildlife Woods Development, Stow, MA completed Fall of 2003 prepared by Geologic Services Corporation
- Water Quality Impact Analysis for Wildlife Wood Residential Development, Stow, Massachusetts dated June 1997 prepared by Geologic Services Corporation
- Watershed Survey Report and Action Plan, Lake Boon, Hudson & Stow, MA dated May 2003
- Baseline Hydrogeologic Study, Lake Boon Estates Residential Development, Stow, Massachusetts dated February 1997 prepared by Geologic Services Corporation
- Total Maximum Daily Loads of Phosphorous for Lake Boon by the Commonwealth of Massachusetts February 4, 2002
- Letter from the Stow Conservation Commission to the Lake Boon Commission dated January 9, 2009.
- Letter from the Lake Boon Commission to the Stow Conservation Commission dated January 30, 2009.
- Order of Conditions for 2001 drawdown File No. 299-316 dated July 10, 2001
- WPA Form 5 Order of Conditions File No. 299-316
- Order of Conditions for current 2009 denied drawdown File No. 299-0490 Issued February 20, 2009

Thank you for your considerations on this matter. We look forward to hearing from you.

Sincerely,

Conray Wharff

Conray Wharff
Lake Boon Commission

signed with permission of Conray Wharff
by Theresa O'Riorden

Theresa O'Riorden

Theresa O'Riorden

Lake Boon Commission, Subcommittee to Manage Drawdown