

Town of Mansfield
CONSERVATION COMMISSION
Meeting of 17 March, 2010
Conference Room B, Audrey P. Beck Building
MINUTES

Members present: Robert Dahn, Peter Drzewiecki, Quentin Kessel, John Silander, Frank Trainor. *Members absent:* Scott Lehmann, Joan Stevenson. *Others present:* Paul Davis, Harry Jones, Nat Arai (all from GZA Environmental); Jason Coite, Rich Miller (all from UConn OEP); Grant Meitzler (staff).

1. The meeting was called to order at 7:30pm by Chair, Quentin Kessel.
2. There was a roll call of those present, as listed above.
3. There was no public comment.
4. The draft minutes of the CC meeting of 17 February, 2010 were approved as written.

5. New Business:

a. Meeting with UConn representatives to discuss the Mirror lake Dredging Project, the Swan Lake Drainage Outflows and the UConn Master Drainage Plan.

UConn OEP representative Jason Coite made a presentation on the proposed Mirror Lake dredging project, during which questions were asked by members of the CC with responses or clarifications coming from Jason Coite, Rich Miller and the representatives present from GZA Environmental. In part this presentation was in response to issues raised by the CC in a letter to the Commissioner of the State of Connecticut Department of Environmental Protection.

A summary of the main points of the presentation: The motivation for dredging Mirror Lake (and addressing related issues in Swan Lake) arose from President Hogan's *Save Our Lake* campaign. Mirror Lake is viewed as eutrophic and filled with nutrient retaining sediments. The last time that Mirror Lake had been dredged was 47 years ago. It is estimated that 17,000 cubic yards of sediment occur in the lake; the proposal is to remove these, with the objective of restoring the lake to a more pristine (less eutrophic) state. Contributing to the eutrophism has been large flocks of geese, storm water and sheet runoff into the lake. To address the storm water run-off contribution, storm water separators have been and are in the process of being installed around the lake. The expectation is that these will considerably reduce the nutrients, silt and toxic materials in the direct runoff of water from impervious surfaces.

Lessons learned from successive dredging (1998 and 2008) of Paradise Pond on Smith College campus, will be used here. Hydraulic dredging with dewatering of sediments on adjacent land will be used. The water will be returned directly to the lake during the dredging. When the sediments are sufficiently dry, they will be trucked (approximately 1000 dump truck loads) to a licensed land fill that can accept material containing some toxic wastes. Those sediments which have been tested, were found to contain moderate levels of arsenic, Polycyclic aromatic hydrocarbons (PAHs) and

Extractable Total Petroleum Hydrocarbons (ETPHs). This is what will require trucking of the sediments to a licensed landfill.

Those present from OEP and GZA then addressed issues raised in the CC letter to the DEP. These specifically were:

- 1) The 17,000+ tons of sediments to be dredged from Mirror Lake are known to contain toxic materials that exceed DEP standards; indeed additional testing is recommended in the Wastewater Discharge Application.
- 2) Inadequate details are provided on disposal of the dredging spoils.
- 3) The sediments (primarily anaerobic) contain large quantities of nutrients that when exposed to air in the dewatering process will convert anaerobic processes to aerobic processes, resulting in potentially heavy nutrient loadings, especially nitrogen, being introduced into Roberts Brook. This brook is designated a class AA water course in the permit application and is a tributary to a public drinking water supply. Moreover, these nutrient loadings may have cascading effects on ecological and biological processes in the system (e.g. algal blooms, significant alteration of the biota, change in pH, etc.)
- 4) Alternative options, including phytoremediation, appear to have been inadequately explored.
- 5) Studies on small lakes elsewhere have shown that sediment removal alone does not provide long-term restoration, and that the effects of dredging can have unintended negative consequences.
- 6) Additional sustainable remediation efforts should be further explored.

This was followed by an extensive question and answer period about the original issues raised in the letter to the DEP, and the responses made during the presentation. Silander said that he would provide documentation on published accounts regarding the concerns listed above to Jason Coite for further reference. Rich Miller and Jason Coite said they would take these issues under advisement in responding to the DEP regarding the CC's letter.

The Swan Lake Drainage Problem was subsequently discussed by members of the CC and Rich Miller and Jason Coite. Questions were raised regarding unofficial diversion of the Swan Lake watershed into the Fenton River watershed, probably in the 1990's. Questions were also raised about the plunge pool construction of the water draining from Swan Lake and the watershed to the north into the Valentine Meadow and Roberts Brook. The CC was informed that the permit had recently been approved for this work.

b. Other business: A new TLGV grant was announced for improvements to the Moss Sanctuary, specifically for the trails.

6. Continuing Business:

A letter was received from the DEP Commissioner in response to the CC 20 January letter, with the response diverted to Densie Ruzicka, Division Director, Inland Water Resources Division DEP. Kessel presented a new draft letter in response to the

Commissioner. The CC moved and seconded that this new letter be sent to the Commissioner, a copy of which is appended below.

7. The Meeting was adjourned at 9:19pm

John Silander (substitute) Secretary, 18 April, 2010.

Mansfield Conservation Commission
Storrs, CT 06268
March 17, 2010

Director Denise Ruzicka
Inland Water Resources Division
State of Connecticut
Department of Environmental Protection
79 Elm Street
Hartford, CT 06106

Dear Director Ruzicka:

Commissioner Marrella's February 25, 2010 letter to the Mansfield Conservation Commission (MCC) asks that further questions concerning the MCC's January 20, 2010 letter to the Commissioner be addressed to you. While the Commissioner's letter did a fine job of reviewing the situation (of which we are well aware), she failed to address either the two important comments in the body of our letter or make any reference to the eight comments and questions that we appended to the letter.

There is some urgency to having these questions answered. For example, we understand UConn has already filed a permit for "Swan Lake Drainage Outfall Improvements – DEP General Permit for Utilities and Drainage." UConn hopes to begin this construction in the Spring of 2010. The application states, "The existing storm drainage outlets into Roberts Brook are showing signs of erosion and the proposed project will correct that erosion, as well as provide additional erosion protection at the outlet suitable for the proposed increased stormwater flows...."

The "signs of erosion" are minor and almost entirely due to the 1990s unpermitted diversion of the Swan Lake watershed (except that perhaps you retroactively permitted this diversion through the MOA we are questioning). This Swan Lake watershed diversion nearly triples the acreage of impervious coverage, the runoff from which enters this upper portion of Roberts Brook. This increase in runoff is almost certainly the cause of the erosion in question; this portion of Roberts Brook had been stable for the decades that had passed since being buried when the current College of Agriculture was constructed. We do agree that if the MOA's additional "55 acre" diversion is also permitted, additional erosion protection will be required. These two diversions would include a total of about 25 acres of impervious coverage, nearly five times that of the Horsebarn Hill/Route 195 watershed which this watercourse originally handled with relative ease. The 1990s Swan Lake diversion can be easily reversed by the removal of about 2 inches of concrete that was added to the dam on the western end of the lake at

that time. The MCC feels this should be done; it would eliminate the need for the proposed, expensive, "drainage improvement."

We further note the Swan Lake diversion, which dumps stormwater into a watercourse within a public water supply watershed, should also have required a DPH permit, which in turn, sets limits on the quality of the water being discharged.

These considerations, along with the retroactive approval by the DEP of other UConn projects, are why the MCC asked the DEP to bring the MOA to the attention of the Connecticut Attorney General for an opinion. The MCC felt that you would prefer that such a request to come from the DEP.

In the meantime, the MCC is renewing its request to you for written comments and answers to the comments made and questions asked in our January 20, 2010 letter to Commissioner Marrella. Again, the MCC feels a sense of urgency on these issues, and we look forward to hearing from you at your earliest convenience.

Sincerely yours,

Quentin Kessel, Chair

Mansfield Conservation Commission

(Please address written communications to me at 97 Codfish Falls Road, Storrs, CT 06269 and emails to me at quentinkessel@earthlink.net)