

**Lake Champlain Basin Program
Technical Advisory Committee Meeting
Wednesday, April 6, 2011
10:00 AM – 3:00 PM**

Final Meeting Summary

I. Updates and Announcements

- a. Lake Champlain Committee offices have moved to 208 Flynn Avenue in Burlington.
- b. VT WQ Monitoring website has seen a major upgrade – all water quality monitoring data, stream geomorphic assessments, lake scorecards are now available online – www.vtwaterquality.org
- c. NRCS has been approved for new funding for 6-8 new positions; new practice standard for edge of the field monitoring and other similar studies for multiple year periods.
- d. FY11 USGS Stream gaging funding still uncertain.
- e. NYSDEC commissioner Joe Martens and NYS Agriculture & Markets Darrel Aubertein have been appointed.
- f. USACE Water chestnut funding (\$500,000) will be available in 2011. This program will be intact for 2011; 2012 is uncertain.
- g. VT Ecosystem Restoration Grant program (previously Clean and Clear) was proposed by Gov. Shumlin at \$2.5 million in state-wide grants. House bill reduced this to 2010 level (\$1.9 million). Final number to be determined.
- h. EPA & TetraTech TMDL modeling technical workgroup starts April 7. Several TAC members and/or their organizations (including NY and Québec) will be participating.
- i. Québec has new guidelines for stormwater management for new development projects, including guidelines for BMPs.
<http://www.mddep.gouv.qc.ca/eau/pluviales/guide.htm>
- j. The Lake Champlain Ecosystem Team will meet on April 8 at Middlebury College to discuss climate change issues in the Lake Champlain Basin, and to follow up on the TNC Lake Champlain Climate Change report published last year. Andrew Milliken, USFWS, will provide an overview of the USFWS Landscape Conservation Cooperative program, with a focus on the North Atlantic LCC, which includes Lake Champlain.
- k. UVM RSENr will be interviewing 3 candidates for director for Rubenstein Lab & teaching position. Interviews are scheduled over last 2 weeks of April.
- l. Northeastern States Research Cooperative - Theme 1 – looking for reviewers for proposals. Please contact Breck Bowden if you are interested in serving as a reviewer.

II. Summary of March 2 TAC Meeting

- a. Review and approval of minutes from March 2nd TAC meeting.
- b. Motion to approve made by Doug F., second by Martin M., all in favor. Eric Smeltzer abstained.

III. Lake Champlain Basin Program Update, *Eric Howe*

- a. State of the Lake report
 - i. QAPP has been approved by NEIWPC, EPA Region 1 and 2
 - ii. Publication deadline has been rescheduled to May 1, 2012
- b. FY10 EPA grant has now been signed; many projects that were on hold can now move forward
- c. FY11 budget is still uncertain, pending Congressional approval of the FY11 Federal budget
- d. NYCAC Watershed Stewardship Summit (March 29) was very successful; about 30 people representing many watershed organizations participated
- e. Don't P meeting for no phosphorus fertilizers for retail/hardware stores – area fertilizer retailers educated on aspects of no phosphorus fertilizers (March 18).
- f. Marina workshop April 1. Held in Burlington; 50 participants from marinas around the basin; panel discussion on invasive species, etc.
- g. LCBP hosted a watershed organizations meeting on March 25; included 17 watershed organizations from around the Basin, and representatives from EPA and VT DEC. The workshop featured presentations from Ann Smith, Friends of the Winooski, Culvert Retrofit for Fish Passage; Carol Treadwell, Ausable River Association, Ausable River Steward Program; Emily Debolt, Lake George Association, Floating Classroom Program; and Ethan Swift, VT DEC, Tactical Basin Planning, as well as a request for input on the revision to the LCBP Lake Champlain Atlas and an update from VT DEC Commissioner David Mears on the TMDL revision.
- h. Blue-green algae – meeting convened by VT DEC Commissioner David Mears, invited VT DOH, UVM, LCC, LCBP, Champlain Water District (representing VT water suppliers). Eric H. agreed to coordinate a meeting to develop a monitoring strategy for 2011 that explores both quantitative and qualitative components to develop a program with an alert system that does not rely entirely on quantitative samples - qualitative sampling is cheaper & faster, but may be just as effective. Commissioner Mears will convene a meeting later in 2011 to review the 2011 field program and discuss funding options to move this program, either partially or entirely, out of the LCBP budget. Fred raised concerns about the absence of NY inclusion in these meetings, as BGA is a basin-wide issue.
- i. LCBP (Eric Howe) participated in a meeting coordinated by VT DEC, including Andrew Simon (USDA ARS; streambank erosion study), Stone Environmental (Missisquoi River watershed CSA study), NRCS, UVM soils & river experts to look at ways these two projects can complement and inform each other. Also discussed ways to interpret soil P data to water quality P data.

IV. Technical Presentation: Neil Kamman & Ethan Swift, VT ANR

- a. Overview of the recently released Vermont Surface Water Management Strategy
- b. Neil and Ethan provided an overview of the Strategy (www.vtwaterquality.org)
- c. Highlights of this Strategy:
 - i. Goals and Objectives for managing Vermont surface waters in light of the goals of the federal Clean Water Act and Vermont's state surface Water Quality Policy;
 - ii. Activities and Stressors that affect water, as well as individual pollutants;
 - iii. Tools and Resources (Tool Kit) used to protect, and maintain and restore surface waters; and,

- iv. Planning Process for individual watershed management.
- v. Steps to the Tactical Planning approach:
 1. Scoping and information gathering (monitoring and basin assessment)
 2. Prioritization and Targeting of Resources (both internal and external)
 3. Public Outreach and Awareness of the Basin Planning Process
 4. Development of Tactical Basin Plans and Attendant Strategies
 5. Implementation of Tactical Basin Plans
 6. Adaptive Management to Inform the Implementation Process
- vi. Alignment between the Strategy and OFA
 1. Tactical plans incorporate relevant OFA tasks and mechanisms to accomplish them.
- vii. Several “hybrid” basin plans are forthcoming in 2011.
 1. Basins with hybrid plans include Otter Creek, West Williams/Saxton river (Connecticut R. watershed), Missisquoi, Memphremagog.
 2. Karen Bates & Rick Hopkins are working on the Basins 5 (Upper Lake Champlain, LaPlatte, Malletts Bay, St. Albans Bay, Rock, Pike) & 6 (Missisquoi) plans.
- viii. Monitoring - some VT DEC long term monitoring programs adjust their focus on an annual basis to be relevant to a particular issue in a given watershed (i.e. to address spills, new AIS)
- ix. Suggestion: add a real-time link to the USGS water gages on the website.

- V. Fitzgerald Environmental workplan on littoral habitat project (Evan Fitzgerald & Britt Haselton)
- a. Evan Fitzgerald provided an overview of their project workplan. TAC has a lot of interest in this project and provided a lot of positive, critical comments. Discussion focused on effects of causeways and tributary influences. Causeways will not be addressed; tributary areas will be distinguished from undeveloped shoreline. Sites will be randomly selected around the shoreline; sites may be constrained/stratified based on LULC shoreline features, littoral features in particular (sandy habitat vs. rocky habitat). There was also some discussion on the macroinvertebrate and fish sampling strategies. Some concerns expressed about possibility of lack of power for these parameters, and ability to establish biocriteria due to a possible lack of power. There will be a minimum of 30 macroinvertebrate samples collected, possibly more, yielding a minimum of 10 per development intensity (stratified). Resources are not available to conduct more comprehensive sampling. Evan agreed to explore additional fish sampling methods beyond the proposed electroshocking to provide a more comprehensive survey. In the end, may need more data than will be available to develop indicator species. This will be discussed in the final report.
 - i. Also some discussion around lake level changes. Neil will circulate a paper in preparation from the 2008 NLA study to normalize for water level.
 - b. Call for a motion to accept the workplan, as amended based on the comments below:
 - i. Clarify how and why causeways will be excluded, in the sense that the causeway is not a development (at the housing-level scale). Project focuses

- on shoreline development (i.e. housing). No natural comparison to a comparison.
 - ii. Stratify sample sites on: LULC features and then on littoral class (soft vs. hard bottom)
 - iii. Consider a variety of fish sampling methods
 - iv. Consider movement of plants/macrobenthic sampling.
 - v. Distinguish between shoreline & waterline.
 - vi. Neil K. moves to approve as amended, second by Doug F.. Abstain: Breck B, Doug F, Mike W.
- VI. MRBA workplan on AOP project in Missisquoi watershed**
 - a. Rose Paul provided an overview of the project.
 - i. A major portion of this project is covered by match from other funding sources and ongoing projects.
 - ii. Screening tools have already been developed; this project will be testing & using this Barrier Assessment Tool (BAT) model. Output is a prioritized ranked list of culverts.
 - iii. Predictive model developed by NY TNC will be tested in Ausable & in the Missisquoi projects.
 - iv. USFWS has funding available to implement AOP projects once the assessments & prioritizations are complete, implementation projects can be initiated right away.
 - b. Motion to approve as amended by Eric S., second by Neil K., all in favor; Bernie P, Eric S, Neil K, Dave T abstain.
 - c. Recommended amendments:
 - i. Task 3 item A – collaboration w/ Ausable River – build this into its own task, or relabel as section D so it clearly identifies this component of the project.
 - ii. P.2 item 5 – clarify the testing of the predictive model.
 - iii. Table – task 5 – “done more efficiently” – remove this language
- VII. AsRA workplan on AOP project in Ausable watershed**
 - a. Mike Winslow – motion to approve via email subcommittee and submit comments to Eric by Tuesday, Neil second. Vic, Mark abstain.
 - b. Mike, Breck, Bernie, Fred will provide comments.
- VIII. TAC ANS Subcommittee update, *Meg Modley (LCBP) & Dave Tilton (USFWS)***
 - a. Progress report on recent ANS subcommittee activities.
 - i. This committee is responsible for a lot of great projects within the ANS arena over the last several years.
 - ii. ANS subcommittee met on March 9.
 - iii. NEANS in Quebec City in April. First time to be held in Quebec. Will have training on HACCP-ISRAP from USFWS.
 - iv. May 4-6 National ANS task force meeting in Arkansas. Meg will be attending.
 - v. Felt sole wader ban in VT is now in effect.
 - vi. ANS spread prevention grants – over \$300,000 in small grants; a large portion went to boat launch steward programs.
 - vii. LCBP boat launch steward program funding may be cut

- viii. Asian clam eradication in Lake George – huge partnership effort with NYS DEC, VT DEC, Lake George Park Commission, Lake George Association, Lake George Watershed Coalition, Darrin Freshwater Institute, Bateaux Below, and others
 - 1. pilot study determined that PVC benthic barrier matting is most effective method for control
 - 2. Will suction harvest in dock areas and very shallow water (2 ½ acres of suction harvesting) and will overlap this area with benthic barrier matting (3+acres).
 - 3. Project will continue through July.
- ix. RFP for suction harvesting project closes today
- x. VT DEC has secured grants to conduct response effort for variable-leaf milfoil effort.
- xi. Champlain Canal – barrier effort – canal has been a vector for several resident AIS in Champlain.
 - 1. Suggestion: explore mitigation funds for the canal from the company proposing to build an underwater power cable down Lake Champlain.
 - 2. Feasibility study will be modeled after the EIS for the Great Lakes barrier
- xii. Dave Tilton sought volunteers to chair the ANS subcommittee, but agreed to stay on as Chair.
- xiii. Breck, on behalf of TAC, thanked Dave for his leadership on the ANS committee.
- xiv. Rapid Response plan for Lake Champlain signed by policy level jurisdictions (NY, VT, QC) and established a rapid response task force (now in place). First meeting was in February in Plattsburgh, next meeting is tomorrow. Bill Bolen from Great Lakes program is an expert in incident command system and will be presenting on this topic.
 - 1. Steve Garceau is also involved and mentioned that Quebec Wildlife in MNRF will be involved.

IX. Angela Shambaugh, VT ANR & Fred Dunlap, NYSDEC

- a. LTMP 2010 annual report and 2011 workplan
- b. Angela provided an overview of the 2010 project
 - i. Recap of the 2010 project requirements
 - ii. Trib sampling – did not meet the required # of sampling events in the workplan – due to timing & # of events
 - iii. AIS monitoring – spiny waterflea in Champlain canal
 - iv. Zebra mussel veliger sampling – found veligers in Lake Carmi. Will be returning to Carmi in 2011 to continue sampling effort
 - v. Will continue zebra mussel veliger sampling in Champlain; exploring sampling for quagga mussels
 - vi. Recommend continuing monitoring on both Champlain & inland waters
 - 1. monitor veligers at 13 mid-lake stations
 - 2. monitor settled juveniles at current stations
 - 3. discontinue nearshore veliger sampling

- no longer a need to determine if marinas are a source of mussels
- vii. Minor changes in 2011 workplan:
 1. dropping iron from the metals suite (costs of this test are too high)
 2. resume annual sampling for all other metals
 3. zebra mussel monitoring – resume sampling in open water stations for veliger monitoring
- viii. Why continue zebra mussel monitoring at all?
 1. wouldn't have seen the asymptote in veliger counts
 2. climate change – possibility as an ecological indicator?
 3. low-cost (only salary time that is already paid)
 4. TAC should consider this zebra mussel collection issue again next year
 5. Provides an opportunity to explore whether quagga mussel sampling is effective.
- ix. Comment on sampling effort – tribs have been undersampled for several years. If we have years in which there aren't many storms, so we undersample in that year, are we still obtaining an acceptable sample size with acceptable statistical power? Perhaps consider changing target (in 2012) to a percentage of events that are greater than the 90th percentile (for example)? Run daily flow duration statistics to estimate the number of days to sample.
- x. Suggest including a map of the canal SWF monitoring stations.
- xi. Doug motion to approve as amended, Vic second. Eric, Fred abstain. (Neil had left at this point).

X. Discussion of TAC operations (Tabled)

XI. 3:00 PM Adjourn

TAC: Breck Bowden, Mike Winslow, Neil Kamman, Kip Potter, Bernie Pientka, Dave Tilton (for Bill Ardren), Jamie Shanley, Mark Malchoff, Fred Dunlap, Vic Putman, Eric Smeltzer, Martin Mimeault, , Steve Kramer (for Dave Franz), Laura DiPietro

LCBP Staff: Eric Howe, Nicole Grohoski, Meg Modley, Michaela Stickney (LCBP/VT ANR)

Guests: Ethan Swift (VTANR), Drew Snell (CWICNY), Bob Brower (NYS Ag & Markets), David Borthwick-Leslie, Wayne Laroche (LCI), Evan Fitzgerald (Fitzgerald Environmental), Britt Hazelton (Tierra Environmental), Rose Paul, TNC-VT