



## Responsiveness Summary

### Wantastiquet Region River Subcommittee Draft, Water Resources Chapter

12/1707

#### **NH Department of Environmental Services**

*submitted by Laura M. Weit, Watershed Planner, NH Lakes and Rivers Programs*

1. A more recent Economic Value Study that is referenced on page 5 has just been released. *(Subcommittee reviewed the findings of the new study and updated the text)*
2. Under recommendations for fish contamination on page 12, it should be noted that RSA 211:13-b prohibits the use of any lead sinker or lead jig; this violation is subject to a penalty fee of up to \$250. *(duly noted)*
3. It should be noted on page 13, that the annual cost of maintaining one stream gage is approximately \$12,000. The actual average cost of maintaining one stream gage is approximately \$12,000 per year. This cost includes gage calibration, equipment maintenance, data analysis, and data management. *(edited text to reflect)*
4. On page 15, it should be noted that the Souhegan River will soon be adopting a Protected Instream Flow (PISF) and will be developing their Water Management Plan over the next few years.*(edited text to reflect)*
5. It may be worth adding an update on page 18 about the restoration efforts that are underway on the Cold River. The Assessment Report and Restoration Master Plan are available at <http://www.des.state.nh.us/rivers/link-2.htm#op>.*(Added text and web link)*
6. It may be worth noting on page 18 that according to John Field culverts should be sized based on geomorphic characteristics (i.e. 1.2 x bankfull width) rather than just hydraulic capacity.*(Added text)*
7. It may also be worth referring to Michael Simpson's study in the Ashuelot River watershed which found "high intensity storms, as a result of climate change, should be expected with greater frequency in this part of New England. The study concluded that current engineering design specifications for culvert sizing are inadequate to handle the higher frequency of storms of greater intensity."*(Added text)*
8. It may also be helpful to refer to Michael Simpson's research on page 19 under the section dealing with precipitation.*(Added text)*
9. On page 20, under the recommendations for flow and flood control it states "Landowners who choose to live in a floodplain should be required to have sufficient flood insurance to offset a total loss." *(Subcommittee decided to delete this recommendation)* It should be noted that flood insurance is required *(only by banks)* for all structures built in a floodplain. In fact, folks who do not live in a floodplain should be encouraged to purchase flood insurance. *(Subcommittee noted that there is a risk of flooding even in non-floodprone areas; declined to add this recommendation)*
10. On page 20, under the recommendations for flow and flood control it states "Road crews and landowners should watch for fallen trees upstream of smaller culverts and bridges, and cut large woody debris into smaller pieces or remove it completely. Road crews need to keep culverts clean, especially if there is beaver activity that contributes to woody debris in a stream's watershed." It should be noted that woody debris is extremely important to the critters that live in or near waterways and it should only be removed if it poses an immediate threat to human life or property. *(Subcommittee notes that locally, people feel that downed trees are a danger.)*
11. An additional recommendation for groundwater found on pages 25-26 that may be worth considering is to include a maximum impervious cover limitation on all residential and commercial lots. *(Subcommittee believes that this may promote sprawl, and instead, will emphasize infiltration and stormwater retention on site)*
12. An additional recommendation that might be worth considering for shoreland and floodplain development found on page 33 is to encourage the use of Low-Impact Development (LID), infiltration of all stormwater on-site, and limit the percentage of impervious cover allowed on all sites.*(added to text)*
13. It might be worth referring to Michael Simpson's research on undersized culverts in the Ashuelot River watershed on page 34. It also might be worth noting that if culverts are properly sized to bankfull width and properly maintained they are less likely to clog.*(added to text)*
14. It might also be worth referring to the NH Fish and Game Stream Crossing Guidelines, on page 34, to determine how to properly size culverts for fish passage.*(added to text)*
15. It should be noted on page 35 that woody debris is extremely beneficial to the riverine environment and should only be removed if life or property is in immediate danger.*(added to text)*
16. It may be helpful to reference the NH Fish and Game Stream Crossing Guidelines in the recommendations for roads and railroads found on page 35.*(added to text)*

#### **Vermont Department of Environmental Conservation, Water Quality Planning Division**

*Marie Caduto, Watershed Planner*

1. Noted that many NRCS dams were installed in the 1930s and 40s and may not have been maintained. In 2005, a small private dam near Townsend State Park failed, sending a load of bacteria into the stream. There are

known inaccuracies in dam data on the VT side. *(Members agreed to recommend that the states survey the condition of dams and seek funding for the removal of hazardous dams or those that obstruct fish passage, with landowner permission, noting that a balance should be sought between the cost of the inspection effort and the threat to waters from dam failure.)*

### **Windham Regional Commission Natural Resource Committee**

1. On page 9, under Section II River Quality, subsection B CT River Water Quality, sub-subsection 3 Water Quality Management by the States, the segment headed "Vermont" concludes with the statement that "Vermont has also designated a 2.35 mile mixing zone around the Vermont Yankee cooling water discharge." The Committee recommends addressing a couple of difficulties with this: first, the mixing zone presumably extends downstream - only - from the VY discharge; second, it extends only approximately 1.5 miles (.75 miles downstream to the Vernon hydro dam and then another .75 miles downstream from the dam to the monitoring point); third, in the NPDES permit amendment proceedings it seemed the VT Agency of Natural Resources was unable to produce documentation that the Secretary of the Agency had actually made the necessary determination that the statutorily provided 200 foot maximum length for a mixing zone would be unable to sufficiently dissipate the pollutant (heat) and that, therefore, a greater length was required. The Committee believes the Agency has not made the required finding and, therefore, that the mixing zone is not legal.
2. On page 9, under the New Hampshire TMDL list, there is the statement that the entire Connecticut River is on NH's TMDL list "due to the presence of polychlorinated biphenyls (PCBs) from atmospheric deposition." Is this accurate? The Committee was not aware that PCB contamination could be derived from atmospheric deposition. Could you provide us direction to the source of this information? *(NH DES)*
3. On page 15, under Section III River Flow, Subsection B Flow and Flooding, sub-subsection 2 Flood Control dams, neither the discussion nor the recommendations address the problem of the hundreds of thousands of cubic yards of sediment that have accumulated behind the Ball Mountain dam, impact of which was the source of significant environmental degradation when inadvertently released twice in the 1990s. The potential for discharge of this sediment likely poses a greater threat to the river than the sediment produced by erosion from the whitewater releases. *(Subcommittee agreed to add)*
4. On page 39, Section VII Riverbank Erosion, the second paragraph specifically cites the Dummerston Covered Bridge as a place where "recreation-related foot traffic has led to erosion." It should be noted that a coordinated effort, led by the Windham County Natural Resources Conservation District in cooperation with the Windham Regional Commission, the VT Agency of Transportation and several entities of the Town of Dummerston (including Selectboard, Conservation Commission, and Highway Department), addressed the erosion and sedimentation and the sources thereof. The various entities teamed up with numerous volunteers, including several companies donating time, materials, and services, to construct, stabilize and landscape stone steps down to the river to replace the eroded gully previously providing pedestrian access to the river; to retrofit the informal gravel parking lot into a formal, paved, Park and Ride lot; and to install a raingarden to handle the runoff from the parking area and the adjacent section of Route 30 that had formerly discharged stormwater via pipe directly to the river. In short, this was an extensive and very successful collaborative effort to address and cure the problem cited in the draft, as well as other problems in the vicinity. It should be noted as a success in the document, rather than cited as an example of a problem. *(added text; noted that this project was funded by the Connecticut River Joint Commissions' Partnership Program)*
5. Asked for focus on Crosby Brook in Brattleboro. The watershed of this brook includes the rotary and exit 3 off I91. It enters the CT River at the Route 9 bridge. VT has convened meetings on it with area business owners to encourage voluntary BMPs in hopes of avoiding heavier regulation related to stormwater contamination. State has done complete stormwater survey. A massive head cut is forming, which Vtrans will fix in 2007. *(added text in roads and stormwater section)*
6. Windham RPC has also asked that effects of Northfield Pump Storage Station be included. This is 4-5 miles below Vernon Dam. Turners Falls Dam impounds the river nearly up to Vernon Dam. FERC has deemed Northeast Utilities to be responsible for a project in that reach every year. Marie said that the operations of the pump storage station create erosion and sedimentation. *(added text)*

### **Connecticut River Watershed Council**

*submitted by David Deen, Upper River Steward*

1. The difference between the headings environmental agencies, DES and DEC should be made clear. *(noted)*
2. Individual plans call on DES or DEC to undertake certain activities (such as establishing aquifer mapping or water registration programs) when the plans should actually be addressing the legislatures of the two states. *(in many cases the agency stimulates legislation that the legislature enacts, but the agency will be responsible for implementing it)*

3. Both states should be called upon to fund or continue funding a state CREP program relieving farmers of providing all of federal match required and to allow for projects that do not meet the federal guidelines for 'pay back', essentially allowing the state to fund projects the federal program won't. All the plans should stress this program *(agreed to add this recommendation, without high expectation that New Hampshire will enact)*
4. MtBE is banned in both Vermont and New Hampshire so maybe that item is not necessary. Regionally the oxygenate used is now ethanol.*(decided to keep mention of it as an example of a groundwater threat).*
5. VT has considered and passed legislation and recently rules controlling the location, particle emissions and burnable material for outdoor wood burning furnaces and NH should do the same. *(Subcommittee agreed and added recommendation)*
6. Lead sinkers are illegal in both Vermont and New Hampshire.*(duly noted, also added reference to size)*
7. The plan should call on all of us to anticipate global warming – riparian zone protection for shade, advocate for elimination of thermal discharges throughout the watershed. *(agreed to recommend minimizing thermal discharges, but believed that eliminating all thermal discharges is not realistic)*
8. The plan should call on VT DEC and NH DES to follow their WQS and the federal law to reduce thermal discharges into the main river starting with VT Yankee. *(as above, without reference to Vt Yankee)*
9. A raw sewage discharge is illegal and so if it exists then the plan should call on DES/DEC to enforce against the person/s discharging the sewage. *(recommendation seems unnecessary)*
10. Enforcement in both states should not just be recommendations that permits out of compliance with the law not be issued. That is illegal and if discovered someone (CRJC, CRWC, LRASC) should appeal the permit. There should be an active volunteer effort to assure compliance with permit conditions whether it's a water quality, flood plain development or shoreland protect violation. *(Subcommittee believes this is responsibility of town)*
11. The plan should call on the Vermont legislature to create a water withdrawal registration. *(already does)*
12. The plan should call for federal and state agencies to schedule another fish tissue sampling starting now – this is in the river bend plan but I could not find it in the others. *(Subcommittee suggested that such sampling could occur in a phased way to reduce cost)*
13. CRJC should review and monitor the management, expansion and construction of electric transmission lines, especially in this reach of the river with the newly proposed expansion of the loop transmission line that is planned for VT stretching from Vernon to Cavendish and crossing 8 tributaries to the river. *(this proposal has been withdrawn since this comment was received.)*
14. Farm riparian buffers are required in Vermont at 10 feet and should be adopted in New Hampshire.*(added language to the plan)*

### **CRJC Water Resources Committee**

1. Solid waste: Be sure to include all unlined dumps, such as Saxton's River dump, Bellows Falls dump in Westminster (capped, unlined, now a recycling center). Need more household hazardous waste collection opportunities. *(added text)*
2. Brownfields section needs revision; don't go into detail about hazardous sites in each town. Mention RPC Brownfields loans. Manufacturers had their own dump sites, some on rivers. *(revised text)*
3. RR/Utilities: encourage vigilance on rail and utility spraying for vegetation maintenance. Find out what herbicides are being used near water. Could require no chemical treatments where lines cross waterways. Encourage use of native groundcover that grows thick with an extensive root system but does not grow tall. *(added text)*
4. Buffers: should mention required VT farm buffers, although only 10', and call upon states to continue to fund or create a CREP program. *(added text)*
5. Stormwater: compare VT and NH approach to stormwater management and regulation. VT has a statewide limit; NH limits only on shorelands; otherwise limits are locally imposed. Use general description of low impact development techniques. Note that limits on impervious surfaces can affect commercial/industrial development; 75% is normal impervious cover for such development; otherwise would force huge lots when should encourage dense development. Don't get too specific; give references and work with RPCs.*(revised text)*
6. Phosphorus: encourage federal funding to help towns add phosphorus removal to WWTF. *(revised text)*