

12/4/2013

**CCRPC Recommendations to the
Lake Shoreland Protection Commission**

Background & Purpose: The Vermont General Assembly established the Lake Shoreland Protection Commission in Section E.126.1 of Act 50 of 2013 in order to:

- Provide information to the public regarding the current health of waters of the State, including the results of the 2012 Agency of Natural Resources' State Water Quality Remediation, Implementation, and Funding Report;
- Inform the public regarding the regulation of State waters, including requirements the State may need to meet in implementing the cleanup plan for Lake Champlain;
- Summarize for the public the status of efforts to address and improve the quality of all State waters, and how regulation of shoreland activity impacts water quality; and
- Take **public input regarding the regulation of disturbance, clearing, and creation of impervious surfaces in the shorelands of lakes** (bold emphasis added)

Recommendations:

1. We support efforts to improve water quality in the lakes and other surface waters in the CCRPC region and we believe that shoreland protection is a vital part of these efforts.
2. A shoreland protection program alone will not do enough to address water quality problems in our region.
3. More efforts are needed to address the other causes of non-point source pollution.
4. Community and public engagement is needed as part of any shoreland protection program, and particularly in the rule making process.
5. We support the exemption from state regulation in municipalities that have adopted and enforced their own shoreland protection bylaws. These municipalities should review the state regulations and use best available science as they improve their bylaws.
6. Activities that do not require a shoreland protection permit (municipal or state) as proposed in Sec 1446 of H.526 need to be carefully examined and justified or covered under other water quality rules to meet the minimum protections in the shoreland protection regulations.
7. The extent and size of the regulated shoreland zone needs to be supported by best available science.
8. It should be clarified that any mitigation should be strongly encouraged on-site, but not always prevented off-site.
9. Municipal delegation should encourage municipalities to meet or exceed minimum standards that are informed by best available science.

10. We are concerned with the phrase exempting additional development “according to historical development patterns.” This is ambiguous and needs more clarification so that water quality is maintained or improved with future development.
11. The regulation should consider how to coordinate with municipal or landowner efforts to encourage public access along the shore.

ECOS Plan: Ecological Systems Goal: Conserve, protect and improve the health of native species habitats, water quality and quantity, and air quality.

- **ECOS Plan Key Issues/Trends/Insights:**

- **Water Quality** - Vermont water bodies continue to face mounting pressures from unsustainable development, farm and forest activities. Cumulative impacts from these land use activities have degraded water quality, aquatic habitat and altered the stability of river corridors and lakeshores. Issues that predominate in the County include disappearing wetlands, increasing impervious surfaces, steady high pollutant loads (mainly from nonpoint sources such as unmanaged stormwater), that result in nutrient enrichment and sedimentation, as well as other impairments. In addition, aquatic nuisance species continue to enter our waterways, contributing to the degradation of both habitat and recreational opportunities. Climate change is expected to bring us more intense storms at a higher frequency, which will only exacerbate the problem.

- **ECOS Indicators**

- **Number and Length of Degraded Rivers/Streams** (See the Water Quality and Safety Map with Strategy 3.2.3 in Chapter 3):

- 8 miles or 1% of all stream miles, Shelburne Pond, and Lake Champlain (Malletts Bay, Northeast Arm, Shelburne Bay, and Burlington Bay) are considered impaired for a variety of reasons (Source: [Vermont Dept. of Environmental Conservation, 303d List Part A, August 2012](#) USGS, Vermont Hydrography Dataset, 2001-2004) and require a total maximum daily load management strategy.
- The [2012 Vermont List of Priority Surface Waters](#) also includes:
 - 8 miles or 0.53% of all stream miles and Burlington Bay, Muddy Brook and Unnamed Tributary of Winooski River are impaired and do not require development of a total maximum daily load (TMDL) because attainment is expected in a reasonable time (Part B).
 - 26 miles or 2% of all stream miles are in need of further study to confirm the presence of a violation of one or more criteria of the Vermont Water Quality Standards (Part C).
 - 93 miles or 6% of all stream miles and Lake Champlain (Burlington Bay, Malletts Bay, and Shelburne Bay) and Arrowhead Mountain Lake have completed and approved TMDLs in place, though they are not meeting water quality standards yet (Part D).
 - 41 miles or 3% of all stream miles and Lake Champlain (Burlington Bay, Malletts Bay, and Shelburne Bay), Arrowhead Mountain Lake, and Lake Iroquois are altered by invasive aquatic species (Part E).
 - 15 miles or 1.03% of all stream miles are altered by flow regulation (e.g., Dams) (Part F).

- **Phosphorus level concentrations** in several areas of Lake Champlain have remained relatively steady since 2007; however the non-point loads are consistently above the target in the Main Lake and Mallets Bay. Non point phosphorus loading from streams to the main section of Lake Champlain are recorded at 3.3 times the target of 51.3 metric tons, and to Mallets Bay almost twice the target of 25.4 metric tons. Though it is important to note that the Lamoille River drains to Mallets Bay and is located largely outside of Chittenden County. (Source: [State of the Lake and Ecosystem Indicators Report 2012](#), Lake Champlain Basin Program).
- **Percent of Impervious Surface by Watershed** (Source: 2008 Impervious Surface Data, ANR):
 - 8,267 acres or 7% of the Lake Champlain Direct Watershed is impervious.
 - 3,145 acres or 3% of the Lamoille River Watershed is impervious; and within Chittenden County 3.6 % impervious.
 - 7,779 acres or 6% of the Winooski River Watershed is impervious; and within Chittenden County 5.6% impervious.
 - Chittenden County is 5.63% impervious.
- **Concerns:**
 - Habitat Loss - We are experiencing a loss of habitat quality and quantity due to roads, invasive species and development patterns.
 - Unstable Rivers - River corridors are unstable due to alterations and encroachments leaving us susceptible to costly damage from flood events
 - Non-point Source Water Pollution - While we have addressed point sources of pollution, non-point sources are still contributing pollutants to our water bodies.
- **Strategy 3.2.3 Improve the safety, water quality, and habitat of our rivers, streams, wetlands and lakes in each watershed.**

While striving toward all of these ECOS strategies, and particularly Strategy #2 – 80% of growth in 15% of our land area, it is essential to do so in such a way that we do not impair our essential water resources (including potable water) and that we prepare ourselves for the impacts of a changing climate.
- 2. **Non-point Source Pollution** - While we have addressed point sources of pollution, non-point sources are still contributing pollutants to our water bodies.
 - a. Assemble data – Work from existing data collected and further identify the locations that are contributing to water quality pollution such as flow, sediment, pathogen and nutrient. Where needed, conduct on-the-ground inventories of water quality and biological assessments (in-stream), wetlands, sub-watersheds, river corridors (buffered or not) and geomorphology. Map the existing and new data on one regional map.
 - b. Revise Plans and Bylaws and Ensure Enforcement -- Incorporate the above data into municipal plans; establish specific statements that protect these resources; develop clear standards for how to protect these resources within zoning regulations; and initiate on-going enforcement of the regulations. Encourage low impact development techniques, and shared storm water control programs to maximize land development in areas planned for growth. Incentivize best management practices for agricultural uses;

and encourage the Agency of Agriculture to better enforce their accepted agricultural practices.

- c. Implement Non-regulatory approaches - Identify and implement non-regulatory approaches to nutrient, pathogen and sediment pollution management. Under new MS4 permit requirements, municipalities will be developing flow restoration plans to achieve the total maximum daily load requirements for impaired streams, rivers, and Lake Champlain. These plans may require additional public investment in storm water facilities or investments or actions by individual property owners. Support watershed organizations.