



Date: November 16, 2016 DRAFT 10/27/2016 4:27 PM
To: Vermont Agency of Natural Resources
From: Chittenden County Regional Planning Commission
Re: RECOMMENDATIONS REGARDING CONFORMANCE OF THE DRAFT LAMOILLE TACTICAL BASIN PLAN WITH THE 2013 CHITTENDEN COUNTY ECOS PLAN AND PRIORITIZATION OF WATER QUALITY IMPROVEMENT PROJECTS

BACKGROUND

CCRPC has the opportunity to provide recommendations to the Agency of Natural Resources regarding tactical basin plans pursuant to the following sections of Vermont Statutes Title 10, Chapter 47, §1253(d)

- (2)(G) ... *the Secretary [of Natural Resources] shall: develop, in consultation with the regional planning commission, an analysis and formal recommendation on conformance with the goals and objectives of applicable regional plans.*
- (3)(D) ... [the regional planning commissions are to] *assist the Secretary in implementing a project evaluation process to prioritize water quality improvement projects within the region to assure cost effective use of State and federal funds.*

The Draft Lamoille Tactical Basin Plan has been issued for public review and comment on **October 31**, 2016. The Lamoille Basin includes major portions of the Chittenden County towns of Milton, Westford, Jericho, Underhill and Essex and a small portion of the County's towns of Colchester and Bolton.

The *2013 Chittenden County ECOS Plan*, last amended in the spring of 2016, serves as the County's Regional Plan. The ECOS Plan, referred to hereinafter as the *Regional Plan*, also serves as the Metropolitan Transportation Plan (MTP) and the Comprehensive Economic Development Strategy (CEDS) for the County.

The purpose of this memorandum is to analyze the relative conformance of the *Draft Lamoille Tactical Basin Plan* with the relevant Goals, Strategies and Recommended Actions of the *Regional Plan* and to provide recommendations regarding project prioritization.

REGIONAL PLAN

This section reviews the relevant Goals, Strategies, and Actions from the *Regional Plan*.

To achieve **Broad Goal #1– Natural Systems**: Design and maintain a strategically planned and managed green infrastructure network composed of natural areas, working lands, wildlife habitat, scenic views and air quality that help to conserve ecosystem values and functions (including climate change adaptation and mitigation), and provide associated benefits to our community; the *Regional Plan* establishes various discrete goals including:

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

2.2.2 Scenic and Recreational Resources Goal: Conserve, protect and improve valued scenic, recreational, and historic resources and opportunities.

With respect to achieving these two goals, the *Regional Plan* notes some of the key issues and trends facing the County, including:

- **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.
- The recreational value of our water bodies (swimming, fishing, boating, etc.) is critically dependent on water quality. E-coli and algal blooms lead to beach closures, while invasive species threaten our native fish populations. Events and encroachments such as these are exacerbated by the effects of climate change.

To achieve **Broad Goal #4– Built Environment:** Make public and private investments in the built environment to minimize environmental impact, maximize financial efficiency, optimize social equity and benefits, and improve public health; the *Regional Plan* establishes various discrete goals including:

2.5.4 Infrastructure & Facilities Goal: Ensure adequate infrastructure and facilities (i.e. water supply, wastewater treatment, stormwater treatment, broadband coverage and solid waste recovery and recycling) to support areas planned for growth while conserving resources.

With respect to achieving this Goal, the *Regional Plan* notes some of the key issues and trends facing the County, including:

- Currently, there are 12 municipal wastewater treatment plants in the County; together they have a treatment capacity of 21 million gallons per day (MGD) (Source: State of Vermont Wastewater Management Division). As of 2010, CCRPC estimated an aggregate reserve capacity of 9 MGD (this does not account for unconnected committed capacity and capacity limitations of individual facilities.). The estimated future demand for wastewater capacity in 2035 is 7 MGD. While these figures indicate that there is sufficient sewage treatment capacity to absorb anticipated growth in housing and employment county-wide, this does not account for location specific limitations. Colchester, Essex Junction, Huntington, Hinesburg, Westford, and Williston were among the municipalities in need of more wastewater capacity.
- Management of our storm water is critically important to maintaining and improving water quality throughout the County. Stormwater treatment is challenging in both urban and rural areas of the County for a variety of reasons: existing urban areas need to retrofit old infrastructure, financing new infrastructure in areas planned for growth when development is incremental, and impacts from agriculture and forestry practices that don't follow best management practices. Stormwater is managed at a variety of levels including EPA's National Pollutant Discharge Elimination System (NPDES) permits; VT's discharge permits; and some municipalities have additional stormwater regulations and programs. VT's discharge permits are structured to address site level development for projects over 1 acre of disturbance; therefore, incremental and cumulative impact of development is not addressed through this program. The municipalities are facing the challenges of dealing with the cumulative impact – and most are regulating stormwater through local regulations.

In addition, nine municipalities and three public entities are subject to MS4 permitting (a NPDES program) in Chittenden County: Burlington, Colchester, Essex, Essex Junction, Milton, Shelburne, South Burlington, Williston, Winooski, Burlington International Airport, UVM and VTrans. A new MS4 permit was issued by the State in December 2012. There are two additional requirements: each permittee/municipality must develop and implement a Flow Restoration Plan (FRP) for the stormwater impaired waters within their jurisdiction (current estimates for restoration of individual impaired streams ranges in the millions); and each permittee/municipality must now pay for the annual operation of stream flow gauges (formally funded by the State/UVM/USGS).

Further, the *Regional Plan* endorses eight Strategies to achieve the goals. Three strategies, and associated actions, most applicable for assessing conformance with the draft Lamoille Tactical Basin Plan are:

3.2.2 Concentrated Development Strategy: Strive for 80% of new development in areas planned for growth, which amounts to 15% of our land area. The introduction to Strategy 3.2.2 is as follows: Increasing investment in denser, mixed use growth areas will improve economic opportunities, housing options, transportation options and improve community health. Focusing growth in the appropriate planning areas is also a cost-effective approach to increasing the supply of affordable housing, reducing energy consumption and using existing infrastructure efficiently.

- We believe the draft Lamoille Tactical Basin Plan is in conformance with Strategy 3.2.2, but are asking for some clarity in the recommendations section below.

3.2.3 Water Quality Strategy: Improve the safety, water quality, and habitat of our rivers, streams, wetlands and lakes in each watershed. The introduction to Strategy 3.2.3 is as follows: While striving toward 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.

All actions are relevant under Strategy 3.2.3 and state, in part:

1. River Hazard Protection – Develop and implement adaptation strategies to reduce flooding and fluvial erosion hazards.
 - a. Identify problem locations - ...Revise bridge/culvert designs - ...
 - b. Protect river corridors–
 - c. Support non-regulatory conservation and/or preservation of vulnerable areas through public and land trust investments, including identification of repetitively damaged structures and provide assistance to elevate, relocate or buy out structures, and identify where flood storage capacity may be restored and conserved.
 - d. Participate in the development and implementation of the Lamoille, Winooski and Direct to Lake Tactical Basin Plans.
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 –
 - b. Revise Plans and Bylaws and Ensure Enforcement --
 - c. Implement Non-regulatory approaches -.....

3. Wastewater Treatment Plant Upgrades –...
 4. Support and promote the use of more holistic, less chemical dependent and less energy intensive effluent management efforts whenever possible
- We believe Strategy 3.2.3 and its associated actions directly correlate with many of the draft Lamoille Tactical Basin Plan’s objectives, priorities and projects.

3.2.7 Government Finance Strategy: Develop financing and governance systems to make the most efficient use of taxpayer dollars and reduce costs. The introduction to Strategy 3.2.7 is as follows: Considering development and growth comes with both costs and benefits, this Plan attempts to reach a balance by directing growth in such a way that new infrastructure and long-term maintenance costs are minimized. For example: Promotion of and incentives for compact development in areas planned for growth will help keep rural areas open; this can also minimize stormwater problems and prevent new watersheds from becoming impaired. Incentives and promotion for public transit can reduce the need for parking lots which will reduce stormwater impacts and costs. Compact development will make public transit more cost effective.

A relevant action under Strategy 3.2.7 states:

5. **Clean Water Financing** – *Monitor and participate in state financing reform such as the 2012 Vermont Legislatures Act 138 study which the Agency of Natural Resources is leading to make recommendations on how to implement and fund the remediation or improvement of water quality. Ensure that stormwater regulation and requirements do not financially burden or penalize dense and compact development in the areas planned for growth.*
- We believe the intent of implementing the draft Lamoille Tactical Basin Plan is in conformance with Strategy 3.2.7 and this Clean Water Financing action, however we recommend a clarification, in the recommendations section below, to ensure conformance with the Regional Plan.

RECOMMENDATIONS REGARDING PLAN CONFORMANCE

CCRPC would like to commend ANR staff on the excellent analysis and presentation of all the known water quality data in the Draft Lamoille Tactical Basin Plan. The CCRPC considers the draft Lamoille Tactical Basin Plan to be generally in conformance with the Regional Plan’s goals, strategies and actions listed above. We’d especially like to note the strong convergence between the Regional Plan Strategies 3.2.2 and 3.2.3 and several of the Basin Plan’s Top Objectives and Strategies (cf. page9-10) such as *“Protect very high quality surface waters....; Protect riparian areas from encroachment and increase flood resilience...; Protect river corridors and support stream equilibrium...; and Reduce nutrient inputs in villages and town centers.”*

However, we have the following recommendations to help improve conformance between the two plans:

Two of the Lamoille Tactical Basin Plan’s Top Objectives and Strategies listed are:

- *Protect riparian areas from encroachment and increase flood resilience through conservation easements, floodplain and wetland restoration, as well as encouraging towns to adopt*

appropriate ordinances with a focus on flood prone communities, such as Hardwick, Wolcott, Johnson, Cambridge, Jeffersonville, and Westford.

- *Protect river corridors and support stream equilibrium through active and passive stream channel restoration and conservation easements with a focus on Haynesville Brook, Tucker Brook, Stannard Brook, Bunker Brook, Kate Brook, Wild Branch, Elmore Branch, Ryder Brook, Brewster River, Browns River and the mainstem of the Lamoille.*

We are concerned that these objectives could be read too literally since we have several areas planned for growth in the *Regional Plan* that overlap with state-designated River Corridors. This overlap exists where existing and proposed development areas abut or overlap with the Lamoille River mainstem and/or its tributaries in Jericho (village), Underhill (village), Westford (village), Milton (town center), and to a lesser extent in Colchester and Essex. We know that this is not unusual considering we have historically settled near water resources; and it is not logical to pick-up our villages and move them elsewhere. While the *Regional Plan* calls for (Strategy 3.2.3), and the Chittenden County municipalities have policies and regulations in place to avoid impacts to riparian areas and reduce the likelihood of flood damage in these areas, it is imperative to not lose sight of the Clean Water Financing Action, under ECOS Strategy 3.2.7 which states: *Ensure that stormwater regulation and requirements do not financially burden or penalize dense and compact development in the areas planned for growth.*

In practice, the State has worked collaboratively with municipalities to ensure the right level of stormwater and riparian area protections in these settlement areas. The Westford river corridor mapping and regulations, while not finished, is a great example of this cooperative effort. CCRPC would like to ensure this continued level of cooperation.

This need not be an actual conflict, provided the Basin Plan is not interpreted to prohibit development in these Planning Areas. Municipalities with these designated growth areas have zoning bylaws that regulate development to avoid impacts to riparian areas and reduce the likelihood of flood damage.

- CCRPC recommends that the Basin Plan include a statement that the Plan does not preclude any development that is consistent with municipal zoning and with applicable state and federal regulations.

The CCRPC feels that improvements could be made to the Basin Plan to improve conformance with Strategy 3.2.7 *“Develop financing and governance systems to make the most efficient use of taxpayer dollars and reduce costs.”* We recognize that while some specific projects have been identified in the Basin Plan, more work is needed to develop or scope specific projects to include the costs and benefits of these projects so that the cost per pound of phosphorus removed can be determined.

- CCRPC recommends the following edit to the lead paragraph of **“Chapter 5, The Implementation Table: Protection and Remediation Actions”**, as underlined below:

The tactical plan implementation table summaries (Table 26-28) identify objectives for the Lamoille River Basin, and outline specific actions to achieve the stated objectives. Action items include both necessary data collection and assessment efforts, and specific implementation projects. These summary tables are intended to present a broad view of the ~1,300 individual project entries contained in the Implementation Database. DEC and its partners will proceed to make progress in all areas of the summary table, and in so doing, endeavor to accomplish the XX% incremental phosphorus reduction target shown in Chapter 3 for this tactical basin plan

cycle. Action items reflect many of the primary goals and objectives identified in the Statewide Surface Water Management Strategy. This implementation table serves to identify high priority implementation actions and tasks that provide opportunities for all stakeholders in surface water management across each major river basin to pursue and secure technical and financial support for implementation. In order for these priorities to be achieved partners and stakeholders must help to carry out the actions identified in the basin plan. As projects are developed, DEC and other agencies and organizations that provide funding, or implement projects directly, should prioritize projects that achieve a high phosphorous removed benefit per cost ratio. Additionally, projects that also provide co-benefits such as hazard mitigation, transportation improvement, aquatic organism passage, and/or listed in municipal comprehensive plans and capital plans should also receive additional consideration in making funding decisions.

RECOMMENDATIONS REGARDING PROJECT PRIORITIES

At this early stage of Basin Planning to achieve the Lake Champlain TMDL, we realize that there are a lot of projects that have not yet gone through project development and therefore do not have clear scopes, costs, or phosphorous reduction estimates. We would like to be able to offer more specific project priorities in future years, but without this data, we are unable to offer more specific recommendations at this time.

- CRPCC recommends that more funding be allocated towards project development at this early stage so that in subsequent years it will be easier to determine which projects reduce the most phosphorous per dollar.
- In general, CCRPC recommends that priority be given to those projects that reduce the most phosphorous per dollar spent. Additional weight should be given to projects that provide co-benefits such as hazard mitigation, transportation improvement, aquatic organism passage, and/or listed in municipal comprehensive plans and capital plans.

According to the most recent Vermont Water Quality Funding 20-Year Projection, below is a table that summarize the cost by sector along with required phosphorous load reduction:

Sector	20-Yr Cost (\$M)	Ph Reduction (tons)	\$M/ton
Natural Resources	\$143	78	\$1.8M/ton
Agriculture	\$637	143	\$4.5 M/ton
Municipal Water Pollution Control Infrastructure	\$1,039	23	\$45.2 M/ton
Stormwater	\$708	24	\$29.5 M/ton
total	\$2,526	268	

- CCRPC recommends that the State looks for ways for phosphorous reduction investments be made in the most cost effective manner possible. Providing mechanisms for municipalities and other property owners with permits to invest in Natural Resource or Agriculture sector phosphorous reduction would clearly provide for much more phosphorous reduction per dollar spent.

Thank you for your consideration of our recommendations. If you desire clarification on this letter, please do not hesitate to contact Dan Albrecht, dalbrecht@ccrpcvt.org or 802-846-4490, Ext. *29.