

LEGISLATIVE REPORT

Title: PROGRESS REPORT ON RIVER BASIN WATER QUALITY MANAGEMENT PLANNING – “Tactical Basin Planning”

Year: 2020

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Date Reported: 1/15/2021

Committee: House Committees on Agriculture and Forestry and on Natural Resources, Fish, and Wildlife and to the Senate Committees on Agriculture and on Natural Resources and Energy

Authorizing Law #: 10 V.S.A. Chapter 47

Section #: § 921 – 929; § 1253

Executive Summary



Figure 1. Tactical Basin Planning 5-year Cycle

The [Watershed Planning Program](#) (WPP) of the [Water Investment Division](#) is charged with developing and implementing watershed management plans that summarize existing water quality conditions and associated attainment with surface water uses (such as recreation and aquatic life support), with identified priorities for surface water protection and restoration of degraded waters. Vermont state statute (10 VSA 1252) as well as the Vermont Water Quality Standards (2017) require the development of Tactical Basin Plans for each of Vermont’s 15 river basins to be approved on a five-year iterative cycle (see Figure 1).

The Watershed Planning Program noted this progress made in 2020:

- [Deerfield River Tactical Basin Plan](#) approved in May 2020
- [The Stevens, Wells, Waits, Ompompanoosuc TBP](#) was approved in December 2020
- [Northern Champlain Direct Tactical Basin Plan](#) was approved in December 2020
- South Lake Champlain Interim Report Card was submitted along with [Vermont’s Clean Water Investment Report](#) in December 2020

Program Work Planned for 2021 - 2024

The Watershed Planning Program anticipates an increase in [Tactical Basin Planning development](#) and activities related to Clean Water Project development and implementation from 2021-2024.

Watershed Accounting and Target Setting

Tactical Basin Plans identify clean water goals and the strategies necessary to identify, develop and implement projects to meet these targets. These projects are catalogued in an online [Watershed Projects Database](#), which is continuously updated. Tactical Basin Planning is integral to identifying priority projects to achieve clean water targets described in clean water restoration plans, known as Total Maximum Daily Loads (TMDLs), the Vermont Clean Water Act of 2015, and the [Clean Water Service Delivery Act \(76\) of 2019](#).

Act 76 of 2019 establishes a “clean water” project delivery framework to support Vermont’s water quality goals in establishing interim phosphorus reduction targets to meet the Champlain and Memphremagog TMDLs, as well as to secure long-term funding source that is required to meet non-regulatory targets through the establishment of Clean Water Service Providers (CWSP). In order to both establish TMDL-related phosphorus reduction goals and to meet the non-regulatory natural resource restoration targets, WPP assigns a portion of each land-use sector load allocation (i.e., stormwater, agriculture etc) of the pollutant reduction for each major river basin to the CWSP assigned to that basin. CWSPs are responsible for partnering with Basin Water Quality Councils to identify, implement, operate, and maintain non-regulatory projects to meet non-regulatory phosphorus reduction targets. Non-regulatory projects may include river, floodplain and wetland restoration as well as forestry and agricultural Best Management Practices (BMPs) and [Green Stormwater Infrastructure](#).

Act 76 requires a formulaic allocation of grant funding for non-regulatory projects in the Lake Champlain and Lake Memphremagog basins. The “Water Quality Restoration Formula” grants will be based on interim phosphorus reduction targets and a standardized cost per unit of phosphorus reduced, consistent with “pay for performance” models. In order to develop interim targets, WPP will use a BMP accounting process to estimate potential phosphorus reductions from regulatory permit programs (e.g., the Municipal Roads General Permit); any remaining phosphorus reduction targets will be assigned to the CWSPs in each of the six Champlain Basins and Lake Memphremagog. These targets will be established for multiple TMDL land use sectors (e.g., developed lands – roads allocation) at a sub-watershed, or HUC-12, scale. In 2021, the focus will be primarily on the Missisquoi and Lamoille river basins and will then shift to the other Champlain basins and Memphremagog basin in 2022.

Tactical Basin Plans incorporate data visualization tools (Figure 2) that provide [interactive dashboards](#) to allow users to navigate through land use sectors (on the sub-basin scale) in order to track management actions intended to reduce phosphorus loading to Lake Champlain. In addition to assessing progress towards meeting phosphorus reduction goals, TBP identify sub-basins and appropriate BMP implementation that would achieve highest pollution reductions. DEC Watershed Planners and partners meet periodically to review dashboard information to review and revise TBP strategies that direct technical and financial resources to accelerate implementation efforts for priority sub-basins.

These interactive dashboards may also be used report on progress on the effectiveness of regulatory programs to implement required BMPs and where additional resources may be needed to meet phosphorus reduction goals. Act 76 requires that VTDEC determine regulatory reductions and then set the non-regulatory targets to meet any gaps analysis to facilitate accelerate pollutant load reduction. The following is a snapshot of the interactive dashboard:

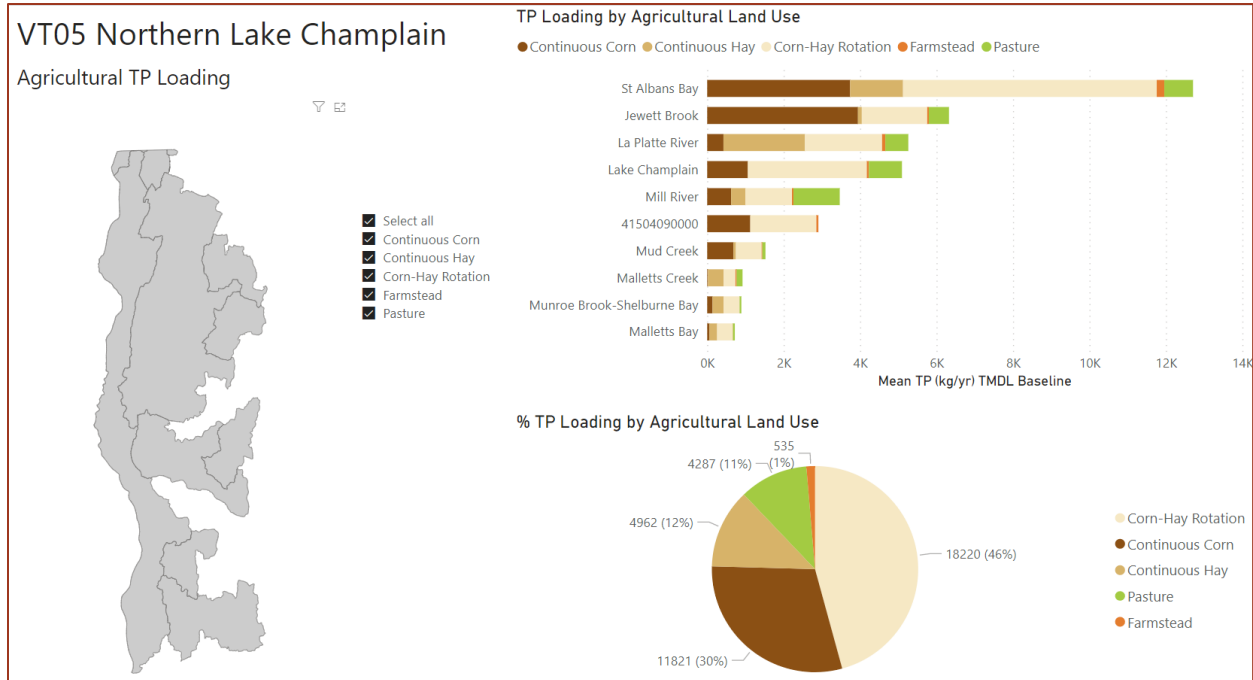


Figure 2. Estimated total phosphorus loading (mean TP (kg per year) TMDL Baseline) from agricultural land use at sub-basin scale for the Northern Lake Champlain Basin (Basin 5) – see [North Lake Basin Power BI Report](#)

Discussion

Tactical basin plans (TBP) are strategic guidebooks that identify and prioritize “clean water” projects that both protect or restore surface waters and specify resources and funding to accomplish these actions. Tactical Basin Plans integrate priority issues and actions from River Corridor Plans, Stormwater Master Plans, Road Erosion Inventories, and other sector-based assessments. These plans integrate watershed modeling, water quality monitoring, sector-specific pollution source assessments, and stakeholder input to focus geographically explicit actions necessary to protect, maintain, enhance, and restore surface waters. These efforts are implemented through a combination of Clean Water Initiative funding, partner support, internal agency support, and public rulemaking processes.

Tactical basin planning is carried out by the Water Investment Division (WID) in collaboration with the Watershed Management Division (WSMD) and in coordination with other state agencies, statutory partners and watershed stakeholders. TBPs are integral to meeting a broad array of both state and

federal obligations including the Vermont Clean Water Act (Act 64), and the Clean Water Service Delivery Act of 2019 (Act 76) and 10 V.S.A. § 1253 on state requirements for Tactical Basin Planning with statutory partners.

Community and stakeholder engagement is a key component of Tactical Basin Plan development and implementation. Local partners, including municipalities, natural resources conservation districts, regional planning commissions, and watershed organizations, also utilize Tactical Basin Plans to target their clean water activities/projects. There are three TBP statutory partners:

Role of our Statutory Partners in the TBP process:

- ❖ **Vermont Association of Planning and Development Agencies** – Vermont’s 11 Regional Planning Commissions provide planning and technical assistance to municipalities throughout the state, and work with the Agency of Natural Resources to assist with development of Tactical Basin Plans. RPCs also work with municipalities to implement river corridor plans and assist with zoning and bylaws.
- ❖ **Natural Resource Conservation Council** – Vermont’s 14 Natural Resource Conservation Districts coordinate with DEC’s team of Basin Planners to carry out a variety of projects. These included supporting opportunities for local input and prioritization on draft basin plans, organizing and supporting water quality monitoring efforts in key watersheds, and using existing basin plans to implement projects that restore or improve water quality throughout the state
- ❖ **Watersheds United Vermont (WUV)** is a state-wide network of local groups dedicated to the health of their home watersheds, and to empower community-based watershed groups in all parts of the state to protect and restore Vermont's waters.

Tactical Basin Planning Support Grants

The primary objective of these grant agreements is to ensure statutory partner and stakeholder participation in the development of tactical basin plans by providing for consistent and coordinated outreach regarding the 2019 Clean Water Service Delivery Act as well as ongoing assistance related to the Vermont Clean Water Act (VCWA) and related State water quality statutes and programs and carrying forth the specified tasks outlined by 10 VSA 1253. These grant agreements are intended to provide necessary resources to statutory partners to allow for the support of landowners, municipalities, and partner organizations in prioritizing water quality investments or implementing State or municipal policy changes, and to assist in monitoring progress towards meeting water quality goals consistent with the State Surface Water Management Strategy. These grants help to ensure that watershed stakeholders and other beneficiaries of basin planning are engaged as well.

Other Helpful Links:

- [Tactical Basin specific webpages](#)
- [Tactical Basin Planning Storymap](#)
- [Clean Water Initiative Program \(CWIP\)](#)