

TRANSMITTAL MEMO

TO: LAMOILLE BASIN WATER QUALITY COUNCIL (BWQC)
FR: LAMOILLE BASIN CLEAN WATER SERVICE PROVIDER (CWSP) STAFF
RE: MATERIALS FOR MEETING ON 7/25/24
DA: 7/19/24

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Greetings, Lamoille BWQC members and others. The next meeting will take place on Thursday July 25 at the normal starting time of 9 AM. However, this is the annual meeting, and so will be conducted in a hybrid format. The physical location of the meeting will be Jenna’s House Community Center at 117 St Johns Road in Johnson. A few words about each of the agenda topics are offered below. Please let me know if you have any questions regarding the agenda or the meeting.

Introductions/Meeting protocols/Conflict of interest disclosures, if any

Some of the faces we see at the meeting—either in person or online—will be new. More than at some meetings, an extended period of introductions may be warranted. New attendees may also appreciate the review of the meeting protocols. Finally, and simply as a reminder, the Conflict of Interest agenda item provides BWQC members and others opportunity to note possible conflicts of interest that could arise later in the meeting.

Approval of Minutes

For the past several meetings, minutes have been prepared by NRPC’s ECOAmeriCorps Service member Sara Gratz. Sara will be concluding her service in August. So these will be the last Lamoille BWQC meeting minutes that Sara will prepare. We are grateful for her help and support she has provided to the Council and the CWSP.

Budget Adjustments

No budget request has been received since the last meeting.

Biannual Organization Tasks (includes recognition of BWQC Members and Alternates)

At the meeting in May, CWSP staff described the DEC-prescribed process we must follow for renewal and/or appointment of members and alternates for the Council. At the meeting on July 25, we will conclude that effort. Renewal of membership helps ensure that the Council continues to have a diverse and representative membership, capable of effectively guiding water quality projects in the basin. An updated list of Members and Alternates is included in the packet.

Annual Meeting tasks/Election if Chair and Vice Chair

The Lamoille BWQC’s bylaws specify that the election of officers (the Chair and Vice Chair) will take place at the first meeting following the start of the fiscal year (July 1). Nominations will be made from the floor. **PLEASE NOTE: Sarah Hadd has announced her intention to move from serving as a Representative to serving as an Alternate and will not stand for election.** The Vice Chair to be elected must be drawn from the updated membership established at during the proceeding agenda item. Sara regrets that she cannot be in attendance. We are grateful for her work as Vice Chair.

Project Development funding proposal

As a follow-up to the May 23rd discussion concerning ways we might respond to DEC's promotion of more spending on "project development" activities, NRPC staff have developed the following proposal. The proposal is inspired by steps being taken by the Northern Lake Champlain Basin Water Quality Council (Basin 5) but has attributes that are unique. In essence, the proposal is to create a program through which \$5,000 in funding would be provided to up to 10 entities in the basin in as simple and expedited manner as possible. To allow the CWSP to award these funds, CWSP staff seek BWQC approval of the two motions, which are contained in the meeting packet.

NRPC Public Participation Plan

The Clean Water Service Provider Rule requires that each Clean Water Service Provider (CWSP) adopt a public participation policy that includes provisions for public notices, participation, and nondiscrimination. This policy must cover meetings, decisions, and actions of both the CWSP and the BWQC. When the Lamoille BWQC was created, it adopted what it referred to as an Interim Public Participation policy. This agenda item will provide staff with an opportunity to describe Northwest Regional Planning Commission's draft Public Participation Plan (PPP), which when complete might support BWQC and CWSP efforts to create a more permanent policy and potentially lead to discussion of a revised timeline for the completion of a permanent policy.

State of Lake Report

Although it is not listed as an agenda item, I have taken liberties and am providing you with materials relating the Lake Champlain Basin Program's State of the Lake Report. Some key findings:

- Phosphorus loading from rivers remains a challenge for Lake Champlain, though recent monitoring has shown improvements. Compared to previous years, annual phosphorus loading has been significantly lower in several tributaries;
- The Lamoille River has seen reduced phosphorus pollution loading in recent years. While the report does not specify the reasons for this reduction, it emphasizes that this positive trend occurred despite an overall increase in phosphorus loading into the lake due to severe weather events in 2023.
- During the major flooding in 2023, a buoy deployed on the Lamoille River played a crucial role in monitoring water quality. This real-time monitoring, taking place every 15 minutes, provided essential data on the downstream flow of pollutants during the flood. This information is valuable for understanding the impacts of flooding on water quality and informing management strategies.

Future meeting topics Updates and conclusion

Members will have an opportunity to suggest future meeting topics, etc.

Thanks to all who participate.

Welcome and introductions

Meeting protocols

Meeting protocols/Zoom norms

- Introductions of all participants at each meeting
- As possible, BWQC members should have in their Zoom Name/Title the following: Name, Organization, “Voting” or “Alternate”, and pronouns (if desired)
- BWQC members are expected to have cameras turned on during entirety of meeting, as technically possible.
- BWQC members are expected to stay focused / avoid multi-tasking and follow the guidance of: if you wouldn’t do something in an in-person meeting don’ do it in a virtual meeting”
- BWQC members will use the “raise hand” function on Zoom to indicate a request to speak / come off mute – this is in an effort to make sure all are heard in turn.
- All members will stay muted until called upon; if needed, CWSP staff may mute participants to avoid background noise
- Any comments made in the chat will be read aloud at the appropriate time by the CWSP staff in full for the public record / record.

Conflict of interest declarations, if any

Review/adjust and approve agenda

AGENDA

Lamoille Basin Water Quality Council (BWQC)

Thursday, July 25, 2024

9:00 -11:00 AM

ANNUAL MEETING

Hybrid /Zoom meeting with physical location at:

Jenna's House Community Center

117 St Johns Rd, Johnson, VT 05656 (click for [directions](#))

(Zoom details below)

1. Welcome and introductions
2. Meeting protocols
3. Conflict of interest declarations, if any
4. Review/adjust and approve agenda
5. Approval of minutes
6. Public comment not related to items on agenda
7. Report on budget adjustments, if any
8. Biannual Organizational Tasks:
 - a. Membership Renewals and New Appointments
 - b. Seating of Alternates
9. Annual Meeting Tasks:
 - a. Election of Chair
 - b. Election of Vice Chair
10. Expedited Project Development funding proposal
 - a. Motion to approve funding for CWSP program
 - b. Motion to award subgrants for project development
11. NRPC Public Participation Plan update
12. Future meeting topics
13. Updates and conclusion

Please Note: The schedule for the upcoming application round in Lamoille Basin is as follows:

Round #	Open
6	October 10, 2024
7	February 6, 2024

Join Zoom Meeting

<https://us02web.zoom.us/j/86562460349?pwd=dCtISjdHSGI1OFZ6Z2ZndTRPQ1pRQT09>

Meeting ID: 865 6246 0349

Passcode: 031502One tap mobile

+16465588656,,82336649019# US (New York)

Dial by your location

+1 309 205 3325 US

+1 312 626 6799 US (Chicago)

+1 646 558 8656 US (New York)

Staffing provided by Northwest Regional Planning Commission (NRPC), the Basin 6 Clean Water Service Provider. NRPC's physical / mailing address is 75 Fairfield Street, St. Albans, Vermont 05482.

In accordance with provisions of the Americans with Disabilities Act (ADA) of 1990, and Vermont's Open Meeting Law, the NRPC will ensure public meeting sites are accessible to all people or provide an opportunity to request accommodations. Requests for free interpretive or translation services, assistive devices, designation of a physical meeting location, electronic access to a meeting, or other requested accommodations, should be made to Amy Adams, NRPC Title VI Coordinator, at 802- 524-5958 or aadams@nrpcvt.com, no later than 2 business days prior to the meeting for which services are requested.

Approval of minutes

Lamoille Basin Water Quality Council (BWQC)

Thursday, May 23, 2024

9:00 -11:00 AM

**Virtual Meeting/Held Via Zoom*
(computer/smartphone/tablet etc.)**

Meeting video posted at <https://youtu.be/B8S0EM2OAnE>

**A VIDEO RECORDING OF THE MEETING IS AVAILABLE THROUGH THE
NRPC YOUTUBE CHANNEL (Link above).**

**THE WRITTEN MINUTES ARE A SYNOPSIS OF THE DISCUSSION AT THE MEETING.
MOTIONS ARE AS STATED. MINUTES WILL BE SUBJECT TO CORRECTION BY THE
COUNCIL. CHANGES, IF ANY, WILL BE RECORDED IN THE MINUTES OF THE NEXT
MEETING OF THE COUNCIL**

Council Members: Kent Henderson (Q), Brad Holden (Q), Peter Danforth (Q), Erin De Vries (Q), Jed Feffer (Q), Katherine Sonnick, Sarah Hadd (Q), Meghan Rodier (Q), Dorothy Kinney-Landis (Q)

Q= towards quorum unless otherwise indicated

Staff: Dean Pierce, Sara Gratz

Others present: Karen Bates, Ted Sedell, 'Peter's Otter Pilot'

1. Welcome and introductions

Peter Danforth opened the meeting as Chair at 9:03 am.

2. Meeting protocols

Meeting protocols were reviewed.

3. Conflict of interest declarations, if any

No conflicts of interest were made.

4. Review/adjust and approve agenda

It was suggested to add a section on Operations and Maintenance if time allows. Sarah Hadd motioned to approve the agenda and Erin de Vries seconded. Motion carried.

5. Approval of minutes

Kent Henderson motioned to approve the minutes and Jed Feffer seconded. Motion carried.

6. Public comment not related to items on agenda

No comments were made by the public.

7. Seating of any new reps or alternate(s)

Franklin County Natural Resources Conservation District requested that Dorothy Kinney-Landis be appointed as an Alternate for Lauren Weston. Meghan Rodier requested that she and Richard Goff switch roles, placing her as a Representative and Richard Goff as an Alternate.

Erin De Vries motioned to approve Dorothy Kinney-Landis being seated as an Alternate, and for Meghan Rodier and Richard Goff to switch their roles as Representative and Alternate, respectively. Kent Henderson seconded the motion. Motion carried.

8. Report on budget adjustments, if any

None were reported.

9. Review of application filed in response to round 5 "Call for Projects"

Ted Sedell shared a project near Caspian Lake that he is applying to move to 100% design. The project includes revegetating a wetland, adding beaver dam analogs and log jams, and increasing a riparian buffer around Cemetery Brook. Discussion about addressing erosion concerns from a nearby private road followed, which Ted clarified should not have been included on the application because it is a different project from what he is seeking funds for today.

Jed Feffer asked about the size of the trees that will be planted in the riparian areas. Ted explained that it depends on what is available, but most trees will be between 2 and 3 feet in height when planted.

Karen Bates asked about planting density in the riparian buffer, which Ted confirmed will be 400 trees per acre.

Dean Pierce shared that the phosphorus reduction estimate for the project is slightly different than what was shared in the meeting materials because of needing to remove the private road erosion work, but that the project still has high reduction estimates and is still being recommended for funding.

Kent Henderson asked about land-use in the immediate area, noting that the project is located near agricultural fields. Ted clarified that the fields closest to the project site are hay fields, while the headwaters of Cemetery Brook are in a forested area and surrounded by fallow fields.

Kent also asked if the project's budget included extra anticipated costs, such as the need for an archeological assessment. Ted verified that the budget anticipates such costs, including necessary permitting.

Jed Feffer motioned to approve the project for funding and Erin De Vries seconded. Motion carried.

10. Discussion of proposed increase in Project Development funding allocation

Dean Pierce presented information regarding an increase in funds that can be used for Project Development. This money is intended to help support partner organization's capacity to identify more clean water projects. He also shared that the availability of these funds will likely include an extra call for applications.

Peter Danforth shared that in some other BWQC's, funding rounds occur more often, and that method works well for many organizations. Dean confirmed that it may be an option to start accepting applications on a more frequent basis in the Lamoille BWQC.

Some discussion followed concerning the amount of extra funds that would be made available for Project Development and whether it's enough to help an organization's capacity.

11. Solicitation / Appointment of BWQC Member and Alternates

Dean shared a new process for appointing BWQC Representatives and Alternates. It requires Council members to be reappointed 4 months before the end of the term, which follows the Fiscal Year.

Dean also shared that the Chair and Vice Chair positions could go through a nomination process at the next meeting unless the Council voted to defer forming a nomination committee. Peter asked the Council for their thoughts on the matter. Brad Holden motioned to defer forming a nomination committee and Kent seconded. Motion carried.

12. Future meetings, including annual meeting and hybrid meetings

Dean gave an update on the bill, S. 55, which has not yet been signed or vetoed. If it is signed into law, it will require public meetings to provide a physical location so that participants have the option to attend in-person or remotely.

13. Operations and Maintenance

The Council discussed Operations and Maintenance of CWSP-funded or CWSP-adopted projects, including the need for a landowner agreement form.

14. Updates and conclusion

Kent motioned to adjourn the meeting and Meghan seconded. The meeting was adjourned at 10:52 am.

Public comment not related to items on agenda

Report on budget adjustments, if any

Biannual Organizational Tasks:
Membership Renewals and New Appointments
Seating of Alternates

MEMORANDUM

TO: LAMOILLE BASIN WATER QUALITY COUNCIL
FR: CWSP STAFF
RE: BIENNIAL REORGANIZATION PROCESS
DA: JULY 19, 2024

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At the meeting in May, CWSP staff described the DEC-prescribed process we must follow for renewal and/or appointment of members and alternates for the Council. (Excerpts from [Chapter 4 of DEC Guidance Document](#), which spells out procedures for the appointment, reappointment, replacement, and dismissal of BWQC members were provided as part of an earlier meeting packet.) At the meeting on July 25, we will conclude that effort.

[Act 76](#) and the [Clean Water Service Provider Rule](#) specify that the BWQC is to be comprised of individuals representing various stakeholder groups. These groups are:

- Two representatives from Natural Resource Conservation Districts in that basin, chosen by the respective districts.
- Two representatives from Regional Planning Commissions in that basin, selected by the applicable commissions.
- Two individuals representing local watershed protection organizations operating within the basin. The applicable watershed protection organizations make the selection for these representatives.
- One representative from a relevant local or statewide land conservation organization, chosen by the conservation organization in collaboration with the Clean Water Service Provider.
- Two individuals representing municipalities located within the basin, selected by the Clean Water Service Provider in consultation with the basin's municipalities.

Each stakeholder group responsible for appointing members to the BWQC – in other words, Natural Resource Conservation Districts, Regional Planning Commissions, local watershed protection organizations, municipalities, and land conservation organizations -- can also appoint Alternate members.

Renewal of membership helps ensure that the Council continues to have a diverse and representative membership, capable of effectively guiding water quality projects in the basin. [An updated list of Members and Alternates is attached.](#)

DEC Guidance does not specify that a vote must take place to effect the renewal of BWQC membership or the seating of any new BWQC Representatives and Alternates. However, it has been the practice of the BWQC to seat proposed Alternates by acknowledging/recognizing them. Staff encourages continuation of this practice.

LAMOILLE RIVER BASIN (BASIN 7) July 2024

LAMOILLE BASIN	NAME OF REPRESENTATIVE	ORGANIZATION	NAME OF ALTERNATE*(S), IF ANY	ORGANIZATION
Natural Resources Conservation Districts	Peter Danforth	Lamoille County Conservation District	Emily Finnegan	Caledonia NRCD
Natural Resources Conservation Districts	Lauren Weston	Franklin County Natural Resources Conservation District	Daniel Koenemann	WNRCD
			Mel Auffredou	FCNRCD
Regional Planning Commissions	Meghan Rodier	Lamoille County Planning Commission (Cambridge)	Dick Goff	Lamoille County Planning Commission
Regional Planning Commissions	Brad Holden	Chittenden County Regional Planning Commission	Sarah Muskin	Chittenden County Regional Planning Commission
Watershed Protection Organizations	vacant	inquires being made	vacant	
Watershed Protection Organizations	Christine Armstrong	Stewards of Greensboro Watersheds	Joanne Hanowski	Stewards of Greensboro Watershed
Land Conservation Organization	Erin De Vries	Vermont River Conservancy	Clarice Cutler	Vermont Land Trust
			Remy Crettol	Vermont River Conservancy
Municipalities	Ken Minck	Town of Georgia	Sarah Hadd	Town of Fairfax
Municipalities	Brent Sheets	Town of Hyde Park	vacant	

Annual Meeting Tasks:

Election of Chair

Election of Vice Chair

MEMORANDUM

TO: LAMOILLE BASIN WATER QUALITY COUNCIL
FR: CWSP STAFF
RE: ELECTION
DA: JULY 19, 2024

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The Lamoille BWQC’s bylaws specify that the election of officers (the Chair and Vice Chair) will take place at the first meeting following the start of the fiscal year (July 1). Nominations will be made from the floor, as the Council concluded at its meeting in May that creation of a Nominating Committee would be deferred.

Staff recommends that the elections be conducted separately rather than as a slate. Staff will be prepared to hold the gavel during the election of a Chair (should the current Chair be nominated to continue and he does not wish to preside over a vote of which he is part). The Chair will then preside over the election of a Vice Chair.

NOTE: Sarah Hadd has announced her intention to move from serving as a Representative to serving as an Alternate and will not stand for election. The Vice Chair who is elected must be drawn from the updated membership established at during the proceeding agenda item.

Relevant excerpts from the BWQC’s bylaws are provided below.

ARTICLE VI ELECTIONS

Section 601 Nominations

In support of elections, a Nominating Committee made up of three Council members may be appointed by the Chair at the regular meeting preceding the annual meeting. The Nominating Committee will prepare a slate of nominations for officers. This slate of nominations will be presented at the annual meeting. Additional nominations will be taken from the floor at the annual meeting.

Prior to the appointment of a Nominating Committee in any given year, the Council may vote to forego the establishment of a Nominating Committee in that year.

Section 602 Election of Officers

The officers shall be elected by the Council members present and voting at the annual meeting.

Section 702 Chair

The Chair of the Council shall guide the planning and facilitation of BWQC meetings in coordination with the CWSP. The Chair may perform such other duties as customary to the office. The Chair shall cast a vote on all issues voted on at a Council meeting, unless the Chair wishes to abstain or has a conflict of interest. Whenever possible, the Chair will pursue decision making by consensus.

Section 703 Vice Chair

The Vice Chair shall act as Chair in the absence, recusal, or incapacity of the Chair.

Expedited Project Development funding proposal

Motion to approve funding for CWSP program

Motion to award subgrants for project
development

MEMORANDUM

TO: LAMOILLE BASIN WATER QUALITY COUNCIL
 FR: CWSP STAFF
 RE: PROJECT DEVELOPMENT FUNDING PROPOSAL
 DA: 7/19/24

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As a follow-up to the May 23rd discussion concerning ways we might respond to DEC’s [promotion of more spending on “project development”](#) activities, NRPC staff have developed the following proposal. The proposal is inspired by steps being taken by the Northern Lake Champlain Basin Water Quality Council (Basin 5) but has attributes that are unique.

In essence, the proposal is to create a program through which \$5,000 in funding would be provided to up to 10 entities in the basin in as simple and expedited manner as possible. To allow the CWSP to award these funds, CWSP staff seek BWQC approval of the two motions:

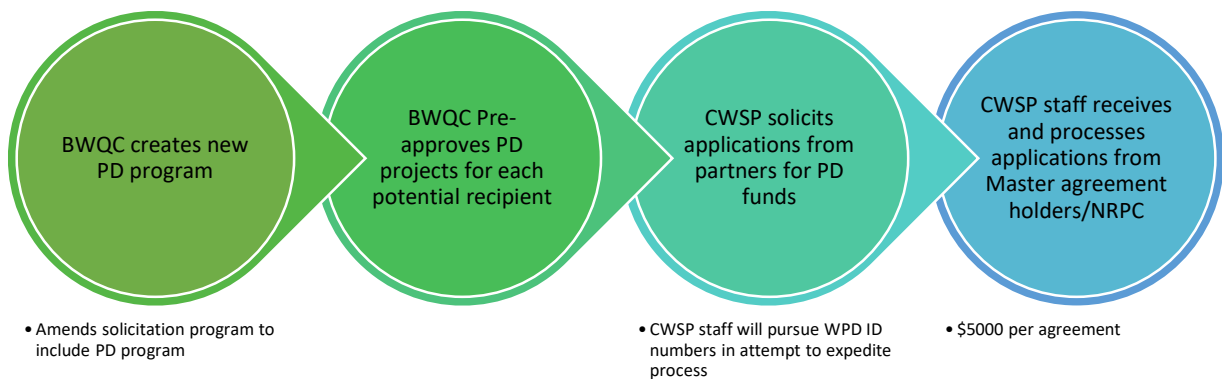
Motion 1 –Authorize creation of program and establish basic parameters

Text	Comments
<p>I move that the BWQC approve obligation of up to \$50,000 dollars in Basin 7 CWSP formula funds for the purpose of establishing a ‘general project development’ program. Basin 7 project solicitation processes are hereby amended to include ongoing solicitation of general project development applications consistent with this program.</p> <p>As part of this program, new ‘task awards’ would be issued by the CWSP to prequalified partners for project development initiatives consistent with DEC requirements and as clarified by a motion to be made following this one. The NRPC would be eligible for awards in the same manner as the prequalified partners.</p> <p>Upon adoption of this motion, CWSP staff will:</p> <ul style="list-style-type: none"> -solicit project development funding requests using a simple application form. -pursue one or more Watershed project database ID numbers to facilitate the award process. <p>The CWSP would be authorized to award funds in amounts of up to \$5,000 annually for each recipient.</p>	<p>This would create the program, specify its purpose, and integrate the new program into the system of ‘calls for applications’ we issue 3-4 times per year. The final sentence is meant to protect program from challenge.</p> <p>There are 9 prequalified partners and one CWSP, for a total of 10 potential recipients. Funds reach prequalified partners through agreements known as task awards. Project development work would be performed consistent with DEC policies.</p> <p>This is mostly practical language to guide the CWSP and attempt to simplify the process for those who seek funds.</p> <p>This amount was considered to represent a reasonable starting point. It could be altered in the future.</p>

Motion 2 –Approve individual projects and create inventory of funding from which entities may draw

Text	Comments
<p>I move that, in furtherance of the prior motion, the BWQC hereby approves the following individual projects:</p> <ul style="list-style-type: none"> -separate general project development projects by each holder of a Master agreement in the amount of up to \$5000; -project development work by NRPC in the amount of up to \$5000. <p>However, holders of Master agreements are under no obligation to move forward with these projects</p> <p>The individual projects above are deemed to have been preliminarily evaluated by the CWSP and are considered worthy of funding by the BWQC.</p>	<p>This would establish that the BWQC has approved funding for each project /initiative as required by the Act 76 Rule and Guidance.</p> <p>This language is intended to protect the program and any awards from challenge.</p>

A graphical representation of the proposal is provided below. This proposal is subject to change prior to the meeting on July 25, at which time any changes will be described.



NRPC Public Participation Plan update

MEMO

TO: LAMOILLE BASIN WATER QUALITY COUNCIL
FR: CWSP STAFF
RE: PUBLIC PARTICIPATION PLAN AND LINK TO POLICY
DA: 7/19/24

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The Clean Water Service Provider Rule requires that each Clean Water Service Provider (CWSP) adopt a public participation *policy* that includes provisions for public notices, participation, and nondiscrimination. This policy must cover meetings, decisions, and actions of both the CWSP and the BWQC. Thus, when the Lamoille BWQC was created, it adopted what it referred to as an Interim Public Participation policy, the text of which is provided on the following page.

Over the last year, the Northwest Regional Planning Commission has had staff engaged in the development of a Public Participation Plan (PPP), which when complete might support BWQC and CWSP efforts to create a more permanent policy. (Readers will note that the timeline established when the interim policy was adopted has not been met.) The purpose of this agenda item is to provide BWQC members with an overview of the NRPC’s draft PPP and potentially lead to discussion of a revised timeline for the completion of a permanent policy.

The NRPC’s draft PPP is not yet in circulation but is expected to be presented to the NRPC board later this month. A summary of the PPP follows the Interim Policy. The Lamoille Basin CWSP/BWQC Interim Public Participation Policy, complements the NRPC’s PPP, particularly in the context of water quality projects by emphasizing public notice, transparency, diverse communication channels, accessibility considerations, translation services, and engagement with historically underrepresented communities.

Lamoille Basin CWSP/BWQC Interim Public Participation Policy

Adopted: May 26, 2022

Policy

It shall hereafter be the policy of the CWSP and BWQC for the Lamoille River basin to: (1) ensure public notice of CWSP and BWQC meetings, decisions, and actions; (2) promote transparency and public participation when identifying and selecting clean water projects; (3) give specific consideration to minority, limited English proficiency, and socioeconomically disadvantaged communities and stakeholders; and (4) comply with the Department of Environmental Conservation's nondiscrimination policy.

Practices

Both the CWSP and the BWQC consider public participation to be of great importance. To promote public participation consistent with the above policy, the CWSP and BWQC will comply with the State's open meeting law, use plain language in their communications, and provide public access to data and methods used to prioritize clean water projects. The CWSP and BWQC will also make use of current and emerging best practices for justice, equity, diversity, and inclusion, such as:

- identifying and compensating community connectors;
- publicizing meeting notices using diverse communication channels;
- scheduling and locating meetings with due consideration given to accessibility;
- translating materials (upon request) free of charge; and
- engaging with and providing programmatic support targeted towards historically underrepresented communities (this includes giving consideration to the Agency of Natural Resources' Limited English Proficiency Accessibility Plan, Title VI of the federal Civil Rights Act, and NRPC's Title VI Public Participation Plan).

Amendment and Refinement

This policy was developed as part of the CWSP start-up phase. It may be amended as deemed appropriate by the CWSP and BWQC. Within six months of adoption of this policy the CWSP and BWQC for the Lamoille basin shall solicit input on the policy from BWQC partners and the public. The CWSP and BWQC will adopt a permanent policy within twelve months of the adoption of this Interim Policy.

The Public Participation Plan (PPP) of the Northwest Regional Planning Commission (NRPC) is designed to ensure public involvement in the organization's work, such as regional and local planning processes. The plan emphasizes inclusivity and aims to reach a diverse group of stakeholders and community members.

The key aspects of the NRPC's Public Participation Plan are:

- **Goals and Objectives:**
 - The primary goal is to provide the public with timely and accessible information about NRPC's work.
 - Objectives include promoting diversity and inclusion, maintaining ongoing communication with the public, encouraging community participation, empowering communities, and adhering to state and federal laws.
- **Defining the "Public":**
 - The PPP acknowledges that the "public" is not a homogenous group but a diverse collection of stakeholders.
 - The plan emphasizes the importance of including historically underrepresented groups, such as indigenous communities, People of Color, low-income residents, renters, and those not typically involved in local politics.
- **Spectrum of Participation:**
 - The NRPC has adopted the International Association for Public Participation (IAP2)'s Spectrum of Participation as its guiding framework.
 - This framework outlines four levels of public participation: Inform, Consult, Involve, and Collaborate.
 - The appropriate level of participation for a specific project is determined by considering factors such as the purpose of engagement, stakeholders impacted, strategies to ensure information is gathered from relevant groups, effective outreach methods, potential barriers and risks, community participation's role in decision-making, communication of progress, and evaluation of the plan's success.
- **Legal Framework:**
 - The PPP is grounded in various federal and state laws and regulations, including Title VI of the Civil Rights Act of 1964, the Americans with Disabilities Act of 1990, Presidential Executive Order 12898 on Environmental Justice, Vermont's Environmental Justice Law (Act 154 of 2022), the Vermont Public Records Law, and the Vermont Open Meeting Law.
- **Implementation:**
 - The PPP outlines specific actions for implementation, including introducing the plan to NRPC subcommittees, incorporating communications planning into projects, establishing an NRPC Front Porch Forum account, publishing the NRPC newsletter more frequently, expanding the NRPC's social media presence, and exploring the potential for an AmeriCorps VISTA position dedicated to communications and social media.

The PPP also includes a detailed example of a communications plan outline developed to support future water quality planning efforts. This outline provides a framework for other types of projects as well.

Future meeting topics

Updates and conclusion

MEMORANDUM

TO: LAMOILLE BASIN WATER QUALITY COUNCIL
FR: CWSP STAFF
RE: STATE OF THE LAKE REPORT
DA: JULY 19, 2024

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The Lake Champlain Basin Program recently issued the latest version of the so-called [State of the Lake Report](#). Owing to the role being played by the Lamoille BWQC and partner organizations in the improvement of Lake Champlain, your annual meeting seemed like a good time to share or highlight certain aspects of the report. A PDF version of the full report can be found at <https://www.lcbp.org/wp-content/uploads/2024/06/2024-State-of-the-Lake-Report.pdf>.

The 2024 State of the Lake Report highlights both ongoing challenges and positive findings regarding phosphorus reduction efforts in Lake Champlain. **While phosphorus levels in Lake Champlain must be reduced to consistently meet water quality goals, monitoring shows some encouraging trends in phosphorus reduction.**

Some key findings include:

- **Phosphorus loading from rivers remains a challenge for Lake Champlain, though recent monitoring has shown improvements.** Compared to previous years, annual phosphorus loading has been significantly lower in these tributaries:
 - Great Chazy River; Little Chazy River; Saranac River; Little Ausable River; Mettawee River; Lamoille River; and Pike River
- **Despite higher phosphorus loading in recent years, the Missisquoi and Winooski Rivers have shown lower phosphorus loads in the past three years.**
- **Annual phosphorus levels in Missisquoi Bay have been significantly lower than previous years since 2018, reaching their lowest point since 1994 in 2023.**
- **Wastewater treatment facilities (WWTFs) in all three jurisdictions (New York, Vermont, and Québec) have significantly reduced their phosphorus loading thanks to recent investments.**
- **Phosphorus contributions from WWTFs have been lowered due to policy changes and infrastructure improvements.** Since 1976, jurisdictions have implemented policies and invested tens of millions of dollars to reduce phosphorus loading from WWTFs. Some notable actions include:
 - Banning phosphorus in laundry and dishwasher detergents
 - Establishing effluent limits

The report also emphasizes that phosphorus loading to Lake Champlain is strongly influenced by annual differences in precipitation and temperature. This variability, which may be exacerbated by climate change, underscores the need for adaptable and resilient management strategies to meet water quality goals.

The Report mentions the Lamoille River in two key findings:

- **The Lamoille River is highlighted as a tributary to Lake Champlain that has seen reduced phosphorus pollution loading in recent years.** While the report does not specify the reasons for this reduction, it emphasizes that this positive trend occurred despite an overall increase in phosphorus loading into the lake due to severe weather events in 2023.

- **During the major flooding in 2023, a buoy deployed on the Lamoille River played a crucial role in monitoring water quality.** This real-time monitoring, taking place every 15 minutes, provided essential data on the downstream flow of pollutants during the flood. This information is valuable for understanding the impacts of flooding on water quality and informing management strategies.

Lastly, when looking specifically at the impacts or improvements related to the Lamoille basin, note that the mouth of the Lamoille empties into what is referred to as the Malletts Bay Lake segment. The report identifies several key findings related to the Malletts Bay lake segment which may to some degree be a function of what is happening in the Lamoille Basin:

- **Malletts Bay generally has clean water with low phosphorus levels.**
- **Cyanobacteria blooms in Malletts Bay are relatively infrequent.**
- **Malletts Bay is a hub for recreational activities, including boating, which presents a challenge for aquatic invasive species prevention.**

NUTRIENTS

Nutrients are essential for life but create problems for lakes when in excess.

Nutrients, including nitrogen and phosphorus, are a natural part of all ecosystems, are essential for all forms of life, and have been delivered to Lake Champlain by natural processes for millennia. In the post-industrial era, however, human activities have rapidly increased the rate of nitrogen and phosphorus delivery to Lake Champlain and to waterbodies around

the world, with profound effects on water quality and ecosystem health.

For every square mile on the surface of Lake Champlain, 18 square miles of land in the Lake Champlain Basin deliver water to the Lake and contribute sediment, nutrients, and other pollutants. Most nutrients come from sources on the land (Figure 6), so the relatively high land-to-lake area ratio for Lake Champlain poses a significant challenge in limiting nutrient pollution.

Phosphorus is a key nutrient driving cyanobacteria blooms.

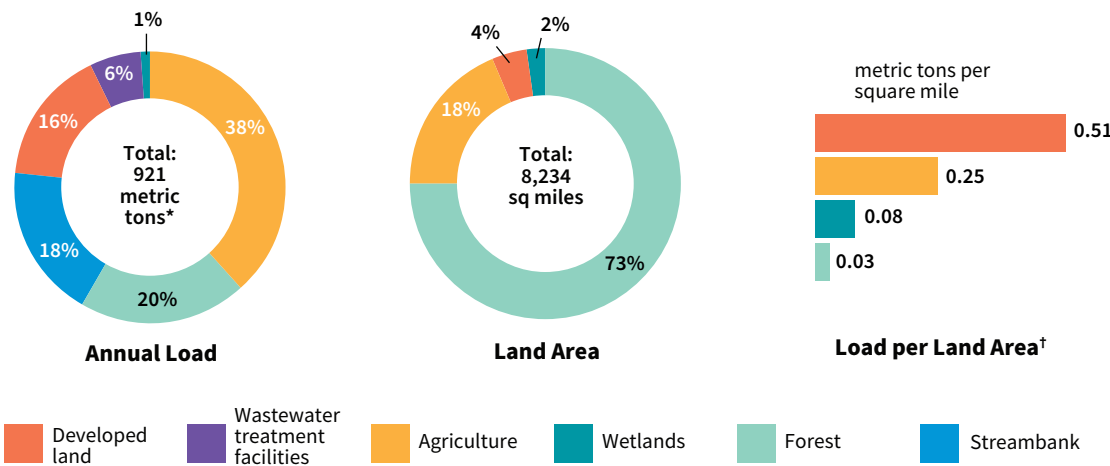
Plants, algae, and cyanobacteria all require carbon, nitrogen, phosphorus, and sunlight in their environment to grow. Because other nutrients are generally plentiful in Lake Champlain, phosphorus is often the resource that limits growth of cyanobacteria. To reduce the occurrence and persistence of cyanobacteria blooms, lake managers aim to lower in-lake phosphorus concentrations and phosphorus loading to the Lake from its tributaries. In 2016, the U.S. Environmental Protection Agency produced an updated Ver-

mont Total Maximum Daily Load (TMDL) for phosphorus loading into 12 Vermont segments of Lake Champlain, while New York continues to work toward meeting a TMDL set in 2002.

Phosphorus levels in Lake Champlain must be reduced to consistently meet water quality goals.

Phosphorus concentration limits for 13 segments of Lake Champlain were first established in 1991. These limits represent maximum annual average levels needed to protect important uses of Lake Champlain, including swimming, recreation, aesthetics, water supply, and ecosystem health. Since 1990, none of the Lake's segments have maintained annual phosphorus levels consistently below these limits (Figure 7). This underscores the need for restoration efforts and science-based management strategies for the Lake and its surrounding watershed.

Lake Champlain segments vary in how their annual phosphorus levels compare to established limits from year to year. For example, 7 of the 13 Lake segments had annual phosphorus levels below their limits for at least one year in the 2021-2023 period. For most years in the 34-year time frame since 1990, annual phosphorus levels in Burlington and Cumberland Bays were

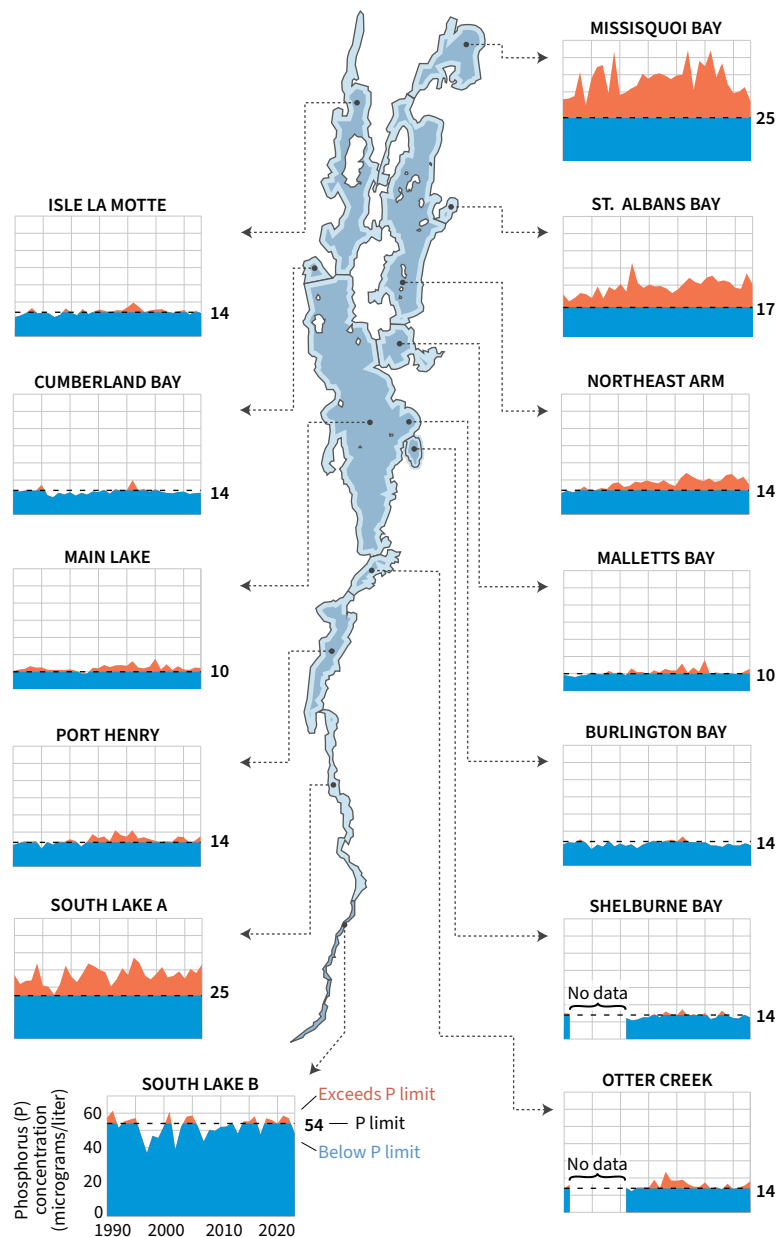


* Estimated 2001-2010

† Does not include load from streambanks and wastewater treatment facilities

DATA SOURCES: 2016 Phosphorus TMDLs for Vermont Segments of Lake Champlain

Figure 6 | Annual phosphorus loading to Lake Champlain by land cover



NOTE: Data for Isle La Motte segment include two stations.
 DATA SOURCES: Lake Champlain Long-Term Monitoring Program (LCBP, VTANR, SUNY Plattsburgh)

Figure 7 | Annual average phosphorus concentration by Lake segment

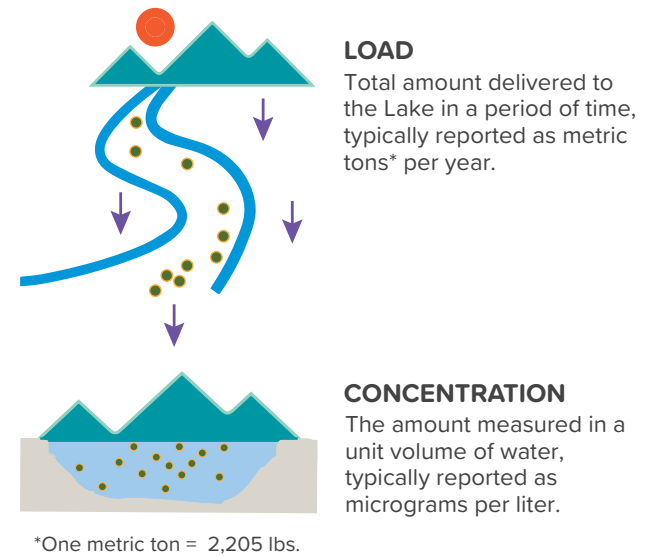
below their limits. For 40–50% of the years during the same time frame, annual phosphorus levels were below limits in Isle La Motte, Shelburne Bay, and South Lake B segments.

Missisquoi Bay, St. Albans Bay, and South Lake A segments continue to face significant challenges, as their annual phosphorus levels have consistently exceeded established limits since monitoring began. Conditions in the Northeast Arm segment are also concerning, where annual phosphorus levels exceeded the established limit most years since 1990, and have an increasing trend over this time period. Since 2018, annual phosphorus levels in Missisquoi Bay have been significantly lower than previous years, and despite phosphorus inputs following summer

flooding, the 2023 annual phosphorus level in Missisquoi Bay was at its lowest since 1994.

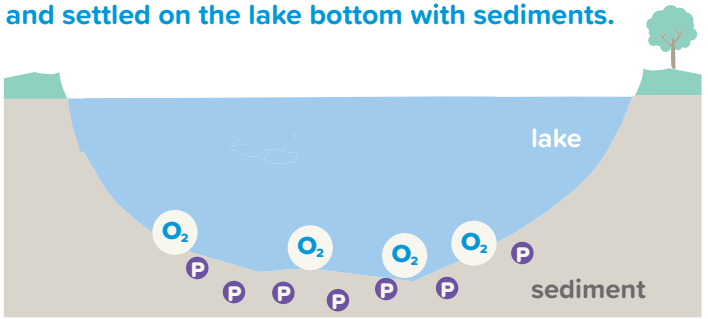
Some areas of Lake Champlain with higher phosphorus levels are impacted by “legacy phosphorus,” which is phosphorus deposited in the past from human activities in the watershed and stored in lake bottom sediments. Legacy phosphorus can be released from sediments into the water and fuel cyanobacteria growth.

Water quality monitoring helps managers target restoration efforts in areas where improvement is most needed. Lake segments with relatively higher phosphorus levels often have high phosphorus loads from their contributing sub-watersheds and are the focus of water quality improvement work.

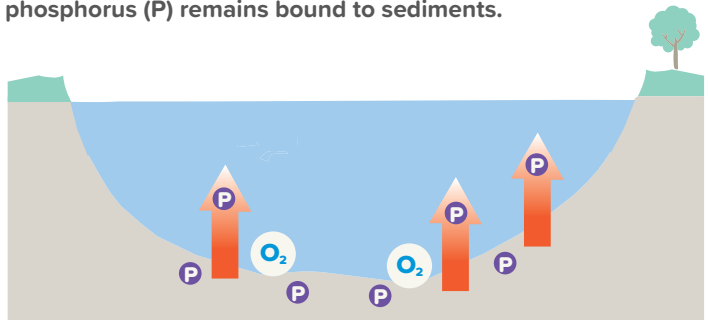


Release of Legacy Phosphorus in Lakes

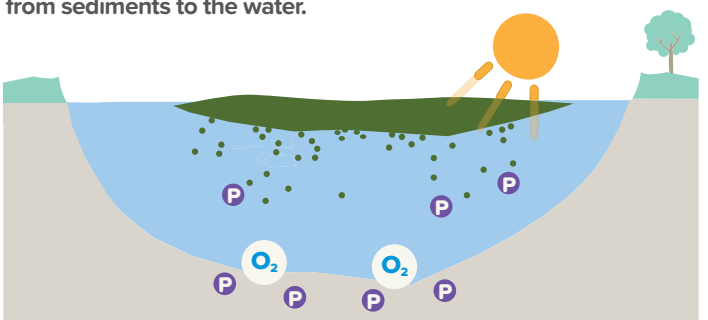
For decades, phosphorus from human activities on the landscape has been delivered by rivers and settled on the lake bottom with sediments.



If oxygen (O₂) is plentiful in water at the lake bottom, legacy phosphorus (P) remains bound to sediments.



When oxygen levels decrease at the lake bottom due to biological activity and calm conditions, legacy phosphorus can be released from sediments to the water.

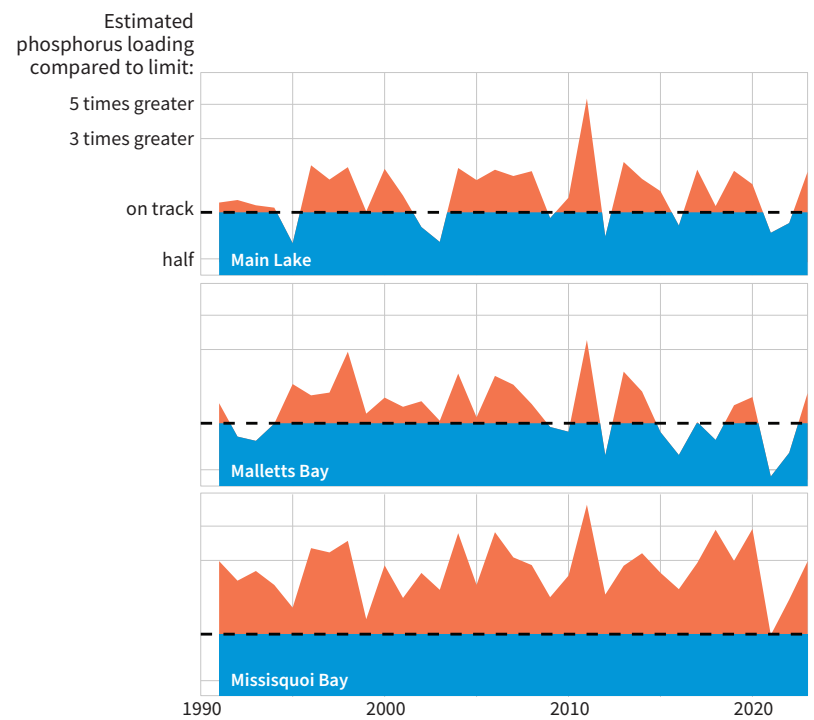


In shallow areas, cyanobacteria blooms can form where sunlight and released legacy phosphorus fuel growth.

River phosphorus loading to Lake Champlain varies greatly from year to year and needs to be reduced to meet water quality goals.

Rivers are the pathways for water, sediment, and nutrients to move into Lake Champlain. Phosphorus loading from rivers remains a challenge for Lake Champlain, though recent monitoring has shown improvements.

Compared to previous years, the annual phosphorus loading from the past decade has been significantly lower in the Great Chazy, Little Chazy, Saranac, Little Ausable, Mettawee, Lamoille, and Pike Rivers. Although the past decade has seen relatively higher phosphorus loading in the Missisquoi and Winooski Rivers compared to previous



NOTES: The vertical axis is log-transformed to clearly show how phosphorus loading compares to limits. Three lake segments are shown out of 13 in Lake Champlain. DATA SOURCE: Lake Champlain Long-Term Monitoring Program (LCBP, VT ANR, SUNY Plattsburgh, USGS)

Figure 8 | River phosphorus loading to Lake segments compared to targeted limits

years, loads from these rivers in the past three years have been relatively lower compared to previous years.

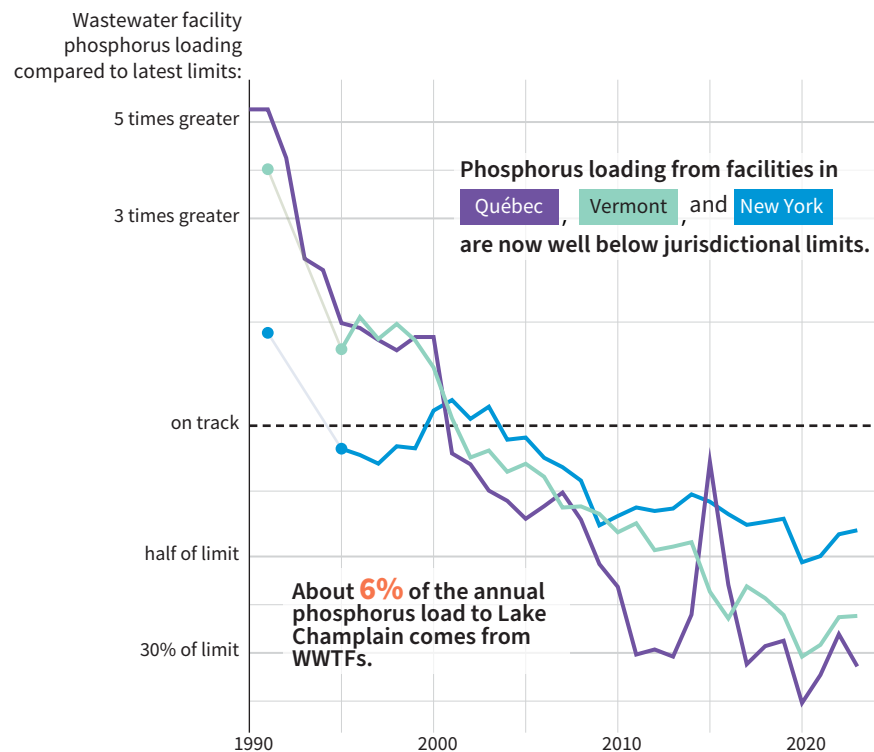
Phosphorus loading to some Lake segments, such as Malletts Bay, has been at or below these limits; phosphorus loading to other segments, such as Missisquoi Bay, has been well above limits (Figure 8). Because nutrients and sediment are primarily transported to the Lake during periods of high river flows, phosphorus loading is strongly influenced by annual differences in snowpack, rainfall, and periods of drought. This year-to-year variability in loading is likely to continue and may increase because of changing precipitation patterns due to climate change.

Many efforts are underway to reduce phosphorus loading and ultimately reduce phosphorus levels in Lake Champlain.

Lake Champlain has been the focus of renewed investments in watershed management practices by the U.S. federal government, state and provincial agencies, and municipalities. Recent investments in wastewater treatment facilities have driven significant reductions in phosphorus loading from these

sources in all three jurisdictions (Figure 9). In 2015, the Vermont state legislature passed the Clean Water Act (Act 64), which established several new rules and revenue requirements for the Vermont Clean Water Fund to reduce the amount of phosphorus and other pollution entering the state’s waterways. Vermont and Québec adopted an agreement concerning phosphorus reduction in Missisquoi Bay in 2002. The agreement reaffirmed the phosphorus concentration limit for the bay and established a phosphorus loading limit for the bay’s watershed. In 2021, the two jurisdictions renewed the agreement to affirm shared common goals for the restoration of Missisquoi Bay.

Farmers, resource management agencies, and local watershed organizations have long recognized that farms in the Basin play a significant role in nutrient pollution challenges. Several initiatives are underway to help the agricultural sector in meeting targeted phosphorus loading limits and ultimately reduce in-lake phosphorus concentrations. Ongoing grant programs, wastewater treatment upgrades, agricultural support to implement best management practices, and outreach programs all contribute to the reduction of phosphorus loading.



Policy changes and infrastructure improvements have lowered phosphorus contributions.

- ✓ Phosphorus banned in laundry and dishwasher detergents
- ✓ Effluent limits established
- ✓ Tens of millions of \$ invested

NOTE: Targeted limits are based on the 2002 Vermont-Québec agreement for Missisquoi Bay, the 2002 New York Lake Champlain Phosphorus TMDL, and the 2016 Phosphorus TMDLs for Vermont Segments of Lake Champlain.

DATA SOURCES: U.S. EPA, NYSDEC, VTANR, QC MELCC

Figure 9 | Annual phosphorus load from wastewater treatment facilities (WWTFs) by jurisdiction