

Nutrient loading and impacts in Lake Champlain, Missisquoi Bay, and the Richelieu River



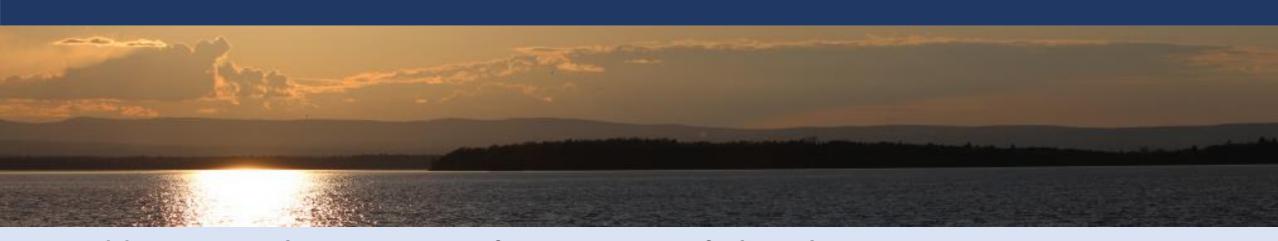


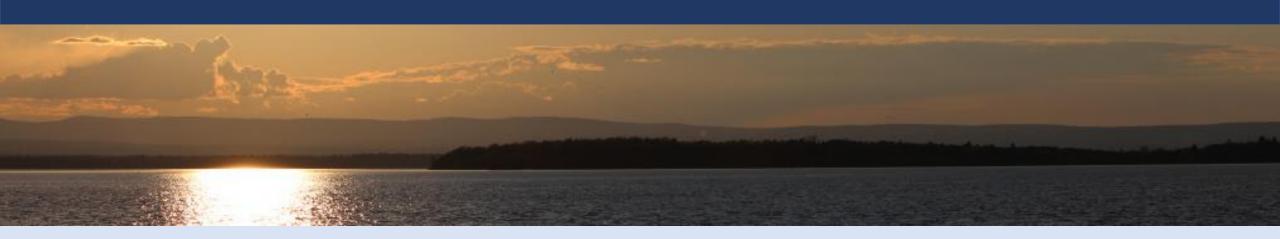
May 8th, 2019 Saint Michael's College



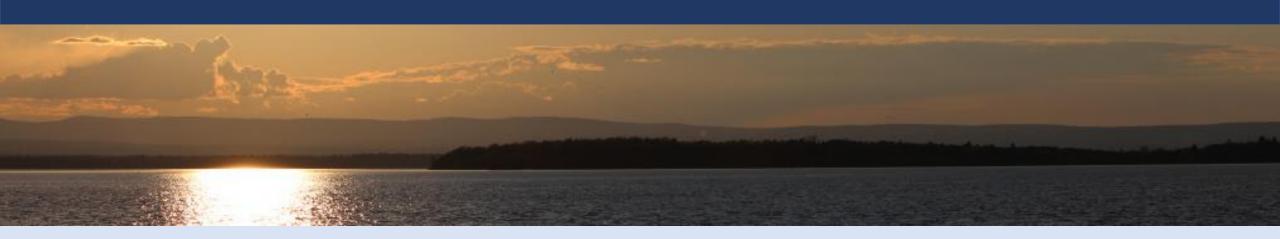
Binational recommendations:

- Currently separated into QC (5 recommendations) and US (7 recommendations)
- Will be unified into binational recommendations
- Your feedback today is essential!





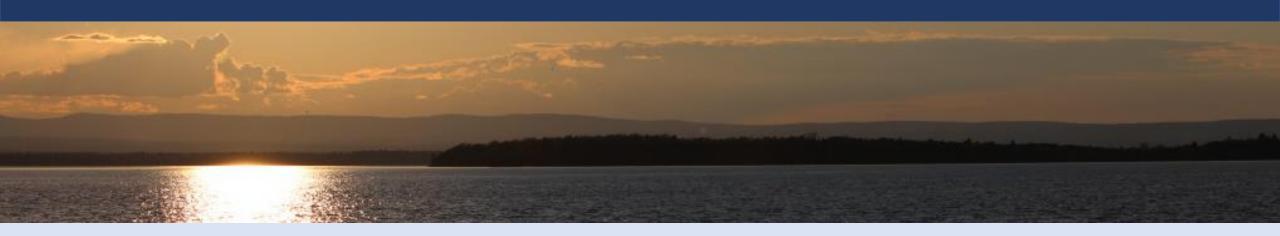
- 1. Address agriculture as a significant source of phosphorus
- Identify critical source areas of phosphorus in targeted subwatersheds and focus implementation resources in these areas,



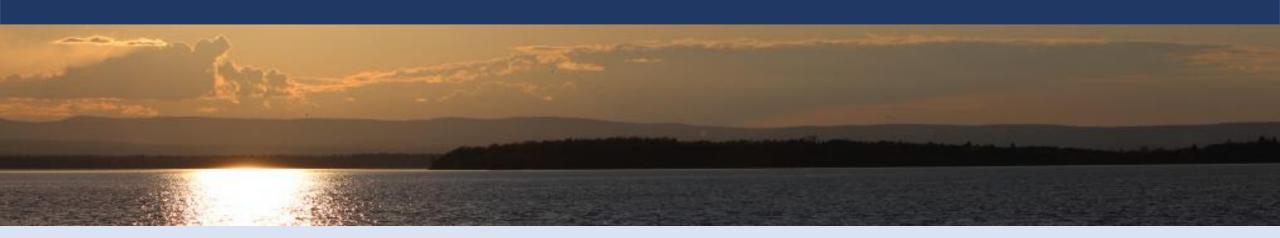
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- Develop innovative solutions to commodify phosphorus into products and export from the watershed, and



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- Implement agricultural practices that reduce legacy soil phosphorus,
- Support development of farm products that contribute less phosphorus to waterways and are economically sustainable,
- Develop innovative solutions to commodify phosphorus into products and export from the watershed, and
- Provide financial incentives to producers in the watershed to install and maintain water quality BMPs and transition to agricultural methods that contribute less phosphorus.



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- Support work that addresses total phosphorus mass balance at subwatershed and industry scales, and
- Determine the viability of a phosphorus cap-and-trade system.



3. Reduce inputs of bioavailable phosphorus



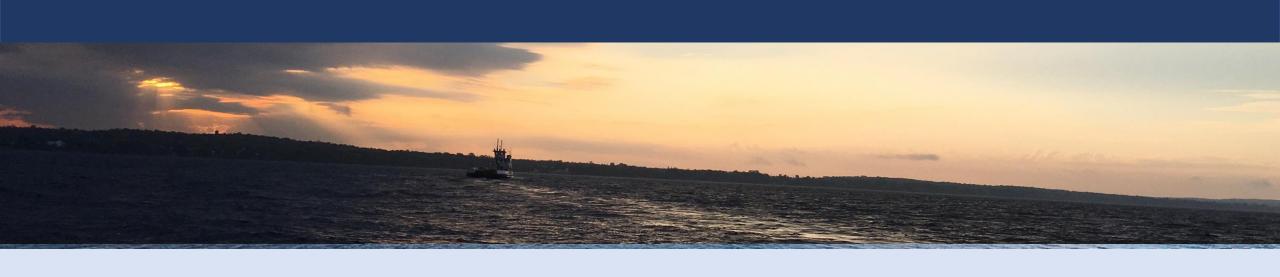
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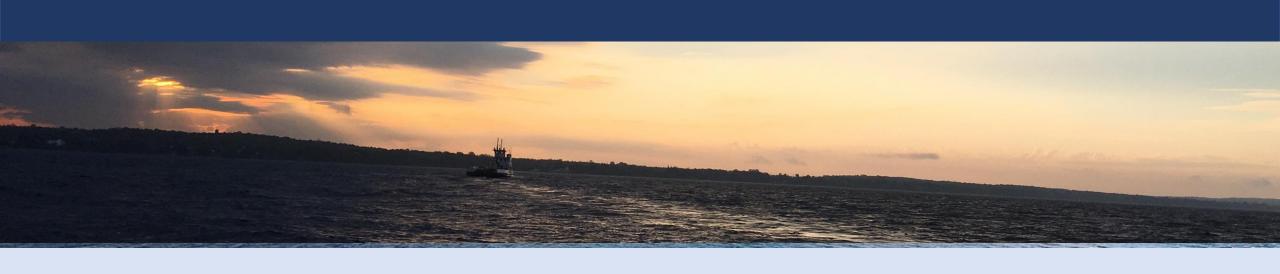
 Continue monitoring and research efforts that consider multiple forms of phosphorus, and



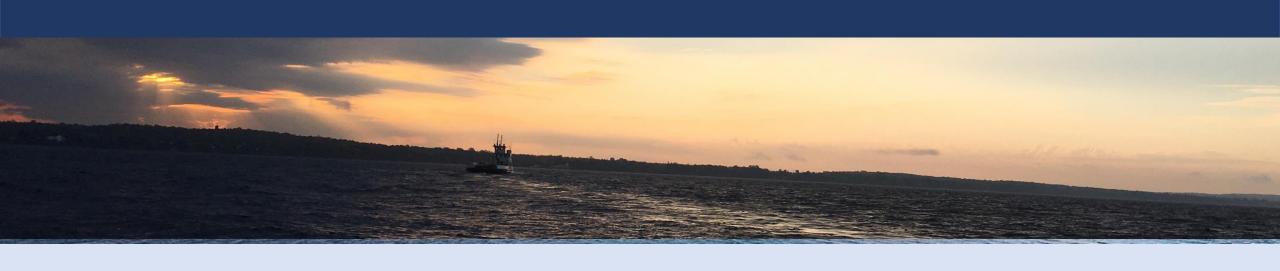
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- Continue monitoring and research efforts that consider multiple forms of phosphorus, and
- Prioritize management practices that reduce contributions of bioavailable phosphorus.

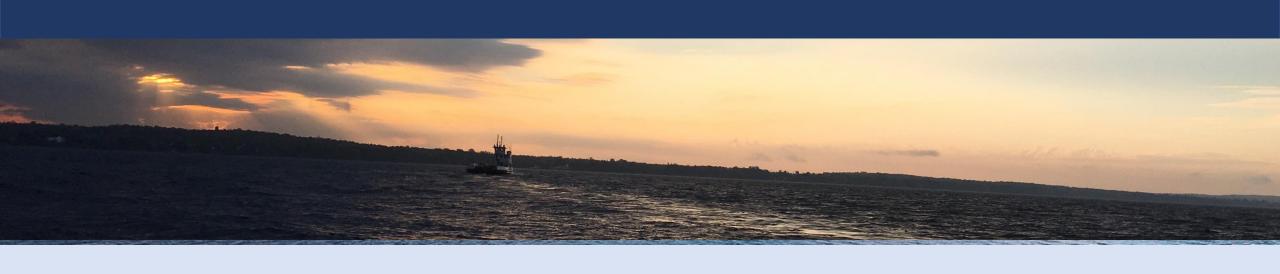




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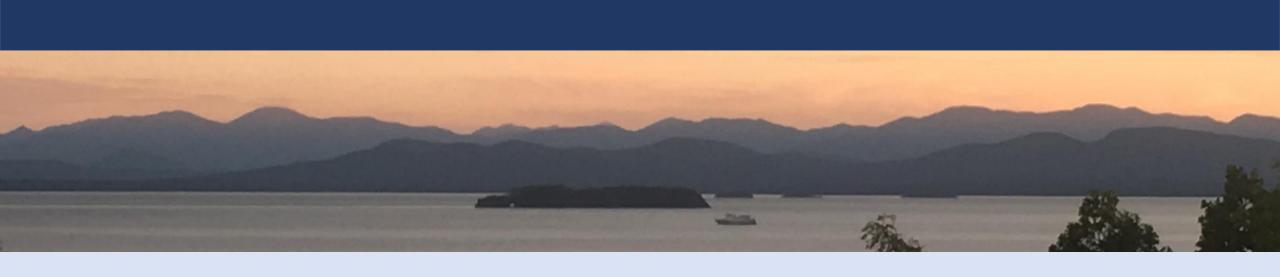


- Develop and implement management techniques for phosphorus in Missisquoi Bay sediment,
- Support programs that enhance river geomorphic function and reduce river bank erosion, and
- Consider in-lake and in-river solutions that reduce the bioavailability of legacy phosphorus.



5. Prioritize nature-based solutions to reduce nutrient pollution

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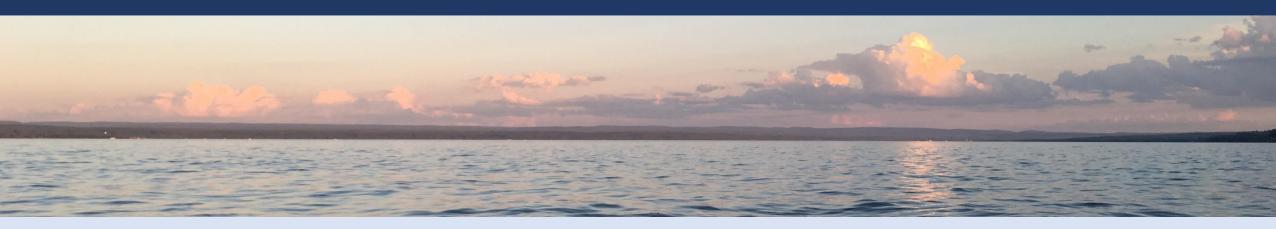
6. Examine and optimize the current system for regulation and distribution of clean water funding



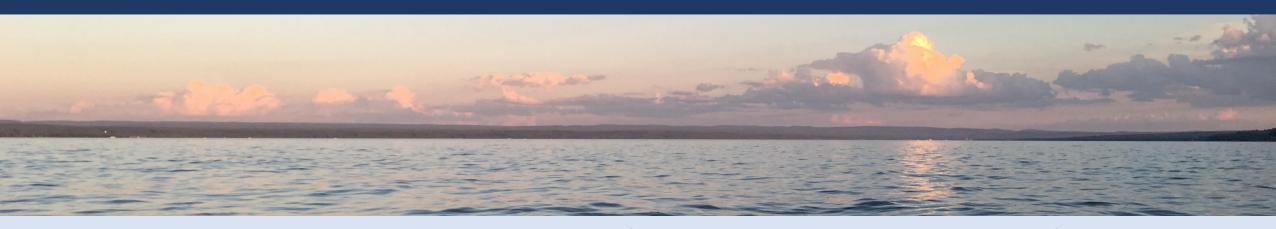
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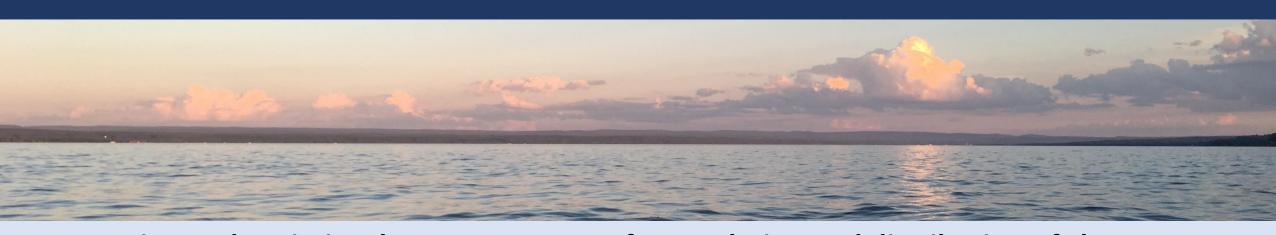
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 - Increase funding for nutrient-reduction research applicable to the Lake Champlain Basin, and



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- Carefully consider the efficiency of the current system for distributing federal, state, and other funds to nutrient reduction programs, specifically:
 - Determine whether the current staffing levels and organization at state, federal, and municipal agencies is optimally effective,
 - Increase funding for nutrient-reduction research applicable to the Lake Champlain Basin, and
 - Consider relatively high cost pilot projects that may yield high phosphorus reductions per dollar invested.



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- Expand water quality education and outreach in the Basin, particularly to underserved communities and groups, and
- Acknowledge the importance of watershed-scale cooperation, and facilitate collaborative opportunities between potential partners, including the United States and Canada, Vermont, New York, and Québec, and between local municipalities and watershed groups.

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