

Lake Champlain Basin Program
Draft Meeting Summary - Executive Committee Meeting
September 10, 2019 9:45 AM – 3:30 PM

LCBP Office, Gordon Center House, Grand Isle, VT

9:45 AM Arrival, Networking

10:00 Introductions around the room, conference call participants. *Bob Stegemann, NYS DEC will Chair this meeting.*

Participants:

Committee members: Bob Stegemann (Chair, NYS DEC), Pete LaFlamme (for Julie Moore, VT ANR), Neil Kamman (TAC Chair), John Kreuger (HAPAC Chair), Mark Naud (VT CAC Chair), Buzz Hoerr (E&O Chair). Phone: Nathalie Provost (QC MELCC), Mario Paula (EPA R2, for Rick Balla), MaryJo Feuerbach (EPA R1, for Mel Cote), Brian Steinmuller (NYS Ag&Markets), Christina Marts (NPS), Steve Garceau (QC MNRF)

Staff: LCBP: Eric Howe, Ellen Kujawa, Jim Brangan, Lauren Jenness. VT ANR: Bethany Sargent. NYSDEC: Fred Dunlap. EPA R1: Bryan Dore, NEIWPCC: Heather Radcliffe (phone).

10:15 Approval of minutes from previous meeting

ACTION ITEM: Approve Meeting Minutes from March 21, 2019 Executive Committee

- Motion to approve with one amendment by: John Krueger
- Second by: Neil Kamman
- Discussion on the motion: none
- Vote: all in favor.
- Abstentions: None.
- Congressional updates – no updates.
- Brief updates from partners around the table
 - NYS DEC – Bob Stegemann reported that the first interstate boat launch inspection station was opened on I-87 in South Glens Falls to intercept boats headed into the Adirondacks. Adirondack Watershed Institute has a 5-year contract (just completed Year 1). A total of \$15m for nutrient reduction and \$70m for water quality projects is available from the environmental protection fund is available this year; approximately half of the 60 projects under review are in the Lake Champlain Basin. DEC is doing a Lake Champlain oil spill response drill today and tomorrow. Some cyanobacteria issues this year, including short-term beach closures in Port Henry.
 - VT ANR – Pete Laflamme – Vermont is still working on implementing the 3-acre general permit; it will be out in draft form for public comment shortly. There has been a reorganization at DEC, and Neil Kamman is now the Director of the Water Investment Division. Neil Kamman added that this reorganization was a result of the passage of the Clean Water Service Delivery Act in Vermont, which created a permanent clean water fund and a mechanism for delivering funding. The Army Corps of Engineers visited the Lake Champlain Basin recently and discussed a number of possible implementation projects, one of which is a possible nutrient reduction work in the Black Creek Marsh in St. Albans.

- QC MELCC - Nathalie Provost - The Quebec strategy for conserving water was adopted by the QC government at the end of 2017; planning to propose an action plan for all departments to become involved in this effort, particularly with regard to Lake Champlain and Lake Memphremagog. Nathalie has received comments on the Missisquoi Bay MOU between Vermont and Quebec from Julie Moore.
- Mario Paula, EPA R2 – NYSDEC FY19 budget allocation for grants should be issued soon. This funds the New York Lake Champlain coordinator and part of the LTM program.
- Bryan Dore – EPA Region 1 has a new Regional Administrator, Dennis Deziel. Deziel started at the EPA, and has since worked for DOE and Dow Chemical. He has a connection to Lake Champlain, which may provide opportunities for collaboration with LCBP and other partners.
- National Park Service - Christina Marts – NPS is focusing on a few national anniversaries in 2020 around the 19th amendment. The next anniversary will be the 250th anniversary of the Revolutionary War. NPS will be working to include Native American voices in this recognition of the War.
- QC MNR - Steve Garceau – MNR is working with MDDELCC on the water quality strategy.
- Brian Steinmuller – Funding for projects in the LCB will be available soon; several projects are under current review for counties in New York. Overall, 99 applications for ag non-point source. 87.5% state contribution, with a 12.5% local match, the highest state contribution allowed. Ag & Markets is excited about this program and Brian hopes that it will provide technical and financial assistance to farms in the Lake Champlain Basin and beyond.
- VT CAC - Mark Naud – VTCAC had their first meeting of the season on September 9th. The focus of this meeting was the development of the 2020 Action Plan, which will focus on changes in Vermont agriculture and outdoor recreational opportunities. Neil Kamman suggested that VTCAC involve other partners to discuss changes in agriculture; Mark clarified that they are hoping to have a number of partners present for conversations over the next few months. They also hope to work with other CACs to collaborate on this action plan. Brian Steinmuller added that this conversation also is happening in NY – farmers are looking to generate value-added products coming out of the dairy industry.
- NY CAC - Fred reported that NY CAC has not met this summer and will be restarting their meeting schedule later this month. Priorities for the NYS CAC continue to be the TMDL, HABs, and AIS.
- John Krueger – This time in September is critical to the heritage of the watershed. Both the English and the French claimed Lake Champlain. The French built a fort at Fort St. Frederic. By 1755, the French and Indian War had begun, and that summer the French raised a professional army to meet with a rag tag bunch of militia raised by the English and led by Billy Johnson. English remain at Fort Henry, and the French go to Fort Carryon (later known as Fort Ticonderoga). 210 years ago, a young midshipman named Jim Cooper is serving on a gunboat on Lake Champlain. Eventually, Jim Cooper changes his name to Jim Fenimore Cooper, and writes the Last of the Mohicans. 205 years ago tomorrow is the Battle of Plattsburgh. The sight of the battered ships and human casualties was shared 87 years later in Outlook Magazine. This was the last engagement between English-speaking navies. Jim Brangan introduced the Last of the

Mohicans Trail in the Lake George area, using Fenimore Cooper's book and Andrew Wyeth's illustrations. The HAPAC will be focusing on the 250th anniversary of the Revolutionary War in 2025 and gearing up for that year soon.

- E&O Committee - Buzz Hoerr – The E&O committee met last week and has been discussing concepts for proposals; there seems to be a strong interest in evaluating the effectiveness of grants. E&O Committee will be meeting at Echo in November to see the new State of the Lake exhibits. Bob Stegemann asked whether it would be possible to make mobile versions of the SOL exhibits to travel through the Basin, particularly in New York; the E&O committee will discuss this. Colleen added that Raise the Blade was at the Art Hop this weekend at Lake Champlain Chocolates, the two E&O summer stewards have reached 2820 people and have seven more upcoming events. Ryan Mitchell discussed the TMDL tool videos being developed by Peregrine Productions, which will be finalized in March.
- TAC - Neil Kamman – The TAC had visits from the VT Geologic Survey to discuss groundwater, and the state geologist to discuss the Cotton Brook landslide's water quality impacts. The TAC also reviewed the workplan for the Ausable River Association's Mirror Lake road salt project. Matt Vaughan added that the TAC has been reviewing FY19 RFPs from TMDL funds (Lake Carmi and Missisquoi Bay projects). The TAC will see several FY19 workplans in October for projects beginning this spring. TAC is preparing for the FY20 budget. LCBP Updates: Staffing changes, updated meeting schedule, MOU (Quebec, Vermont, New York)

LCBP Updates – Eric Howe

- Eric thanked Bob Stegemann for agreeing to serve as Chair for the next two years, and to Emily Boedecker and crew at VT ANR for chairing this committee for the past two years. Eric also would like to recognize Mark Naud, who recently elected as the new Chair of the Vermont Citizen's Advisory Committee. The FY19 funding agreements are in place with EPA, GLFC, and NPS – thank you to Heather Radcliffe and Christina Stringer at NEIWPCC for facilitating these application processes. Matt Vaughan should be going on Family Leave any minute, and Ellen Kujawa is headed off to Oxford in a few weeks to earn herself another MS degree. Eric is working with NEIWPCC to determine how to fill this gap, which may include a 1-year limited term position that would be vacated when Ellen returns in September 2020. LCBP and USACE hosted a fantastic tour with USACE NY District Commander Asbery and MANY partners on Weds and Thursday last week. The tour started at Lock 9 in Champlain Canal Tuesday AM, finished with handpulling of water chestnut in Saint Albans marsh.
- E&O News – E&O stewards also were busy this summer, met with nearly 3,000 people at public events across the LCB.
- AIS news – Boat Launch Stewards were busy. A sample of what appears to be hydrilla was pulled off of a boat at the South Hero boat launch last week. Meg is sending this out for DNA confirmation, but it is a major save by one of our stewards. Boat was previously launched in the Connecticut River, which does have hydrilla. This raises the idea for a new project to consider for next year's budget –snorkel surveys as a means of early detection for AIS at high-risk sites, such as boat launches.
- International Year of the Salmon is still going strong – the town of Richmond, VT is hosting a salmon celebration event the weekend of October 5.

- LCBP's annual Enhanced BMP RFP grant opportunity is open, and closes October 3. Eric will work with members of the Executive Committee to schedule a meeting for late October to discuss award decisions for this grant opportunity.

11:00 LCBP budget discussion – Led by LCBP staff

- FY19 Budget review – Eric provided this for your reference today. Reminder that the NPS funds are dedicated to CVNHP work; EPA funds are not eligible for CVNHP work, and GLFC funding is able to cover projects across the spectrum of LCBP and CVNHP tasks, including projects in Quebec.
- FY20 Process review – The budget conversation begins in September, the TAC and Heritage budgets are determined through grant competitions over the winter, E&O committee develops its own budget for consideration. The Steering Committee considers the budget for approval in April.
- FY20 Heritage Budget Development
 - John Krueger and Jim Brangan provided an overview of the HAPAC budget process, which is similar to previous years in that the HAPAC will be using a pre-proposal process. The interpretive theme for 2020 is women's suffrage, and probably prohibition for 2021. The Cultural Heritage Annual Summit will be held in November; the due date for pre-proposals is in November as well. The interpretive banners for the Year of the Salmon have been at 20 sites so far; Jim plans to construct similar banners for the 19th amendment to travel throughout the watershed.
- FY20 Education and Outreach Budget Development
 - E&O Committee will be meeting several times over the next few months to develop their priorities for the FY20 budget.
- FY20 Technical Budget Development – Core, Line Item, Competitive priorities (LCBP, States, NRCS, others)
 - Matt Vaughan discussed the technical budget process. The Executive Committee will review technical priorities today and may approve core projects. At the September 25th Steering Committee meeting, these items will be approved again. Core and line items last year totaled around \$2.6m, technical pre-proposals around \$1.2m (though the request was close to \$5.8m).
 - Core projects include the Enhanced BMP grants program, AIS Rapid Response fund, Boat Launch Steward program, New York Agronomy support position, water chestnut management, long term water quality monitoring, and cyanobacteria volunteer monitoring.
 - Buzz Hoerr noted that the Boat Launch Steward program is the face of the LCBP and allows for a positive public face on many high traffic Lake Champlain access sites.
 - Mark Naud suggested that LCBP explore the possibility of implementing of implementing a highway invasive species checkpoint and decorating the decontamination storage trailers with invasive species education messaging.
 - MaryJo asked to what point in the future the New York agronomy position is funded. Eric clarified that there were some leftover funds from last year's New York Agronomy RFP but that no additional funds were rolled into salary.
 - Neil Kamman asked for clarification on the budget timing process for the water chestnut program. Bethany Sargent was unable to provide an answer but directed the Executive Committee's attention to the table in the two-pager.

- Bethany will provide more information on this topic at the Steering Committee meeting. The Executive Committee approved of the project's work but requested more justification of the budget proposal. Fred Dunlap also asked for information about the \$14k decrease in composting costs.
- Eric Howe added that the NEIWPC column in the Long Term Monitoring Project is \$150,000 not \$120,000.
 - Bob Stegemann noted that he is in favor of the cyanobacteria volunteering monitoring program but is hesitant about the yearly incremental increases, as there has been quite a significant budget increase in the last several years.
 - Buzz Hoerr has also noticed a change in public perception to real fear about blooms; he suggests prioritizing self-education on cyanobacteria. Colleen Hickey added that cyanobacteria are the number one topic of discussion for the Resource Room staff as well. Buzz encouraged more education on the harmless things that can be mistaken for cyanobacteria.
 - Bob Stegemann requested that LCBP bring a clearer request for the Enhanced BMP category for the Steering Committee to discuss. Eric noted that these exact amounts are difficult to make until a federal appropriation is confirmed and we know what other priorities the Steering Committee wishes to support will cost.
- Bethany Sargent introduced the FY20 state-proposed line items.
 - Bob Stegemann expressed some concern about public perception and the execution of the forest BMP RFP. There is significant fertile ground but this is a potentially contentious topic.
 - MaryJo Feuerbach asked about the roads project. If these roads are not priorities addressed by the MRGP or TS4 rules, why are they being targeted? Bethany explained that these roads can be high phosphorus contributors even though they are not covered by current regulations. Pete added that this project will also involve New York, which does not have the MRGP.
 - Buzz Hoerr asked why the states of Vermont and New York do not have a similar wastewater treatment optimization mechanism. Bob Stegemann explained that this used to be a function of the state but has been lost through budget and staffing cuts.
 - MaryJo Feuerbach asked what was accomplished during the first year of funding for this project. Bethany explained that the RFP for this funding will be released this fall. Fred added that every treatment plant in the NY portion of the LCB can potentially be addressed in the three-year process.
 - Vicky Drew provided an overview of the NRCC line item project.
 - MaryJo Feuerbach expressed concern at funding positions outside of the LCBP team, especially indefinite timeframes. Vicky noted that the goal is hire someone and prove the value of this position, then seek alternative funding. Buzz Hoerr suggested making this a condition of a potential line item award. Mario Paula seconds MaryJo's point, particularly as LCBP has had two good budget years but there's no guarantee that these high budgets will continue in the longer term.
 - Matt Vaughan introduced the draft technical priorities.
 - Buzz Hoerr asked about the meaning of priority #5, and Matt explained that winter nutrient dynamics are poorly understood compared to the rest of the season. The TAC is interested in learning more on this topic.

- Mark Naud asked what the relationship between items #3 and #5 are (winter maintenance/road salt and winter nutrient dynamics). Neil explained that while they are related and focus on the same season, they are different questions to explore.
- Eric Howe introduced the mass balance priority resulting from the IJC's Missisquoi Bay project.
 - Bethany Sargent asked whether LCBP would be more likely to consider releasing a separate RFP for this topic. Eric explained that this is a first step to getting a mass balance task accomplished: the RFPP may result in a project being funded, and if there are no appropriate applications then LCBP might consider releasing a separate RFP.
 - Pete LaFlamme asked what the management outcome of a mass balance model might be. Eric noted that it would give managers an idea of how much phosphorus will need to be stopped from entering the watershed. Bob Stegemann agreed but added that funding may be better spent on decreasing phosphorus in practice rather than on determining an accurate mass-balance model.
- Pete LaFlamme asked how many priorities LCBP actually wants to see. Eric answered that the number does not necessarily matter and Matt added that the TAC had some difficulty in assessing projects last year with a number of broad priorities listed in the RFPP.
- Pete LaFlamme asked whether these priorities were in order of priority. Matt clarified that they are not; Bob Stegemann asked that this be made clear in the RFPP.
- MaryJo Feuerbach wondered whether it might be possible for LCBP to give an idea of how much funding will be available for this RFPP category.
- Pete LaFlamme asked that QC and NY discuss their needs for streambank erosion assessments.

12:00 LUNCH

12:30 LCBP budget discussion continued

Line items –

- Forestlands
 - Bethany described the forest load export project. This has been identified as a major source of “ancestral” phosphorus that needs to be considered and addressed.
 - Bob added that this project works with private landowners, and the stewardship they do on their lands is important to maintaining forest cover across large tracts of land across the LCB. Important to find ways to work with these landowners and stewards of forests to help them maintain these lands.
 - This project is designed to identify forested areas that are hydrologically unstable and address those sites from a water quality perspective.
 - Each State would receive \$100K and release their own RFP.
- MRGP –
 - VT project would be oriented toward implementation, NY project more toward development of tools.
 - MaryJo – the current permit does not cover these types of roads. If these weren't a high priority and therefor permitted, why are you proposing we spend funds on these roads now? VT does not have a private roads or

statutory authority to regulate private roads. Mark – 30% of roads are not covered by MGRP, but what percentage of those permits are forested roads?

- WWTF Optimization –
 - Requesting year 2 of 3 funding for technical assistance to municipalities for optimization for WWTFs across the LCB. Will be releasing the RFP for this work that was supported by the FY19 funds this fall.
- VT Ag WQ Partnership – VAWQP is gaining a lot of traction and energy, and has decided that a staff person dedicated to coordinating goals of this initiative is important to move programs forward.
 - MaryJo – always concerned about supporting positions outside of LCBP staff. There is the potential for this to be an ongoing request. Vicky responded that no organizations have committed funding beyond 3 years. Waiting to see how the program works. MaryJo noted that the cost of core projects is continually increasing, but concerned that this project will be added to that suite of core projects and take away from other priorities. Neil added that this position would be helpful for deployment of programs and projects.
- MaryJo asked for a rough estimate of the budget that would be available assuming level funding in FY20.

ACTION ITEM: Approve Heritage, Technical FY20 Priorities for Steering Committee consideration

2:00 PM: LCBP/NEIWPCC organizational support role for the Champlain-Adirondack Biosphere Reserve (Brian Houseal & Kelly Cerialo, CABR)

The CABR Co-Chairs will introduce the Biosphere Reserve program and request LCBP/NEIWPCC role to serve as fiscal agent for the program

This Agenda item was tabled.

2:30 PM Eric Leibensperger, SUNY Plattsburgh

- Dr. Eric Leibensperger presented on recent data from the SUNY monitoring buoy south of Valcour Island.

3:00 EXECUTIVE SESSION: Advisory Committee nominations (LCBP staff)

Motion by Buzz Hoerr, Neil Kamman seconds. All in favor; motion is carried.

- **Advisory Committee nominations**
- Exit Executive Session

ACTION ITEM: Committee membership nomination(s) for Steering Committee consideration

- Buzz Hoerr moved to nominate an individual to the HAPAC; Neil Kamman seconded. All in favor; motion is carried.

- Buzz Hoerr moved to adjourn; Neil Kamman second. All in favor; motion is carried.

3:30 PM Executive Committee Meeting Adjourns

Anticipated Outputs for this meeting include:

1. Approval of meeting summary from March 21, 2019 LCBP Executive Committee meeting
2. Discussion of FY20 Budget Priorities for the Lake Champlain Steering Committee
3. Advisory Committee nominations

Upcoming Meetings:

2019 meetings

October 2: LCBP Technical Advisory Committee (Grand Isle, VT)

October 7: Annual CVNHP International Heritage Summit (Venice-en-Quebec, QC)

Late October (TBD): LCBP Executive Committee (Grand Isle, VT)

November 6: LCBP Technical Advisory Committee (Grand Isle, VT)

November 11-15: [*North American Lake Management Society Annual Symposium*](#), (Burlington, VT)

November 20: LCBP Executive Committee (Grand Isle, VT)

December 2: LCBP Technical Advisory Committee (Grand Isle, VT)

December 17: Lake Champlain Steering Committee (Quebec, TBD)

2020 meetings

January 23: LCBP Executive Committee (Grand Isle, VT)

February 19: LCBP Executive Committee (Grand Isle, VT)

May 2019 Approved **FY2019 LCBP Budget**

Key Functions	Task Management	2019 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
VT Coordination	VERMONT	\$ 161,427	\$161,427	\$0	\$161,427	\$0
NY Coordination	NEW YORK	\$ 195,850	\$357,277	\$0	\$195,850	\$0
E&O Coordination	NEIWPCC	\$ 180,000	\$537,277	\$0	\$126,000	\$54,000
Communication and Publications	NEIWPCC	\$ 275,000	\$812,277	\$0	\$206,250	\$68,750
Technical Coordination	NEIWPCC	\$ 245,000	\$1,057,277	\$0	\$220,500	\$24,500
ANS Coordination	NEIWPCC	\$ 190,000	\$1,247,277	\$0	\$171,000	\$19,000
Administrative Assistance	NEIWPCC	\$ 122,000	\$1,369,277	\$15,000	\$109,800	\$0
Program Direction	NEIWPCC	\$ 160,000	\$1,529,277	\$18,000	\$128,000	\$16,000
Office Operations	NEIWPCC	\$ 80,000	\$1,609,277	\$1,600	\$38,400	\$40,000
Resource Room	NEIWPCC	\$ 185,000	\$1,794,277	\$0	\$185,000	\$0
NEI Administration	NEIWPCC	\$ 195,000	\$1,989,277	\$8,000	\$156,000	\$29,250
CVNHP Coordination (includes NHA Direction)	NEIWPCC	\$ 178,131	\$2,167,408	\$165,681	\$0	\$12,450
Gordon Center House rent	VERMONT	\$ 18,500	\$2,185,908	\$0	\$18,500	\$0
Local Implementation Grants PP (300k) / AIS (200k) / OS (50k)	NEIWPCC	\$ 550,000	\$2,735,908	\$0	\$302,500	\$247,500
Additional LCBP office space	NEIWPCC	\$ 15,000	\$2,750,908	\$0	\$15,000	\$0
Funding Scenario FY2019	EPA FY19 base	\$4,395,000	Category Sum			
	EPA-2016 TMDL	\$6,600,000				
	NPS (CVNHP)	\$332,097				
	GLFC	\$2,380,500				
	Total	\$13,707,597				

May 2019 Approved **FY2019 LCBP Budget**

Heritage Area Tasks	Task Management	2019 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
CVNHP Heritage: Youth & Student Engagement with the North Country Underground Railroad Historical Association	NEIWPCC - North Country Underground Railroad	\$ 8,850	\$2,759,758	\$8,850	\$0	\$0
CVNHP Heritage: Because of Women Like Her...	NEIWPCC - League of Women Voters	\$ 8,850	\$2,768,608	\$8,850	\$0	\$0
CVNHP Internship: Graduate Internship Program	NEIWPCC - Ticonderoga Historical Society	\$ 5,900	\$2,774,508	\$5,900	\$0	\$0
CVNHP Internship: Internship in Nautical Archaeology and Historic Preservation: Steamboats of Lake Champlain	NEIWPCC - LCMM	\$ 5,900	\$2,780,408	\$0	\$0	\$5,900
CVNHP Internship: Maritime Trades Internship	NEIWPCC - Fort Ticonderoga Assoc.	\$ 5,900	\$2,786,308	\$0	\$0	\$5,900
CVNHP Internship: Franco-American History and Collections Internship	NEIWPCC - Samuel de Champlain History Center	\$ 2,950	\$2,789,258	\$0	\$0	\$2,950
CVNHP Collections: Furthering Bixby Library's Collections Management Plan: NAGPRA Compliance and Repatriation	NEIWPCC - Bixby Library	\$ 8,826	\$2,798,084	\$8,826	\$0	\$0
CVNHP Collections: Mount Independence Artifact Conservation Project	NEIWPCC - Mount Independence Coalition	\$ 8,850	\$2,806,934	\$0	\$0	\$8,850
CVNHP Collections: Digitizing and Preserving Champlain's Photographic Heritage	NEIWPCC - Samuel de Champlain History Center	\$ 4,130	\$2,811,064	\$0	\$0	\$4,130
CVNHP Collections: Pavilion Collections Project	NEIWPCC - Fort Ticonderoga Assoc.	\$ 8,850	\$2,819,914	\$0	\$0	\$8,850
CVNHP Collections: Inventory Collections Initiative	NEIWPCC - Lake George Historical Assoc.	\$ 8,850	\$2,828,764	\$0	\$0	\$8,850
CVNHP Making of Nations: Vermont's African American Heritage Trail and its Neighbors	NEIWPCC - Hildene	\$ 8,850	\$2,837,614	\$8,850	\$0	\$0
CVNHP Making of Nations: Sesquicentennial of the 1870 Fenian Attack on Canada	NEIWPCC - Fenian Historical Society	\$ 8,850	\$2,846,464	\$8,850	\$0	\$0

May 2019 Approved **FY2019 LCBP Budget**

CVNHP Making of Nations: Voting for our Voices: sharing the stories of women's suffrage and civil rights	NEIWPCC - Friends of Crown Pt	\$ 5,900	\$2,852,364	\$0	\$0	\$5,900
CVNHP Making of Nations: Ladies of the Lake – Women Captains on Lake Champlain	NEIWPCC - LCMM	\$ 8,850	\$2,861,214	\$0	\$0	\$8,850
Heritage Area Tasks	Task Management	2019 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
CVNHP Making of Nations: Women of Shelburne: Community Builders, Past to Present	NEIWPCC - Shelburne Historical Society	\$ 1,357	\$2,862,571	\$0	\$0	\$1,357
CVNHP Special Projects: Lois McClure 2020 Suffrage Voyage	NEIWPCC - LCMM	\$ 40,415	\$2,902,986	\$40,415	\$0	\$0
CVNHP Special Projects: Saving Spitfire	NEIWPCC - LCMM	\$ 23,600	\$2,926,586	\$0	\$0	\$23,600
CVNHP Special Projects: Champlain Valley Suffrage Centennial Motorcade	NEIWPCC - Chapman Historical Museum	\$ 17,700	\$2,944,286	\$0	\$0	\$17,700
CVNHP Special Projects: Suffrage Display Production	NEIWPCC	\$ 21,475	\$2,965,761	\$21,475	\$0	\$0
Quebec Regional Stakeholder Coordination*	NEIWPCC	\$ 2,596	\$2,762,354	\$0	\$0	\$2,596
Wayside Exhibit Program Continuation*	NEIWPCC	\$ 11,800	\$2,774,154	\$11,800	\$0	\$0
Annual International Heritage Summit*	NEIWPCC	\$ 9,440	\$2,783,594	\$0	\$0	\$9,440
NHA Totals		\$238,689	Category Sum	\$123,816	\$0	\$114,873

Education & Outreach	Task Management	2018 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
E&O Grant Programs (Annual EO local grants (240k), Professional Development (14k), Enhanced Outreach Grants (120k), Boots-n-Bugs 24k)	NEIWPCC	\$ 550,500	\$3,334,094	\$0	\$385,350	\$165,150
Champlain Basin Education Initiative (CBEI) & Authentic Student Learning	NEIWPCC	\$ 24,500	\$3,358,594	\$0	\$0	\$24,500
High School Watershed Steward Certification Program, Year 3	NEIWPCC	\$ 15,000	\$3,373,594	\$0	\$0	\$15,000
Healthy Soils Phase 3	NEIWPCC	\$ 72,000	\$3,445,594	\$0	\$72,000	\$0
Bioengineering and Shoreland Best Management Practices to Restore Living Shorelands and Protect Water Quality	VERMONT	\$ 62,000	\$3,507,594	\$0	\$62,000	\$0

May 2019 Approved **FY2019 LCBP Budget**

Production of Clean Water Videos	NEIWPCC	\$ 35,000	\$3,542,594	\$0	\$0	\$35,000
Lake Champlain Education and Outreach Stewards	NEIWPCC	\$ 60,000	\$3,602,594	\$0	\$60,000	\$0
StreamWise Stewardship	NEIWPCC	\$ 61,000	\$3,663,594	\$0	\$0	\$61,000
Economic Valuation of Clean Water and Healthy Watersheds	NEIWPCC	\$ 5,000	\$3,668,594	\$0	\$0	\$5,000
Artist in Residence Program	NEIWPCC	\$ 25,000	\$3,693,594	\$0	\$0	\$25,000
E&O Total		\$ 910,000	Category Sum	\$0	\$579,350	\$330,650

Technical Tasks	Task Management	2019 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
CORE PROJECT: Lake Champlain Boat Launch Steward Program 2020	NEIWPCC	\$ 138,050	\$3,831,644	\$0	\$121,484	\$16,566
CORE PROJECT: NEIWPCC-- Lake Champlain Long-Term Water Quality and Biological Monitoring (LTMP)	NEIWPCC	\$ 150,000	\$3,981,644	\$0	\$150,000	\$0
CORE PROJECT: VERMONT DEC - LTMP	VERMONT	\$ 267,629	\$4,249,273	\$0	\$267,629	\$0
CORE PROJECT: New York DEC/SUNY Plattsburgh LTMP	NEW YORK - SUNY	\$ 185,000	\$4,434,273	\$0	\$185,000	\$0
CORE PROJECT: Monitoring Cyanobacteria in Lake Champlain	NEIWPCC-LCC	\$ 80,000	\$4,514,273	\$0	\$80,000	\$0
CORE PROJECT: Water Chestnut Management Partnership - Lake Champlain Basin	VERMONT	\$ 90,000	\$4,604,273	\$0	\$90,000	\$0
CORE PROJECT: LCBP Enhanced Grant Awards for Pollution Prevention	NEIWPCC	\$ 633,349	\$5,237,622	\$0	\$467,310	\$166,039
CORE PROJECT: Aquatic Invasive Species Rapid Response Fund	NEIWPCC	\$ 69,900	\$5,307,522	\$0	\$0	\$69,900
CORE PROJECT: WWTF Optimization in Lake Champlain Basin - NEW YORK	VERMONT	\$ 150,000	\$5,457,522	\$0	\$150,000	\$0
CORE PROJECT: WWTF Optimization in Lake Champlain Basin - VERMONT	NEW YORK	\$ 110,000	\$5,567,522	\$0	\$110,000	\$0
CORE PROJECT: NY Lake Champlain Basin Agronomy Support and Agriculture BMP Implementation	NEIWPCC	\$ 160,000	\$5,727,522	\$0	\$160,000	\$0
Lake Champlain Basin Dam Removal	NEIWPCC-VNRC	\$275,000	\$6,002,522	\$0	\$0	\$275,000
Quantifying Phosphorus Reductions for Proposed Projects in NY Reduction Plan	NEIWPCC-LC-LG RPB	\$ 82,200	\$6,084,722	\$0	\$0	\$82,200
Evaluating Performance of Media Filters to Remove Phosphorus in Stormwater Pond Outflow	NEIWPCC-Stone Environmental	\$ 90,000	\$6,174,722	\$0	\$0	\$90,000

May 2019 Approved **FY2019 LCBP Budget**

Forage fish community monitoring in Lake Champlain	NEIWPCC-UVM	\$ 238,822	\$6,413,544	\$0	\$0	\$238,822
Targeted interventions to reduce agricultural runoff and erosion in affected areas of the Missisquoi Bay Basin	NEIWPCC-OBVBM	\$ 180,000	\$6,593,544	\$0	\$0	\$180,000
Technical Tasks	Task Management	2019 TASK Request	TASK Cumulative Total	NPS Allocation	EPA Allocation	GLFC Allocation
Securing and Restoring Aquatic Habitat Connectivity in the North Branch Boquet River Watershed (removed culvert replacement component per EC)	NEIWPCC-The Nature Conservancy	\$ 130,000	\$6,723,544	\$0	\$0	\$130,000
Quantifying the road salt pollution load to Mirror Lake and the Chubb River (Lake Placid, NY)	NEIWPCC-Ausable River Association	\$ 175,000	\$6,898,544	\$0	\$0	\$175,000
TMDL Project: Floodplain Restoration and Functional Assessment	VERMONT	\$ 600,000	\$7,498,544	\$0	\$600,000	\$0
TMDL Project: Innovative CSO Reduction	VERMONT	\$ 1,100,000	\$8,598,544	\$0	\$1,100,000	\$0
TMDL Project: Internal Loading Assessment and Modeling Study on Missisquoi Bay	NEIWPCC	\$ 250,000	\$8,848,544	\$0	\$250,000	\$0
TMDL Project: Design and Construction of GSI at Public Schools	VERMONT	\$ 1,100,000	\$9,948,544	\$0	\$1,100,000	\$0
TMDL Project: Implementation Support Program for Forestry Accepted Management Practices	VERMONT	\$ 450,000	\$9,298,544	\$0	\$450,000	\$0
TMDL Project: Nutrient Load Source Identification in the Lake Carmi Watershed	NEIWPCC	\$ 200,000	\$9,498,544	\$0	\$200,000	\$0
TMDL Project: Farm Agronomic Practices (FAP) Program	VERMONT	\$ 475,000	\$9,973,544	\$0	\$475,000	\$0
TMDL Project: Program to Expand and Accelerate Wetland Conservation and Restoration	VERMONT	\$ 1,325,000	\$11,298,544	\$0	\$1,325,000	\$0
TMDL Project: Municipal Grants-in-Aid Road-Runoff Reduction and Treatment Program	VERMONT	\$ 1,000,000	\$12,298,544	\$0	\$1,000,000	\$0
TMDL Project: Enhanced Implementation of VT Environmental Stewardship Program	VERMONT	\$ 100,000	\$12,398,544	\$0	\$100,000	\$0

Tech Total \$ **9,804,950**
Budget **Allocated**

Category Sum \$0 \$8,381,423 \$1,423,527

EPA FY19 base	\$4,395,000	\$ 4,395,000
EPA-2016 TMDL	\$6,600,000	\$ 6,600,000
NPS (CVNHP)	\$332,097	\$332,097

May 2019 Approved **FY2019 LCBP Budget**

GLFC	\$2,380,500	\$2,380,500
	\$ 13,707,597	\$ 13,707,597

Lake Champlain Basin Program

FY20 technical budget development process overview



Timeline

June 5, 2019: TAC reviewed draft FY20 priorities

June 6: Steering Committee reviewed FY20 priorities

September 4: TAC reviewed FY20 core projects

September 10: Executive Committee revise priorities drafted by TAC, review core projects and line item suggestions

September 25: Steering Committee approve technical priorities, core projects, and line items

September 30: Released request for pre-proposals

December 4: TAC reviews pre-proposals, makes recommendation to Steering Committee

December 17: Steering Committee decides which pre-proposals advance to full proposal stage

March 4, 2020: TAC reviews FY20 full proposals

March 18: Executive Committee reviews technical budget and FY20 proposals

April 15 and 16: Steering Committee makes final budget decisions

**Lake Champlain Basin Program
FY20 Conceptual Technical Task Description**

TITLE: FY20 Enhanced Best Management Practices for Pollution Reduction: Implementation and Planning Grants

ONE SENTENCE ABSTRACT: Grant funds for two categories of pollution reduction projects: shovel ready, and planning/prioritization.

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

These grants provide resources for local implementation or planning for projects that cause a direct reduction of pollution in the Lake Champlain Basin. The Pollution Prevention and Habitat Conservation category of the LCBP Local Implementation Grants has a maximum of \$25,000, so this provides an opportunity to fund larger-scale projects. A single RFP would be released for two categories of grants:

- A. Projects with a direct, on the ground, pollution abatement component would be eligible for grants of \$50,000 - \$125,000. Eligible projects in this category might include shoreline stabilization, green infrastructure project implementation, purchase of equipment to be shared among entities, or stormwater management projects at highway department facilities. Projects clearly identified in a municipal, regional, or similar plan would be favored.
- B. Projects that would provide planning and prioritization for future on the ground pollution reduction would be eligible for grants under \$50,000. Eligible projects in this category might include green infrastructure planning at a municipal level, combined sewer reduction strategies, or watershed scale assessments and prioritizations.

TOTAL COST WITH NEIWPCC INDIRECT: \$500,000 – 1,000,000

BRIEF BUDGET EXPLANATION:

This task was approved in the FY19 budget for \$633,349.

Total requested funds in 2016: \$1,065,000

Total requested funds in 2017: \$994,878

Total requested funds in 2018: \$1,278,433

2019 RFP released on August 15, closes October 3.

**Lake Champlain Basin Program
FY20 Conceptual Technical Task Description**

TITLE: FY20 Aquatic Invasive Species Rapid Response Fund

ONE SENTENCE ABSTRACT: The Lake Champlain basin AIS Rapid Response Fund provides a reserve of resources that may be used at the recommendation of the Lake Champlain AIS Rapid Response Task Force to effectively contain, control or eradicate a new aquatic invasive species invasion in the basin.

POINT OF CONTACT: LCBP, Meg Modley. Aquatic Invasive Species Management Coordinator, 54 West Shore Rd., Grand Isle, VT 05458, (802) 372-3215, mmodley@lcbp.org

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

The timing and location of the next harmful aquatic invasive species to the Lake Champlain basin is unknown. The Lake Champlain Aquatic Invasive Species Task Force is a dedicated group of experts from NY, VT, and QC that respond quickly to the report of a new infestation. The Lake Champlain Aquatic Invasive Species Rapid Response Plan approved in May 2009 by the Lake Champlain Basin Program Steering Committee contains clear steps for species confirmation, delineation of the infestation, notifying the public, species risk assessment, implementation for control and monitoring. A dedicated source of funding which is readily available to respond to a new invasive species threat is a critical component of any rapid response plan. As an example, Rapid Response funding could be used to help contain a new aquatic plant or fish, or be used for direct control and management of a new invasive species spread or arrival in the basin. The AIS Rapid Response Fund would provide a source of resources that could be used in a rapid fashion to support management, tools, and resources necessary to implement control when the Task Force deems it technically feasible. While \$75k is currently available* for the Task Force, the goal is to have \$150k available to respond to a new infestation. Outputs from the use of these funds would be measurable and the outcome of this funding would be that the basin is prepared to take steps to respond to new introductions rapidly.

*Any AIS Rapid Response Funding that may expire will be used on the boat launch steward program.

REQUEST AMOUNT: \$50,000 US dollars

TOTAL COST WITH NEIWPCC INDIRECT: \$59,000

BRIEF BUDGET EXPLANATION: Program funding is unknown but could be used for direct management to contain, control, or eradicate the introduction of AIS (contracted services, control materials, permitting, etc.) This funding request will help build the fund up closer to the \$150k target of the AIS RR Task Force.

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: FY20 Lake Champlain Boat Launch Steward (Watercraft Inspection and Decontamination) Program

ONE SENTENCE ABSTRACT: LCBP/NEIWPCC will hire 15 stewards to inspect and decontaminate, if necessary, boats launching and retrieving from Lake Champlain in NY, VT, and QC to prevent the introduction and spread of aquatic invasive species

POINT OF CONTACT: LCBP, Meg Modley. Aquatic Invasive Species Coordinator, 54 West Shore Rd., Grand Isle, VT 05458, (802) 372-3215, mmodley@lcbp.org; Frédéric Chouinard, Organisme de bassin versant de la baie Missisquoi

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

The Lake Champlain Boat Launch Steward program will enter its fourteenth season in 2020 and will continue to prevent the introduction and spread of aquatic invasive species in the Lake Champlain Basin with watercraft inspection and decontamination as noted in the Healthy Ecosystems section of *Opportunities for Action*. Direct outputs from this program include the number of courtesy boat inspections and individuals that receive AIS messaging, summary of last body of water visited, number and types of organisms removed from boats and associated equipment, and percent of public that take certain types of AIS spread prevention measures. The public will be better informed and equipped with steps to help reduce the spread of AIS in the basin and resource managers will be better informed about where to place limited resources (stewards and decontamination stations) across the landscape to reduce landscape level spread of AIS.

The boat launch stewards will use tablets to collect data in the field using survey applications on iPads. The program will operate under an EPA and NEIWPCC approved quality assurance project plan. Stewards will be trained to operate boat decontamination stations where available to treat high risk watercraft.

*The QC portion of Lake Champlain on Missisquoi Bay implemented their first year of boat inspections in 2017 with support from LCBP. The program will be continued in 2020. LCBP provides training, French translated materials (uniforms, sandwich boards, handouts), and program support. QC stewards are supervised by Organisme de bassin versant de la baie Missisquoi and data is collected on LCBP iPads for review and quality assurance.

REQUEST AMOUNT: \$189,324 US dollars

An additional amount of \$16k for OBVBM to support boat launch stewards = \$205,324

TOTAL COST WITH NEIWPCC INDIRECT: \$209,324 (with indirect on OBVBM contract)

*other if NEI charges indirect on the \$189,324

BRIEF BUDGET EXPLANATION: Program funding supports up to 17 stewards (2 in QC) most of which cover Memorial Day – Labor Day, four days a week. At sites where decontamination units are present double staffing is required for the launch and the decontamination unit.

Increases to the budget include raising the starting wage to \$15/hr, increasing coverage from four days a week to 5 days a week, and increasing the number of stewards to 15. This will allow two stewards to be stationed at the Shelburne, Malletts Bay, and South Hero launches where there is the greatest amount of traffic.

DRAFT

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: NY Lake Champlain Basin Agronomy Support and Agriculture BMP Implementation.

ONE SENTENCE ABSTRACT: Agronomic assistance to agricultural producers to increase acceptance of, and implementation of, best management practices to reduce soil and nutrient losses to surface waters.

POINT OF CONTACT: NYSDEC, Fred Dunlap

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

Continuation of services oriented program by providing technical assistance to farmers in the New York portion of the Basin and promoting implementation of Ag. BMPs intended to reduce P loadings to surface waters while sustaining on-farm productivity. Project will result in increased adoption of pollution prevention BMPs, improved utilization of available cost-share programs by producers, and improved farm sustainability. The Agronomists will provide direct one-on-one assistance regarding:

- Nutrient Management including farm nutrient mass balance, manure storage, milking center and silage leachate management, and nutrient management plans
- Conservation practices including cover crops, soil health, conservation tillage, field buffers, grass waterways, livestock exclusion, pasture improvement, field ditch improvements, rotational grazing
- Guidance towards state and federal cost-share programs
- Conduct on-farm workshops, demonstrations, and educational meetings.

This proposal is aligned with OFA Task Areas I.C.2.a: Provide Technical Assistance for Land Treatment Plans (LTPs) and Nutrient Management Plans (NMPs), I.C.2.b: Research and Promote Programs to Optimize Fertilizer Applications to Reduce Nutrient Load, I.C.2.d: Help farmers meet Clean Water regulations with targeted cost-share support for small farms, I.C.2.f: Research and support sustainable agricultural practices that address water quality concerns and also are economically sustainable. Expected outputs include targeted education and outreach to producers on BMPs intended to reduce P loadings, assistance with CNMP development, assistance with federal cost share programs, and organized demonstrations and workshops showing conservation practices. Outcomes will include increased acceptance and utilization of BMPs and reduction in nutrient losses from farms.

REQUEST AMOUNT: \$160,000

TOTAL COST WITH NEIWPCC INDIRECT: \$160,000

BRIEF BUDGET EXPLANATION: This project will support agronomic services to NY farmers to promote implementation of BMPs intended to reduce P loadings while sustaining farm viability.

TECHNICAL REFERENCES CITED:

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: Water Chestnut Management Partnership – Lake Champlain Basin

ONE SENTENCE ABSTRACT: Monitor, remove and dispose of water chestnut at over 80 Lake Champlain sites and 25 other Lake Champlain Basin waterbodies.

POINT OF CONTACT:

Kimberly Jensen
Lakes and Ponds Management and Protection Program
Vermont Department of Environmental Conservation (VTDEC)
(802) 490-6120
kimberly.jensen@vermont.gov

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

This funding is sought to continue management efforts of the aquatic invasive plant water chestnut (*Trapa natans*) in the waters of Lake Champlain and the surrounding basin. These efforts have been ongoing for decades, and have successfully reduced the problematic infestation of this plant to a fraction of what it once was. While hand-pulling and mechanical harvesting efforts have had significant positive effects, it is currently crucial to continue those efforts, or the progress that has been made will be lost.

In 2020, VTDEC will continue to prioritize management of water chestnut on Lake Champlain and adjoining tributaries with a north-to-south approach with both removal by hand and mechanical control. VTDEC will also collaborate with NYSDEC and the town of Dresden, NY for control in the Dresden region that supports a north-to-south management program. A second VTDEC element that manages water chestnut in other Basin waterbodies in Vermont will also continue. To date, removal efforts in these other waterbodies involve only the use of water chestnut removal by hand, and no change in control methods is expected in 2020. The funds sought from the Lake Champlain Basin Program will support hand-harvesting efforts in the Basin only; the complementary mechanical harvesting element will be supported with other funding sources.

VTDEC also plans to expand the use of drone technology to monitor water chestnut populations, which was a new initiative in 2018. The pilot program in 2018 focused on exploring methods for how this technology can be used as part of our management program and in 2019 we have attempted to better define these methods. In the future and in areas that have access, drones will be used to survey sporadic water chestnut populations in several large, complex sites to focus the efforts of hand harvesters prior to in-the-water efforts. We will also set up a variety of sites with varying degrees of harvesting efforts to monitor long-term impacts of harvesting and to track yearly differences in areas that are harvested as well as those that are currently not harvested. A portion of the funds sought from LCBP will contribute to this element.

This work significantly contributes to several goals outlined in *Opportunities for Action*. The aerial photography element is in line with tasks **I.A.1.a** and **I.A.1.b**, as it will provide the research community with datasets that will inform future management, and supports an innovative management approach that should prove invaluable in long-term monitoring efforts. Because the aerial photography will also be used to assess current management techniques, it satisfies task **II.B.1.d**. The water chestnut management project satisfies tasks **II.C.1.a-c** due to monitoring efforts for new populations and subsequent response. In-water harvesting also contributes to task **II.C.3.a**.

Project Outputs:

With anticipated 2020 management funds (including sources other than this request):

- Manage over 80 Lake Champlain water chestnut sites between St. Albans, VT and Dresden, NY on both sides of the lake by removal by hand, mechanical removal or a combination of the two methods. Dispose of collected material via composting or in approved, upland, non-wetland locations.
- Manage over 25 other waters within the Lake Champlain Basin in Vermont by the removal of water chestnut by hand. Dispose of collected material in approved, upland, non-wetland locations.
- Survey/search for water chestnut in other areas of Lake Champlain and in other Basin waters of Vermont. Implement a control response if water chestnut is found.
- Utilize aerial photography (drones) to assist with on-the-water monitoring efforts, and to gauge long-term success of the harvesting regime. This information will inform future harvesting plans.

Project Outcomes:

2020 harvesting efforts, hand and mechanical, will support existing water chestnut management goals: reduce densities, prevent further spread, shift Lake Champlain populations from dense mats in need of mechanical harvesting to populations harvested by hand, and continue surveillance. In addition, the use of aerial photography will help us make more informed management decisions in future and better gauge long-term success.

REQUEST AMOUNT: For the State's ongoing water chestnut management program in the Lake Champlain Basin, we request \$150,000 from the Lake Champlain Basin Program. We also anticipate receiving \$450,000 from the U.S. Army Corps of Engineers and \$30,000 from the U.S. Fish and Wildlife Service to assist in funding this initiative.

TOTAL COST WITH NEIWPCC INDIRECT: Total Project Cost = \$150,000 (No NEIWPCC Indirect costs)

BRIEF BUDGET EXPLANATION: The request for \$150,000 for FFY20 will also provide funds for the field season of 2021 so that VTDEC can align the work with the funding appropriation (as outlined in the table below). Within each season, \$75,000 of requested funds will be used to support roughly 40% of the estimated cost of contracted hand-pulling overseen by VTDEC. The remaining \$15,000 will be used to support the aerial photography component of the program. The balance of the hand-pulling contract (~\$110,000), the mechanical harvesting component (~\$300,000), composting of collected spoils (~\$7,000), access to southern Lake Champlain (~\$20,000), and VTDEC staff time (\$50,000) will be paid out of other State and Federal sources. Work occurs on both sides of Lake Champlain and in other Basin waterbodies in Vermont.

Workplan Timeline	FFY18	FFY19	FFY20	FFY21	Total
July 1, 2019 – June 30, 2020	\$30,000	\$60,000			\$90,000
July 1, 2020 – June 30, 2021		\$30,000	\$60,000		\$90,000
April 1, 2021 – June 30, 2022			\$90,000		\$90,000
April 1, 2022 – June 30, 2023				\$90,000	\$90,000
Total		\$90,000	\$150,000	\$90,000	

**Lake Champlain Basin Program
FFY20 Conceptual Technical Task Description**

TITLE: Lake Champlain Long-term Water Quality and Biological Monitoring Program.

ONE SENTENCE ABSTRACT: Lake and tributary monitoring to detect environmental change, assess progress in TMDL implementation, detect/assess AIS introductions/spread, and support public health response in the event of cyanobacteria blooms.

POINT OF CONTACT:

Angela Shambaugh, Project Manager
VT DEC, Watershed Management Division
1 National Life Dr., Main 2
Montpelier VT 05620-3522
802-490-6130
Angela.shambaugh@vermont.gov

Fred Dunlap, Project Manager
NYS DEC
PO Box 296
Ray Brook, NY 12977
518-897-1262
Fred.dunlap@dec.ny.gov

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

The primary purpose of the Long-term Monitoring Program (LTM) is to detect environmental change in the lake. It supports a key function of LCBP and OFA - measure and monitor success relative to benchmarks – as well as several strategies articulated as part of the Clean Water, Healthy Ecosystems, and Informed Public goals. This program is implemented each year during the ice-free periods.

The LTM consists of the following activities:

- Water quality monitoring: NYSDEC and VT DEC collect and analyze a suite of chemical, physical, and biological parameters from an established network of lake and tributary monitoring stations. Environmental indicators, monitoring stations, monitoring frequencies, and sampling procedures have all been specifically selected for this purpose, and statistical considerations were applied to optimize the design of the monitoring program.
 - Outputs - database that will serve to establish and interpret the relationship between water quality, the biological community, and lake environmental health; data to support the Champlain TMDL;
 - Outcomes – documentation of successes of OFA strategies/goals, identification of areas requiring additional effort to achieve goals, increasing public engagement in clean water goals around the Basin, cooperative efforts resulting in a healthier Lake Champlain.
- Champlain cyanobacteria monitoring network: Project partners VTDEC, VT Dept. of Health, and the Lake Champlain Committee monitor cyanobacteria conditions around the lake during peak recreational months. Data are shared with key public health stakeholders around the basin and used to inform public health response to bloom events.
 - Outputs – the Cyanobacteria Tracker map, weekly email updates to key stakeholders around the basin, outreach materials providing guidance for communities and the general public, and a database of conditions, toxin concentrations and cyanobacteria composition.
 - Outcomes – increasing awareness of potential health issues associated with cyanobacteria exposure, increased understanding of the connection between water quality and bloom occurrence, increased proactive response from town health officials and the general public when they encounter cyanobacteria outside of regularly monitored areas.
- Zebra mussel monitoring: The VT DEC monitors veliger populations around the lake and monitors susceptible inland lakes in VT for potential new invasions.

- Outputs – database of veliger densities on Champlain, support early detection efforts around Vermont, invasive species outreach materials
- Outcomes – increased understanding of the planktonic food web, better public understanding of the impacts of invasive species, support of the rapid response plan through early detection
- The Rock River Watershed Targeted Best Management Practice Implementation Project: VT DEC, VAAFM, and NRCS developed this project is to demonstrate water quality improvements from a focused agricultural BMP implementation effort in a small watershed where very high rates of phosphorus loading to Lake Champlain have been documented.
 - Outputs – database tracking water quality change in after coordinated implementation of agricultural best management practices,
 - Outcomes – increased understanding of ability of BMPs to improve water quality, increased usage of BMPs in the target watershed and beyond, improved water quality in a highly impacted area of the basin
- In-situ High Frequency Monitoring
 - Over the last several years, the Technical Advisory Committee (TAC) of the LCBP has discussed development of a high frequency monitoring approach for the lake. This budget includes an option to establish a system for a single tributary site and a paired lake buoy to monitor basic water quality parameters (dissolved oxygen, temperature, pH, turbidity, chlorophyll, phycocyanin). The paired equipment can be moved to other locations as desired. Other options, including external partnerships with other stakeholders in the Basin can be evaluated over the next few years. Price quotes from vendors on various setups are currently in the works and will be incorporated into this as soon as they are received.

REQUEST AMOUNT:

TOTAL COST WITH NEIWPCC INDIRECT: NA

BRIEF BUDGET EXPLANATION:

Costs include staff, supplies/materials/equipment, laboratory analyses, data management, and reporting.

Category	NEIWPCC-VT	EPA-VT	Total to VT	Total to NY	TOTAL
Personnel		\$112,524		0	
Travel		\$0		0	
Supplies		\$1,662		0	
Equipment		\$0		0	
Contractual		\$6,000		185,000	
Laboratory Services		\$71,292		0	
Administrative Direct		\$33,390		0	
Indirect Charges		\$14,610		0	
TOTAL	\$ 120,000	\$239,478	\$359,478	\$185,000	\$544,478

TECHNICAL REFERENCES CITED: List all technical references used for the pre-proposal (not included in the 2-page maximum length).

FY2020 LCBP Updated Conceptual Budget Technical Task Description

TITLE: Lake Champlain Watershed Cyanobacteria Monitoring Program

ONE SENTENCE ABSTRACT: This project will support a cyanobacteria monitoring program to recruit, train and support a network of monitors to assess and report on water conditions; track frequency and distribution of blooms; and publicize conditions through a data tracking map and other outreach mechanisms during the 2021 year and field season.

POINT OF CONTACT:

Lake Champlain Committee
Lori Fisher, Executive Director
208 Flynn Avenue, Building 3, Studio 3F, Burlington, Vermont 05401
(802) 658-1421, lorif@lakechamplaincommittee.org

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

Project Scope and Methods - The Lake Champlain Watershed Cyanobacteria Monitoring Program is focused on addressing Opportunity for Action (OFA) tasks 5.4 and 5.5 to “implement actions to monitor, investigate the causes of, and reduce the frequency of blue-green algae toxins in the Lake” and to “identify public health risks associated with toxic substances (including blue-green algae toxins) and communicate risk to the public through advisories from the three jurisdictions”

Monitoring of cyanobacterial blooms is critical to evaluate the success of management efforts to reduce those blooms. The Lake Champlain Committee (LCC) will recruit, train and support monitors to provide at least weekly assessments of water conditions from mid-June through early fall at over 100 sites on Lake Champlain and select Vermont inland lakes. Monitors will conduct qualitative visual assessments of the amount of cyanobacteria in the water. Visual assessments allow monitoring to be done over a broad spatial scale at low cost. The methodology for the qualitative assessments replicates the original surveys done to produce the water quality standards. A small subset of monitors will also collect laboratory samples in addition to completing visual monitoring. This monitoring program complements on-going analytical sampling and analysis conducted by the Vermont Department of Health (VDH) and Vermont Department of Environmental Conservation (VT DEC).

In addition to providing a dataset for long-term trend analysis, the program will provide weekly input during the summer and early fall recreation season about the location, density, and persistence of cyanobacteria blooms, allowing public health and recreation managers to make informed decisions about when and where blooms may require beach closings. Once vetted, the monitoring reports are also made publicly available via the online cyanobacteria data tracker map housed at VDH, through social media postings and through weekly reports to monitors and a list-serve of interested individuals. LCC will also provide regular reports to media throughout the monitoring season and develop outreach materials to help people identify, report and avoid blooms.

Continued monitoring of cyanobacteria blooms will allow the Lake Champlain Basin Program and state environmental agency staff to assess progress on OFA goals. Program data will help track changes in cyanobacteria bloom frequency or extent that may occur as a result of implementation of the TMDL or even independent of changes in phosphorus concentrations while continuing to provide important public health information. This project will provide funding for program development and updating, recruitment and training of volunteers, continued communication and troubleshooting with volunteers throughout the monitoring season, collection and processing of data from the volunteers, publicity about conditions, and ongoing outreach and educational materials focused on cyanobacteria and water quality.

Outputs:

Items highlighted in grey are additions to the budget

- Online and hard copy training and educational materials about cyanobacteria.
- Database of monitor information with user names, passwords, site numbers, site locations and other

reporting details.

- 20 - 30 training sessions for volunteer monitors, recreational and health personnel throughout the watershed held during the spring, early summer and fall.
- Monitor “tool kit” package to include T-shirt and/or hat, gloves, thermometers, jars for water testing, a detailed monitor manual to aid in their reporting which will include written protocols and guidance for assessing conditions with color photo examples of cyanobacteria and cyanobacteria look-alikes. While we will also provide online materials, the expanded toolkit will provide visuals and guidance in print to aid monitors in the field and serve as a reference manual when they’re not online.
- Vetting of cyanobacteria monitoring reports.
- Weekend vetting of cyanobacteria monitoring reports.
- Data for the cyanobacteria tracker map.
- Contribute to the database outlining conditions, toxin concentrations and cyanobacteria composition.
- Cyanobacteria fliers and display caddies for lakeshore communities with tips on how to recognize, avoid and report cyanobacteria. The fliers will be tailored to New York and Vermont audiences.
- Informational mailings about cyanobacteria to residents in select NY and VT communities. We will endeavor to mail to several thousand households and rotate through different communities over the years.
- Six community information sessions hosted during bloom season (three in NY, three in VT). While our spring and early summer training sessions will be open to the public we will organize special information sessions to capitalize on increased interest when blooms start showing up in the area and will endeavor to schedule them within a week or so of bloom outbreaks when public interest is high.
- Weekly email updates to monitors during the training and monitoring season and an end of season follow-up survey to help inform the upcoming season and retain monitors. The weekly emails will include photos of conditions monitors are encountering during the week, along with tips to improve reporting accuracy. We will endeavor to reiterate a lot of the material covered in training throughout the season in these weekly emails with clear visuals. The weekly emails will also include user names, passwords, site numbers and detailed reporting instructions and guidance.
- Ongoing weekly contact with monitors via email, phone, and/or in person to support monitors and ensure reporting accuracy.
- Cyanobacteria primer for media. We will produce an email primer for media providing background on cyanobacteria to help guide their reporting during the season.
- Weekly email for key stakeholders and interested citizens who subscribe to our cyanobacteria list-serve. In addition to providing information on weekly conditions, the emails will include educational information, links to resources and training materials to educate recipients about bloom causes, how to avoid exposure, and actions to take to protect water quality.

Outcomes: The program will gather information about water conditions at specific locations on Lake Champlain and inland lakes, help increase awareness of cyanobacterial blooms and potential health issues and improve understanding of the connection between water quality and bloom occurrence. Through ongoing education and outreach it will increase proactive response from municipal and state officials and the general public when they encounter blooms.

Timeframe: Program work is conducted year-round. Preparation for the monitoring season will take place from late fall through early spring with training sessions held during the spring, summer and fall. Monitoring and reporting will be conducted during the summer and early fall.

Anticipated partnerships: Primary project partners are the VT DEC, VDH and the Lake Champlain Basin Program. We will also coordinate with New York state environmental, health and recreation agencies, the Vermont Department of Forests, Parks and Recreation, municipal recreation departments for lakeshore communities, public water supply operators, and recreation centers located on Lake Champlain to offer training and provide weekly information about bloom conditions.

REQUEST AMOUNT: \$105,000

TOTAL COST WITH NEIWPCC INDIRECT: \$105,000

BRIEF BUDGET EXPLANATION:

The budget has been increased from the 2020 levels to better offset higher staffing and program expenses due to a longer season and the need for weekend coverage, produce a hard copy detailed toolkit for monitors, provide ongoing support to monitors, host community information sessions and distribute cyanobacteria educational materials more broadly.

Budget Expense	Task 1 Monitoring program development, coordination	Task 2 Implement monitoring program	Task 3 Project assessment, reporting and future planning	LCBP Request Total & Budget Percentage
Personnel	\$16,000	\$40,000	\$14,000	\$ 70,000 (67%)
Total fringe	\$ 1,600	\$ 4,000	\$ 1,400	\$ 7,000 (7%)
Supplies	\$ 5,000	\$ 4,800	\$ 0	\$ 9,800 (9%)
Communications	\$ 800	\$ 4,000	\$ 400	\$ 5,200 (5%)
Insurance	\$ 3,500	\$ 0	\$ 0	\$ 3,500 (3%)
Travel	\$ 350	\$ 2,000	\$ 150	\$ 2,500 (2%)
Indirect	\$ 1,600	\$ 4,000	\$ 1,400	\$ 7,000 (7%)
Totals:	\$28,850	\$58,800	\$17,350	\$105,000

Personnel includes staffing to review previous seasons, gain monitor feedback, review research techniques and information; develop and update program hard copy and online materials; produce and distribute monitor toolkit; produce monitor and user names and passwords for the tracker prior to the monitoring season; produce and distribute informational fliers and mailings for communities; produce separate weekly emails for monitors and interested citizens; produce a cyanobacteria primer for media; recruit, train and support the monitors; run cyanobacteria information sessions and “pop-up” information sessions for the general public; produce related education and outreach materials; and analyze and assess results with partners.

The increased budget will help offset personnel costs for preparing for and delivering the monitoring program to cover a greater portion of LCC’s staffing expenses. It will also allow us to provide coverage during the weekends when partner agencies don’t have anyone on call. In the 2018 season, 9.3% of the cyanobacteria monitoring reports came in on the weekend. In 2019, it’s been running at about 11%. During the Labor Day weekend 25 reports were received over the weekend all vetted by LCC staff. An increased personnel budget will help us offset this expense.

Supplies includes gloves, thermometers, jars, printed documents, monitor guidance documents, and other monitor toolkit materials; informational fliers and flier holders for lakeshore communities; along with training venue expenses, monitor T-shirts or hats, and Abraxis strips and materials to support field staff.

Communications include database, phone, email, website and mailing expenses associated with the monitoring program.

Insurance covers related program expenses for volunteer coverage.

Travel covers mileage and ferry expenses for recruitment, training and support of monitors along with regular site assessments.

TECHNICAL REFERENCES CITED: 2018 - 2023 Lake Champlain Cyanobacteria Monitoring QAPP

LCBP FFY20 Line Item Requests

Project #	Requesting Organization(s)	Short Project Title	Funding Request
1	NY/VT DEC	Forest P Load Allocation	\$200,000
2	NY/VT DEC	Private & Forest Roads	\$200,000
3	NY/VT DEC	WWTF Optimization – Year 2	\$260,000
4	VT Assoc. Cons. Districts/NRCS-VT	VT Agricultural Water Quality Coordination	\$45,000

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: Developing Assessment and Planning Tools, and Piloting Implementation for the Forest Load Allocation of the Lake Champlain TMDLs

ONE SENTENCE ABSTRACT: This project would assist Vermont and New York in developing and piloting the framework for implementing the forestland load allocation of the Lake Champlain TMDLs through a comprehensive assessment of managed forestland parcels, and the identification, design and construction of forestland BMPs and development of BMP efficiencies.

POINTS OF CONTACT:

Helen Carr, Vermont Department of Environmental Conservation
802-490-6115
helen.carr@vermont.gov

Ken Kosinski, New York State Department of Environmental Conservation
(518) 402-8110
Kenneth.kosinski@dec.ny.gov

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

Forested lands compose 73% of land use in the Lake Champlain basin and contribute 20% of total phosphorus loading to Lake Champlain. The Phosphorus TMDLs for Vermont Segments of Lake Champlain require a 19% reduction in total phosphorus from forested land uses. On the New York side of the watershed, forested land contributes 15% of the total phosphorus loading to Lake Champlain and the Ausable River watershed in New York has the highest amount of forest cover (92%) and contributes the greatest mean annual phosphorus load to the New York Portion of Lake Champlain (41 mt/year). Similarly, in Vermont, the Missisquoi Bay lake segment is 62% forested land use and contributes the greatest mean annual phosphorus load in from the Vermont portion of the Lake Champlain Basin (170 mt/year). Because the TMDL calls for the greatest phosphorus load reductions from forestland in the South Lake and Missisquoi sub-basins, these would be prioritized for piloting implementation.

Phosphorus reductions from forested land uses will primarily involve remediating erosion and altered hydrology associated with forest trails and roads and legacy logging operations. Forested land use is the second largest contributor of phosphorus to the basin but due to the remote nature of these sites, are not easily identifiable without assessment to determine optimal locations for phosphorus reducing best management practices (BMPs) or acceptable management practices (AMPs).

New York and Vermont are seeking support for assessing forestlands to identify, prioritize, and implement water quality improvement projects to reduce phosphorus loading from forested land uses. This project could support the following phases and associated tasks:

Phase 1

1. Identifying forestland parcels, including managed¹ forestland parcels such as national forests, state forests, state parks, municipal parks, and Use-Value Appraisal lands (lands enrolled in current-use programs) and the current and historic activities within them that could contribute to loading (e.g., recreational trails, forest roads, timber harvesting, sugaring).
2. Determining erosion risk hotspots on managed forestlands including streambank erosion, BMPs to address them, and associated phosphorus load reductions.

¹ There is natural loading from non-managed forested lands outside of these areas, but no reasonable approach for dealing with diffuse, low level loading. For example, there is no BMP to apply in the case of a homeowner with 1.5 undisturbed acres of forest within a parcel boundary.

3. Estimating interim phosphorus reduction targets by sub-basin, achieved through regulatory and non-regulatory means.
4. Prioritizing areas for implementation of forestland BMPs through a pilot program.
5. Compiling all the forestland parcels information, priority areas and recommended forestland BMPs in a final report that can be used to guide implementation.

Phase 2

1. Design and implementation of forestland BMPs to reduce sediment erosion.

Project outputs for Phase 1 could include maps of disturbed areas and other areas at risk for erosion in managed forestlands; forestland BMPs and their efficiencies; and interim targets for forested land uses by sub-basin, to be achieved through regulatory and non-regulatory means. Project outputs for Phase 2 include the design and implementation of forestland best management practices.

The outcomes of this project are an increase in our understanding of phosphorus and sediment sources from forested land uses and how to address them, which will help to inform future state and federal investments to support TMDL implementation, resulting in reduced nutrient loading from forested land uses and improved surface water quality in the Lake Champlain Basin. Overall, this project will provide a framework for implementing the forestland load allocation of the Lake Champlain TMDLs.

Timeframe: October 1, 2020 – September 30, 2022

This project contributes toward Lake Champlain Basin Program's Opportunities for Action (OFA) through the following objectives, strategies and task areas:

Objective I.C: Reduce Nutrient Loading

Strategy I.C.4: Fund Programs to Reduce Nutrient Inputs from Forested Lands

Task Area I.C.4.a: Fund programs to promote forestry practices with water quality benefits.

Objective III.B: Support Water-Wise Economic Development

Strategy III.B.3: Support working landscapes that help protect water quality

Task Area III.B.3.a BMP Implementation

REQUEST AMOUNT: \$200,000

TOTAL COST WITH NEIWPCC INDIRECT: \$200,000

BRIEF BUDGET EXPLANATION: Vermont has established an interdepartmental technical team and New York is assembling an interdisciplinary team within NYSDEC that will oversee preliminary assessment work related to this scope with state resources in SFY20, but additional resources will be required for further assessment, piloting methodology, and implementation. Once Phase 1 tasks are complete, funds will be directed to Phase 2, design and implementation of forestland BMPs.

TECHNICAL REFERENCES CITED:

Crosswalk between the Vermont Phase 1 Plan and EPA's BMP scenario identifying achievable phosphorus reductions

<https://www.epa.gov/sites/production/files/2015-09/documents/appendix-b-crosswalk.pdf>

Concentration, load, and trend estimates for nutrients, chloride, and total suspended solids in Lake Champlain tributaries, 1990 – 2017

http://lcbp.org/techreportPDF/86_LC_Tributary>Loading_Report.pdf

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: Adopting Municipal Roads General Permit (MRGP) Tools and Methods to Map, Inventory and Assess Rural, Private, and Forest Roads in Vermont and New York, and Pilot BMP Implementation at Priority Sites

ONE SENTENCE ABSTRACT: The methods and tools developed for Vermont's Municipal Roads General Permit (MRGP) would be adopted and piloted for Rural, Private, and State Forest Roads and Access Infrastructure in Vermont and New York, incentivizing implementation of road best management practices outside of the MRGP to improve water quality.

POINTS OF CONTACT:

Helen Carr, Vermont Department of Environmental Conservation
802-490-6115
helen.carr@vermont.gov

Ken Kosinski, New York State Department of Environmental Conservation
(518) 402-8110
Kenneth.kosinski@dec.ny.gov

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

VTDEC's Municipal Roads General Permit (MRGP) program is a streamlined process for inventorying roads and prioritizing and constructing projects to improve water quality. This relatively simple framework can be adopted to incentivize road best management practices (BMPs) outside of the MRGP in New York and Vermont. New York state would adopt this framework in partnership with Soil and Water Conservation Districts and municipalities, building upon the existing Rural Road Active Management Program (RRAMP). Vermont would adopt this framework on roads not covered by the MRGP, which represent 30% of Vermont road miles, including state forest roads and private roads. VTDEC data demonstrates unpaved road runoff is one of the largest phosphorus sources per acre, and road-related projects are among the most cost-effective actions to address loading from developed lands¹. In addition, road best management practices improve road resilience to large storm events.

In Vermont, work is underway to adapt the MRGP inventory methodology and tools, including developing a field application and companion database to gather and store inventory data, for additional road networks not under state regulatory jurisdiction. In New York, the Champlain Watershed Improvement Coalition of New York has been working with local municipalities to implement the RRAMP on municipal owned roadways. Through a competitive bid process in each state, this project would support adapting and piloting these methods and tools for inventorying state forest roads and access areas and secondarily, private roads, especially along lake shorelands². Funds will also support implementation of road BMPs at priority sites in the Lake Champlain Basin.

Once piloted, Vermont anticipates making these methods, tools, and inventory data available to Clean Water Service Providers to incentivize adoption of MRGP standards on state forest and priority private

¹ Based on State of Vermont data, the mean cost effectiveness (funding amount in dollars/(total phosphorus reduction in kilograms per year/anticipated lifespan in years)) for implementation of roads projects is \$38,916 compared to \$92,304 for implementation of stormwater projects.

² Work would only be conducted on private roads if there is a responsible party identified for operations and maintenance.

road networks. New York would leverage on the state's nonpoint source planning grant and the Water Quality Improvement Non-Agricultural Nonpoint Source grant programs to incentivize adoption of these standards and practices by local governments and non-profit organizations.

Project outputs include a mobile application and database to support private, rural and forest road erosion inventories, piloting of those inventories in one or more pilot watersheds, and construction of road best management practices to improve water quality.

Anticipated outcomes include reduced sediment and nutrient loading from road networks and access areas not covered by the Vermont MRGP and all the unregulated roadways in New York within the Lake Champlain Basin.

Timeframe

October 1, 2020 – September 30, 2022

This project contributes toward Lake Champlain Basin Program's *Opportunities for Action (OFA)* through the following objectives, strategies and task areas:

Objective I.C: Reduce Nutrient Loading

Strategy I.C.3: Fund Programs to Reduce Nutrient Inputs from Developed Lands

Objective III.B: Support Water-Wise Economic Development

Strategy III.B.3: Support working landscapes that help protect water quality

Task Area III.B.3.a: BMP Implementation. Provide Financial and Technical Assistance to Support Practices that Help Protect Water Quality.

REQUEST AMOUNT: \$200,000

TOTAL COST WITH NEIWPCC INDIRECT: \$200,000

BRIEF BUDGET EXPLANATION: Funds will be utilized first for application and database development, as needed, then directed to mapping, inventory and assessment of the rural, private and forest roads network in the Basin. Any remaining funding will be directed to piloting tools and implementation. The cost effectiveness of roads BMPs on hydrologically connected road miles to fully comply³ with the MRGP:

- Cost of road inventories per mile: \$287⁴
- Cost of improvements per linear mile: \$68,490⁵
- Cost per TP load reduction unit (kg/yr): \$11,838⁶

³ Includes both change from not meeting to fully meeting standards and partially meeting to fully meeting standards.

⁴ Based on VTrans-funded inventories and performance measures reported voluntarily by Regional Planning Commissions.

⁵ Based on SFY 2018 Municipal Roads Grants-In-Aid results

⁶ Based on SFY 2018 Municipal Roads Grants-In-Aid results

**Lake Champlain Basin Program
FY20 Conceptual Technical Task Description**

TITLE: Municipal Wastewater Treatment Facility (WWTF) Optimization to Reduce Effluent Phosphorus.

ONE SENTENCE ABSTRACT: Optimization of internal process control, operations, and practices at municipal wastewater treatment facilities can help to improve facility efficiencies, lower phosphorus loads, and reduce costs associated with other phosphorus control strategies.

POINTS OF CONTACT:

Amy Polaczyk, Vermont Department of Environmental Conservation
(802) 490-6185

Amy.Polaczyk@vermont.gov

Ken Kosinski, New York State Department of Environmental Conservation
(518) 402-8110

Kenneth.kosinski@dec.ny.gov

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

Phosphorus reduction at wastewater treatment facilities is an integral component of the phosphorus TMDLs for both New York and Vermont. Currently, most phosphorus reduction at WWTFs in the Basin is achieved through some means of chemical addition, settling, and solids removal. In some instances, chemical addition alone may not provide sufficient reduction to meet lower permit limits resulting from new TMDL requirements. In other facilities, phosphorus treatment infrastructure may be inadequate or the capacity to employ chemical addition may be limited. And in many facilities throughout the Basin, aging infrastructure challenges the capacity of wastewater treatment facilities to adequately and consistently treat to levels required to meet effluent limits. The ability to meet either lower permit limits or existing limits may require capital improvements at WWTFs which can be prohibitively expensive, especially for small rural communities. With the high costs associated with capital upgrades coupled with reductions in available funding, it is increasingly important that wastewater treatment facility operators look toward improving internal efficiencies and innovative solutions to help them achieve treatment necessary to meet permit limits. Wastewater treatment facility optimization offers the potential for innovative solutions to reduce effluent phosphorus loads by adjusting internal operations and process control within the existing treatment works with the added benefit in the potential for reduced operation and maintenance costs.

In addition to WWTF optimization, there is a significant need for on-going technical assistance in such areas as operator certification renewal, treatment, biological process control, laboratory procedures, collection systems, smoke testing, and industrial pretreatment. This technical assistance is important for many of the WWTFs in the rural communities to maintain the gain achieved through optimization in both Vermont and New York.

With the 2016 Vermont Lake Champlain Phosphorus TMDL Phase 1 Implementation Plan taking effect and Vermont WWTFs being issued new NPDES permits with decreased phosphorus limits Vermont contracted Vermont Rural Water Association (VRWA) in 2017 to assist WWTFs with technical support. VRWA has very successfully provided both one-on-one and collaborative technical support including innovative approaches to phosphorus reductions and helping municipalities draft phosphorus optimization plans. They have conducted numerous training sessions and roundtable events promoting collaboration and shared knowledge between municipalities.

New York has initiated the process to modify the WWTFs' NPDES permits to add a phosphorus concentration limitation to further reduce phosphorus discharge from these facilities. In the outreach to these WWTFs, NYSDEC has informed these facilities about the anticipated availability of WWTF treatment process optimization and technical support.

This is the second of three years that Vermont and New York propose this project be added to line item technical tasks. In 2018, the Steering Committee approved this project for three years of funding. At the end of the third year, the project will be evaluated to determine if it should be included as an on-going task for future funding.

This project will be contracted through separate Requests for Proposals facilitated by each state. Tasks will include working directly with wastewater treatment facility operators to evaluate existing treatment processes, examine individual components and determine phosphorus handling efficiencies, implement process control adjustments, and evaluate results. There are approximately 60 WWTFs in VT and approximately 30 WWTFs in NY. Funding will be utilized to work with these facilities in a prioritized fashion on optimization. Technical assistance will be available to facilities on an as needed basis.

This proposal is aligned with OFA Task Areas 1.A.1.b: Support innovative management approaches likely to succeed; 1.A.1.c, Increase understanding of factors affecting BMP performance and efficiency; and I.C.3.a: Support training programs to WWTFs for Asset Management. Expected outputs include informing managers of innovative phosphorus reduction opportunities and demonstrating tools and techniques to reduce phosphorus loading from wastewater treatment facilities. Outcomes will include acceptance of new management approaches as well as utilization of improved optimization strategies to further reduce phosphorus loadings from wastewater treatment facilities. An annual report will be provided to document project activities, outputs, and outcomes, including the estimated phosphorus reductions achieved through implementation of the optimization plans.

REQUEST AMOUNT: \$260,000 (\$150,000 – VT, \$110,000 – NY)

TOTAL COST WITH NEIWPCC INDIRECT: \$260,000

BRIEF BUDGET EXPLANATION:

It is expected the largest share of the budget will be for direct professional engineering services. Other costs will include those associated with collecting data necessary to recommend and evaluate process adjustments, developing written operating procedures to assist the operator with optimization, conducting education and outreach to the governing boards and wastewater treatment facility staff, and preparing guidance documents that may be shared with other similar facilities in the Basin.

TECHNICAL REFERENCES CITED:

Case Studies on Implementing Low-Cost Modifications to Improve Nutrient Reduction at Wastewater Treatment Plants. August 2015. USEPA

https://www.epa.gov/sites/production/files/2015-08/documents/case_studies_on_implementing_low-cost_modification_to_improve_potw_nutrient_reduction-combined_508_-_august.pdf

Aging Wastewater Treatment Infrastructure – NYS Dept of Environmental Conservation

<http://www.dec.ny.gov/chemical/69446.html>

WWTF Optimization for Phosphorus Removal – Minnesota Pollution Control Agency

<https://www.pca.state.mn.us/sites/default/files/wq-wwtp9-03.pdf>

Weaver, Grant PE. Implementing & Optimizing Phosphorus Removal at Activated Sludge Wastewater Treatment Plants

<http://www.cleanwaterops.com/wp-content/uploads/2014/03/TechWebinar02-P-Removal-at-AS-wwtps-Feb-2014.pdf>

Lake Champlain Basin Program FY20 Conceptual Technical Task Description

TITLE: Accelerating Agricultural Phosphorus Reduction in the Vermont Lake Champlain Basin through Strengthened Inter-Agency Collaboration

ONE SENTENCE ABSTRACT: The Vermont Agricultural Water Quality Partnership (VAWQP) will accelerate agricultural phosphorus reduction in the Vermont Lake Champlain Basin through facilitated inter-agency collaboration and coordination of research, learning, planning, outreach, education, training, innovation, technical assistance, best management practice implementation and communications at the state and local levels.

POINT OF CONTACT: State Natural Resources Conservation Council (NRCC)
Jill Arace, Executive Director, Vermont Association of Conservation Districts (VACD, acting a fiscal agent for NRCC), PO Box 566, Waitsfield, VT 05673, (802) 495-5162, jill.arace@vacd.org

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, METHODS, AND TIMEFRAME:

The Vermont Agricultural Water Quality Partnership (VAWQP) is a group of nine governmental and quasi-governmental agencies in Vermont that have committed to information-sharing, coordination and collaboration in order to accelerate implementation of programs to protect and improve Vermont's water quality and wildlife habitats. The members of the VAWQP have signed a Memorandum of Understanding and include: USDA Natural Resources Conservation Service (NRCS), USDA Farm Service Agency (FSA), US Fish and Wildlife Service (USFWS), Lake Champlain Basin Program (LCBP), VT Agency of Agriculture, Food and Markets (VAAFMT), VT Agency of Natural Resources Department of Environmental Conservation (VANR-DEC), University of Vermont Extension (UVM), Vermont Housing and Conservation Board (VHCB), and VT Natural Resources Conservation Districts through the VT Association of Conservation Districts (VACD).

The VAWQP has existed since 2012 and grew out of the recognized need for inter-agency information-sharing, coordination and collaboration in order to accelerate water quality project implementation, increase the efficiency and effectiveness of technical and financial assistance efforts, and provide the best service experience possible for farmers and landowners. In recent years, the VAWQP has met every month or two in meetings hosted by VAAFMT, held an annual training for all partner staff with logistical support from VACD, and periodically held regional meetings among partner staff at the local and regional levels with coordination support from VAAFMT, VANR-DEC, VACD and the State Natural Resources Conservation Council (NRCC). To date, VAWQP agencies have contributed mostly their own staff time, plus a small amount of funding, to support these activities.

As a result of the new Lake Champlain TMDL, the passage of the Vermont Clean Water Act, the creation of the Vermont Clean Water Fund, and USDA's and EPA's investment of significant additional funding to address Vermont's water quality concerns, the VAWQP identified the need to ramp up and strengthen its efforts. In 2019, with support from VAAFMT, the VAWQP undertook an in-depth strategic planning process and identified the following goals for the next five years. (A full copy of the VAWQP Strategic Plan is available.)

1. Build a stronger collaboration among VAWQP agencies and organizations (Champions: NRCC, VACD);
2. Identify, connect, share and coordinate research and learning happening across VAWQP partners and others (Champions: UVM Extension, LCBP);

3. Utilize research and learning to evaluate, adjust, and innovate on specific practices and tools across the partners (Champion: NRCS);
4. Ensure training of staff across partner organizations (Champion: VAAFM);
5. Create consistent, coherent, meaningful messages for partner staff, farmers, and the public (Champion: NRCS); and
6. Align Basin planning and prioritization efforts and ensure effectiveness of jointly targeted watershed strategies (Champion: VANR-DEC).

While VAWQP leaders committed their organizations and staff to be the “champions” of specific goals, it was also determined during the strategic planning process that dedicated VAWQP staff resources will be essential the success of this effort. Leaders identified the need for a central coordinator who will promote and support implementation of the VAWQP strategic plan, identify and catalyze opportunities for synergies among agencies, assist partners in addressing concerns that are hindrances to collaboration or bottlenecks to water quality program technical assistance and implementation, organize meetings and trainings, facilitate information flow among partner agencies at the central and regional levels, and represent the partnership to external audiences. A position description for the coordinator was developed (also available) and, after some discussion, it was decided to house the position with the State Natural Resources Conservation Council (NRCC), the oversight agency of Vermont’s Natural Resources Conservation Districts.

Each VAWQP partner has been asked to contribute towards the costs of this coordination facilitation effort, and some are able to contribute more than others. This is the purpose of this request.

The outcome of this effort will be improved water quality, reduced phosphorus loading, and improved wildlife habitats in the Vermont Lake Champlain Basin and beyond. Other results will include increased efficiency and cost effectiveness of technical and financial assistance services, improved VAWQP staff understanding of available water quality assistance programs, improved farmer understanding of and access to these programs, and improved public understanding of the efforts of farmers, landowners, and VAWQP partners to improve water quality and wildlife habitats.

REQUEST AMOUNT: \$45,000 (\$15,000 per year for three years)

TOTAL COST WITH NEIWPCC INDIRECT (19.5%): \$53,775

BRIEF BUDGET EXPLANATION: The total budget for this activity is \$375,00 -- \$125,000 per year for three years starting October 1, 2019 as summarized below.

VAWQP Annual Budget Summary	
Personnel	58,656
Fringe	20,678
Travel	1,500
Supplies/Printing	1,000
Contractual	25,000
Other	5,779
Subtotal	112,613
Indirect Costs	12,387
Total	125,000

The VAWQP is asking each member partner organization to contribute towards the expense of this effort. To date (9/6/2019), USDA NRCS has committed \$150,000 and VACD has committed \$15,000. NRCC has a proposal pending with VAAFM to support the regional coordination portion of this activity. Personnel, fringe, travel, supplies and office expense will support VAWQP coordination at the state level. Contractual will support facilitation of coordination at the local and regional levels. Indirect costs are calculated at 11%.

TAC recommendation for FY20 priorities

Edited with changes suggested by the Lake Champlain Steering Committee, June 6, 2019.

1. Projects that assess long-term efficacy of water quality BMPs, BMP maintenance practices or develop innovative practices to reduce phosphorus loading
2. Projects that support conservation and/or restoration efforts for
 - a. native species and their habitats,
 - b. water quality, and/or
 - c. flood resilience
3. Research to better understand the water quality impacts of de-icing alternatives and recent changes in de-icing agent application rates
4. Research on Lake Champlain ecosystem impacts of anthropogenic micro- and nanoparticles
5. Research to better understand winter season in-lake biogeochemistry, or watershed nutrient fate and transport

Note: Outside of these priorities, the TAC proposes to develop a recommendation for modest investment in automation within the Lake Champlain Long-Term Monitoring Program. This recommendation will be brought before the Steering Committee for consideration in the FY20 budget deliberations.

Summary of TAC feedback on FY19 priorities/process:

- Priorities were too similar
- Fewer priorities may be better
- Scoring process should be clearer
- Could be a binary option: any priority met or no priorities met
- The condition of whether a priority is met could be determined by staff so it is consistent for all projects (rather than subjectively by TAC).

FY19 priorities:

LCBP seeks pre-proposals for projects that address any strategies and tasks outlined in *Opportunities for Action*. LCBP is particularly interested in funding projects that address the following priorities:

1. Research or innovative demonstration projects that reduce pollution to Lake Champlain, especially nutrients (from agricultural sources, urban stormwater, and legacy nutrients), de-icing agents, and other emerging contaminants of concern
2. Research or implementation projects that use LCBP-funded or other publicly available datasets to create outputs leading to improved water quality in the Lake Champlain Basin

3. Projects that fill knowledge gaps or improve diversity of native aquatic and riparian species in the Lake Champlain Basin (Opportunities for Action Strategy II.B.1; pages 30-31), including habitat restoration and target species recovery
4. Projects that quantify benefits of existing best management practices, or optimize existing practices for pollution reduction goals (Opportunities for Action Task I.A.1.c), especially to reduce soluble reactive phosphorus loading and for management in light of climate change effects
5. Projects that research and support sustainable agricultural practices that address water quality concerns and are economically sustainable (Opportunities for Action Task I.C.2.f)

FY18 priorities:

LCBP seeks pre-proposals for projects that address any strategies outlined in *Opportunities for Action*. LCBP is particularly interested in funding projects that address the following priorities:

1. Innovative pilot or demonstration projects that reduce nutrient loading to Lake Champlain
2. Research or implementation projects that use LCBP-funded or other publicly available datasets to create outputs leading to improved water quality in the Lake Champlain Basin
3. Projects that improve diversity of native aquatic and riparian species in the Lake Champlain Basin (*Opportunities for Action* Strategy II.B.1; pages 37-38)
4. Projects that research or control sources of contaminants in the Lake Champlain Basin (*Opportunities for Action* Strategy I.B.1; pages 28-29)

Integrated TAC/VT-NY FY20 priorities:

1. Projects that evaluate water quality BMP design standards, maintenance and operation standards, and long-term performance, including those that address removal of dissolved phosphorus and or environmental conditions related to climate change.
2. Conservation and restoration research or implementation projects that support:
 - a. native species and their habitat,
 - b. water quality, and or
 - c. flood resilience.
3. Basin-wide streambank erosion assessment and inventory.
Development of a comprehensive streambank erosion assessment to identify and prioritize critical stream reaches in need of ~~stabilization~~ streambank equilibrium and where applicable, identify potential causes of exacerbated erosion. The assessment would result in a planning document to leverage implementation funding through NY's Water Quality Improvement Program (WQIP) grant program for targeted streambank stabilization and stream corridor protection projects to reduce sedimentation and phosphorous loading.
4. Research to better understand the water quality impacts of road de-icing alternatives and recent changes in de-icing agent application rates.
5. Research to better understand winter season in-lake biogeochemistry, or watershed nutrient fate and transport.

Commented [EK1]: Clarify in RFP that priorities are independent of each other, they are not in ranked order.

Commented [EK2]: Adjust geographic scope to NY and QC projects. Clarify that work already being done in Rock River.

TAC recommendation for FY20 priorities:

1. Projects that assess long-term efficacy of water quality BMPs, BMP maintenance practices or develop innovative practices to reduce phosphorus loading.
2. Research to support conservation and/or restoration efforts that support:
 - a. native species
 - b. water quality, and/or
 - c. flood resilience.
3. Research to better understand the water quality impacts of de-icing alternatives and recent changes in de-icing agent application rates.
4. Research on human and ecosystem impacts of anthropogenic micro- and nanoparticles.
5. Research to better understand winter season in-lake biogeochemistry, or watershed nutrient fate and transport.

Original VT-NY FY20 priorities:

1. Evaluation of existing BMP performance and design standards in relation to climate change
2. Management recommendations to extend best management practice life span and performance
3. Evaluate techniques to increase the efficiency of best management practices in removing soluble reactive phosphorus
4. Habitat restoration and target species recovery
5. Quantifying flood storage capacity and nutrient load reductions resulting from natural resources conservation and restoration
6. Evaluate alternatives to chloride use for private contractors (e.g., commercial, industrial and private parking lots, airports, private roads, residential driveways) in NY and VT

LCBP Director Priority:

1. Develop a binational mass balance for phosphorus in the Missisquoi Bay watershed

Understanding the amount of phosphorus that is brought into the Missisquoi Bay basin from external sources (imported phosphorus), how phosphorus is cycled through the Missisquoi Bay basin ecosystem, and how much phosphorus is exported, either out of the Bay and into the rest of Lake Champlain or out of the watershed by human activity will be critical to addressing the frequency of cyanobacterial blooms in the long-term. A binational phosphorus mass-balance model that addresses movement of phosphorus throughout the Missisquoi Bay basin ecosystem will help to inform management decisions and measure progress toward achieving management goals for the Bay.

25 Sam Spear Road

Westport, NY 12993

Lake Champlain Basin Program

54 West Shore Road

Grand Isle, VT 05458

August 26, 2019

Dear Eric and Jim,

Kelly Cerialo and I would like to thank you for meeting with us last week (8/21/19) to discuss the possibility that the Lake Champlain Basin Program (LCBP) serve as the organizational home for the Champlain-Adirondack Biosphere Reserve (CABR) as a new project.

As we discussed, CABR envisions its mission as a network of local and regional organizations to elevate and celebrate our shared region as a special place, a UNESCO-designated biosphere reserve among 700 biosphere reserves on the planet. Our recent visits and meetings with colleagues in Quebec, Ontario and other US states in the Great Lakes and St Lawrence River watershed indicate a tremendous interest in acting at a bioregional scale to address the imminent threats of climate change, conserve biodiversity, and revitalize rural communities.

We know CABR has many shared strategic objectives with LCBP and do not wish to become a new 501(c) 3 non-profit in an already crowded field. And as a local community participatory group we also do not want to become an entity under a federal or state government agency.

We understand that the New England Interstate Water Pollution Control Commission is the base organization for the LCBP and would like to respectfully request consideration to permit CABR to become a new project. A summary of CABR and our current Steering Committee Charter is included for your information.

If you are willing to initiate the proposed relationship, we think there are a some key components to consider, including:

- An LCBP administrative account for CABR to receive and track funds, with appropriate overhead for LCBP;
- CABR website and list-serve to be populated by CABR members (there are other potential web administrators, including Paul Smiths College);
- LCBP acknowledgement and inclusion of CABR on its website;

- Periodic meetings (at least every six months) between LCBP and CABR Co-Chairs and/or Steering Committee to assess the relationship and make needed adjustments;
- Mutual agreement that either party may terminate the agreement on 30 days notice.

On behalf of the Champlain-Adirondack Biosphere Reserve, we would like to thank you for your consideration of this proposal that the Lake Champlain Basin Program serve as the institutional base for the Champlain-Adirondack Biosphere Reserve. Please don't hesitate to contact us with any questions or concerns you may have.

Cordially,

Kelly Cerialo and Brian Houseal 
Co-Chairs, Champlain-Adirondack Biosphere Reserve



Champlain Valley National Heritage Partnership



FY2020 Budget and Workplan Approach

The Heritage Area Program Advisory Committee (HAPAC) recommends to the LCBP Steering Committee that the Champlain Valley National Heritage Partnership (CVNHP) FY2020 Budget and Workplan follow the Pre-proposal format initiated last year. The Pre-proposal system allows the HAPAC and the Steering Committee more effectively develop a workplan that focuses a yearly interpretive theme and better address the goals, tasks and actions of the CVNHP Management Plan. Similar to last year's model, the HAPAC recommends these grant categories be available:

CVNHP Special Program Projects (\$10,000-\$40,000) will address any of the following priorities:

- Serve the CVNHP *Corridor of Commerce* Interpretive Theme with emphasis on the **Temperance Movement**, the **Prohibition Era**, or **Smuggling** to support regional projects that interpret, highlight and support the observation of the 100th anniversary of the 18th Amendment of the United States Constitution and a long history of illegal trade throughout the region. Special Program pre-proposals should be multi-jurisdictional and serve to highlight the *Corridor of Commerce* Interpretive Theme on an international scale. Projects smaller in scope and scale are welcome to submit pre-proposals in the *Corridor of Commerce* Interpretive Theme Core Grant Program (below).

CVNHP Core Grant Program proposals may include:

- **Local Heritage Grants** (up to \$4,000 for local projects; up to \$7,500 for regional, multi-jurisdictional projects) for educational endeavors that involve active participation from youth and students in the research and discovery of the cultural or natural heritage associated with their community, and the creation of new artistic expressions, or interpretation of those topics utilizing fresh perspectives or new technology.
- ***Corridor of Commerce* Interpretive Theme Grants** (up to \$7,500) that highlight, showcase and interpret the **Temperance Movement**, the **Prohibition Era**, or **Smuggling** to support regional projects that interpret, highlight and support the observation of the 100th anniversary of the 18th Amendment and a long history of illegal trade throughout the region.

- **Collections Grants** (up to \$7,500) for the inventory, conservation and interpretation of museum and library collections. Projects retrofitting historic museum or library buildings with UV/climate control technology are also eligible for funding.
- **Internship Grants** (up to \$5,000) for CVNHP-sponsored internships focused on professional internships that provide experience in historical/natural interpretation and/or artifact curation, cataloging, and display, with exposure to general museum/historic site management during a portion the tourism season (i.e. spring to fall 2021).

Timeframe for Proposals

- **September 26, 2019:** LCBP Releases Request for Pre-proposals for Core Grants and Special Program Grants for projects to begin in Fall 2020.
- **October 7, 2019:** CVNHP Annual International Summit where Pre-proposal process is described and networking opportunities explored.
- **November 4, 2019:** Pre-proposals for Core Grants and Special Program Funding due.
- **December 17, 2019:** Lake Champlain Steering Committee considers recommendations from peer-review committee regarding which pre-proposals are invited to submit full proposals.
- **December 19, 2019:** Notify successful pre-proposal applicants to proceed with development of full proposals for Core Grant and Special Programs.
- **January 27, 2020:** Core Grant and Special Program Proposals due.
- **April 15 & 16, 2020: Lake Champlain Steering Committee:** Finalize FY2020 CVNHP budget and projects, including approved CVNHP Core Grant and Special Programs proposals.
- **May 2020:** programs funded in the FY2020 CVNHP Budget and Workplan develop workplans for anticipated work.
- **October 2020:** memorandums of understanding developed between the grantee organization and the New England Water Pollution Control Commission—the fiduciary agent of the LCBP/CVNHP—and project work begins.

Release date: September 26, 2019

Request for Heritage Pre-Proposals to Implement the CVNHP Management Plan

The Lake Champlain Basin Program (LCBP), with the New England Interstate Water Pollution Control Commission (NEIWPCC) is pleased to announce a Request for Pre-Proposals for projects and programs that highlight the Interpretive Themes and further the goals, actions and tasks described in the Champlain Valley National Heritage Partnership (CVNHP) [Management Plan](#) (pages 39-68).

The pre-proposal should be a two-page document to introduce the project, adhering to the format on the Pre-proposal Form located below and online at: <http://www.lcbp.org/grants>. After review of the submitted pre-proposals, a subset of applicants will be asked to submit a full proposal for funding consideration for projects to begin on October 1, 2020. Pre-proposals not invited for full proposal consideration in this cycle may be revised and submitted for future funding opportunities. All award notifications are subject to available funding.

The LCBP is particularly interested in funding projects that address the following priorities:

CVNHP Special Program Funding Projects (\$10,000-\$40,000) will have an emphasis on any of the following:

- Serve the CVNHP *Corridor of Commerce* Interpretive Theme with emphasis on the **Temperance Movement**, the **Prohibition Era**, or **Smuggling** to support regional projects that interpret, highlight and support the observation of the 100th anniversary of the 18th Amendment and a long history of illegal trade throughout the region.

CVNHP Core Grant Program proposals may include:

- Local Heritage Grants (up to \$4,000 for local projects; up to \$7,500 for regional, multi-jurisdictional projects)
- *Corridor of Commerce* Interpretive Theme Grants (up to \$7,500)
- Collections Grants (up to \$7,500)
- Internship Grants (up to \$5,000)

We anticipate these projects will be supported with funds awarded to NEIWPCC by the U.S. National Park Service (NPS) and the Great Lakes Fishery Commission (GLFC). The CVNHP Pre-Proposal forms are available from the LCBP website: <http://lcbp.org/grants>.

PRE-PROPOSAL DEADLINE NOTICE: Only electronic pre-proposals in MS Word or compatible formats will be accepted and must be received by jbrangan@lcbp.org AND grants@lcbp.org by **November 4, 2019**.

LATE OR INCOMPLETE PRE-PROPOSALS WILL NOT BE CONSIDERED.

Request for Pre-Proposals to Implement the CVNHP Management Plan

Overview of the CVNHP, LCBP and NEIWPCC

The CVNHP includes any heritage resource or community along the linked navigable waterways of Lake Champlain, Lake George, the Champlain Canal, and the Upper Hudson River that contains a physical, cultural, or historical resource representing any of the CVNHP's approved interpretive themes: *Making of Nations*, *Corridor of Commerce*, and *Conservation & Community*.

The CVNHP was established by the U.S. Congress in 2006 to recognize the importance of the historical, cultural, and recreational resources of the region and to assist efforts to preserve, protect, and interpret those resources. The National Heritage Area also works to enhance the quality of the tourism economy and to encourage working partnerships among state, provincial, and local governments and non-profit organizations in New York, Québec, and Vermont.

Eligible communities and project sites within the US-portion of the CVNHP include the counties of Grand Isle, Franklin, Chittenden, Addison, Rutland, and Bennington in Vermont and Clinton, Essex, Warren, Saratoga, and Washington counties in New York. Eligible communities and sites in Quebec include the Brome-Missisquoi, La Vallée-du-Richelieu, Rouville, Pierre-de-Saurel, and Le Haut-Richelieu regional municipal counties (RMCs) of Québec.

The U.S. Congress designated Lake Champlain as a resource of national significance with the Lake Champlain Special Designation Act of 1990. The Special Designation Act also established the LCBP and authorized it to receive direct support from the U.S. EPA under the Clean Water Act. The LCBP coordinates and funds efforts that benefit the Lake Champlain Basin's water quality, fisheries, economy, wetlands, wildlife, recreation, and cultural resources, and works in partnership with government agencies, private organizations, local communities, and individuals from New York, Vermont, and Québec. These efforts are guided by the comprehensive management plan *Opportunities for Action: An Evolving Plan for the Future of the Lake Champlain Basin*, recently updated in June 2017.

Since 1992, the New England Interstate Water Pollution Control Commission (NEIWPCC) has served as the primary program administrator of LCBP at the request of the Lake Champlain Steering Committee, and administers the program's personnel and finances. NEIWPCC is a congressionally authorized not-for-profit interstate organization whose membership includes all six New England states and New York State. The NEIWPCC mission is to help its member states to realize their individual and collective clean water program goals.

I. Grant award process

The LCBP issues this request for two-page pre-proposals that address the priorities listed above for Special Projects or Core Grants. Pre-proposals will be evaluated through a competitive process; a subset of pre-proposal applicants will be asked to submit a full proposal, with a developed budget and anticipated project outputs and outcomes. Grant award recipients will be selected from the pool of full proposals and successful projects can begin on October 1, 2019. The aim of this process is to invite a wide range of innovative and effective projects and further the goals, actions and tasks described in the CVNHP [Management Plan](#) (pages 39-68).

Applicants may choose the most appropriate total request amount for their project. Requests ranging from \$4,000 to \$40,000 will be accepted in the appropriate grant category. Please note that if an applicant is asked to submit a full proposal, the total request amount in the full proposal must be equal to or less than the total request in the pre-proposal unless suggested by the LCBP. Please visit <http://lcbp.org/grants> or contact LCBP for information on other grant opportunities. Successful applicants should be aware of the additional requirements as described in Appendix A of this Request for Pre-proposals.

Please contact Jim Brangan, Assistant Director of the CVNHP at jbrangan@lcbp.org with questions.

II. Priorities for Funding

LCBP seeks pre-proposals for special programs that address the themes, goals, actions and tasks described in the CVNHP [Management Plan](#) (pages 39-68). For this funding cycle, the Lake Champlain Steering Committee has identified the priorities for funding listed below. Projects that address these priorities will likely be more competitive in the review process.

CVNHP Special Program Projects (\$10,000-\$40,000) will address any of the following priorities:

- Serve the CVNHP *Corridor of Commerce* Interpretive Theme with emphasis on the **Temperance Movement**, the **Prohibition Era**, or **Smuggling** to support regional projects that interpret, highlight and support the observation of the 100th anniversary of the 18th Amendment of the United States Constitution and a long history of illegal trade throughout the region. Special Program pre-proposals should be multi-jurisdictional and serve to highlight the *Corridor of Commerce* Interpretive Theme on an international scale. Projects smaller in scope and scale are welcome to submit pre-proposals in the *Corridor of Commerce* Interpretive Theme Core Grant Program (below).

CVNHP Core Grant Program proposals may include:

- **Local Heritage Grants** (up to \$4,000 for local projects; up to \$7,500 for regional, multi-jurisdictional projects) for educational endeavors that involve active participation from

youth and students in the research and discovery of the cultural or natural heritage associated with their community, and the creation of new artistic expressions, or interpretation of those topics utilizing fresh perspectives or new technology.

- **Corridor of Commerce Interpretive Theme Grants** (up to \$7,500) that highlight, showcase and interpret the **Temperance Movement**, the **Prohibition Era**, or **Smuggling** to support regional projects that interpret, highlight and support the observation of the 100th anniversary of the 18th Amendment and a long history of illegal trade throughout the region.
- **Collections Grants** (up to \$7,500) for the inventory, conservation and interpretation of museum and library collections. Projects retrofitting historic museum or library buildings with UV/climate control technology are also eligible for funding.
- **Internship Grants** (up to \$5,000) for CVNHP-sponsored internships focused on professional internships that provide experience in historical/natural interpretation and/or artifact curation, cataloging, and display, with exposure to general museum/historic site management during a portion the tourism season (i.e. spring to fall 2021).

III. Eligibility

Eligible organizations include nonprofit organizations, colleges, universities, and municipalities within the CVNHP region.

IV. Timeframe for proposals

The pre-proposal to project initiation process will require approximately 12 months, as follows. Please note that this schedule is **subject to change**:

- **September 26, 2019:** LCBP Releases Request for Pre-proposals for Core Grants and Special Program Grants for projects to begin in Fall 2020.
- **October 7, 2019:** CVNHP Annual International Summit where Pre-proposal process is described and networking opportunities explored.
- **November 4, 2019:** Pre-proposals for Core Grants and Special Program Funding due.
- **December 17, 2019:** Lake Champlain Steering Committee considers recommendations from peer-review committee regarding which pre-proposals are invited to submit full proposals.
- **December 19, 2019:** Notify successful pre-proposal applicants to proceed with development of full proposals for Core Grant and Special Programs.
- **January 27, 2020:** Core Grant and Special Program Proposals due.
- **April 15 & 16, 2020: Lake Champlain Steering Committee:** Finalize FY2020 CVNHP budget and projects, including approved CVNHP Core Grant and Special Programs proposals.
- **May 2020:** programs funded in the FY2020 CVNHP Budget and Workplan develop workplans for anticipated work.

- **Summer 2020:** Agreements between New England Interstate Water Pollution Control Commission and grant funding sources are developed.
- **October 1, 2020:** The earliest project work may begin with execution of a memorandum of understanding between the grantee and NEIWPCC.

V. CVNHP Special Program Pre-Proposal Evaluation and Selection Criteria

Submitted pre-proposals for CVNHP Special Programs will be judged according to the following criteria:

- Focus:** Extent to which the project will address: 1) the Temperance Movement, 2) the Prohibition Era and/or 3) Smuggling in the Champlain and Richelieu River valleys. (20 points)
- Impact:** Extent to which the project will result in tangible outputs and benefits that address the tasks identified on pages 43-68 of the [CVNHP Management Plan](#). (20 Points)
- Partnerships:** Extent to which the applicant demonstrates a commitment to work with partners to achieve project goals and the extent to which this cooperation will enhance the effectiveness of CVNHP funding. (20 Points)
- Feasibility:** Extent to which the project can be executed and the likeliness of success. (20 points).
- Budget:** Efficiency of proposed request and budget for the scope and outputs of the project. Proposed funding match (if any) will increase score in this criterion (20 points)

VI. CVNHP Core Grant Pre-Proposal Evaluation and Selection Criteria

- CVNHP Local Heritage Grant** Pre-Proposal Evaluation and Selection Criteria Pre-proposals (up to \$4,000 for local projects; up to \$7,500 for regional, multi-jurisdictional projects) for educational endeavors that involve active participation from youth and students in the research and discovery of the cultural and/or natural heritage associated with their community, and the creation of new artistic expressions, or interpretation of those topics utilizing fresh perspectives and/or new technology. Submitted pre-proposals for CVNHP Local Heritage Grants will be judged according to the following criteria:

- Focus:** Extent to which the proposed project involves active participation from youth and students in the research and discovery of their community's unique cultural and/or natural heritage. (20 Points)
- Impact:** The extent to which new artistic expressions through fresh perspectives, interpretive media, and/or new technology are created. (20 Points)

- c) **Partnerships:** Extent to which the applicant demonstrates a commitment to work with partners to achieve project goals and the extent to which this cooperation will enhance the effectiveness of CVNHP funding. (20 Points)
- d) **Feasibility:** Extent to which the project can be executed and the likelihood of success. (20 points).
- e) **Budget:** Efficiency of proposed request and budget for the scope and outputs of the project. Proposed funding match (if any) will increase score in this criterion (20 points)
- f) **Extra Credit:** Pre-proposals that include a focus on the *Corridor of Commerce* Interpretive Theme with an emphasis on the Temperance Movement, Prohibition, and/or Smuggling may receive extra credit on their application. Projects that focus on underserved communities will also receive extra credit. (up to 10 points)

2. CVNHP Corridor of Commerce Interpretive Theme Grants Pre-Proposal Evaluation and Selection Criteria

Pre-proposals (up to \$7,500) for projects, or programs that highlight, showcase and interpret the Temperance Movement, Prohibition, and/or Smuggling in the CVNHP region. Submitted pre-proposals for CVNHP *Corridor of Commerce* Interpretive Theme Grants will be judged according to the following criteria:

- a) **Focus:** Extent to which the project will address: 1) the Temperance Movement, 2) the Prohibition Era and/or 3) Smuggling. (20 points)
- b) **Impact:** Extent to which the project will result in tangible outputs and benefits that address the tasks identified on pages 43-68 of the [CVNHP Management Plan](#). (20 Points)
- c) **Partnerships:** Extent to which the applicant demonstrates a commitment to work with partners to achieve project goals and the extent to which this cooperation will enhance the effectiveness of CVNHP funding. (20 Points)
- d) **Feasibility:** Extent to which the project can be executed and the likelihood of success. (20 points).
- e) **Budget:** Efficiency of proposed request and budget for the scope and outputs of the project. Proposed funding match (if any) will increase score in this criterion (20 points)

3. CVNHP Collections Pre-Proposal Evaluation and Selection Criteria

Submitted pre-proposals (up to \$7,500) for CVNHP Collections Grants will be judged according to the following criteria:

- a) **Focus:** Extent to which project serves the intent of the grant: 1) the inventory, conservation and interpretation of museum or library collections; or 2) retrofitting historic museum or library facilities with UV/climate control technology. (20 Points)

- b) **Need:** Extent to which the collection, or facility requires assistance. (20 points)
- c) **Capacity:** Extent of the professional knowledge and background of the project's principal and/or the capacity of partners involved. (20 points)
- d) **Feasibility:** Extent to which the project can be executed and the likeliness of success. (20 points).
- e) **Budget:** Efficiency of proposed request and budget for the scope and outputs of the project. Proposed funding match (if any) will increase score in this criterion (20 points)

4. **CVNHP Internship Pre-Proposal Evaluation and Selection Criteria**

Pre-proposals (up to \$5,000) for internship grants focused on professional internships that provide experience in historical/natural interpretation and/or artifact curation, cataloging, and display, with exposure to general museum/historic site management during a portion the tourism season (i.e. spring to fall 2021). Submitted pre-proposals for CVNHP Internship Grants will be judged according to the following criteria:

- a) **Focus:** Overview of the historic site/museum, including its history, mission, annual visitation numbers and how it serves the interpretive themes of the CVNHP: *Making of Nations, Corridor of Commerce* and/or *Conservation & Community*. (20 points)
- b) **Internship Description:** The proposed internship job description and the tangible outcomes, outputs and deliverables associated with the internship. (20 points)
- c) **Capacity:** Knowledge and experience of the intern's supervisor and how that knowledge and experience will be shared with the intern. (20 points)
- d) **Feasibility:** Extent to which the project can be executed and the likeliness of success. (20 points).
- e) **Budget:** Efficiency of proposed request and budget for the scope and outputs of the project. Proposed funding match (if any) will increase score in this criterion (20 points)

VII. **Available Funds and Match Requirements**

Funds are anticipated to be available for projects beginning on October 1, 2020. All awards are subject to available funding and LCBP is not obligated to issue any funds under this request. The CVNHP Special Project and Core Grants require no match, however, proposals with a strong in-kind, or cash match usually rank higher than those that don't.

VIII. **Period of Performance**

Work is expected to begin no earlier than **October 1, 2020** and should be completed within 15 months after the start date.

IX. Schedule and Requirements for Pre-Proposal Submission

1. Please follow the format outlined in the attached CVNHP Pre-Proposal Format Requirements.
2. Only editable electronic copies will be accepted and must be received via email in Microsoft Word, or Word-compatible format by **November 4, 2019** to (jbrangan@lcbp.org) and (grants@lcbp.org). **Note:** Pre-proposals in a PDF format will be rejected.

X. Contact Information

Please direct all inquiries to:

Jim Brangan
Lake Champlain Basin Program
Champlain Valley National Heritage Partnership
54 West Shore Rd.
Grand Isle, VT 05458
p: 802-372-3213 x213
jbrangan@lcbp.org

Pre-Proposal Format Requirements

Pre-proposals should be sent electronically in MS Word (or equivalent) format to jbrangan@lcbp.org AND grants@lcbp.org. Pre-proposals must adhere to the following guidelines: 12-point Times New Roman font (or equivalent), minimum 1-inch margin on all sides, and should not exceed a **2-page maximum length**.

TITLE: Please include a concise and descriptive title.

ONE SENTENCE ABSTRACT: This very brief description of your project should be understandable to a non-technical audience.

POINT OF CONTACT: Name, position, organization, address, telephone, email of the person who will be the point of contact, and brief summary of project team qualifications. The listed organization should be the group that will ultimately enter a contractual agreement with NEIWPC if the project is successful (see Eligibility requirements in Section III above).

DESCRIPTION OF PROJECT SCOPE, OUTPUTS, OUTCOMES, PARTNERS, AND TIMEFRAME: Use this space as you see fit to briefly describe your project and explain how it will contribute toward addressing the tasks identified on pages 43-68 of the [CVNHP Management Plan](#). Please note the following definitions: An **output** is an activity or product generated as a result of a task (e.g. developing an interpretive display, training an intern, installing a new HVAC system in a museum, etc.). An **outcome** is a result or effect of all activities (e.g. increased public awareness of the temperance Movement, students who better understand the historical significance of their community, etc.). Please also list any anticipated partnerships. Letters of support may be required at the full-proposal stage.

TOTAL REQUEST AMOUNT: List in US dollars. Other anticipated sources and amounts of funding may also be included. Please note that if your pre-proposal is selected for a full proposal, the total funding request in the full proposal cannot be greater than the total request in the pre-proposal without written permission from LCBP.

BRIEF BUDGET EXPLANATION: Briefly explain the major components of the budget. List the percentage of the budget that may be spent on the following elements: personnel and fringe, travel, supplies, professional services, indirect costs, and any other major category (specify). More details and full budget explanation will be required at the full proposal stage. Relative percentages of budget components may change in the full proposal as necessary.

Appendix A: Summary of Requirements for Selected Projects

If selected for funding, successful applicants should be aware of these additional requirements for all LCBP-funded projects:

1. Following initial notification of the award, a workplan must be approved by LCBP before a contract agreement can be executed and the work begun. Compensation cannot begin until the workplan is approved and a contract is executed. The workplan will detail the logistical elements of the project, including deliverables and project timeline. Information about the LCBP grant process, workplan development guidelines, and reporting requirements can be found on the LCBP website at: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/>. The successful applicant will enter into a memorandum of agreement (MOA) with NEIWPCC in order to complete the work and will be compensated upon completion of workplan deliverables.
2. Quarterly reports must be filed electronically by January 1, April 1, July 1 and October 1 during the period of the MOA.
3. All project work must be completed with final reports and invoices received by the CVNHP/LCBP **by December 31, 2021**.
4. All materials and work products, regardless of physical form or characteristics, produced as a result of this project shall be made available to LCBP, NEIWPCC, and appropriate funding agencies in a suitable file format. The LCBP, NEIWPCC, U.S. National Park Service and Great Lakes Fishery Commission shall have an unrestricted right to use any materials, software, maps, studies, reports, and other products or data generated using assistance funds or specified to be delivered. The contractor shall not obtain, attempt to obtain, or file for a patent, copyright, trademark or any other interest in any such materials, or work products without the expressed, written consent of the LCBP and NEIWPCC, and subject to any other approvals required by state or federal law. Reports and other deliverables will credit LCBP, U.S. National Park Service, Great Lakes Fishery Commission, and NEIWPCC as funding partners for any work completed under the project contract.
5. The LCBP and NEIWPCC require its contractors to maintain workers compensation and liability insurance. More details will be provided to the successful applicant at the time of contracting.
6. If a project includes collection of any primary or secondary data or involves a modeling effort, it will require a Quality Assurance Project Plan (QAPP). Once the grant agreement has been executed, the contractor must develop a QAPP to be approved before the beginning of any data collection or secondary data analyses. More information about LCBP Quality Assurance Plans can be found at: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/qapp/>. A QAPP generally takes four weeks for approval following submission.

7. The LCBP encourages applicants to budget costs that are associated with the project as direct expenses, including personnel costs, travel, project supplies, mailings, phone costs, office supplies, etc. Use of some grant funds for indirect costs is also allowable, subject to both the provisions of OMB Circular A-87 and LCBP approval. If you need further guidance, contact the LCBP or refer to [OMB Circular A-87 \(Revised\)](#). Sections D, E, and F of Attachment A provide an overview of direct and indirect costs. For projects in response to this RFP, the indirect budget should not exceed 10% of the direct project budget, and indirect offered as match should similarly not exceed 10% of direct match contributed, unless a higher federally negotiated indirect rate is in place. The LCBP Indirect Policy can be found here: <http://www.lcbp.org/about-us/grants-rfps/grant-toolkit/>
8. The following procurement procedure is applicable to proposals submitted in response to this request if the primary applicant is not a for-profit organization. The purpose is to ensure fair and open competition for purchases supported by the funding. If the applicant plans to use federal funding to obtain supplies, equipment, or contractual services to complete its proposed workplan, then it must follow federal procurement regulations:
- Procurement of supplies and services that do not exceed \$10,000 may be made without soliciting competitive quotes if the price is considered reasonable.
 - Procurement of supplies, equipment and services that are greater than \$10,000 require that the recipient obtain multiple price quotes through a documented competitive process. Good faith efforts to obtain services from disadvantaged business enterprises should also be made, including contacting the Small Business Administration and Minority Business Development Agency to inform them about the opportunity to submit price quotes as part of the competitive process. At least three price quotes for the contract work must be secured. The selected item or service does not need to be the lowest cost if it does not meet your requirements or you can otherwise demonstrate that the higher price offers the “best value.” Justification must be provided for the outcome of the bid process. This process may take place prior to the submission of a proposal for funds.