

**Lake Champlain Basin Program**  
*Final Meeting Summary - Executive Committee Meeting*  
October 28, 2019 2:00 PM – 4:00 PM  
Conference Call meeting  
LCBP Office, Gordon Center House, Grand Isle, VT

**1:45 PM Arrival/Connection to webinar/conference line, Networking**

**2:00 PM Introductions** around the room, conference call participants. *Joe Zalewski, NYS DEC will Chair this meeting.*

**Participants:**

**Phone:** Joe Zalewski (for Bob Stegemann, Chair, NYS DEC), Pete Laflamme ( for Julie Moore, VT ANR), MaryJo Feuerbach (for Mel Cote, EPA R1), Mario Paula (for Rick Balla, EPA R2), Buzz Hoerr (E&O Committee), Pierre Leduc (QC CAC), Neil Kamman (Chair, TAC), Daniel MacKay (NYS OPRHP), John Krueger (Chair, HAPAC), Stefanos Bitzikidis (for Nathalie Provost, MELCC), Maya Dehner (for Daria Mazey, USACE), Vic Putman (Chair, NY CAC) **Present:** Mark Naud (VT CAC)

**Staff:** Eric Howe, Lauren Jenness, Bethany Sargent, Bryan Dore (EPA R1), Fred Dunlap (NYS DEC/LCBP NY Coordinator)

**2:05 Approval of minutes from previous meeting**

**ACTION ITEM:** Approve Meeting Minutes from September 10, 2019 Executive Committee

- Motion By: John Kreuger
- Second by: Neil Kamman
- Discussion on the motion: Correct CWA to Clean Water Service Delivery Act
- Vote: all in favor
- Abstentions: none
- Updates: Please HOLD for November 20 Executive Committee meeting

**2:10 EXECUTIVE SESSION: Grant Award Decisions (LCBP staff)**

**ACTION ITEM:** Motion to enter into Executive Session to discuss grant awards

- Motion By: Neil Kamman
- Second by: Mark Naud
- Discussion on the motion: none
- Vote: all in favor
- Abstentions: none
- **Review and consider Enhanced BMP grant awards**
- Exit Executive Session
- **ACTION ITEM:** Motion to approve Enhanced BMP Grant awards Record of Decision as amended.
  - Motion By: Mark Naud
  - Second by: John Krueger
  - Discussion on the motion: none
  - Vote: all in favor
  - Abstentions: none

- **Discussion:** There was some discussion to keep this category broader, as written, to include many types or forms of pollution or pollutants or to restrict to nutrient-related pollution. The group agreed this concept should be discussed in a future meeting for a recommendation to the full Steering Committee.

### **3:20 PM USACE Section 542 GMP approval**

Meg Modley reviewed the updated to the WRDA Section 542 General Management Plan. The Lake Champlain Steering Committee deferred approval of this plan to the LCBP Executive Committee during their meeting in September 2019. Tom Berry added that he is glad to see this program is moving ahead, and offered his thanks to staff to work hard to get the program moving.

**ACTION ITEM:** Approve Update to USACE WRDA Section 542 General Management Plan

- Motion By: Vic Putnam
- Second by: Buzz Hoerr
- Discussion on the motion:
- Vote: All
- Abstentions: none

The LCBP Executive Committee approved the update to the WRDA Section 542 GMP on behalf of the Lake Champlain Steering Committee.

### **3:40 PM FY20 Budget discussion**

**Line items** – VT Agricultural Water Quality Partnership request, others

- Eric reviewed this line item task request for FY20 support. Eric currently participates in the meetings monthly, and this group has now developed subcommittees that meet more frequently. This position helps him to have a dedicated staff person who he can reach out to. With a point person for messaging, annual report development, and to work with the communications subgroup who will start producing newsletters, develop a social media presence, and a simple webpage.
- Pete Laflamme added that he talked with Vicky Drew and internally, VT DEC does support this. Partners have indicated that this position is needed. Bryan Dore added that he and Mary Jo support the creation of the position. Tom Berry suggested that this position is a worthwhile undertaking for a relatively nominal investment of LCBP resources.

**ACTION ITEM:** Approve Funding for Vermont Agricultural Water Quality Partnership request, to provide partial support for this position for a three-year period for a total amount up to \$45,000. The sponsor for the position (and the VAWQP) will be notified that there should not be an expectation that LCBP will provide funding support for this position beyond three years.

- Motion By: John Krueger
- Second by: Mark Naud
- Discussion on the motion: none
- Vote: all in favor
- Abstentions: none

The LCBP Executive Committee voted to approve LCBP support for the FY20 line item request to provide partial support for the VT Agricultural Water Quality Partnership coordinator position for 3-years. The VAWQP will be notified that there should not be an expectation that LCBP will provide funding support for this position beyond three years.

### **4:00 Adjourn**

**Outputs for this meeting include:**

1. Approval of meeting summary from September 10, 2019 LCBP Executive Committee meeting
2. Grant Award decisions for Enhanced BMP 2019 categories
3. Approval of USACE WRDA 542 General Management Plan
4. Approval of FY20 Line Item Request to provide partial support to the Vermont Agricultural Water Quality Partnership for a coordinator position.

**Teleconference Information:**

<https://global.gotomeeting.com/join/656589293>

**Join the conference call:**

(802) 372-0299

Host Extension: 221

PIN: 372-0200

**Upcoming Meetings:****2019 meetings**

November 1: LCBP Education and Outreach Committee meeting, ECHO Leahy Center, Burlington

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)



**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS, NEW YORK DISTRICT**  
**JACOB K. JAVITS FEDERAL BUILDING**  
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**NEW YORK NEW YORK 10278-0090**

September 23, 2019

Executive Committee Members of the Lake Champlain Basin Program:

The Army Corps of Engineers, in concert and cooperation with the LCBP, is happy to share the 2019 Draft General Management Plan (GMP), which will supersede the previous version, approved in 2017. The GMP will continue to serve as the framework for implementing critical restoration projects within the Lake Champlain Watershed under the program known as the [Section 542 Environmental Assistance Program for the Lake Champlain Watershed](#). This program is operated by the US Army Corps of Engineers (USACE), in partnership with non-federal sponsors who cost-share on studies and implementation of projects that meet the objectives and qualifications of the program.

In conjunction with the 2017 GMP update, the New York District of the Corps requested that USACE Headquarters (HQUSACE) develop and approve model Project Partnership Agreements (PPAs) and delegate the authority to execute them to the North Atlantic Division or the New York District, in order to improve the efficiency of the program and allow us to succeed with critical restoration projects within the basin more rapidly. Happily, HQUSACE agreed to our request, delegating approval authority for new projects to the North Atlantic Division and developing model PPAs for use in the program. This GMP update was performed to incorporate this change to the program, as well as to update the project descriptions for ongoing projects and provide the most up-to-date budget information.

Changes to the GMP from the 2017 version include:

- Updated description of the PPA approval process to reflect that PPA approval has been delegated and to include the model PPAs instead of the previous Interim Model PPAs
- Updates to reflect the current and past Section 542 projects' statuses
- Updates on the program's remaining federal funds from the \$32 million authorization

The Corps invites you to review the 2019 GMP update and provide feedback for our consideration. You can ask questions and/or provide feedback via email/phone directly to the Corps or at the Executive Committee meeting this October. Please provide comments no later than October 30, 2019. If you have any questions, please contact Daria Mazey, at (917) 790-8031 or [daria.s.mazey@usace.army.mil](mailto:daria.s.mazey@usace.army.mil) or Matt Cosby, at (917) 790-8080 or [Matthew.G.Cosby@usace.army.mil](mailto:Matthew.G.Cosby@usace.army.mil). Daria is scheduled to be on maternity leave starting October 1, 2019, so please direct questions to Matt after that time. Thank you in advance.

Best regards,  
Daria

Daria Mazey, MPA  
Section Chief, Watershed & Navigation  
Plan Formulation Branch, New York District  
U.S. Army Corps of Engineers  
Office: (917) 790-8031



# LAKE CHAMPLAIN GENERAL MANAGEMENT PLAN

Section 542 Environmental Assistance Program for the  
Lake Champlain Watershed

U.S. Army Corps of  
Engineers New York  
District  
in partnership with  
the Lake Champlain  
Basin Program

September 2019



US Army Corps  
of Engineers®  
New York District



Lake Champlain  
Basin Program

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APPENDIX A—SECTION 542 OF WRDA 2000, AS AMENDED AMENDMENTS

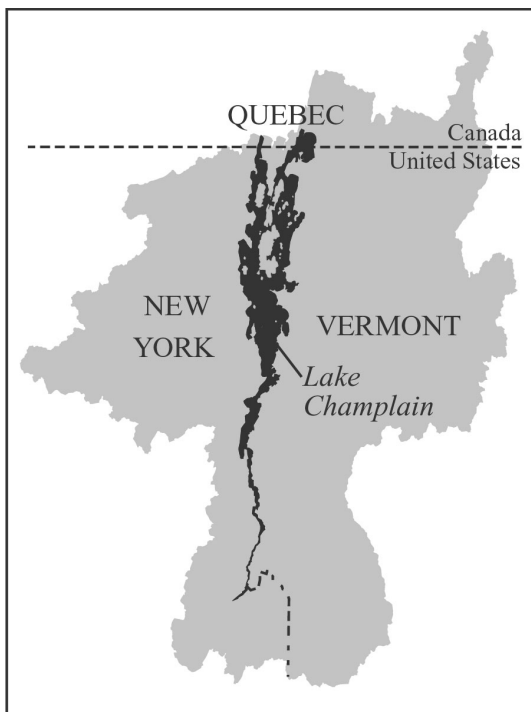
APPENDIX B –LETTER OF REQUEST REQUIREMENTS, EXAMPLE LETTER OF REQUEST

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## INTRODUCTION

In June 2004, the US Army Corps of Engineers, New York District (District), prepared the first edition of the General Management Plan (GMP). With contributions from the Lake Champlain Basin Program (LCBP), which is operated by the Lake Champlain Steering Committee. The GMP was updated in June 2007 and again in June 2017, to reflect the progress to date, update the screening and selection process, reflect the changes in law, and to better serve the public as a guide for the Lake Champlain Watershed Environmental Assistance Program (or also referred to as the Section 542 Program). This document, which supersedes the original June 2004 GMP as well as subsequent updates, will serve as the framework for implementing critical restoration projects within the Lake Champlain Watershed, as authorized by Section 542 of the 2000 Water Resources Development Act (WRDA), as amended. The Lake Champlain Watershed authorized project area is shown in Figures 1 and 2.

**Figures 1 and 2. Lake Champlain Basin Maps, Regional and by County**



Lake Champlain Drainage Basin



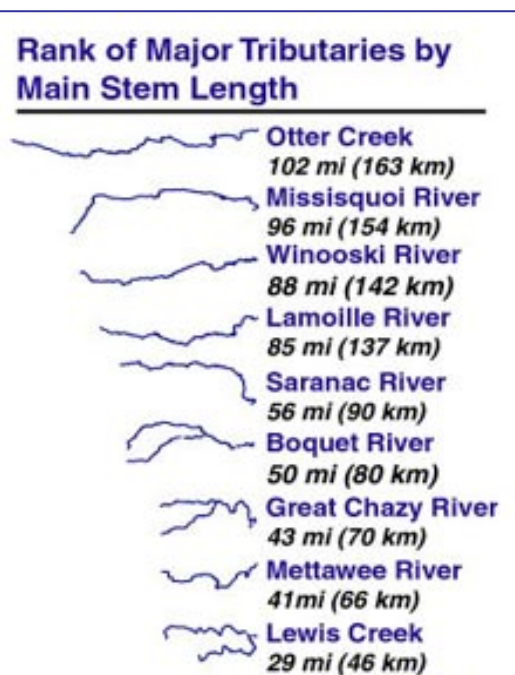


## Section 542 of WRDA 2000

In December 2000, Public Law #106-541, the WRDA of 2000 (WRDA 2000) was signed by the President. Section 542 of WRDA 2000 authorizes the Secretary of the Army to establish a program for providing environmental assistance to non-Federal interests in the Lake Champlain Watershed. It defines the Lake Champlain Watershed as the land areas within Addison, Bennington, Caledonia, Chittenden, Franklin, Grand Isle, Lamoille, Orange, Orleans, Rutland, and Washington Counties in the State of Vermont; the land areas that drain into Lake Champlain that are located within Essex, Clinton, Franklin, Warren, and Washington Counties in the State of New York; and the near-shore areas of Lake Champlain within the counties referred to in New York.

The goal of the Lake Champlain Watershed Environmental Assistance Program is to provide assistance with planning, design and construction of projects that contribute to protection and enhancement of the water quality, water supply, ecosystem and other water related issues within the watershed. The full project authority is provided in **Appendix A**.

## Geographic Area and Congressional Interests



**Figure 3. Major Tributaries in the Lake Champlain Watershed, as Ranked by Length**

Source: Lake Champlain Basin Program

Lake Champlain is 435 square miles in surface area. The watershed draining into the lake covers 8,234 square miles in New York, Vermont and Quebec. There are 11 major tributaries draining into the lake, ranging from 20 miles to 102 miles in stream length (see **Figure 3**). There are eight sub-watersheds: two west of the lake, Saranac-Chazy and AuSable-Boquet; four east of the lake, Missisquoi, Lamoille, Winooski and Otter-Lewis; one south, Poultney-Mettawee; and one within the Lake's islands, Grand Isle (see **Figure 2**). The Lake Champlain study area includes two states, 16 counties, 57 New York municipalities and 145 Vermont municipalities. The Lake Champlain Watershed area contains sections of New York's 2<sup>1st</sup> District (Representative Elise Stefanik – R), and Vermont's At Large District (Representative Peter Welch - D). Senatorial interest lies with New York Senators Kirsten Gillibrand (D) and Charles Schumer (D); and Vermont Senators

Patrick Leahy (D) and Bernard Sanders (I).

## **EXISTING CORPS PROJECTS AND STUDIES**

Existing Corps projects and studies located within the Lake Champlain Watershed that are not part of this watershed program are described below.

### **Continuing Authorities Program (CAP)**

*Richford, VT (14)* - The New York District completed construction, which was authorized by Section 14 of the Continuing Authorities Program. The project protects the primary water supply line for the community of Richford, Vermont. Construction began 1 November 2004. Installation of the new water-main is complete and the Town of Richford is currently receiving water through the new pipeline. Landscaping and final construction activities were completed in the Spring of 2005.

*Mad River, VT (206)* - The New York District completed a preliminary restoration plan (PRP) which determined that there was federal interest in continuing to the Planning, Design and Analysis (PDA) phase of this study. By a letter dated January 3, 2003, the Town of Warren, Vermont indicated a willingness to act as a non-federal sponsor. The PDA phase was completed in May 2004. The Town has chosen to suspend the study due to controversy over dam removal. The study may be re-opened if this issue is resolved.

*Lake Champlain Sea Lamprey Barriers, VT (1135)* – In cooperation with the U.S. Fish and Wildlife Service and the Lake Champlain Basin Program, New York, the New York District conducted a site visit on Aug. 31, 2004. Corps representatives visited potential lamprey barrier sites around the watershed (NY). NY District representatives met with the New York State Department of Environmental Conservation and the US Fish and Wildlife Association in June 2005 at the Frog Farm Dam on the Great Chazy River in the Village of Champlain, NY. The Frog Farm Dam has been identified as a priority site for lamprey barrier work. A Preliminary Restoration Plan and Project Management Plan were completed in 2006. If a non-federal partner is identified a feasibility study may be initiated.

*West Branch, Stowe, VT (206)* – A Section 206 (Aquatic Ecosystem Restoration) Preliminary Restoration Plan (PRP) was completed in March 2003, which determined that there is federal interest in continuing into the feasibility phase of study. In a letter dated February 18, 2002, the Vermont Agency of Natural Resources (VTANR) indicated its willingness to act as the non-federal sponsor. A feasibility study may be initiated, subject to the availability of federal and non-federal funds.

*Wild Branch, VT (206)* - A Section 206 (Aquatic Ecosystem Restoration) study was conducted and a PRP was completed in March 2003, recommending Federal participation in a feasibility study. In a letter dated February 18, 2002, the Vermont Agency of Natural Resources (VTANR) indicated its willingness to act as the non-federal sponsor. A feasibility study may be initiated, subject to the availability of federal and non-federal funds.

*Winooski River, VT (206)* - A Section 206 (Aquatic Ecosystem Restoration) study was conducted and a PRP was completed in March 2003, recommending Federal participation in a feasibility study. In a letter dated March 2002, the Vermont Agency of Natural Resources (VTANR) indicated its willingness to act as the non-federal sponsor. A feasibility study may be initiated, subject to the availability of federal and non-federal funds.

*Lake Champlain, VT (206)* – A Section 206 (Aquatic Ecosystem Restoration) study was conducted and a PRP was completed in April 2002. The PRP was comprehensive in nature and recommended several sites be evaluated for specific restoration efforts. The PRP referenced the 120 streams classified as “impaired” by Vermont’s Agency of Natural Resources. The leading factor contributing to the water quality problems on 27 of those streams is channel instability. This watershed program would be appropriate for screening those sites and recommending riparian restoration by way of bioengineering.

*New Haven River, Bristol, VT (206)* - The District completed a preliminary restoration plan (PRP), which determined that there is federal interest in continuing to the feasibility phase of this study. The PRP was completed in January 2004. A separate funding request will be submitted to initiate the Feasibility Phase of the study based upon the priority of the State of Vermont and the availability of funds. In a letter dated February 18, 2002, the Vermont Agency of Natural Resources (VTANR) indicated its willingness to act as the non-federal sponsor. If desired by the sponsor, the project may be considered in this watershed program.

## General Investigations

*AuSable River, NY; Boquet River, NY* – In 1998, the District completed reconnaissance studies for both the AuSable and Boquet Rivers. The studies recommended the initiation of feasibility studies to address ice jam flooding. The District and the New York State Department of Environmental Conservation have not been able to successfully negotiate the Project Management Plan (PMP) and execute an agreement to cost-share the studies. Although these studies address flooding, restoration efforts in the AuSable and Boquet River Basins may be appropriate for consideration in this watershed program.

*Winooski River, Montpelier, VT* – A flood risk management study for the City of Montpelier, Vermont was authorized under Section 309(I) of the Water Resources

Development Act of 1992. A reconnaissance report was complete in 1996 and updated in 2009. In 2010 a Feasibility Cost Sharing Agreement was executed with the City of Montpelier with support from the State of Vermont. The focus of the study is to manage flood risk from ice jams on the Winooski River in downtown Montpelier. Alternatives involving ice piers were ranked highest during the 1996 Reconnaissance Report and were to be reviewed in greater detail during the feasibility phase.

Existing conditions, surveys, and hydrologic and hydraulic models have been completed and updated by the Corps' Cold Regions Research and Environmental Laboratory in Hanover, NH. This study has not been funded since 2010.

## Navigation

*Narrows of Lake Champlain, NY & VT* – Authorized by the Rivers and Harbors Act of 1917, this project provided for the installation and maintenance of fender booms at Putts Rock, Putts Leap, Narrows near Dresden, Pulpit Point, and Cedar Mountain; a total length of 13.5 miles. The existing project is about 77% complete, with a channel 12 feet deep width of 150 feet having been excavated throughout the entire length of the improvement, except at the Elbow, where the width is 110 feet. Fender booms have been placed at the Elbow and opposite the Delaware and Hudson railroad trestle. Maintenance dredging of the channel was last performed in 2002. Fiscal Year 2017 funds are being used to perform project condition surveys and minor maintenance to the east side fender boom anchoring system. Future funding would be used to perform caretaker status work, including minor channel maintenance activities and inspection of fender booms.

*Gordon's Landing* – Authorized in the Rivers and Harbors Act of 1887, a rock breakwater, extending 800 feet from the shoreline out to the minus 16-foot contour of Lake Champlain was constructed. The breakwater protects a local single cross-lake commercial ferry landing terminal from wind and wave action and ice flows. the seaward head segment of the rock breakwater is in need of rebuilding and repair.

*Burlington Harbor Oil Bollard Removal* - Section 108 of the FY2004 Energy and Water Appropriations Act the Secretary was authorized to remove and dispose of oil bollards and associated debris in Burlington Harbor, Vermont. The oil bollards are early to mid-twentieth century caisson-type structures previously used to facilitate pumping petroleum products from barges to associated tank farms on the waterfront. Three of the eight oil bollards will be removed through this project. A Design Documentation Report and Plans & Specifications have been completed. Working closely with the City of Burlington and the Lake Champlain Maritime Museum, the Corps conducted archaeological surveys, underwater remote sensing surveys and historical assessments to support the design of the project. The project was completed in Spring 2014.

## **Flood Plain Management Studies (FPMS) – Special Studies**

*Dam Breach Analysis, Lake Champlain Drainage Area, VT* - The New York District in conjunction with the state of Vermont, has utilized the Flood Plain Management Services Program (FPMS) to conduct dam breach analyses throughout the Lake Champlain drainage area. Over the past two decades, the District has prepared 28 such studies.

*Black Creek, VT* – The District completed a flood plain management studies for approximately 7 miles of Black Creek in Fairfield, Vermont in 2004. This project limits begin at the water falls in the Village of Sheldon, Vermont and end at the confluence with the Fairfield River in Fairfield, Vermont. The study was provided to the State of Vermont to assist in evaluating alternatives that could protect the farming community's highly productive agricultural valley from frequent flooding.

## **Other**

*Aquatic Plant Control, VT* – Section 104 of the River and Harbor Act of 1958 authorizes the Corps of Engineers to cooperate with other Federal and non-Federal agencies in comprehensive programs for the control of invasive aquatic plants, which have adverse effects on navigation and the ecosystem. The Aquatic Plant Control program for the State of Vermont is in the Lake Champlain Basin. Projects in recent years have removed upwards of 1,615 acres of the aquatic plants water chestnut, and Eurasian water-milfoil infesting the Lake Champlain Basin. The New York District and State of Vermont partner annually, executing a PPA for approximately \$1,000,000 per year, cost-shared 50/50.

*Waterbury Dam, VT* – The project was authorized in the Rivers and Harbors Act of 1927. The Director of Emergency Conservation Work authorized the construction of the dam in June 1933 and the construction was overseen by the Corps. The dam is inspected annually by the Corps in cooperation with the State of Vermont under the Inspection of Completed Works Program. The Project was last licensed in 1954, well before the passage of the Clean Water Act in 1972.

Modifications and updates to the dam have been made periodically in the over 80 years since it's construction, though more are needed to keep it functioning and to bring it under compliance with environmental regulations. The authority to modify the dam was made in the Flood Control Act of 1944 and subsequently under appropriations in the 1980's. The most recent effort to modify the dam was conducted under the Dam Safety Assurance Program under the authority of Section 1203 of the Water Resource Development Act of 1986. Appropriations with directive bill language were made in subsequent years starting in 2001 through 2005 by the Congress to modify the project by constructing seepage control features and temporary repairs to the gated spillway structure. The repairs were expected to

extend the useful life of the spillway gates by ten to fifteen years. However, the temporary repairs did not fully address deficiencies that exist in the spillway. As part of this effort a Design Report was prepared in 2006 for a full replacement of the spillway at a future date to address the remaining structural problems. For example, the flood storage pool cannot be raised to the full height as intended due to the structural deficiencies of the spillway, which restrict the operation of the gates, and contribute to turbidity and water quality problems associated with the current impaired operations of the spillway gates.

The recent work was completed and along with an updated Operation and Maintenance Manual, was turned over to the State in September 2010. The dam is inspected annually by the Corps in cooperation with the State of Vermont under the Inspection of Completed Works Program.

As part of the Federal Energy Regulatory Commission relicensing of the dam, a water quality certificate was issued in 2014 by Vermont's Agency of Natural Resources (ANR) which laid out myriad ecological issues caused by the design and operation of Waterbury Dam and the modifications needed to both the design and operations in order to bring the dam to compliance with environmental regulations. On June 13, 2012, the U.S. EPA listed Waterbury Reservoir as impaired due to sedimentation and turbidity which impact the waterbody's ability to support aquatic life (State of Vermont 2012 303(d) List of Waters, Part A- Impaired Surface Waters in Need of TMDL, June 2012).

The current design and operation of the dam is contributing to water quality issues and non-compliance with the Clean Water Act, as well as degraded designated habitat. The ecological issues have to do with both the current flow regulation negatively impacting habitat and water quality, as well as the water level fluctuations and the artificial flow regulation by the Project. All waters affected by the proposal under consideration are designated coldwater fish habitat for the protection and management of fisheries.

#### Proposed Modifications to Waterbury Dam

One of the proposed modifications to Waterbury Dam is to replace the turbine runner with a runner that has reduced hydraulic capacity and automatic switching between turbine and bypass pipe in order to maintain conservation flows during non-generation. Currently the flows are managed solely to produce maximum hydroelectric power generation. The proposed change would initiate minimum conservation flow releases of 108 cfs from April through June and 60 cfs from July through March. This change would assist in reaching water quality compliance for natural flow regime and fluctuation of water levels and is crucial for converting the system to a year-round run of river.

Flow management currently does not allow for aquatic vegetation to establish itself, which degrades habitat, foraging, and worsens turbidity problems. Furthermore,



peaking operations at Waterbury Dam have a significant effect on flows in the lower Winooski River downstream of the dam. Several species of fish, including lake sturgeon and walleye, ascend the Winooski River from Lake Champlain to spawn downstream of Winooski City. Artificially fluctuating flows at this time of year can disrupt spawning and affect reproductive success. Lake sturgeon is a state-listed endangered species.

Another proposal is to install turbine venting to aerate water discharged through the station. Currently the Project discharges oxygen-deficient water into the tailrace due to its design. The depth of the outlet conduit entrance is 90 feet which results in thermal stratification during summer. The Project draws water from the hypolimnion zone, where water typically has low dissolved oxygen that does not meet the water quality saturation standards.

The current design and operations also contribute to excessive turbidity in the waters released from the dam during the winter drawdown period because the sediments exposed to winter drawdown are particularly susceptible to erosion as a result of needle ice formation loosening the soil. Sediment-laden water enters the reservoir during drawdown setting up turbidity currents that flow by gravity toward the outlet. Along the way, these currents pick up additional sediment from the reservoir bottom. Changes to design and operation are proposed to help alleviate the turbidity problem, including submerging two silt terraces to a minimum elevation of 570 feet before spring snowmelt and high inflows. This would cover and insulate the exposed reservoir bed when the reservoir is drawn, reducing needle ice formation and exposure to rainfall.

Finally, lack of fish passage past the dam also impact ongoing salmonid restoration in the watershed. The Winooski River is a major tributary to Lake Champlain and is a component of the Lake Champlain salmonid restoration and enhancement program. As part of the program, the Department of Fish and Wildlife has worked to restore landlocked Atlantic salmon to the river and to create a new run of migratory steelhead rainbow trout. Upriver habitat can be used as spawning and nursery habitat. The Department of Fish and Wildlife future hope is to re-establish self-sustaining populations of these fish so that stocking can eventually be reduced or eliminated. Upon a request of the Department of Fish and Wildlife, Vermont DEC may be required to provide fish passage facilities or participate in a trap-and-transport facility to move migratory fish upstream of Waterbury Dam.

As a key part of the solution to the ecological issues posed by the dam described above, ANR recommended that the Project keep a full pool below the gated spillway elevation to improve water quality in the Little River and Winooski River. The full pool would not be allowed until such time as the spillway was replaced. To that end, the State of Vermont has requested that the Corps begin the design of a new spillway under the Lake Champlain Basin Program. The Corps' Fiscal Year 2017 Funding Work Plan contains \$400,000 to initiate this effort. A letter was

received from the State of Vermont, dated June 28, 2017 requesting that the Corps initiate this work and that the State would act as the non-federal sponsor and cost sharing partner.

## **PROGRAM ADMINISTRATORS AND THEIR ROLES**

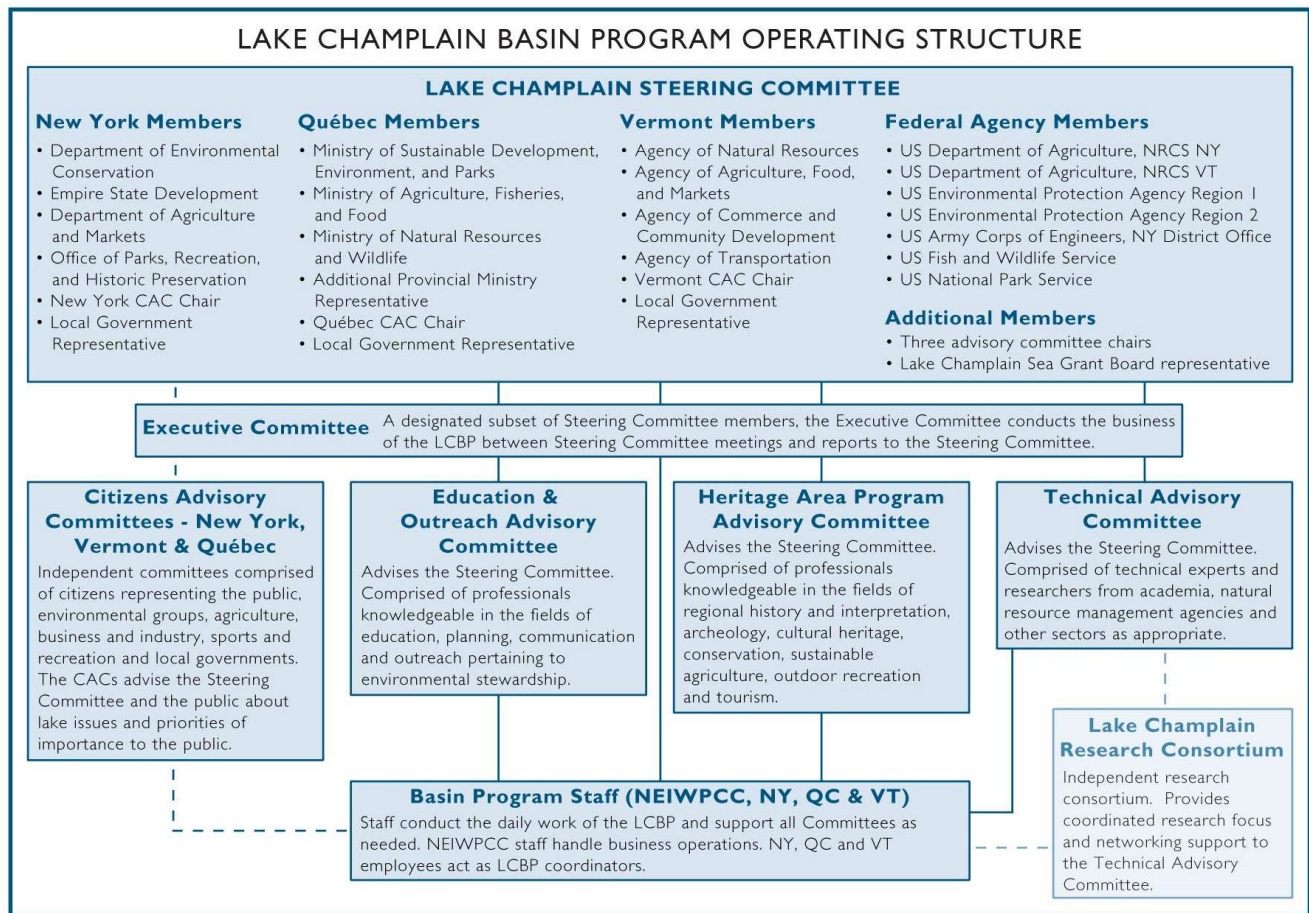
The New York District is the lead Corps District in administering the program. The District will provide planning, design and construction assistance within the Lake Champlain Watershed at the request of an eligible non-Federal sponsor. The Corps is authorized to provide planning, design and construction assistance for eligible projects that are certified by the New York State Department of Environmental Conservation (NYS DEC) or State of Vermont Agency of Natural Resources (VT ANR).

The LCBP is the lead regional non-federal organization coordinating with the Corps on this program. The LCBP was created by the United States Congress through the Lake Champlain Special Designation Act of 1990 (Public Law 101-596), as amended. The LCBP is a partnership among the States of New York and Vermont, the Province of Québec, the USEPA, other federal and local government agencies, and many local groups, both public and private, working cooperatively to protect and enhance the environmental integrity and the social and economic benefits of the Lake Champlain Basin.

The LCBP, in coordination with the Corps, has developed Section 542 program goals and priorities, and project eligibility criteria. The LCBP's governing body, the Lake Champlain Steering Committee, will oversee the solicitation of project proposals and will coordinate with the LCBP Technical Advisory Committee (TAC) for technical evaluations, ranking and recommendation of projects. Details on the project identification and the evaluation and ranking process are provided in this GMP. The Corps is responsible for the overall management of the program.

The Operating Structure (see **Figure 4**) outlines the overall effort to be undertaken by the entire multi-agency Steering Committee, to which the Corps was formally invited to become a member in October 2004. In addition to the Section 542 program, the LCBP currently supports other federally and non-federally funded efforts, including the Education & Outreach Advisory Committee, Heritage Area Program Advisory Committee, Citizen's Advisory Committees and the TAC. All of these efforts, including the Section 542 program, are to be fully coordinated with the Steering Committee, so there is a consistency of assumptions and no duplication of efforts.





**Figure 4. LCBP Operating Structure**

## THE LAKE CHAMPLAIN WATERSHED

In an effort to facilitate implementation of priority actions, an overview of water quality challenges and needs in the Lake Champlain Watershed was prepared by the LCBP through its management plan: *Opportunities for Action – An Evolving Plan for the Future of the Lake Champlain Basin (OFA)* (2003, updated 2010 and 2017). This plan lays out the goals and priorities of the Section 542 Environmental Assistance Program’s non-federal partners and other federal stakeholders. The *OFA* was signed by the Governors of New York and Vermont and the Regional Administrators of the USEPA. The *OFA*’s key functions are to coordinate programs and implementation activities, support local level implementation and public involvement, measure and monitor success relative to benchmarks, and promote and advise partner communications. More detailed information can be found in the *Opportunities for Action*, available at <http://www.lcbp.org/about-us/opportunities-for-action/>. The goals in the plan address:

- Clean water, focused on water quality monitoring, understanding the risk of toxic pollutants, and reducing nutrient inputs to water bodies,
- Healthy ecosystems, focused on habitat restoration, protection of native species and aquatic invasive species spread prevention,
- Thriving communities, focused on community involvement in stewardship of natural and cultural resources in the basin, and
- An informed and involved public, which involves education and outreach, communication with students, media, educators, and children, and scientific literacy.

Descriptions of the watershed system, water quality, and environmental challenges are summarized in the following two sections.

### Overview of the Lake Champlain Watershed System

- The Lake Champlain Basin covers 8,234 square miles. About 56% of the Basin lies in the State of Vermont, 37% in the State of New York, and 7% in the Province of Québec.
- Lake Champlain is 120 miles long, flowing north from Whitehall, NY to the Richelieu River in Québec, with 587 miles of shoreline.
- The Lake consists of five distinct segments, each with its own physical and chemical characteristics:
  - **The South Lake:** The South Lake is narrow and shallow, much like a river.
  - **The Main Lake:** The Main (or Broad) Lake holds most of the Lake’s water and its deepest and widest points.
  - **Mallets Bay:** Mallets Bay is largely restricted hydrologically due to railroad causeways.

- **The Inland Sea:** The Inland Sea (or Northeast Arm) is a lake segment lying east of the Champlain Islands.
- **Missisquoi Bay:** Missisquoi Bay is a shallow bay at the northernmost part of the Lake whose waters flow south to the Inland Sea.



1. The South Lake, with Champlain Bridge pictured, and the Adirondack High Peaks in the background.  
**Photo by Matt McCarthy. Source: LCPB, 2017**

- The Lake is 12 miles at widest point, covering a surface area of 435 square miles. There are over 70 islands in the lake.
- At its deepest point, the Lake is over 400 feet deep, but its average depth is 64 feet. The maximum depth of some of the Lake's bays is less than 15 feet.
- The volume of the lake averages 6.8 trillion gallons.
- Precipitation averages 30 inches annually in the Lake Champlain valley, and 50 inches in the mountains. Rivers and streams contribute more than 90% of the water which enters Lake Champlain.
- The surface of the lake has an average elevation of 95.5 feet above mean sea level.
- The Basin includes the highest elevations in both New York - Mt. Marcy at 5,344 feet – and Vermont - Mt. Mansfield at 4,393 feet. The growing season averages from 150 days on the shoreline to 105 days in the higher altitudes.

(Lake Facts Source: LCBP, 2017)

## Water Quality and Environmental Challenges

Although Lake Champlain remains a vital and attractive lake with many assets, there are several serious water quality and environmental problems in several areas, that demand action. *Opportunities for Action* identifies high priority goals which include clean water, healthy ecosystems, foster thriving communities, and inform and involve the public.

## Current LCBP Monitoring Programs

Monitoring water quality and biological conditions in the Lake and major tributaries is an essential component of both adaptive management and measuring the success of lake and watershed management efforts. The Lake Champlain Long-Term Water Quality and Biological Monitoring Program, which entails extensive sampling at 15 lake sites and 18 tributary sites 10 to 20 times each year typically requires up to \$550,000 annually. Additional funds are also directed to monitor the effectiveness of agricultural, forestry, and urban best management practices. The US Geological Survey regularly funds stream gauging stations in the Basin that provide critically important tributary discharge data. Monitoring data provide information on natural processes occurring in the Lake, basic characteristics of the ecosystem, long-term water quality trends, and the effectiveness of selected management actions.

Monitoring projects in the Basin have been designed for a variety of purposes and cover a wide range of topics from forest health and biodiversity to atmospheric and surface water quality.

## Public Involvement

Public involvement plays an important role in the implementation of the Section 542 Program. The goals of public involvement in relation to the Section 542 Program are to: 1) promote understanding of the Corps planning, design and construction processes in terms of potential projects; 2) obtain public input regarding challenges, opportunities, constraints, alternatives, outputs, impacts, and costs of potential projects; 3) identification of new projects; and 4) coordinate ecosystem restoration efforts with the efforts of other Federal, state, and local agencies.

## PROJECTS IMPLEMENTED UNDER SECTION 542

### Existing Section 542 Projects

- **Lake George Stormwater Improvement Project**

- Village of Lake George, NY was selected as a “pilot project” in 2004 and constructed in October of 2006 as the first successful Section 542 project. The project reduces stormwater runoff from a large parking lot at Beach Road in Lake George Village. The project includes the construction of a ‘stormwater median’ and infiltration chamber to intercept surface flow and reduce pollution loading to Lake George which flows into Lake Champlain. This project is complete and cost \$282,000.
- **Potash Brook River Restoration Project: City of South Burlington, VT**  
Design/construction of urban watershed restoration measures in a crucial reach of Tributary 3 of Potash Brook. The goal is to improve the stream health, aquatic ecosystem function, and water quality prior to discharge into the main stem of Potash Brook and Lake Champlain. A Project Partnership Agreement (PPA) was executed in partnership with the City of South Burlington, VT. USACE participation in the project was suspended prior to final design and construction due to federal delays in signing a cost sharing agreement for construction. The non-federal sponsor decided to proceed to construction without the USACE participation and the project is complete. The total project cost was \$1,800,000, with \$38,000 spent of federal dollars.
- **Water Treatment Control Plant Phosphorus Reduction Planning Study: City of Plattsburgh, NY** – A study in the amount of \$538,000 was initiated in 2007, to address phosphorus removal by generating a planning study which will make recommendations for more efficient phosphorus removal at the City Water Pollution Control Plant (WPCP). The final report was completed in 2009 and includes 30% level of designs of the recommended plan.
- **Bartlett Brook Stormwater Management Project, City of South Burlington, VT**  
The Bartlett Brook North project was proposed by the City of South Burlington, VT and approved by the LCBP. A PPA was executed in partnership with the City of South Burlington, VT. The Project is a combination of stormwater management installations and upgrades to reduce non-point pollutants entering the Bartlett Brook and Potash Brook watersheds, and manage flooding by upgrading failing drainage infrastructure in two suburban neighborhoods. Construction work includes drainage swales and grass channels, a bioretention area, infiltration trenches to reduce sediment transport into the watersheds, wetland ponds, and a closed drainage system (larger pipes and catch basins). This project completed construction in 2017 with a total project cost of roughly \$2.27 million.
- **Lake Champlain Canal Barrier Feasibility Study, Fort Edward, NY** – The Lake Champlain Canal Barrier Feasibility Study is currently inventorying potential hydrologic barriers as well as a chlorine lock treatment system to prevent the spread of aquatic invasive species through the Champlain Canal. The



study will conduct a cost benefits analysis of selected alternatives, and select a preferred alternative based on the analysis and support of project partners. The PPA was executed in partnership with the New England Interstate Water Pollution Control Commission (NEIWPC), with cooperation from New York State. The study was initiated in October 2017 with an estimated project cost of \$610,000.

- **Jewett and Stevens Brook, St. Albans Bay, Vermont:** This study is a wetland restoration and phosphorus management study. St. Albans Bay has a long history of excessive phosphorous levels and resulting blooms of cyanobacteria and other algae and other nuisance plant growth, especially during the late summer. A Phase I study was completed, this Phase II will look into specific treatment alternatives including inactivation of the sediments within Stevens Brook Wetland and inner St. Albans Bay using aluminum compounds, and hydraulic dredging of an area limited to the open-water portions of the Black Creek Wetland. The study kicked off in August 2019 and has an estimated cost of \$516,000.

Contingent upon federal funding and eligible applications, projects will continue to be implemented through this Program. Updated GMP's will provide updates on the projects implemented under this authority.

## Implementing New Projects

### *Identifying Potential Restoration Sites*

Local governments within the Lake Champlain Watershed communities, through the LCBP have expressed their concerns about specific water quality challenges, such as those outlined in *Opportunities for Action*. Projects located within the Lake Champlain Basin that fulfill the intent of Section 542 of WRDA 2000 (i.e. contribute to protecting water quality in the watershed while preserving the social and economic character of the watershed communities) are eligible for consideration. Large water quality and habitat restoration projects requiring planning/design and construction that cost greater than \$1M are best suited for this grant funding, though projects of any cost will be considered.

Applicants may request assistance for a variety of project types, e.g. planning studies, designs, construction of already existing designs<sup>1</sup>, design and construction of a project, etc.

### ***Choosing New Projects***

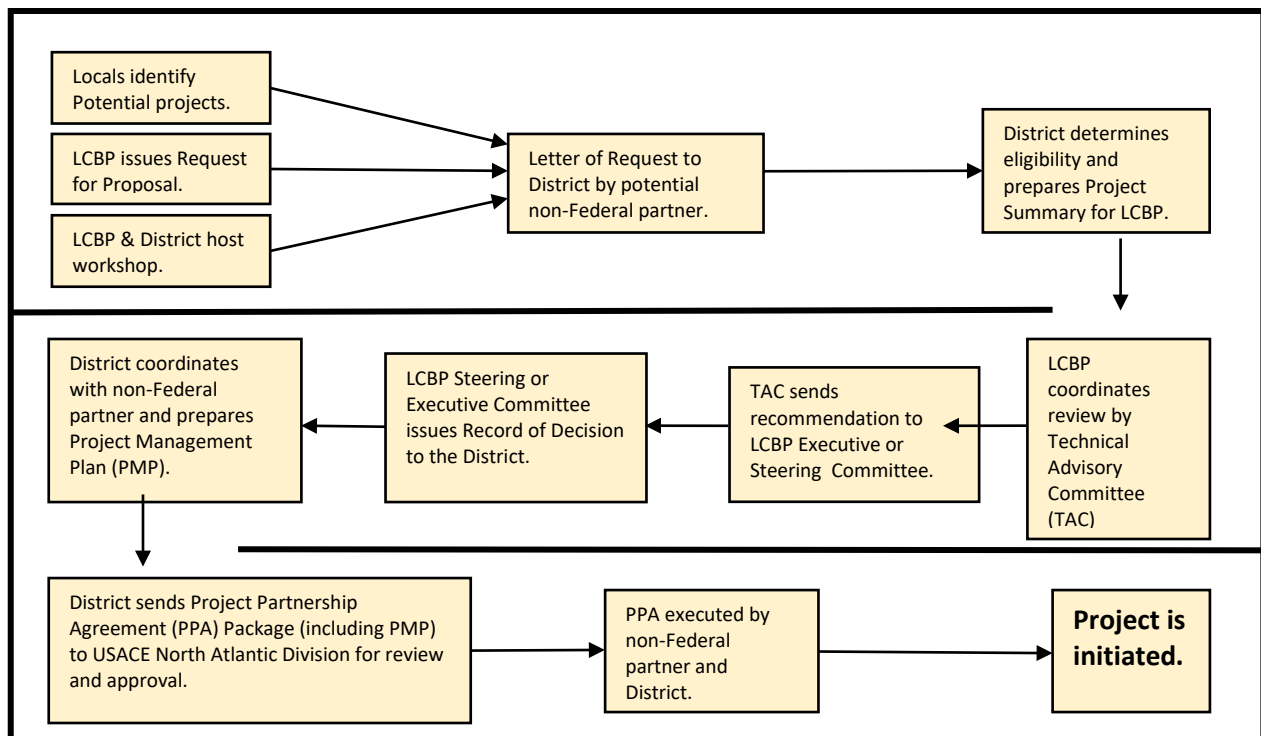
New projects will be considered for initiation when a letter of request is sent to the Corps by a potential local sponsor (See **Appendix B - Sample Letter of Request**). Requests may be submitted to the District for consideration at any time. If found to be eligible, the project summary will be submitted to the LCBP, who will coordinate with the Technical Advisory Committee (TAC) for an independent technical review according to the project's potential for water quality/habitat improvement and ability to address the priority areas of concern identified in *Opportunities for Action* and the GMP. This process may entail LCBP obtaining additional information from the applicants. The TAC will send a project proposal evaluation and recommendation to the LCBP Steering Committee, who will make a recommendation to the District in the form of a Record of Decision.

Proposals for projects not selected for assistance under this program may be maintained by the USACE and periodically screened and prioritized for a period not to exceed three years. Upon approval and subject to the availability of federal funds, the District may proceed with Project Management Plan (PMP) and Project Partnership Agreement (PPA) negotiations for the highest ranking projects recommended by the LCBP Steering Committee through a Record of Decision. The Corps will initiate projects based on the LCBP Steering Committee's recommendation, federal funds available, non-federal funds available and other factors, as appropriate.

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If an applicant requests that the Corps construct already existing designs, the applicant should be aware that designs must meet Corps standards. Applicants may go to <http://www.nan.usace.army.mil/Portals/37/docs/EngDiv/ManStdsProc2009.pdf> for design submission requirements that the Corps uses during construction. The [Engineer Regulation \(ER\) 1110-2-1150, "Engineering and Design for Civil Works Projects,"](#) 31 August 1999 is another resource for applicants seeking design credit.

Implementing New Projects – Flowchart – Figure 5



### Eligible Applicants

Any municipal entity, state or interstate agency, Native American nation, or qualifying non-profit organization within the Lake Champlain Watershed is eligible to serve as a non-Federal partner. Municipal entities are defined as any county, city, town, village, or an entity designated to act on their behalf such as a county Soil and Water Conservation District (NY), Natural Resource Conservation District (VT) or a Regional Planning Commission. Two or more eligible entities may submit a joint application for inter-municipal proposals. If an applicant is selected and partners with the USACE, they are called the non-federal sponsor and/or partner.

**Sponsors must have the legal and financial capability to fulfill the requirements of cost sharing and local cooperation.** The sponsor must generally agree to the following:

- Provide without cost to the United States, all lands, easements, rights-of-way, relocations and disposal areas (LERRDs) necessary for construction, operation, and maintenance of a project, including provision of all necessary access routes and utility relocations.
- Provide cash or work-in-kind contributions to meet the cost-share requirements described below in the **Cost Sharing and Project Budgets** section.
- Comply with provisions of pertinent federal laws (e.g. the National Environmental Policy Act, Endangered Species Act, Clean Water Act, etc.)



- Work with the USACE to obtain permits, state and otherwise.
- Once the project is completed, it must be maintained and operated without cost to the United States (i.e. operations and maintenance are the non-federal sponsors' responsibility at 100% non-federal expense).

All Letters of Request must be submitted to the USACE and evaluated and processed according to the provisions described in this Invitation for Letters of Request.

### ***Applicant Project Goals***

Projects which address the goals of concern noted in the *OFA* will be a high priority for the Environmental Assistance Program and are subject to the Section 542 of WRDA 2000 authority, as amended (**Appendix A**). For the Lake Champlain Environmental Assistance Program, the following goals were identified by the LCBP in the 2017 *Opportunities for Action*. Each goal is addressed by **objectives, strategies, and task areas**. The plan also identifies anticipated **outputs** and **outcomes** for each task area. The emphasis for the program is on water quality protection for projects too large to be funded at the local level, particularly for the goals and objectives identified below<sup>2</sup>:

### **GOAL I: CLEAN WATER**

Lake Champlain waters will be clean enough for people to swim, boat, fish and drink with minimal treatment, and will support a healthy ecosystem. Improving the water quality of Lake Champlain and its watershed is necessary to sustain diverse ecosystems and support vibrant communities and viable working landscapes. Strategies in this section focus on maintaining the current monitoring network, understanding the risk of toxic pollutants, and reducing nutrient inputs to water bodies.

Goal I may be achieved by addressing the following objectives identified in the plan and would support best management practices that reduce nutrient loading to the lake, minimize the risk of toxins to human health and the environment, and address flood resilience and climate change impacts to communities and habitats in the basin.

Objective I.A. Improve scientific knowledge and understanding of water quality conditions and trends in Lake Champlain and the effectiveness of management approaches

Objective I.B. Reduce Contaminants of Concern and Pathogens

Objective I.C. Reduce Nutrient Loading

### **GOAL II: HEALTHY ECOSYSTEMS**

Lake Champlain's aquatic ecosystems will support a rich diversity and abundance of native species, and will be resilient to climate change and free of aquatic invasive species. A

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<sup>2</sup> The *OFA* is updated periodically to reflect changed conditions and priorities. Applicants should check for updates to the priorities prior to applying.

healthy Lake Champlain ecosystem is critical to maintaining a high functioning Lake, but it is vulnerable to existing and future impacts. Wetland and upland habitat, in particular riparian and shoreland habitat areas must be identified, prioritized, protected and restored in each sub-watershed. Native species, notably threatened or vulnerable species, must be conserved while the impact of aquatic invasive and non-native species is reduced through improved management strategies.

Goal II may be achieved by addressing the following objectives in the plan and would support projects that protect habitat and native species of concern, promote aquatic organism passage, and prevent the spread of aquatic invasive species.

Objective II.A. Support Conservation of Vulnerable Habitat

Objective II.B. Preserve and Enhance Biodiversity

Objective II.C. Prevent the Spread of Aquatic Invasive Species

### **GOAL III: THRIVING COMMUNITIES**

Lake Champlain Basin communities have an appreciation and understanding of the Basin's rich natural and cultural resources, and have the capacity to implement actions that will result in sound stewardship of these resources while maintaining strong local economies. Lake Champlain is a destination for recreation and tourism, and contributes to the region's renowned quality of life. Community involvement to improve Lake Champlain and its watershed is critical to achieving common goals for Lake Champlain. Champlain Valley National Heritage Partnership objectives for preserving the region's rich cultural heritage and connecting people to the landscape are integrated into this local partner goal.

Goal III may be achieved by addressing the following objectives in the plan and would support projects that engage multiple stakeholders in the basin, design and implement green infrastructure, focus business innovations to support water quality, and link the community to the cultural heritage and natural resources in the basin. Ecological restoration and water quality improvements in the Basin intrinsically support the following objectives and may contribute to the accomplishment of the thriving communities goal. Any project funding through the Section 524 Environmental Assistance Program must fall within the authority of the program (**Appendix A**).

Objective III.A. Engage and Support Community & Management Partners

Objective III.B. Support Water-Wise Economic Development

Objective III.C. Support Awareness and Conservation of Cultural Heritage Resources

Objective III.D. Support Lake and Basin Recreation

#### **GOAL IV: INFORMED AND INVOLVED PUBLIC**

Basin residents and visitors will understand and appreciate the Lake Champlain basin resources, and will possess a sense of personal responsibility that results in behavioral changes and actions to reduce pollution. Public outreach is core component of the Lake Champlain Basin Program's work. This goal outlines ways to improve communication, scientific literacy, and cultural guidance to communities, partners, the media, K-12 educators, and children

Goal IV may be achieved by addressing the following objectives in the plan and would support projects that engage youth in stewardship opportunities, promote lake friendly products and practices, and help assess changes in the public's knowledge and behavior surrounding clean water practices. Any project funding through the Section 524 Environmental Assistance Program must fall within the authority of the program (**Appendix A**).

Objective IV.A. Enhance formal learning at all educational levels

Objective IV.B. Build awareness through informal learning of Lake Champlain Basin issues across all age groups.

Objective IV.C. Facilitate changes in behavior and actions of citizens

Details on these goals, objectives and other strategies, as well as updates over time, can be found online at [www.lcbp.org](http://www.lcbp.org).

#### ***Application Submission***

The application process, formatting and organization requirements are detailed below. A respondent may submit Letters of Request for more than one project. *If proposed projects involve existing designs, one copy of design plans should be submitted with the Letter of Request.*

Letters of Request should be sent to:

District Engineer  
U.S. Army Corps of Engineers, New York District  
ATTN: Planning Division  
26 Federal Plaza, 21<sup>st</sup> Floor  
New York, NY 10278

You may scan and submit a Letter of Request electronically, however it must be on official letterhead and signed. To obtain an email address for submissions or for general questions on this program, please consult the LCBP website [www.lcbp.org](http://www.lcbp.org) or call (800) 468-5227 (from NY or VT) or (802) 372-3213. You may also direct questions to USACE at 917-790-8007 or [cenan-pa@usace.army.mil](mailto:cenan-pa@usace.army.mil).

### *Application Procedure*

1. Submit a Letter of Request to the USACE (see below for detailed instructions). The USACE will determine if a project is eligible to receive assistance through this program and will so inform the applicant.
2. If a project is deemed eligible, the USACE will work with the applicant to complete a project summary.
3. The project summary will be submitted to LCBP for review and ranking. LCBP will provide recommendations to the USACE based on this review.
4. Upon approval and subject to the availability of federal funds, the USACE will proceed with project implementation for the highest-ranking projects. The USACE will select projects based on LCBP's recommendations, availability of federal and non-federal funds, and other factors, as appropriate.
5. Upon selection, the USACE will proceed with development of a Project Management Plan and will negotiate a Project Partnership Agreement with the non-Federal partner.
6. Project summaries of projects not selected for implementation will be maintained and periodically screened and prioritized by the LCBP for a period not to exceed three years.

### **Project Evaluation and Selection Criteria**

Projects which address the priority areas of concern and fall within the Section 542 authority will be a high priority the Lake Champlain Environmental Assistance Program. Additionally, applications will be reviewed and ranked according to how well they address the following:

- 1) Demonstration of *Effectiveness* - Project objectives should effectively address one or more of the priorities identified in *Opportunities for Action*. The project summary should indicate the extent to which the project will result in tangible benefits or improvements that can be measured.
- 2) Demonstration of *Efficiency* - The merit and feasibility of the proposed methods for carrying out the project in a cost-effective way will be evaluated. Corps support involves a process that is more appropriate for large-scale projects (i.e. multi-year process, studies that cost \$200,000 or more, and construction costs of at least \$500,000).
- 3) Demonstration of *Acceptability* - A project should be acceptable to any applicable local, State and or Federal resource agency and the applicant should be able to obtain any required permits, titles or easements. Evidence of public support for the plan is encouraged.

- 4) Demonstration of *Completeness* - A project must provide and account for all necessary investments or other actions needed to ensure the realization of the planned restoration outputs. This may require relating the plan to other types of public or private plans if these plans are crucial to the outcome of the restoration objective.
- 5) Demonstration of ability of the local entity to provide the required 35% non-federal match.

### ***Notification of Approval***

After the submittal of the Letter of Request, the USACE will contact eligible applicants. The USACE will then work with eligible applicants to complete and submit a project summary to the LCBP for review.

Applicants selected for support will be notified by the LCBP. Selection and notification will occur throughout the year, dependent upon available funding.

### **After a Project is Selected for Assistance**

Prior to submission, all applicants should be familiar with the general process and timeframe for projects that will be implemented via Section 542, the Lake Champlain Watershed Environmental Assistance Program.

Projects will be chosen according to pre-determined criteria (see **Project Evaluation and Selection Criteria** above). Corps and non-federal sponsors of the chosen project(s) will identify a project scope of work, budget, and schedule that is mutually agreeable. Upon agreement, the Corps and sponsor will execute a Project Partnership Agreement (PPA) which is a legal agreement between the Corps and the local sponsor (applicant) that provides formal assurances of cooperation by both parties. Upon execution of the PPA, the Corps will receive federal funds to execute the Scope of Work according to the approved project budget and schedule outlined in the PMP.

### ***Cost Sharing and Project Budgets***

Total project costs under Section 542 of WRDA 2000 will be cost-shared at 65% federal and 35% non-federal matching funds. Funding for the non-federal matching share may come from any non-federal funding source, which may include in-kind services or supplies. In-kind services completed prior to PPA approval (i.e., before Corps involvement) may be credited only with specific USACE approval. The balance of the required 35% non-federal matching share must be provided in cash or in-kind services to be made available to the USACE for use in the project immediately after the PPA is executed. The term “in-kind” is

defined as those tasks completed by the local sponsor in substitution of a cash contribution and **must be approved by the USACE prior to PPA execution**. The sponsor's cost share includes a credit for the value of the sponsor's contribution of lands, easements, rights-of-way, relocations and disposal areas (LERRDs). As described in the *Eligible Applicants* section, the sponsor is responsible for acquiring all LERRDs necessary for construction, operation and maintenance of a project, including the provision of all necessary access routes and utility relocations. If the sponsor already owns the real estate required for the project, the value of that real estate will still count toward the non-federal cost share and will reduce the amount of cash or in-kind services that the sponsor needs to contribute.

Proposed project budgets will be reviewed with the understanding that they are the best estimates of the applicant in response to this Invitation for Letters of Request. In preparation of the PPA with successful applicants, the USACE will confer with the applicant and the LCBP to further review project plans, and may require certain design revisions to ensure that the resulting project meets the design standards of the USACE. This review could result in some increase in overall project costs beyond that anticipated by the applicant. Any budget adjustments required to ensure that the proposed project will meet USACE standards will be determined prior to finalization of the PPAs, based on the full agreement of all parties, and will not be subject to change thereafter, except by mutual consent of the applicant and the USACE.

### ***Expected Timeline to Execute a PPA***

Applicants should expect to receive a decision on their application within about six months from submitting their request. Once they are approved, it should take about six months to execute a PPA. This includes the time it takes for the applicant's legal team to approve the draft PPA and for the applicant to provide the financial self-certification. If this process is protracted, the timeline will be extended. If sponsors decide to seek in-kind credit for work performed prior to the PPA execution, the Corps will need to review and approve the work, which is routed to the highest levels of the USACE chain of command and approved by the Assistant Secretary for the Army for Civil Works (ASA-CW). The approval process for in-kind credit on pre-existing work can add approximately six additional months to the time it takes to execute a PPA and begin work.

### ***Workshops***

In partnership with the Corps, the LCBP hosts periodic workshops for potential partners and local sponsors. The goal of the workshop is to share information on priority areas of concern (*Opportunities of Action*) for the Lake Champlain watershed; and further explain the Section 542 authority, sponsor requirements, eligible activities, and the project selection process.

The workshop announcement is issued and distributed throughout the Lake Champlain region by the LCBP. The workshops will be held periodically by LCBP and USACE personnel as long as federal funding is available for the Program.

### ***Project Summary***

Once the Corps receives a letter of request from a potential sponsor, site visits and meetings may be necessary before the Corps submits a project summary to the LCBP. The Corps will work with the non-federal sponsor to prepare the project summaries, which will include the following information:

- Basic Information
  - Project title
  - Applicant name and contact information
  - Project need statement
- Project Details to include:
  - Project objectives
  - Background and planning approach
  - General Scope of Work (SOW) including tasks, schedule, estimated project budget, and supporting narrative
- How the project will address at least one of the LCBP's priorities in *Opportunities for Action*;
- Potential sponsors ability to meet eligibility requirements of a non-federal sponsor;
- Potential sponsors ability to provide required 35% match to project costs.
- Discussion of potential LERRDs requirements and sponsor's ability to acquire LERRDs or existing ownership information.
- Letters of Support stating the non-federal sponsor's intention to cost share and partner on the project
  - If there are other groups or agencies that will partner formally or informally or will act as cooperating agencies, letters of support from them may also be required
- Any other relevant supporting documents

### ***Projects Chosen for Implementation***

After the project has been through the aforementioned process and officially selected, a Project Management Plan (PMP) and PPA will be negotiated with the non-federal sponsor(s). The commitment of federal support for a specific project will be made once a PPA has been executed.

Non-federal sponsors of a project selected for implementation should be prepared to comply with the following requirements which are described more fully in the workshops:



- Provide without cost to the United States all lands, easements, and rights-of-way including suitable borrow areas, necessary for construction, operation and maintenance of the project and all necessary relocations;
- Hold and save the United States free from damages arising from construction, operation, and maintenance of the project, except for damages due to the fault or negligence of the United States or its contractors;
- Operate, maintain, repair, replace, and rehabilitate the completed project in accordance with regulations or directions prescribed by the Federal Government;
- Comply with the cost-sharing provisions of Section 542 of WRDA 2000;
- Comply with the provisions of the Uniform Relocations Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646), as amended;
- Comply with the provisions of Section 601 of Title VI of the Civil Rights Act of 1964 (Public Law 88-352) and Department of Defense Directive 5500.II issued pursuant thereto (published as Part 300 of Title 32, Code of Federal Regulations, as well as Army Regulation 600-7, entitled, “Non-discrimination of the Basis of Handicap in Programs and Activities Assisted or Conducted by the Department of the Army”).

## **CORPS PROCESS FOR SECTION 542 PROJECT IMPLEMENTATION**

Following notification that a project has been approved for implementation, the District will hold site visit(s) with the sponsor(s) of the chosen projects. The Corps will work with the Sponsor to develop their existing Scope of Work that went into the project summary and build on it to create a Project Management Plan (PMP). The PMP will then be submitted to the Corps of Engineers North Atlantic Division Regional Business Center (CENAD) in a *Project Partnership Agreement Approval Request Package*. The Division Commander has the authority to approve agreements conforming to the model agreements (Appendix C) provided by Corps Headquarters (HQUSACE) or agreements that may have non-substantive changes from the model agreements, with the delegation of signatory authority to the District Commander. If there are substantive changes, then the agreement requires approval at Headquarters. Once all documents are reviewed and approved by CENAD, a Project Partnership Agreement (PPA) will be executed by the non-federal sponsor and the New York District Corps of Engineers. Following PPA execution the project tasks will begin.



## Project Management Plans

A PMP is the first document to be completed after the project proposal is approved. The PMP defines the planning approach, tasks to be accomplished, schedule, and associated costs that the Corps and the non-federal sponsor(s) will be supporting financially. The PMP is subject to change as the project progresses. Project cost estimates and the schedule of tasks in the PMP may vary. Clear descriptions of the scopes of work and cost/time estimates in the PMP will allow updates resulting from more information to be easily made. The PMP also includes which disciplines will comprise the Project Delivery Team (PDT) responsible for completing the project (i.e. biologist, hydraulic engineer, real estate specialist, etc.), and which individuals will be assigned to the PDT. The final PMP will be signed by the full PDT.

## Project Partnership Agreements

A PPA is a written legal agreement between the non-federal sponsor and the Department of the Army that describes both parties' financial and other responsibilities for construction, operation and maintenance of the project. Based upon the agreed upon project budget and the scope of work, a draft PPA will be drawn up.

Federal involvement requires that a PPA be negotiated by the District and the appropriate non-federal sponsor, approved by the non-federal sponsor, approved by the Corps of Engineers and signed by the District and the non-federal sponsor. Two different types of PPA's may be executed, depending upon the scope of work to be performed:

- **Design PPA** for planning-level or design of projects that are not for construction by the Corps.
- **Design/Construction PPA** for projects that have planning or design-level work to accomplish, but are also going to be constructed by the Corps.

Two model PPAs for the Section 542 Lake Champlain Watershed Environmental Assistance Program have been approved by HQUSACE (Appendix C). One of these PPAs is for design assistance and second one is for design and construction assistance. This means that the Division Commander has the authority to approve agreements conforming to these models or agreements that may have non-substantive changes, with delegation of signature authority to the District Commander. If there are substantive changes, the agreement requires approval by Headquarters. CENAD will review and approve the PPA after reviewing and approving the Project Fact Sheet, which is a succinct summary of the project for internal use within USACE and Congress.

### Project Partnership Agreement Approval

NAD has the signature authority to approve projects and PPAs, with the option to delegate to the District Commander. Regardless of which office has PPA approval authority, a *Project Partnership Agreement Approval Request Package* will be prepared by the PDT and must be submitted to that office and include the following supporting documentation:

- Name of Non-Federal Sponsor (i.e. the applicant who will cost-share and partner on the project)
- Non-Federal Sponsor Support Letter—an example can be provided to the applicant—this formally expresses need for the project and a desire to partner under this program
- State Certification Letter—demonstrates state support for the project if the non-federal sponsor is not the state
- Project Management Plan (PMP)
- Project Partnership Agreement Checklist (USACE District PDT prepares this)
- Draft Project Partnership Agreement
- Non-Federal Sponsor's Financial Capability Assessment and Financing Plan—an example can be provided to the non-federal sponsor—this demonstrates the ability to cost share on the project
- Real Estate Requirements—May not be applicable if the Real Estate Plan is to be done during the design phase of the project, after the PPA execution.
- Assessment of the Non-Federal Sponsor's Real Estate Capability (for PPAs that include construction)
- Environmental Compliance Documentation (if applicable)—Demonstrates a project has complied with applicable environmental regulations, permitting requirements, etc., as appropriate for the stage of the project and scope of the work
- Assistant Secretary of the Army – Civil Works: Pre-Agreement Credit Approval (if pre-agreement credit over \$100,000 is requested)
- Non-Federal Sponsor Certification of PPA—this certifies that those executing the agreement are acting within their statutory authority
- CENAN Certification of Legal Review—USACE District Council certifies their legal review of the PPA package

The *Project Partnership Agreement Approval Request Package* will be submitted to the North Atlantic Division (CENAD) for approval. Upon approval, the CENAD may transfer signature authority to the District Commander. Any deviations to previously approved agreements or model agreements must be submitted to HQUSACE for review and

approval prior to execution. Non-substantive deviations may be approved by CENAD. Federal funds for an approved project may be expended only after the non-federal sponsor and the Corps have executed a negotiated PPA.

## **FUNDING AND COST SHARING**

### **Project Funding**

In general, total project costs under Section 542 of WRDA 2000 will be cost-shared at 65% federal and 35% non-federal. The non-federal share may be composed of cash or a combination of cash, in-kind services, and land, easement, right-of-way, dredged material disposal area, or relocation credits (LERRDs).

Federal funds to implement an approved project will be assigned to a project within the overall program only after a PPA has been executed. The form of disbursement of project funds depends on the project budget and the defined terms of the PPA.

### ***Cash Contributions***

Cash should come from non-federal sources, unless the federal agency providing the funds provides a letter of consent. As stated in the PPA, the non-federal sponsor shall provide their cash contribution to the New York District following PPA execution.

### ***In-Kind Credit***

The term “in-kind” is defined as those tasks completed by the non-federal sponsor in substitution of a cash contribution. Defining what activities can be done by the non-federal sponsor as creditable work, should be done in the PMP. Appropriate District study team members will negotiate with the non-federal sponsor on the amount of credit for in-kind services. The non-federal interest may provide up to 100 percent of its non-federal share in the form of these in-kind credits.

In-kind credit may be creditable work performed pre-PPA execution or post-PPA execution.

### **POST-PPA CREDIT**

If in-kind creditable work is to be performed after PPA execution, it should be clearly described as such in the PMP and in the budget. The non-federal sponsor may contribute up to 100% of their non-federal share in the form of District-approved creditable work.

Should the sponsor and LCBP choose to work together on a project, costs accrued by LCBP staff for project coordination may be included as a project task and met through the cash component of the non-federal match.

#### PRE-PPA CREDIT

Section 542 of WRDA 2000 allows the non-federal sponsor to receive credit for reasonable costs of design work carried out by the non-federal interest before the date of execution of a PPA for the critical restoration project, if the Secretary finds that the design work is integral to the project.

The PMP should clearly identify what work has been or will be performed as pre-PPA Credit. Once defined and approved by the District as creditable work, the District must request that the North Atlantic Division Commander<sup>3</sup> approve credit over \$100,000, if it is determined that the work is integral to the project. Pre-PPA in-kind credit may be approved by the New York District Commander, per WRDA 2007. This request must be submitted to the North Atlantic Division *prior* to PPA Approval request. This Credit Approval Request must include the following supporting documentation and information:

- Section 542 of the 2000 Water Resources Development Act (WRDA) Authorization, as amended
- Lake Champlain Watershed Environmental Assistance Program General Management Plan
- Project Management Plan
- Description of Pre-PPA creditable work and how it is determined to be integral to the project
- Sponsor Support Letter

#### ***Lands, Easements, Rights-of-way, Relocation, or Dredged material disposal (LERRDs)***

The non-federal sponsor may also receive credit for the value of any land, easement, right-of-way, dredged material disposal area, or relocation provided for carrying out the project (based on fair market value, and including costs for obtaining permits needed for construction of eligible projects on publicly owned or controlled lands), but not to exceed 35% of the total project costs.

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<sup>3</sup> The determination of whether or not proposed in-kind credit work is integral to the project was delegated from the ASA(CW) office to the Major Subordinate Command (MSC) Commander, in this case the North Atlantic Division Commander, in WRRDA 2014, Section 1018.

## **Program Funding**

Congress authorized \$32,000,000 of federal funding for this program per the amended WRDA 2007. The appropriations to date have been as follows:

<b>Fiscal Year</b>	<b>Allocations</b>	<b>Obligations</b>
2003	\$42,000	\$11,646
2004	\$86,000	\$92,160
2005	\$76,000	\$85,986
2006	\$840,000	\$287,192
2007	\$800,000	\$354,020
2008	\$2,360,000	\$116,709
2009	\$957,000	\$149,501
2010	\$920,000	\$159,956
2011	\$(750,000)	\$160,440
2012	\$(800,000)	\$162,730
2013	\$ 0	\$157,408
2014	\$ 0	\$127,745
2015	\$ 0	\$93,569
2016	\$400,000	\$1,509,402
2017	\$400,000	\$406,536
2018	\$500,000	\$179,814
2019	\$500,000	
<b>Total</b>	<b>\$6,331,000</b>	<b>\$3,987,580</b>
<b>Authorized Federal Funds Remaining from \$32 Million Authorization</b>		<b>\$28,012,420</b>

## **Program Coordination Costs**

The New York District will be responsible for program oversight and management. Efforts to update the General Management Plan (GMP), screening and selection of projects, attending programmatic meetings with the Lake Champlain Steering Committee, the States, and other potential non-federal sponsors will be accomplished at a cost not to exceed \$150,000 per fiscal year. These costs are a 100% federal responsibility and are used at the discretion of the New York District.

## **Project Specific Pre-PPA Coordination Costs**

In addition to Program Administrative costs, the District may use up to a maximum of \$50,000 to prepare and negotiate a PMP, obtain a letter of intent, and develop and negotiate a Project Partnership Agreement. These costs are a 100% federal responsibility and are used at the discretion of the New York District.

## **GENERAL MANAGEMENT PLAN UPDATES**

The strategy for implementing qualified projects is based on the priorities of the LCBP, updates to *Opportunities for Action* and availability of funding for the program.

## CONCLUSIONS AND RECOMMENDATIONS

The New York District recommends approval of this revised General Management Plan (GMP) for implementation of qualified projects authorized by Section 542 Water Resources Development Act 2000, as amended. This GMP outlines the process by which the District will provide planning, design and construction assistance for qualified projects, subject to approval by the Lake Champlain Basin Program, the New York District of the US Army Corps of Engineers (USACE or Corps), and the North Atlantic Division of the Corps. The recommendations contained herein reflect the information available at this time and current Corps policies governing cost-sharing of individual projects. They do not reflect program and budgeting priorities inherent in the formulation of a national Civil Works program from the perspective of higher review levels within the Executive Branch. Consequently, the recommendations may be modified at higher levels. The non-federal sponsor(s) will also be afforded an opportunity to comment further.

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Eric Howe (date)  
 Director, Lake Champlain  
 Basin Program

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Thomas D. Asbery (date)  
 Colonel, U.S. Army  
 District Commander

**Lake Champlain Section 542  
Environmental Assistance Program  
General Management Plan 2019  
Appendices**

**Appendix A.....Section 542 Authority, WRDA 2000**

**Appendix B.....Letter of Request Requirements, Sample  
of Request, and Project Summary Example**

**Appendix C..... Two Model Project Partnership  
Agreements and Memo Transferring PPA Signature Authority  
from USACE Headquarters to NAD**



## Appendix A

### Section 542 of WRDA 2000, as amended

SEC. 542. LAKE CHAMPLAIN WATERSHED, VERMONT AND NEW YORK.

(a) DEFINITIONS- In this section, the following definitions apply:

(1) CRITICAL RESTORATION PROJECT- The term 'critical restoration project' means a project that will produce, consistent with Federal programs, projects, and activities, immediate and substantial ecosystem restoration, preservation, and protection benefits.

(2) LAKE CHAMPLAIN WATERSHED- The term 'Lake Champlain watershed' means--

(A) the land areas within Addison, Bennington, Caledonia, Chittenden, Franklin, Grand Isle, Lamoille, Orange, Orleans, Rutland, and Washington Counties in the State of Vermont; and

(B)(i) the land areas that drain into Lake Champlain and that are located within Essex, Clinton, Franklin, Warren, and Washington Counties in the State of New York; and

(ii) the near-shore areas of Lake Champlain within the counties referred to in clause (i).

(b) CRITICAL RESTORATION PROJECTS-

(1) IN GENERAL- The Secretary may participate in critical restoration projects in the Lake Champlain watershed.

(2) TYPES OF PROJECTS- A critical restoration project shall be eligible for assistance under this section if the critical restoration project consists of--

(A) implementation of an intergovernmental agreement for coordinating regulatory and management responsibilities with respect to the Lake Champlain watershed;

(B) acceleration of whole farm planning to implement best management practices to maintain or enhance water quality and to promote agricultural land use in the Lake Champlain watershed;

(C) acceleration of whole community planning to promote intergovernmental cooperation in the regulation and management of activities consistent with the goal of maintaining or enhancing water quality in the Lake Champlain watershed;

(D) natural resource stewardship activities on public or private land to promote land uses that--

(i) preserve and enhance the economic and social character of the communities in the Lake Champlain watershed; and

(ii) protect and enhance water quality; or

(E) any other activity determined by the Secretary to be appropriate.

(c) PUBLIC OWNERSHIP REQUIREMENT- The Secretary may provide assistance for a critical restoration project under this section only if--

(1) the critical restoration project is publicly owned; or

(2) the non-Federal interest with respect to the critical restoration project demonstrates that the critical restoration project will provide a substantial public benefit in the form of water quality improvement.

(d) PROJECT SELECTION-

(1) IN GENERAL- In consultation with the Lake Champlain Basin Program and the heads of other appropriate Federal, State, tribal, and local agencies, the Secretary may--

(A) identify critical restoration projects in the Lake Champlain watershed; and  
(B) carry out the critical restoration projects after entering into an agreement with an appropriate non-Federal interest in accordance with section 221 of the Flood Control Act of 1970 (42 U.S.C. 1962d-5b) and this section.

(2) CERTIFICATION

A) IN GENERAL- A critical restoration project shall be eligible for financial assistance under this section only if the appropriate State official for the critical restoration project certifies to the Secretary that the critical restoration project will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed.

(B) SPECIAL CONSIDERATION- In certifying critical restoration projects to the Secretary, the appropriate State officials shall give special consideration to projects that implement plans, agreements, and measures that preserve and enhance the economic and social character of the communities in the Lake Champlain watershed.

(e) COST SHARING-

(1) IN GENERAL- Before providing assistance under this section with respect to a critical restoration project, the Secretary shall enter into a project cooperation agreement that shall require the non-Federal interest--

(A) to pay 35 percent of the total costs of the project;

(B) to provide any land, easements, rights-of-way, dredged material disposal areas, and relocations necessary to carry out the project;

(C) to pay 100 percent of the operation, maintenance, repair, replacement, and rehabilitation costs associated with the project; and

(D) to hold the United States harmless from any claim or damage that may arise from carrying out the project, except any claim or damage that may arise from the negligence of the Federal Government or a contractor of the Federal Government.

(2) NON-FEDERAL SHARE-

(A) CREDIT FOR DESIGN WORK- The non-Federal interest shall receive credit for the reasonable costs of design work carried out by the non-Federal interest before the date of execution of a project cooperation agreement for the critical restoration project, if the Secretary finds that the design work is integral to the project.

(B) CREDIT FOR LAND, EASEMENTS, AND RIGHTS-OF-WAY- The Secretary shall credit the non-Federal interest for the value of any land, easement, right-of way, dredged material disposal area, or relocation provided for carrying out the project.

(C) FORM- The non-Federal interest may provide up to 50 percent of the non-Federal share in the form of services, materials, supplies, or other in-kind contributions.

(f) APPLICABILITY OF OTHER FEDERAL AND STATE LAWS- Nothing in this section waives,

limits, or otherwise affects the applicability of Federal or State law with respect to a project carried out with assistance provided under this section.

(g) AUTHORIZATION OF APPROPRIATIONS- There is authorized to be appropriated to carry out this section \$20,000,000, to remain available until expended.

***Amendments to Section 542 WRDA 2000 in WRDA 2007***

**SEC. 3160. LAKE CHAMPLAIN WATERSHED, VERMONT AND NEW YORK.**

Section 542 of the Water Resources Development Act of 2000 (114 Stat. 2671) is amended—

(1) in subsection (b)(2)—

(A) by striking “or” at the end of subparagraph (D);

(B) by redesignating subparagraph (E) as subparagraph (G); and

(C) by inserting after subparagraph (D) the following:

“(E) river corridor assessment, protection, management, and restoration for the purposes of ecosystem restoration;

“(F) geographic mapping conducted by the Secretary using existing technical capacity to produce a high-resolution, multispectral satellite imagery-based land use and cover data set; or”;

(2) in subsection (e)(2)(A)—

(A) by striking “The non-Federal” and inserting the following:

“(i) IN GENERAL.—The non-Federal”; and (B) by adding at the end the following:

“(ii) APPROVAL OF DISTRICT ENGINEER.—Approval of credit for design work of less than \$100,000 shall be determined by the appropriate district engineer.”;

(3) in subsection (e)(2)(C) by striking “up to 50 percent of”; and

(4) in subsection (g) by striking “\$20,000,000” and inserting “\$32,000,000”.

## Appendix B – Letter of Request Requirements, Sample Letter of Request, and Project Summary Example

### Letter of Request Requirements

**The Letter of Request must include the following information:**

- A. NAME OF PROJECT & LOCATION
- B. NAME OF APPLICANT/SPONSOR. PLEASE INCLUDE CONTACT INFORMATION INCLUDING, PHONE, FAX, ADDRESS, AND EMAIL ADDRESS.
- C. DISCUSSION OF THE NON-FEDERAL SPONSOR INTEREST: Briefly describe the sponsor's level of need and interest.
- D. PROJECT DESCRIPTION
  - Identify the specific location of the project (state, county, town, river or creek, latitude & longitude).
  - Describe the nature and severity of the environmental problem.
  - Identify the studies performed to date, as well as the reports or material utilized in the planning or design of this project (if planning or design has already been performed).
  - Describe the specific problem(s) to be addressed and note the specific action(s) in *Opportunities for Action* that will be addressed by this project.
  - Include an estimated schedule and cost of the project, including design.
  - Briefly describe the known issues that might affect the acceptability of any recommended solutions, from the perspective of local government and/or the public.

In General, describe the type of work to be accomplished & the expected results as well as any other relevant information.

## Sample Letter of Request

District Engineer  
U.S. Army Corps of Engineers, New York District  
ATTN: Planning Division  
26 Federal Plaza, 21<sup>st</sup> Floor  
New York, NY 10278

Dear Sir or Madam:

The purpose of this letter is to seek assistance of the U.S. Army Corps of Engineers under Section 542 of the Water Resources Development Act of 2000, in implementing a critical restoration project on the *(river or creek)* in the vicinity of *(city or town, etc.)*.

*Briefly:*

- *Describe the nature and severity of the environmental problem.*
- *Identify the studies performed to date, as well as the reports or material utilized in the planning or design of this project (if planning or design has already been performed).*
- *Describe the specific problem(s) to be addressed and note the specific action(s) in Opportunities for Action that will be addressed by this project.*
- *Include an estimated schedule and cost of the project, including design.*
- *Describe the known issues that might affect the acceptability of any recommended solutions, from the perspective of local government and/or the public.*

It is understood that the *(non-federal sponsor)* would be able to pay at least 35 percent of the total cost of a project; to provide any land, easements, rights-of-way, and relocations necessary to carry out the project; to pay 100 percent of the operation, maintenance, repair, replacement, and rehabilitation costs associated with the project; and pay the minimum cash requirement.

Please contact *(name, address, telephone)* for further information.

Sincerely,  
*(Name and title of public official authorized to request study).*

## **Project Summary Example**

One example of a recent successful project supported by Section 542 is the Bartlett Brook North project in South Burlington, Vermont. This project completed design and an Environmental Assessment in 2012 and construction was initiated in July 2017 and scheduled to be completed in September 2017.

### **Project Information**

- Local Sponsor: City of South Burlington, VT
- Project Cost: \$2.27M (cost shared 65% federal / 35% non-federal)
- Timeline
  - Letter of Request submitted in January 2008
  - Bartlett Brook application approved in June 2008
  - Sponsor provided Scope of Work in May 2009
  - Project Management Plan signed in November 2009
  - Sponsor's work was approved for in-kind credit by the Assistant Secretary for the Army—Civil Works in January 2012
  - PPA executed 26 January 2012
  - Contract awarded on 17 March 2016
  - Notice to Proceed on 13 April 2016
  - Construction initiated on 5 July 2016
  - Construction completion in September 2017

### **Description of Work**

The work is to improve on-site drainage in two suburban areas (Stonehedge & Laurel Hill) which will reduce negative impact of storm water runoff from the developments on downstream receiving waters. The construction work includes drainage swales and grass channels, a bioretention area, infiltration trenches, wetland ponds, and a closed drainage system (larger pipes and catch basins).



### **Background**

The Vermont Agency of Natural Resources determined that Bartlett Brook is not meeting state water quality standards due to impacts from unmanaged stormwater runoff. This watershed is located primarily within the South Burlington City limits. The City of South Burlington had identified five significant projects that would substantially improve the quality of runoff entering these waterways of which two projects in the Stonehedge and Laurel Hill South neighborhoods is being implemented as one project under the Lake Champlain Program authority. The two neighborhoods are in close proximity to each other and are part of one project, the Bartlett Brook North Stormwater Treatment Project.

The Stonehedge neighborhood was constructed beginning in the 1980s and is made up of 202 condominium units. This neighborhood experiences regular flooding, drainage and roadway problems relating to uncontrolled stormwater runoff. This includes flooding, sediment laden discharges, and aging/failing infrastructure. Currently, there is no effective stormwater treatment in place.

Laurel Hill South neighborhood was built 40 years ago, and consists of roughly 140 single family residences on lots of approximately 1/3 acres in size. Since the time it was built, the residents have experienced regular flooding. Lawns and basements are flooded almost annually. Multiple factors contribute to this problem with the main reason being the poor conveyance of stormwater through the existing drainage pipe network.



## **Appendix C – Model Project Partnership Agreements (PPAs) and Delegation of Authority to Approve and Execute PPAs**

Prior to 2006, Section 542 Project Partnership Agreements, or PPAs, needed to be approved by the Assistant Secretary for the Army (Civil Works), or the ASA(CW), an appointee of the President of the United States of America. During this period, projects took a long time to reach approval because of needing to be signed off at such a high level. In 2006 the ASA(CW) passed the signature authority down to Corps Headquarters and additionally requested that Corps Headquarters develop and approve model agreements for Section 542 projects to be approved at the regional level, in this case by the North Atlantic Division, or at the District level, by the New York District Commander. On October 10, 2018 Headquarters signed a memo delegating Section 542 PPA signature authority to the North Atlantic Division (NAD) and approved one model PPA for Design Assistance. In March 2019 Corps Headquarters approved a second model agreement for Design and Construction Assistance and similarly delegated approval authority. Therefore the Division Commander now has the authority to approve agreements conforming to these models or agreements that may have non-substantive changes, with delegation of signature authority to the District Commander. If there are substantive changes, the agreement will require approval by Corps Headquarters.



DEPARTMENT OF THE ARMY  
U.S. ARMY CORPS OF ENGINEERS  
441 G STREET, NW  
WASHINGTON, D.C. 20314-1000

OCT 10 2018

CECW-NAD

MEMORANDUM FOR COMMANDER NORTH ATLANTIC DIVISION NEW YORK DISTRICT

SUBJECT: Lake Champlain Basin Program, Vermont and New York, Section 542 of the Water Resources Development Act of 2000 Design Model Agreement.

1. References:

a. Memorandum, CENAD-PD-C, 24 April 2018, subject: New York District - Revised General Management Plan for the Section 542 Environmental Assistance Program for the Lake Champlain Watershed and Request for Approval of the Model Project Partnership Agreement

b. Headquarters/NAD/NAN teleconference call, 27 September 2018, subject: Model Agreement for Design Assistance, Lake Champlain Basin Program, Vermont and New York Section 542 of the Water Resources Development Act of 2000, as amended, August 2018

2. Enclosed for your use is the model agreement for design assistance under the authority of Section 542 of WRDA 2000, Lake Champlain Watershed. The Division Commander has the authority to approve agreements conforming to the model or agreements that may have non substantive changes, with delegation of signature authority to the District Commander. If there are substantive changes, then the agreement will require approval at Headquarters.

3. The General Management Plan (GMP) is an overarching decision document for implementation of Lake Champlain Watershed program. Approval authority for the GMP and its updates lies with the Division Commander. A Letter Report approved by the District Engineer will serve as a decision document supporting the design assistance agreement for each individual project and will be addressed in Article I.A. of the agreement. Integral and betterment determinations are subject to approval by the Division Commander.

4. If there are questions, please contact Ms. Catherine Shuman, Deputy Chief, North Atlantic Division Regional Integration Team, at (202) 761-1379, or you may contact Mr. Aaron Hostyk, Office of Chief Counsel at (202) 761-8525.

FOR THE COMMANDER:

Encl

A handwritten signature in black ink, appearing to read "J. Dalton", is positioned above the name of the signatory.

JAMES C. DALTON, P.E.  
Director of Civil Works

**MODEL AGREEMENT  
FOR  
DESIGN ASSISTANCE  
LAKE CHAMPLAIN BASIN PROGRAM, VERMONT AND NEW YORK  
SECTION 542 OF THE  
WATER RESOURCES DEVELOPMENT ACT OF 2000, AS AMENDED  
AUGUST 2018**

**APPLICABILITY AND INSTRUCTIONS:**

1. The attached model cost sharing agreement must be used for all agreements for design assistance under the Lake Champlain Basin Program, Vermont and New York, authorized by Section 542 of the Water Resources Development Act (WRDA) of 2000, as amended by Section 3160 of WRDA 2007. The responsibility for review and approval of an agreement that does not deviate from the approved model has been delegated to the MSC Commander. Division Counsel concurrence that the agreement does not deviate from the subject model, and is appropriate for use for design assistance, is required prior to approval. In addition, the MSC Commander has been delegated authority to approve non-substantive deviations to the model agreement. Division Counsel review of such deviations, with a recommendation to approve such deviations, is required prior to approval by the MSC Commander.
2. The following options, including language for the agreement, are addressed in the Attachment:
  - a. Option 1: Not An Obligation of Future Appropriations (page A-1).
  - b. Option 2: Multiple Sponsors (page A-2).
  - c. Option 3: Accelerated Funds (page A-3).
  - d. Option 4: Credit for Pre-Agreement Design Work (page A-4).
3. Reminder: Make all required insertions, including language associated with an option; remove this cover page; remove the open and close brackets and any instructional text; ensure the spacing and page breaks throughout the agreement are appropriate; if more

than one option is used, ensure the Article and paragraph numbering are correct; and delete the Attachment.

4. The Certificate of Authority, Certification Regarding Lobbying, the Non-Federal Sponsor's Self-Certification of Financial Capability, and the State's Certification under Section 542(d)(2) of WRDA 2000, as amended, should be included as a part of the agreement package. These certificates can be found at the following Corps website: [http://www.usace.army.mil/Missions/CivilWorks/ProjectPartnershipAgreements/ppa\\_forms.aspx](http://www.usace.army.mil/Missions/CivilWorks/ProjectPartnershipAgreements/ppa_forms.aspx)

AGREEMENT  
BETWEEN  
THE DEPARTMENT OF THE ARMY  
AND  
**[INSERT FULL NAME OF NON-FEDERAL SPONSOR]**  
FOR  
DESIGN ASSISTANCE  
FOR THE  
**[INSERT FULL NAME OF PROJECT OR ELEMENT]**

THIS AGREEMENT is entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between the Department of the Army (hereinafter the “Government”), represented by the U.S. Army Engineer, New York District (hereinafter the “District Engineer”) and the **[Insert Full Name of Non-Federal Sponsor]** (hereinafter the “Non-Federal Sponsor”), represented by the **[Insert Title]**.

WITNESSETH, THAT:

WHEREAS, the Secretary of the Army is authorized by Section 542 of the Water Resources Development Act of 2000, Public Law 106-541, as amended by Section 3160 of the Water Resources Development Act of 2007, Public Law 110-114 (hereinafter “Section 542”), to participate in critical restoration projects in the Lake Champlain watershed located in Vermont and New York (hereinafter the “Section 542 Program”);

WHEREAS, Section 542 specifies that the Secretary of the Army may provide assistance for a critical restoration project only if the project is publicly owned or if the Non-Federal Sponsor demonstrates that the critical restoration project will provide a substantial public benefit in the form of water quality improvement; and only if the appropriate State official for the critical restoration project certifies to the Secretary that the project will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed;

WHEREAS, the [name and title of State official], has certified that the [name and location of project] (hereinafter the “Project”) will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed;

WHEREAS, Section 542 provides that \$32,000,000 in Federal funds are authorized to be appropriated to carry out the Section 542 Program;

WHEREAS, the U.S. Army Engineer, New York District (hereinafter the “District Engineer”) has determined that the Project is eligible for Design Assistance (as defined in Article I.A. of this Agreement) under Section 542;

WHEREAS, Section 542 authorizes the Non-Federal Sponsor to provide the required non-Federal share in the form of services, materials, supplies, or other in-kind contributions; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

## **ARTICLE I - DEFINITIONS**

A. The term “Design Assistance” means **[Insert description]** as generally described in the **[Insert title of the Decision Document]**, dated **[e.g., Month Day, Year]** and approved by **[Insert Title of Approving Official]** on **[Month Day, Year]**.

B. The term “total design costs” means the sum of all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to: the Government’s costs for engineering and design, economic and environmental analyses, and evaluation; for contract dispute settlements or awards; for supervision and administration; for Agency Technical Review and other review processes required by the Government; for any required Independent External Peer Review for Safety Assurance; and the Non-Federal Sponsor’s creditable costs for in-kind contributions, if any. The term does not include any costs for dispute resolution; participation in the Design Assistance Coordination Team; audits; or betterments; or the Non-Federal Sponsor’s cost of negotiating this Agreement.

D. The term “in-kind contribution” mean services, supplies, or materials provided after the effective date of this Agreement by the Non-Federal Sponsor that are identified as being integral to the Design Assistance and approved in writing by the Division Engineer for the North Atlantic Division. To be integral, the material or service must be part of the work that the Government would otherwise have undertaken for the Design Assistance. The term does not include the design of betterments.

E. The term “fiscal year” means one year beginning on October 1<sup>st</sup> and ending on September 30th of the following year.

F. The term “betterment” means a difference in the portion of the Design Assistance that results from the application of standards that the Government determines exceed those that the Government would otherwise apply to that portion.

*G. The term “Section 542 Program Limit” shall mean the amount of Federal funds authorized to be appropriated for the Section 542 Program. As of the effective date of this Agreement, such amount is \$32,000,000.*

## **ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND THE NON-FEDERAL SPONSOR**

A. In accordance with Federal laws, regulations, and policies, the Government shall conduct the Design Assistance using funds appropriated by the Congress and funds provided by the Non-Federal Sponsor. The Non-Federal Sponsor shall perform or provide any in-kind contributions in accordance with applicable Federal laws, regulations, and policies.

B. The Non-Federal Sponsor shall contribute 35 percent of total design costs in accordance with the provisions of this paragraph and provide required funds in accordance with Article III.

1. After considering the estimated amount of credit for in-kind contributions, if any, that will be afforded in accordance with paragraph C. of this Article, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor for the initial fiscal year of the Design Assistance. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government.

2. No later than August 1<sup>st</sup> prior to each subsequent fiscal year of the Design Assistance, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year to meet its cost share. No later than September 1<sup>st</sup> prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government.

C. The Government shall credit towards the Non-Federal Sponsor’s share of total design costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind contributions integral to the Design Assistance, including associated supervision and administration. Such costs shall be subject to audit in accordance with Article VII to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

1. As in-kind contributions are completed and no later than 60 calendar day after such completion, the Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors,



suppliers, and the Non-Federal Sponsor's employees. Failure to provide such documentation in a timely manner may result in denial of credit.

2. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind contributions are completed and credit is afforded; for the value of in-kind contributions obtained at no cost to the Non-Federal Sponsor; for any items provided or performed prior to the effective date of this Agreement; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

3. No reimbursement will be provided for any in-kind contributions that exceed the Non-Federal Sponsor's share of the total design costs under this Agreement.

D. To the extent practicable and in accordance with Federal laws, regulations, and policies, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on solicitations for contracts prior to the Government's issuance of such solicitations; proposed contract modifications, including change orders; and contract claims prior to resolution thereof. Ultimately, the contents of solicitations, award of contracts, execution of contract modifications, and resolution of contract claims shall be exclusively within the control of the Government.

E. The Non-Federal Sponsor shall not use Federal Program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Design Assistance. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

F. Except as provided in paragraph C. of this Article, the Non-Federal Sponsor shall not be entitled to any credit or reimbursement for costs it incurs in performing its responsibilities under this Agreement.

G. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964 (P.L. 88-352), as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

H. If Independent External Peer Review for Safety Assurance is required for the Design Assistance, the Government shall conduct such review in accordance with Federal laws, regulations, and policies.

I. In addition to the ongoing, regular discussions of the parties in the delivery of the Design Assistance, the Government and the Non-Federal Sponsor may establish a Design Assistance Coordination Team consisting of Government's Project Manager and the Non-Federal Sponsor's counterpart and one senior representative each from the Government and

Non-Federal Sponsor to discuss significant issues or actions. The Government's costs for participation on the Design Assistance Coordination Team shall not be included in the total design costs but shall be included in calculating the Section 542 Program Limit. The Non-Federal Sponsor's costs for participation on the Design Assistance Coordination Team shall not be included in the total design costs. The Non-Federal Sponsor's costs for participation on the Design Coordination Team shall be paid solely by the Non-Federal Sponsor without reimbursement or credit.

J. The Non-Federal Sponsor may request in writing that the Government perform betterments on behalf of the Non-Federal Sponsor. Each request shall be subject to review and written approval by the Division Engineer for the North Atlantic Division. If the Government agrees to such request, the Non-Federal Sponsor, in accordance with Article III.F., must provide funds sufficient to cover the costs of such work in advance of the Government performing the work.

K. Notwithstanding any other provision of this Agreement, the Non-Federal Sponsor shall be responsible for all costs in excess of the Section 542 Program Limit.

### **ARTICLE III - METHOD OF PAYMENT**

A. As of the effective date of this Agreement, total design costs are projected to be \$\_\_\_\_\_, with the Government's share of such costs projected to be \$\_\_\_\_\_, the Non-Federal Sponsor's share of such costs projected to be \$\_\_\_\_\_; and the costs for betterments are projected to be \$\_\_\_\_\_. These amounts are estimates subject to adjustment by the Government, after consultation with the Non-Federal Sponsor, and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Government shall provide the Non-Federal Sponsor with quarterly reports setting forth the estimated total design costs and the Government's and Non-Federal Sponsor's estimated shares of such costs; costs incurred by the Government, using both Federal and Non-Federal Sponsor funds, to date; the amount of funds provided by the Non-Federal Sponsor to date; the estimated amount of any creditable in-kind contributions; and the estimated remaining cost of the Design Assistance.

C. The Non-Federal Sponsor shall provide to the Government required funds by delivering a check payable to "FAO, USAED, New York District **EROC code**" to the District Engineer, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

D. The Government shall draw from the funds provided by the Non-Federal Sponsor to cover the non-Federal share of the total design costs as those costs are incurred. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's required share of the total design costs, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional funds.

E. Upon conclusion of the Design Assistance and resolution of all relevant claims and appeals, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of written notice from the Government, shall provide the Government with the full amount of such additional funds. Should the final accounting determine that the Non-Federal Sponsor has provided funds in excess of its required amount, the Government shall refund the excess amount. Such final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of total design costs, including contract claims or any other liability that may become known after the final accounting.

F. Payment of Costs for Betterments Provided on Behalf of the Non-Federal Sponsor. No later than 60 calendar days after receiving written notice from the Government of the amount of funds required to cover any such costs, as applicable, the Non-Federal Sponsor shall make the full amount of such required funds available to the Government by delivering a check payable to "FAO, USAED, New York District **[Insert EROC code]**" to the District Engineer, or by providing an Electronic Funds Transfer of such funds in accordance with procedures established by the Government. If at any time the Government determines that additional funds are required to cover any such costs, as applicable, the Non-Federal Sponsor shall provide those funds within 30 calendar days from receipt of written notice from the Government.

## **ARTICLE IV - TERMINATION OR SUSPENSION**

A. If at any time the Non-Federal Sponsor fails to fulfill its obligations under this Agreement, the Government may suspend or terminate the Design Assistance unless the Assistant Secretary of the Army (Civil Works) determines that continuation of the Design Assistance is in the interest of the United States or is necessary in order to satisfy agreements with any other non-Federal interests in connection with the Project.

B. If the Government determines at any time that the Federal funds made available for the Design Assistance are not sufficient to complete such work, the Government shall so

notify the Non-Federal Sponsor in writing, and upon exhaustion of such funds, the Government shall suspend the Design Assistance until there are sufficient Federal funds appropriated by the Congress and funds provided by the Non-Federal Sponsor to allow the Design Assistance to resume.

C. In the event of termination, the parties shall conclude their activities relating to the Design Assistance and conduct an accounting in accordance with Article III.E. To provide for this eventuality, the Government may reserve a percentage of available funds as a contingency to pay costs of termination, including any costs of resolution of contract claims and contract modifications.

D. Any suspension or termination shall not relieve the parties of liability for any obligation incurred. Any delinquent payment owed by the Non-Federal Sponsor pursuant to this Agreement shall be charged interest at the Current Value of Funds Rate as determined by the Secretary of the Treasury that is applicable on the date that the payment became delinquent, with such penalty charge and administrative fee as may be required by Federal law or regulation. This provision shall not be construed as giving the Non-Federal Sponsor a choice of either making payments when due or paying interest, nor shall it be construed as waiving any other rights of the Government, at law or in equity, which might result from any default by the Non-Federal Sponsor.

## **ARTICLE V – HOLD AND SAVE**

The Non-Federal Sponsor shall hold and save the Government free from any claim or damage that may arise from carrying out the Design Assistance or any betterments, except any claim or damage that may arise from the negligence of the Government or a contractor of the Government.

## **ARTICLE VI - DISPUTE RESOLUTION**

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

## **ARTICLE VII - MAINTENANCE OF RECORDS AND AUDIT**

A. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

B. The Government may conduct, or arrange for the conduct of, audits of the Design Assistance. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits for the Design Assistance shall not be included in total design costs, but shall be included in calculating the Section 542 Program Limit.

C. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsor, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

## **ARTICLE VIII - RELATIONSHIP OF PARTIES**

In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

## **ARTICLE IX - NOTICES**

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by certified mail, with return receipt, as follows:

If to the Non-Federal Sponsor:

**[Insert Title and Address of Sponsor representative to receive notices]**

If to the Government:

**[Insert Title and Address of Government representative to receive notices]**

B. A party may change the recipient or address for such communications by giving written notice to the other party in the manner provided in this Article.

## **ARTICLE X - CONFIDENTIALITY**

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

## **ARTICLE XI - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES**

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Engineer.

DEPARTMENT OF THE ARMY

**[INSERT FULL NAME OF SPONSOR]**

BY: \_\_\_\_\_  
**[INSERT TYPED NAME]**  
**[Insert Colonel, U.S. Army or**  
**Lieutenant Colonel, U.S. Army, as**  
**applicable]**  
District Engineer

BY: \_\_\_\_\_  
**[INSERT TYPED NAME]**  
**[Insert Full Title]**

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_



### **Attachment**

**Option 1: Not An Obligation of Future Appropriations.** An agreement may reflect that it does not obligate future appropriations when doing so is inconsistent with constitutional or statutory limitations of a State or political subdivision thereof. Federal law, however, does NOT provide that the Non-Federal Sponsor's performance and payments are subject to appropriations of funds. The Government retains the right to exercise any legal rights it has to protect the Government's interests. If applicable and requested by the Non-Federal Sponsor, insert into the agreement as the last Article the following:

#### ***"ARTICLE XII - OBLIGATIONS OF FUTURE APPROPRIATIONS***

The Non-Federal Sponsor intends to fulfill fully its obligations under this Agreement. Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the **[Insert name of the legislative body that makes the appropriations, e.g., legislature of the State of New York or legislature of the State of Vermont]**, where creating such an obligation would be inconsistent with **[Insert the specific citation to the constitutional or statutory limitation on committing future appropriations]**. If the Non-Federal Sponsor is unable to, or does not, fulfill its obligations under this Agreement, the Government may exercise any legal rights it has to protect the Government's interests."

### Attachment

**Option 2: Multiple Non-Federal Sponsors.** While it is preferable that there is one party only as the Non-Federal Sponsor for the agreement, it is permissible to have more than one Non-Federal Sponsor and in such case, the agreement should be modified to use the term “Non-Federal Sponsors” throughout along with the necessary modifications to change, as appropriate, verbs and pronouns from singular to plural. The Non-Federal Sponsors need to understand that they will be jointly and severally liable for all non-Federal obligations and responsibilities under the agreement. Any proposal to allow for a division of responsibilities between Non-Federal Sponsors will require approval of the HQUSACE. Insert into the agreement as the last Article the following:

#### “ARTICLE XII – JOINT AND SEVERAL RESPONSIBILITY OF THE NON-FEDERAL SPONSORS

The obligations and responsibilities of the Non-Federal Sponsors shall be joint and several, such that each Non-Federal Sponsor shall be liable for the whole performance of the obligations and responsibilities of the Non-Federal Sponsors under the terms and provisions of this Agreement. The Government may demand the whole performance of said obligations and responsibilities from any of the entities designated herein as one of the Non-Federal Sponsors.”

### Attachment

**Option 3: Accelerated Funds, following Committee notification.** Following completion of the Committee notification process, the agreement may include the following changes:

1. Delete the “and” at the end of the next to last WHEREAS clause and insert the following WHEREAS clause after the next to last WHEREAS clause in the agreement:

“WHEREAS, the Non-Federal Sponsor proposes to accelerate its provision of funds for the immediate use by the Government for the Design Assistance; and”

2. Add new paragraph L. to Article II as follows.

“L. The Non-Federal Sponsor understands that execution of this Agreement shall not constitute any commitment by the Government to budget, or the Congress to appropriate, funds for this Design Assistance or to match any funds accelerated by the Non-Federal Sponsor; that the funds accelerated by the Non-Federal Sponsor will be credited toward the Non-Federal Sponsor’s cost share only to the extent matching Federal funds are provided; and that the Non-Federal Sponsor is not entitled to any repayment for any of the funds accelerated and obligated by the Government even if the Design Assistance ultimately is not completed.”

### **Attachment**

**Option 4: Pre-Agreement Design Work.** The Non-Federal Sponsor is entitled to receive credit for the reasonable costs of design work carried out before the date of execution of the agreement, if the design work is integral to the Design Assistance. If applicable, include the following changes:

1. Insert the following WHEREAS clause after the fifth WHEREAS clause in the agreement:

“WHEREAS, Section 542 provides that the Non-Federal Sponsor shall receive credit for the reasonable costs of design work carried out by the Non-Federal Sponsor before the date of execution of an agreement for the critical restoration project, if the Secretary finds that the design work is integral to the project;”

2. Replace Article I.A. and Article I.B. in their entirety with the following:

“A. The terms “Design Assistance” means **[Insert description]** as generally described in the **[Insert title of the Decision Document]**, dated **[e.g., Month Day, Year]** and approved by **[Insert Title of Approving Official]** on **[Month Day, Year]**. The term includes the pre-Agreement design work described in paragraph H. of this Article.

“B. The term “total design costs” means the sum of all costs incurred by the Non-Federal Sponsor and the Government in accordance with the terms of this Agreement. Subject to the provisions of this Agreement, the term shall include, but is not necessarily limited to: the Government’s costs for engineering and design, economic and environmental analyses, and evaluation; for contract dispute settlements or awards; for supervision and administration; for Agency Technical Review and other review processes required by the Government; for any required Independent External Peer Review for Safety Assurance; the Non-Federal Sponsor’s creditable costs for in-kind contributions, if any; and the Non-Federal Sponsor’s creditable costs for pre-Agreement design work. The term does not include any costs for dispute resolution; participation in the Design Assistance Coordination Team; audits; or betterments; or the Non-Federal Sponsor’s cost of negotiating this Agreement.”

3. Add a new paragraph H. to Article I as follows:

“H. The term “pre-Agreement design work” means services or materials provided prior to the effective date of this Agreement by the Non-Federal Sponsor that are identified as being integral to the Design Assistance and approved in writing by the Division Engineer for the North Atlantic Division, or by the District Engineer for pre-Agreement design work of less than \$100,000. To be integral, the material or service must be part of the work that the Government would otherwise have undertaken for design of the Design Assistance. The term does not include design of betterments.”

4. Replace Article II.B. and II.C. in their entirety with the following:

“B. The Non-Federal Sponsor shall contribute 35 percent of total design costs in accordance with the provisions of this paragraph and provide required funds in accordance with Article III.

1. After considering the estimated amount of credit for in-kind contributions, if any, and the estimated amount of credit for pre-Agreement design work, that will be afforded in accordance with paragraph C. of this Article, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor for the initial fiscal year of the Design Assistance. No later than 15 calendar days after such notification, the Non-Federal Sponsor shall provide the full amount of such funds to the Government.

2. No later than August 1st prior to each subsequent fiscal year of the Design Assistance, the Government shall provide the Non-Federal Sponsor with a written estimate of the amount of funds required from the Non-Federal Sponsor during that fiscal year to meet its cost share. No later than September 1st prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government.

C. The Government shall credit towards the Non-Federal Sponsor’s share of total design costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurs in providing or performing in-kind contributions integral to the Design Assistance or that the Non-Federal Sponsor incurred in providing or performing pre-Agreement design work integral to the Design Assistance, including associated supervision and administration. Such costs shall be subject to audit in accordance with Article VII to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

1. The Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor’s employees, as in-kind contributions are completed but no later than 60 calendar days after such completion, or in the case of pre-Agreement design work no later than 60 calendar days after the effective date of this Agreement. Failure to provide such documentation in a timely manner may result in denial of credit.

2. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time of completion of the in-kind contributions or the pre-Agreement design work and the time credit is afforded; for the value of non-Federal design work obtained at no cost to the Non-Federal Sponsor; or for costs that exceed the Government’s estimate of the cost for such item if it had been performed by the Government.

3. No reimbursement will be provided for any in-kind contributions or for any pre-Agreement design work that exceeds the Non-Federal Sponsor's share of the total design costs under this Agreement."

5.. Replace Article III.B. in its entirety with the following:

"B. The Government shall provide the Non-Federal Sponsor with quarterly reports setting forth the estimated total design costs and the Government's and Non-Federal Sponsor's estimated shares of such costs; costs incurred by the Government, using both Federal and Non-Federal Sponsor funds, to date; the amount of funds provided by the Non-Federal Sponsor to date; the estimated amount of any creditable in-kind contributions; the estimated amount of creditable pre-Agreement design work; and the estimated remaining cost of the Design Assistance."

STATE CERTIFICATION

I, \_\_\_\_\_, do hereby certify that I am the official of the State of [Vermont] [New York] with primary responsibility for the [Full Name of Project], a critical restoration project under the Lake Champlain Basin Program, that the Project will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed, and that special consideration is being given to projects that implement plans, agreements, and measures that preserve and enhance the economic and social character of the communities in the Lake Champlain area.

INWITNESS WHEREOF, I have made and executed this certification this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_.

\_\_\_\_\_  
[INSERT TYPED NAME]  
[Insert Full Title]



**MODEL AGREEMENT**  
**FOR**  
**DESIGN AND CONSTRUCTION ASSISTANCE**  
**LAKE CHAMPLAIN BASIN PROGRAM, VERMONT AND NEW YORK**  
**SECTION 542 OF THE**  
**WATER RESOURCES DEVELOPMENT ACT OF 2000, AS AMENDED**  
**MARCH 2019**

**APPLICABILITY AND INSTRUCTIONS:**

1. The attached model cost sharing agreement must be used for all agreements for design and construction assistance under the Lake Champlain Basin Program, Vermont and New York, authorized by Section 542 of the Water Resources Development Act (WRDA) of 2000, as amended by Section 3160 of WRDA 2007. The responsibility for review and approval of an agreement that does not deviate from the approved model has been delegated to the MSC Commander. Division Counsel concurrence that the agreement does not deviate from the subject model, and is appropriate for use for design and construction assistance, is required prior to approval. In addition, the MSC Commander has been delegated authority to approve non-substantive deviations to the model agreement. Division Counsel review of such deviations, with a recommendation to approve such deviations, is required prior to approval by the MSC Commander.
2. The following options, including language for the agreement, are addressed in the Attachment:
  - a. Option 1: Not An Obligation of Future Appropriations (page A-1).
  - b. Option 2: Multiple Sponsors (page A-2).
  - c. Option 3: Accelerated Funds (page A-3).
3. Reminder: Make all required insertions, including language associated with an option; remove this cover page; remove the open and close brackets and any instructional text; ensure the page numbers, spacing and page breaks throughout the agreement are appropriate; if more than one option is used, ensure the Article and paragraph numbering are correct; and delete the Attachment.

4. The Certificate of Authority, Certification Regarding Lobbying, the Non-Federal Sponsor's Self-Certification of Financial Capability, and the State's Certification under Section 542(d)(2) of WRDA 2000, as amended, should be included as a part of the agreement package. These certificates can be found on the Corps' "Project Partnership Agreements" website under the "Forms" tab.

AGREEMENT

BETWEEN

THE DEPARTMENT OF THE ARMY

AND

**[INSERT FULL NAME OF NON-FEDERAL SPONSOR]**

FOR

DESIGN AND CONSTRUCTION ASSISTANCE

FOR THE

**[INSERT FULL NAME OF PROJECT]**

THIS AGREEMENT is entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between the Department of the Army (hereinafter the “Government”), represented by the U.S. Army Engineer, New York District (hereinafter the “District Commander”) and the **[Insert Full Name of Non-Federal Sponsor]** (hereinafter the “Non-Federal Sponsor”), represented by the **[Insert Title]**.

WITNESSETH, THAT:

WHEREAS, the Secretary of the Army is authorized by Section 542 of the Water Resources Development Act of 2000, Public Law 106-541, as amended by Section 3160 of the Water Resources Development Act of 2007, Public Law 110-114 (hereinafter “Section 542”), to participate in critical restoration projects in the Lake Champlain watershed located in Vermont and New York (hereinafter the “Section 542 Program”);

WHEREAS, Section 542 specifies that the Secretary of the Army may provide assistance for a critical restoration project only if the project is publicly owned or if the Non-Federal Sponsor demonstrates that the critical restoration project will provide a substantial public benefit in the form of water quality improvement; and only if the appropriate State official for the critical restoration project certifies to the Secretary that the project will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed;

WHEREAS, the [name and title of State official], has certified that the [name and location of project] (hereinafter the “Project”, as defined in Article I.A. of this Agreement)

will contribute to the protection and enhancement of the quality or quantity of the water resources of the Lake Champlain watershed;

WHEREAS, Section 542 provides that \$32,000,000 in Federal funds are authorized to be appropriated to carry out the Section 542 Program;

WHEREAS, the District Commander has determined that the Project is eligible for implementation under Section 542;

WHEREAS, Section 542 provides that the Non-Federal Sponsor shall receive credit for the reasonable costs of design work carried out by the Non-Federal Sponsor before the date of execution of an agreement for the critical restoration project, if the Secretary finds that the design work is integral to the project;

WHEREAS, Section 542 authorizes the Non-Federal Sponsor to provide the required non-Federal share in the form of services, materials, supplies, or other in-kind contributions;

WHEREAS, the Non-Federal Sponsor understands that no credit or reimbursement will be afforded for real property interests or relocations that exceed 35 percent of construction costs, or for real property interests that were previously provided as an item of local cooperation for another Federal project;

WHEREAS, as of the effective date of this agreement \$\_\_\_\_\_ of Federal funds have been provided by Congress for the Section 542 program of which \$\_\_\_\_\_ is available for the Project; and

WHEREAS, the Government and the Non-Federal Sponsor have the full authority and capability to perform in accordance with the terms of this Agreement.

NOW, THEREFORE, the parties agree as follows:

## **ARTICLE I - DEFINITIONS**

A. The term “Project” means **[DESCRIBE FEATURES]**, as generally described in the **[FULL TITLE OF DECISION DOCUMENT]**, dated \_\_\_\_\_, \_\_\_\_ and approved by the **[TITLE OF APPROVING OFFICIAL]** on **[Month Day, Year]**. The term includes the pre-Agreement design work described in paragraph G. of this Article.

B. The term “construction costs” means all costs incurred by the Government and Non-Federal Sponsor in accordance with the terms of this Agreement that are directly related to design and construction of the Project and cost shared. The term includes, but is not necessarily limited to: the costs of historic preservation activities except for data

recovery for historic properties; the Government's costs of engineering, design, and construction; the Government's supervision and administration costs; the Non-Federal Sponsor's creditable costs for providing real property interests and relocations and for providing in-kind contributions, if any; and the Non-Federal Sponsor's creditable costs for pre-Agreement design work. The term does not include any costs for operation, maintenance, repair, rehabilitation, or replacement; dispute resolution; participation by the Government and the Non-Federal Sponsor in the Project Coordination Team to discuss significant issues and actions; or audits; or the Non-Federal Sponsor's cost of negotiating this Agreement.

C. The term "real property interests" means lands, easements, and rights-of-way, including those required for relocations and borrow and dredged material placement areas. Acquisition of real property interests may require the performance of relocations.

D. The term "relocation" means the provision of a functionally equivalent facility to the owner of a utility, cemetery, highway, railroad, or public facility when such action is required in accordance with applicable legal principles of just compensation. Providing a functionally equivalent facility may include the alteration, lowering, raising, or replacement and attendant demolition of the affected facility or part thereof.

E. The term "functional portion thereof" means a portion of the Project that has been completed and that can function independently, as determined in writing by the District Commander, although the remainder of the Project is not yet complete.

F. The term "in-kind contributions" means those services, supplies, or materials provided after the effective date of this Agreement by the Non-Federal Sponsor that are identified as being integral to the Project and approved in writing by the Division Engineer for the North Atlantic Division (hereinafter the "Division Commander"). To be integral to the Project, the material or service must be part of the work that the Government would otherwise have undertaken for design and construction of the Project. The in-kind contributions also include any investigations performed by the Non-Federal Sponsor to identify the existence and extent of any hazardous substances that may exist in, on, or under real property interests required for the Project.

G. The term "pre-Agreement design work" means services or materials provided prior to the effective date of this Agreement by the Non-Federal Sponsor that are identified as being integral to the Project and approved in writing by the Division Commander, or by the District Commander for pre-Agreement design work of less than \$100,000. To be integral, the material or service must be part of the work that the Government would otherwise have undertaken for design of the Project.

H. The term "fiscal year" means one year beginning on October 1<sup>st</sup> and ending on September 30<sup>th</sup> of the following year.

I. The term "Section 542 Program Limit" shall mean the amount of Federal funds authorized to be appropriated for the Section 542 Program. As of the effective date of this Agreement, such amount is \$32,000,000.

## **ARTICLE II - OBLIGATIONS OF THE GOVERNMENT AND THE NON-FEDERAL SPONSOR**

A. In accordance with Federal laws, regulations, and policies, the Government shall undertake construction of the Project using funds appropriated by the Congress and funds provided by the Non-Federal Sponsor.

B. The Non-Federal Sponsor shall contribute 35 percent of construction costs, as follows:

1. In accordance with Article III, the Non-Federal Sponsor shall provide the real property interests and relocations required for construction, operation, and maintenance of the Project.

2. In providing in-kind contributions, if any, the Non-Federal Sponsor shall obtain all applicable licenses and permits necessary for such work. As functional portions of the work are completed, the Non-Federal Sponsor shall begin operation and maintenance of such work. Upon completion of the work, the Non-Federal Sponsor shall so notify the Government within 30 calendar days and provide the Government with a copy of as-built drawings for the work.

3. After considering the estimated amount of credit that will be afforded to the Non-Federal Sponsor pursuant to paragraphs B.1. and B.2., above, and pursuant to Article V.C.5., the Government shall determine the estimated amount of funds required from the Non-Federal Sponsor to meet its 35 percent cost share for the then-current fiscal year. No later than 60 calendar days after receipt of notification from the Government, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government in accordance with Article VI.

4. No later than August 1<sup>st</sup> prior to each subsequent fiscal year, the Government shall provide the Non-Federal Sponsor with a written estimate of the full amount of funds required from the Non-Federal Sponsor during that fiscal year to meet its cost share. Not later than September 1<sup>st</sup> prior to that fiscal year, the Non-Federal Sponsor shall provide the full amount of such required funds to the Government in accordance with Article VI.

C. To the extent practicable and in accordance with Federal law, regulations, and policies, the Government shall afford the Non-Federal Sponsor the opportunity to review and comment on solicitations for contracts, including relevant plans and specifications, prior to the Government's issuance of such solicitations; proposed contract modifications, including change orders; and contract claims prior to resolution thereof. Ultimately, the contents of solicitations, award of contracts, execution of contract modifications, and resolution of contract claims shall be exclusively within the control of the Government.

D. The Government, as it determines necessary, shall undertake actions associated with historic preservation, including, but not limited to, the identification and treatment of historic properties as those properties are defined in the National Historic Preservation Act (NHPA) of 1966, as amended. All costs incurred by the Government for such work (including the mitigation of adverse effects other than data recovery) shall be included in construction costs and shared in accordance with the provisions of this Agreement. If historic properties are discovered during construction and the effect(s) of construction are determined to be adverse, strategies shall be developed to avoid, minimize or mitigate these adverse effects. In accordance with 54 U.S.C. 312507, up to 1 percent of the total amount authorized to be appropriated for the Project may be applied toward data recovery of historic properties and such costs shall be borne entirely by the Government. In the event that costs associated with data recovery of historic properties exceed 1 percent of the total amount authorized to be appropriated for the Project, in accordance with 54 U.S.C. 312508, the Government will seek a waiver from the 1 percent limitation under 54 U.S.C. 312507 and upon receiving the waiver, will proceed with data recovery at full federal expense. Nothing in this Agreement shall limit or otherwise prevent the Non-Federal Sponsor from voluntarily contributing costs associated with data recovery that exceed 1 percent.

E. When the District Commander determines that construction of the Project, or a functional portion thereof, is complete, within 30 calendar days of such determination, the District Commander shall so notify the Non-Federal Sponsor in writing and the Non-Federal Sponsor, at no cost to the Government, shall operate, maintain, repair, rehabilitate, and replace the Project, or such functional portion thereof. The Government shall furnish the Non-Federal Sponsor with an Operation, Maintenance, Repair, Rehabilitation, and Replacement Manual (hereinafter the “OMRR&R Manual”) and copies of all as-built drawings for the completed work. The Government shall provide the Non-Federal Sponsor with an updated OMRR&R Manual and as-built drawings, as necessary, based on the cost shared monitoring and adaptive management.

1. The Non-Federal Sponsor shall conduct its operation, maintenance, repair, rehabilitation, and replacement responsibilities in a manner compatible with the authorized purpose of the Project and in accordance with applicable Federal laws and specific directions prescribed by the Government in the OMRR&R Manual. The Government and the Non-Federal Sponsor shall consult on any subsequent updates or amendments to the OMRR&R Manual.

2. The Government may enter, at reasonable times and in a reasonable manner, upon real property interests that the Non-Federal Sponsor now or hereafter owns or controls to inspect the Project.

F. The Non-Federal Sponsor shall prevent obstructions or encroachments on the Project (including prescribing and enforcing regulations to prevent such obstructions or encroachments) that might reduce the outputs produced, hinder operation and maintenance, or interfere with the proper function of the Project.

G. The Non-Federal Sponsor shall not use the Project, or real property interests required for construction, operation, and maintenance of the Project, as a wetlands bank or mitigation credit for any other project.

H. The Non-Federal Sponsor shall not use Federal program funds to meet any of its obligations under this Agreement unless the Federal agency providing the funds verifies in writing that the funds are authorized to be used for the Project. Federal program funds are those funds provided by a Federal agency, plus any non-Federal contribution required as a matching share therefor.

I. In carrying out its obligations under this Agreement, the Non-Federal Sponsor shall comply with all the requirements of applicable Federal laws and implementing regulations, including, but not limited to: Section 601 of the Civil Rights Act of 1964 (P.L. 88-352), as amended (42 U.S.C. 2000d), and Department of Defense Directive 5500.11 issued pursuant thereto; the Age Discrimination Act of 1975 (42 U.S.C. 6102); and the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Army Regulation 600-7 issued pursuant thereto.

J. In addition to the ongoing, regular discussions of the parties in the delivery of the Project, the Government and the Non-Federal Sponsor may establish a Project Coordination Team to discuss significant issues or actions. The Government's costs for participation on the Project Coordination Team shall not be included in construction costs that are cost shared but shall be included in calculating the Section 542 Program Limit. The Non-Federal Sponsor's costs for participation on the Project Coordination Team shall not be included in construction costs that are cost shared and shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

K. Notwithstanding any other provision of this Agreement, the Non-Federal Sponsor shall be responsible for all costs in excess of the Section 542 Program Limit.

### **ARTICLE III - REAL PROPERTY INTERESTS, RELOCATIONS, AND COMPLIANCE WITH PUBLIC LAW 91-646, AS AMENDED**

A. The Government, after consultation with the Non-Federal Sponsor, shall determine the real property interests needed for construction, operation, and maintenance of the Project. The Government shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of the real property interests that the Government determines the Non-Federal Sponsor must provide for construction, operation, and maintenance of the Project, and shall provide the Non-Federal Sponsor with a written notice to proceed with acquisition. The Non-Federal Sponsor shall acquire the real property interests and shall provide the Government with authorization for entry thereto in accordance with the Government's schedule for construction of the Project. The Non-Federal Sponsor shall ensure that real property interests provided for the Project are



retained in public ownership for uses compatible with the authorized purposes of the Project.

B. The Government, after consultation with the Non-Federal Sponsor, shall determine the relocations necessary for construction, operation, and maintenance of the Project, and shall provide the Non-Federal Sponsor with general written descriptions, including maps as appropriate, of such relocations and shall provide the Non-Federal Sponsor with a written notice to proceed with such relocations. The Non-Federal Sponsor shall perform or ensure the performance of these relocations in accordance with the Government's construction schedule for the Project.

C. To the maximum extent practicable, not later than 30 calendar days after the Government provides to the Non-Federal Sponsor written descriptions and maps of the real property interests and relocations required for construction, operation, and maintenance of the Project, the Non-Federal Sponsor may request in writing that the Government acquire all or specified portions of such real property interests, or perform the necessary relocations. If the Government agrees to such a request, the Non-Federal Sponsor, in accordance with Article VI.F., must provide funds sufficient to cover the costs of the acquisitions, or relocations in advance of the Government performing the work. The Government shall acquire the real property interests, and perform the relocations, applying Federal laws, policies, and procedures. The Government shall acquire real property interests in the name of the Non-Federal Sponsor except, if acquired by eminent domain, the Government shall convey all of its right, title and interest to the Non-Federal Sponsor by quitclaim deed or deeds. The Non-Federal Sponsor shall accept delivery of such deed or deeds. The Government's providing real property interests or performing relocations on behalf of the Non-Federal Sponsor does not alter the Non-Federal Sponsor's responsibility under Article IV for the costs of any cleanup and response related thereto.

D. As required by Sections 210 and 305 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, Public Law 91-646, as amended (42 U.S.C. 4630 and 4655), and Section 24.4 of the Uniform Regulations contained in 49 C.F.R. Part 24, the Non-Federal Sponsor assures that (1) fair and reasonable relocation payments and assistance shall be provided to or for displaced persons, as are required to be provided by a Federal agency under Sections 4622, 4623 and 4624 of Title 42 of the U.S. Code; (2) relocation assistance programs offering the services described in Section 4625 of Title 42 of the U.S. Code shall be provided to such displaced persons; (3) within a reasonable period of time prior to displacement, comparable replacement dwellings will be available to displaced persons in accordance with Section 4625(c)(3) of Title 42 of the U.S. Code; (4) in acquiring real property, the Non-Federal Sponsor will be guided, to the greatest extent practicable under State law, by the land acquisition policies in Section 4651 and the provision of Section 4652 of Title 42 of the U.S. Code; and (5) property owners will be paid or reimbursed for necessary expenses as specified in Sections 4653 and 4654 of Title 42 of the U.S. Code.

## **ARTICLE IV - HAZARDOUS SUBSTANCES**

A. The Non-Federal Sponsor shall be responsible for undertaking any investigations to identify the existence and extent of any hazardous substances regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (hereinafter “CERCLA”) (42 U.S.C. 9601-9675), that may exist in, on, or under real property interests required for construction, operation, and maintenance of the Project. However, for real property interests that the Government determines to be subject to the navigation servitude, only the Government shall perform such investigations unless the District Commander provides the Non-Federal Sponsor with prior specific written direction, in which case the Non-Federal Sponsor shall perform such investigations in accordance with such written direction.

B. In the event it is discovered that hazardous substances regulated under CERCLA exist in, on, or under any of the required real property interests, within 15 calendar days of such discovery, the Non-Federal Sponsor and the Government, in addition to providing any other notice required by applicable law, shall provide written notice to each other, and the Non-Federal Sponsor shall not proceed with the acquisition of such real property interests until the parties agree that the Non-Federal Sponsor should proceed.

C. If hazardous substances regulated under CERCLA are found to exist in, on, or under any required real property interests, the parties shall consider any liability that might arise under CERCLA and determine whether to initiate construction, or if already initiated, whether to continue construction, suspend construction, or terminate construction.

1. Should the parties initiate or continue construction, the Non-Federal Sponsor shall be responsible, as between the Government and the Non-Federal Sponsor, for the costs of cleanup and response, including the costs of any studies and investigations necessary to determine an appropriate response to the contamination. Such costs shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

2. In the event the parties cannot reach agreement on how to proceed or the Non-Federal Sponsor fails to provide any funds necessary to pay for cleanup and response costs or to otherwise discharge the Non-Federal Sponsor’s responsibilities under this Article upon direction by the Government, the Government may suspend or terminate construction, but may undertake any actions it determines necessary to avoid a release of such hazardous substances.

D. In the event of a discovery, the Non-Federal Sponsor and the Government shall initiate consultation with each other within 15 calendar days in an effort to ensure that responsible parties bear any necessary cleanup and response costs as defined in CERCLA. Any decision made pursuant to this Article shall not relieve any third party from any liability that may arise under CERCLA.

E. As between the Government and the Non-Federal Sponsor, the Non-Federal Sponsor shall be considered the operator of the Project for purposes of CERCLA liability. To the maximum extent practicable, the Non-Federal Sponsor shall operate, maintain, repair, rehabilitate, and replace the Project in a manner that will not cause liability to arise under CERCLA.

## **ARTICLE V - CREDIT FOR REAL PROPERTY INTERESTS, RELOCATIONS, CREDIT FOR IN-KIND CONTRIBUTIONS, AND CREDIT FOR PRE-AGREEMENT DESIGN WORK**

A. The Government shall include in construction costs, and credit towards the Non-Federal Sponsor's share of such costs, the value of Non-Federal Sponsor provided real property interests and relocations, and the costs of in-kind contributions determined by the Government to be required for the Project.

B. To the maximum extent practicable, no later than 3 months after it provides the Government with authorization for entry onto a real property interest or pays compensation to the owner, whichever occurs later, the Non-Federal Sponsor shall provide the Government with documents sufficient to determine the amount of credit to be provided for the real property interest in accordance with paragraphs C.1. of this Article. To the maximum extent practicable, no less frequently than on a quarterly basis, the Non-Federal Sponsor shall provide the Government with documentation sufficient for the Government to determine the amount of credit to be provided for other creditable items in accordance with paragraph C. of this Article.

C. The Government and the Non-Federal Sponsor agree that the amount of costs eligible for credit that are allocated by the Government to construction costs shall be determined and credited in accordance with the following procedures, requirements, and conditions. Such costs shall be subject to audit in accordance with Article X.B. to determine reasonableness, allocability, and allowability of costs.

### **1. Real Property Interests.**

a. General Procedure. The Non-Federal Sponsor shall obtain, for each real property interest, an appraisal of the fair market value of such interest that is prepared by a qualified appraiser who is acceptable to the parties. Subject to valid jurisdictional exceptions, the appraisal shall conform to the Uniform Standards of Professional Appraisal Practice. The appraisal must be prepared in accordance with the applicable rules of just compensation, as specified by the Government.

(1) Date of Valuation. For any real property interests owned by the Non-Federal Sponsor on the effective date of this Agreement and required for construction performed after the effective date of this Agreement, the date the Non-Federal

Sponsor provides the Government with authorization for entry thereto shall be used to determine the fair market value. The fair market value of real property interests acquired by the Non-Federal Sponsor after the effective date of this Agreement shall be the fair market value of such real property interests at the time the interests are acquired.

(2) Except for real property interests acquired through eminent domain proceedings instituted after the effective date of this Agreement, the Non-Federal Sponsor shall submit an appraisal for each real property interest to the Government for review and approval no later than, to the maximum extent practicable, 60 calendar days after the Non-Federal Sponsor provides the Government with an authorization for entry for such interest or concludes the acquisition of the interest through negotiation or eminent domain proceedings, whichever occurs later. If, after coordination and consultation with the Government, the Non-Federal Sponsor is unable to provide an appraisal that is acceptable to the Government, the Government shall obtain an appraisal to determine the fair market value of the real property interest for crediting purposes.

(3) The Government shall credit the Non-Federal Sponsor the appraised amount approved by the Government. Where the amount paid or proposed to be paid by the Non-Federal Sponsor exceeds the approved appraised amount, the Government, at the request of the Non-Federal Sponsor, shall consider all factors relevant to determining fair market value and, in its sole discretion, after consultation with the Non-Federal Sponsor, may approve in writing an amount greater than the appraised amount for crediting purposes.

b. Eminent Domain Procedure. For real property interests acquired by eminent domain proceedings instituted after the effective date of this Agreement, the Non-Federal Sponsor shall notify the Government in writing of its intent to institute such proceedings and submit the appraisals of the specific real property interests to be acquired for review and approval by the Government. If the Government provides written approval of the appraisals, the Non-Federal Sponsor shall use the amount set forth in such appraisals as the estimate of just compensation for the purpose of instituting the eminent domain proceeding. The fair market value for crediting purposes shall be either the amount of the court award for the real property interests taken or the amount of any stipulated settlement or portion thereof that the Government approves in writing. If the Government provides written disapproval of the appraisals, the Government and the Non-Federal Sponsor shall consult to promptly resolve the issues that are identified in the Government's written disapproval. In the event the issues cannot be resolved, the Non-Federal Sponsor may use the amount set forth in its appraisal as the estimate of just compensation for purpose of instituting the eminent domain proceeding. However, the fair market value for crediting purposes shall be the lesser of the amount of the court award for the real property interests taken (or the amount of any stipulated settlement, if applicable), or the amount determined by an appraisal prepared by the Government.

c. Waiver of Appraisal. Except as required by paragraph C.1.b. of this Article, the Government may waive the requirement for an appraisal pursuant to this paragraph if, in accordance with 49 C.F.R. Section 24.102(c)(2):

(1) the owner is donating the real property interest to the Non-Federal Sponsor and releases the Non-Federal Sponsor in writing from its obligation to appraise the real property interest, and the Non-Federal Sponsor submits to the Government a copy of the owner's written release; or

(2) the Non-Federal Sponsor determines that an appraisal is unnecessary because the valuation problem is uncomplicated and the anticipated value of the real property interest proposed for acquisition is estimated at \$25,000 or less, based on a review of available data. When the Non-Federal Sponsor determines that an appraisal is unnecessary, the Non-Federal Sponsor shall prepare the written waiver valuation required by 49 C.F.R. Section 24.102(c)(2) and submit a copy thereof to the Government for approval. When the anticipated value of the real property interest exceeds \$10,000, the Non-Federal Sponsor must offer the owner the option of having the Non-Federal Sponsor appraise the real property interest.

d. Incidental Costs. The Government shall include in construction costs and credit towards the Non-Federal Sponsor's share of such costs, the incidental costs the Non-Federal Sponsor incurred in acquiring any real property interests required pursuant to Article III for the Project within a five-year period preceding the effective date of this Agreement, or at any time after the effective date of this Agreement, that are documented to the satisfaction of the Government. Such incidental costs shall include closing and title costs, appraisal costs, survey costs, attorney's fees, plat maps, mapping costs, actual amounts expended for payment of any relocation assistance benefits provided in accordance with Article III.D., and other payments by the Non-Federal Sponsor for items that are generally recognized as compensable, and required to be paid, by applicable state law due to the acquisition of a real property interest pursuant to Article III.

2. Relocations. The Government shall include in construction costs and credit towards the Non-Federal Sponsor's share of such costs, the value of any relocations performed by the Non-Federal Sponsor that are directly related to construction, operation, and maintenance of the Project.

a. For a relocation other than a highway, the value shall be only that portion of relocation costs that the Government determines is necessary to provide a functionally equivalent facility, reduced by depreciation, as applicable, and by the salvage value of any removed items.

b. For a relocation of a highway, which is any highway, roadway, or street, including any bridge thereof, that is owned by a public entity, the value shall be only that portion of relocation costs that would be necessary to accomplish the relocation in accordance with the design standard that the **[State of New York or the State of Vermont]** would apply under similar conditions of geography and traffic load, reduced by the salvage value of any removed items.

c. Relocation costs include actual costs of performing the relocation; planning, engineering, and design costs; supervision and administration costs; and

documented incidental costs associated with performance of the relocation, as determined by the Government. Relocation costs do not include any additional cost of using new material when suitable used material is available.

3. In-Kind Contributions. The Government shall include in construction costs and credit towards the Non-Federal Sponsor's share of such costs, the value of in-kind contributions that are integral to the Project.

a. The value shall be equivalent to the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurred to provide the in-kind contributions. Such costs shall include, but not necessarily be limited to, actual costs of constructing the in-kind contributions; engineering and design costs; supervision and administration costs; and documented incidental costs associated with providing the in-kind contributions. Appropriate documentation includes invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees.

b. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time the in-kind contributions are completed and credit is afforded; for the value of in-kind contributions obtained at no cost to the Non-Federal Sponsor; or for costs that exceed the Government's estimate of the cost for such in-kind contributions if they had been provided by the Government.

4. Compliance with Federal Labor Laws. Any credit afforded under the terms of this Agreement is subject to satisfactory compliance with applicable Federal labor laws covering non-Federal construction, including, but not limited to, 40 U.S.C. 3141-3148 and 40 U.S.C. 3701-3708 (labor standards originally enacted as the Davis-Bacon Act, the Contract Work Hours and Safety Standards Act, and the Copeland Anti-Kickback Act), and credit may be withheld, in whole or in part, as a result of the Non-Federal Sponsor's failure to comply with its obligations under these laws.

5. Pre-Agreement Design Work. The Government shall credit towards the Non-Federal Sponsor's share of construction costs, the costs, documented to the satisfaction of the Government, that the Non-Federal Sponsor incurred in providing or performing pre-Agreement design work integral to the Project, including associated supervision and administration. Such costs shall be subject to audit in accordance with Article X to determine reasonableness, allocability, and allowability, and crediting shall be in accordance with the following procedures, requirements, and limitations:

1. The Non-Federal Sponsor shall provide the Government appropriate documentation, including invoices and certification of specific payments to contractors, suppliers, and the Non-Federal Sponsor's employees, no later than 60 calendar days after the effective date of this Agreement. Failure to provide such documentation in a timely manner may result in denial of credit.

2. No credit shall be afforded for interest charges, or any adjustment to reflect changes in price levels between the time of completion of the pre-Agreement design



work and the time credit is afforded; for the value of non-Federal design work obtained at no cost to the Non-Federal Sponsor; or for costs that exceed the Government's estimate of the cost for such item if it had been performed by the Government.

3. No reimbursement will be provided for any pre-Agreement design work that exceeds the Non-Federal Sponsor's share of construction costs under this Agreement.

D. Notwithstanding any other provision of this Agreement, the Non-Federal Sponsor shall not be entitled to credit for real property interests and relocations that exceed 35 percent of construction costs or real property interests that were previously provided as an item of local cooperation for another Federal project.

## **ARTICLE VI – PAYMENT OF FUNDS**

A. As of the effective date of this Agreement, construction costs are projected to be \$\_\_\_\_\_, with the Government's share of such costs projected to be \$\_\_\_\_\_ and the Non-Federal Sponsor's share of such costs projected to be \$\_\_\_\_\_, which includes creditable real property interests and relocations projected to be \$\_\_\_\_\_, creditable in-kind contributions projected to be \$\_\_\_\_\_, creditable pre-Agreement design work projected to be \$\_\_\_\_\_, and the amount of funds required to meet its 35 percent cost share projected to be \$\_\_\_\_\_. These amounts are estimates only that are subject to adjustment by the Government and are not to be construed as the total financial responsibilities of the Government and the Non-Federal Sponsor.

B. The Government shall provide the Non-Federal Sponsor with monthly reports setting forth the estimated construction costs and the Government's and Non-Federal Sponsor's estimated shares of such costs; costs incurred by the Government, using both Federal and Non-Federal Sponsor funds, to date; the amount of funds provided by the Non-Federal Sponsor to date; the estimated amount of any creditable real property interests and relocations; the estimated amount of any creditable in-kind contributions; the estimated amount of any creditable pre-Agreement design work; and the estimated amount of funds required from the Non-Federal Sponsor during the upcoming fiscal year.

C. The Non-Federal Sponsor shall provide the funds required to meet its share of construction costs by delivering a check payable to "FAO, USAED, New York (E3)" to the District Commander, or verifying to the satisfaction of the Government that the Non-Federal Sponsor has deposited such required funds in an escrow or other account acceptable to the Government, with interest accruing to the Non-Federal Sponsor, or by providing an Electronic Funds Transfer of such required funds in accordance with procedures established by the Government.

D. The Government shall draw from the funds provided by the Non-Federal Sponsor to cover the non-Federal share of construction costs as those costs are incurred. If the Government determines at any time that additional funds are needed from the Non-Federal Sponsor to cover the Non-Federal Sponsor's required share of such construction

costs, the Government shall provide the Non-Federal Sponsor with written notice of the amount of additional funds required. Within 60 calendar days from receipt of such notice, the Non-Federal Sponsor shall provide the Government with the full amount of such additional required funds.

E. Upon completion of construction and resolution of all relevant claims and appeals and eminent domain proceedings, the Government shall conduct a final accounting and furnish the Non-Federal Sponsor with the written results of such final accounting. Should the final accounting determine that additional funds are required from the Non-Federal Sponsor, the Non-Federal Sponsor, within 60 calendar days of receipt of written notice from the Government, shall provide the Government with the full amount of such additional required funds. A final accounting does not limit the Non-Federal Sponsor's responsibility to pay its share of construction costs, including contract claims or any other liability that may become known after the final accounting. If the final accounting determines that funds provided by the Non-Federal Sponsor exceed the amount of funds required to meet its share of construction costs, the Government shall refund such excess amount, subject to the availability of funds for the refund.

F. If the Government agrees to acquire or perform, as applicable, real property interests or relocations, on behalf of the Non-Federal Sponsor, the Government shall provide written notice to the Non-Federal Sponsor of the amount of funds required to cover such costs. No later than 60 calendar days of receipt of such written notice, the Non-Federal Sponsor shall make the full amount of such required funds available to the Government by delivering a check payable to "FAO, USAED, New York (E3)" to the District Commander, or by providing an Electronic Funds Transfer of such funds in accordance with procedures established by the Government. If at any time the Government determines that additional funds are required to cover such costs, the Non-Federal Sponsor shall provide those funds within 30 calendar days from receipt of written notice from the Government.

## **ARTICLE VII - TERMINATION OR SUSPENSION**

A. If at any time the Non-Federal Sponsor fails to fulfill its obligations under this Agreement, the Government may suspend or terminate construction of the Project unless the Assistant Secretary of the Army (Civil Works) determines that continuation of such work is in the interest of the United States or is necessary in order to satisfy agreements with other non-Federal interests.

B. If the Government determines at any time that the Federal funds made available for construction of the Project are not sufficient to complete such work, the Government shall so notify the Non-Federal Sponsor in writing within 30 calendar days, and upon exhaustion of such funds, the Government shall suspend construction until there are sufficient funds appropriated by the Congress and funds provided by the Non-Federal



Sponsor to allow construction to resume. In addition, the Government may suspend construction if the Maximum Cost Limit is exceeded.

C. If hazardous substances regulated under CERCLA are found to exist in, on, or under any required real property interests, the parties shall follow the procedures set forth in Article IV.

D. In the event of termination, the parties shall conclude their activities relating to construction of the Project. To provide for this eventuality, the Government may reserve a percentage of available funds as a contingency to pay the costs of termination, including any costs of resolution of real property acquisition, resolution of contract claims, and resolution of contract modifications.

E. Any suspension or termination shall not relieve the parties of liability for any obligation incurred. Any delinquent payment owed by the Non-Federal Sponsor pursuant to this Agreement shall be charged interest at a rate, to be determined by the Secretary of the Treasury, equal to 150 per centum of the average bond equivalent rate of the 13 week Treasury bills auctioned immediately prior to the date on which such payment became delinquent, or auctioned immediately prior to the beginning of each additional 3 month period if the period of delinquency exceeds 3 months. This provision shall not be construed as giving the Non-Federal Sponsor a choice of either making payments when due or paying interest, nor shall it be construed as waiving any other rights of the Government, at law or in equity, which might result from any default by the Non-Federal Sponsor.

## **ARTICLE VIII - HOLD AND SAVE**

The Non-Federal Sponsor shall hold and save the Government free from all damages arising from design, construction, operation, maintenance, repair, rehabilitation, and replacement of the Project, except for damages due to the fault or negligence of the Government or its contractors.

## **ARTICLE IX - DISPUTE RESOLUTION**

As a condition precedent to a party bringing any suit for breach of this Agreement, that party must first notify the other party in writing of the nature of the purported breach and seek in good faith to resolve the dispute through negotiation. If the parties cannot resolve the dispute through negotiation, they may agree to a mutually acceptable method of non-binding alternative dispute resolution with a qualified third party acceptable to the parties. Each party shall pay an equal share of any costs for the services provided by such a

third party as such costs are incurred. The existence of a dispute shall not excuse the parties from performance pursuant to this Agreement.

## **ARTICLE X - MAINTENANCE OF RECORDS AND AUDITS**

A. The parties shall develop procedures for the maintenance by the Non-Federal Sponsor of books, records, documents, or other evidence pertaining to costs and expenses for a minimum of three years after the final accounting. The Non-Federal Sponsor shall assure that such materials are reasonably available for examination, audit, or reproduction by the Government.

B. The Government may conduct, or arrange for the conduct of, audits of the Project. Government audits shall be conducted in accordance with applicable Government cost principles and regulations. The Government's costs of audits shall not be included in construction costs, but shall be included in calculating the Maximum Cost Limit.

C. To the extent permitted under applicable Federal laws and regulations, the Government shall allow the Non-Federal Sponsor to inspect books, records, documents, or other evidence pertaining to costs and expenses maintained by the Government, or at the request of the Non-Federal Sponsor, provide to the Non-Federal Sponsor or independent auditors any such information necessary to enable an audit of the Non-Federal Sponsor's activities under this Agreement. The costs of non-Federal audits shall be paid solely by the Non-Federal Sponsor without reimbursement or credit by the Government.

## **ARTICLE XI - RELATIONSHIP OF PARTIES**

In the exercise of their respective rights and obligations under this Agreement, the Government and the Non-Federal Sponsor each act in an independent capacity, and neither is to be considered the officer, agent, or employee of the other. Neither party shall provide, without the consent of the other party, any contractor with a release that waives or purports to waive any rights a party may have to seek relief or redress against that contractor.

## **ARTICLE XII - NOTICES**

A. Any notice, request, demand, or other communication required or permitted to be given under this Agreement shall be deemed to have been duly given if in writing and delivered personally or mailed by registered or certified mail, with return receipt, as follows:

If to the Non-Federal Sponsor:

**[TITLE]**

**[ADDRESS]**

If to the Government:

District Commander

\_\_\_\_\_ District

**[ADDRESS]**

B. A party may change the recipient or address to which such communications are to be directed by giving written notice to the other party in the manner provided in this Article.

### **ARTICLE XIII - CONFIDENTIALITY**

To the extent permitted by the laws governing each party, the parties agree to maintain the confidentiality of exchanged information when requested to do so by the providing party.

### **ARTICLE XIV - THIRD PARTY RIGHTS, BENEFITS, OR LIABILITIES**

Nothing in this Agreement is intended, nor may be construed, to create any rights, confer any benefits, or relieve any liability, of any kind whatsoever in any third person not a party to this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement, which shall become effective upon the date it is signed by the District Commander.

DEPARTMENT OF THE ARMY

**[INSERT FULL NAME OF SPONSOR]**

BY: \_\_\_\_\_  
**[INSERT TYPED NAME]**  
**[Insert Colonel, U.S. Army or**

BY: \_\_\_\_\_  
**[INSERT TYPED NAME]**  
**[Insert Full Title]**

**Lieutenant Colonel, U.S. Army, as  
applicable]**  
District Commander

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_

### Attachment

**Option 1: Not An Obligation of Future Appropriations.** An agreement may reflect that it does not obligate future appropriations when doing so is inconsistent with constitutional or statutory limitations of a State or political subdivision thereof. Federal law, however, does NOT provide that the Non-Federal Sponsor's performance and payments are subject to appropriations of funds. The Government retains the right to exercise any legal rights it has to protect the Government's interests. If applicable and requested by the Non-Federal Sponsor, insert into the agreement as the last Article the following:

#### ***“ARTICLE XV - OBLIGATIONS OF FUTURE APPROPRIATIONS***

The Non-Federal Sponsor intends to fulfill fully its obligations under this Agreement. Nothing herein shall constitute, nor be deemed to constitute, an obligation of future appropriations by the **[Insert name of the legislative body that makes the appropriations, e.g., legislature of the State of New York or legislature of the State of Vermont]**, where creating such an obligation would be inconsistent with **[Insert the specific citation to the constitutional or statutory limitation on committing future appropriations]**. If the Non-Federal Sponsor is unable to, or does not, fulfill its obligations under this Agreement, the Government may exercise any legal rights it has to protect the Government's interests.”

### Attachment

**Option 2: Multiple Non-Federal Sponsors.** It is strongly preferred that there is one party only as the Non-Federal Sponsor for the agreement. Nonetheless, it is permissible to have more than one Non-Federal Sponsor if the Non-Federal Sponsors are jointly and severally responsible for all non-Federal obligations and responsibilities under the agreement. **The agreement should be modified to use the term “Non-Federal Sponsors” throughout along with the necessary modifications to change, as appropriate, verbs and pronouns from singular to plural.** In addition, insert into the agreement as the last Article the following:

#### “ARTICLE XV – JOINT AND SEVERAL RESPONSIBILITY OF THE NON-FEDERAL SPONSORS

The obligations and responsibilities of the Non-Federal Sponsors shall be joint and several, such that each Non-Federal Sponsor shall be liable for the whole performance of the obligations and responsibilities of the Non-Federal Sponsors under the terms and provisions of this Agreement. The Government may demand the whole performance of said obligations and responsibilities from any of the entities designated herein as one of the Non-Federal Sponsors.”

### Attachment

**Option 3: Accelerated Funds, following Committee notification.** Following completion of the Committee notification process, the agreement may include the following changes:

1. Delete the “and” at the end of the next to last WHEREAS clause and insert the following WHEREAS clause after the next to last WHEREAS clause in the agreement:

“WHEREAS, the Non-Federal Sponsor proposes to accelerate its provision of funds (hereinafter “accelerated funds”) for the immediate use by the Government for the Project; and”

2. Add a new paragraph I. to Article I as follows:

“I. The term “accelerated funds” means non-Federal funds out of proportion with Federal funds but within the ultimate non-Federal cash contribution.”

3. Add new paragraph L. to Article II as follows:

“L. In addition to providing the funds required by paragraph B. of this Article, the Non-Federal Sponsor may provide accelerated funds for immediate use of the Government. The Non-Federal Sponsor understands that use of accelerated funds shall not constitute any commitment by the Government to budget, or the Congress to appropriate, funds for this Project or to match any accelerated funds provided by the Non-Federal Sponsor; that any accelerated funds will be credited toward the Non-Federal Sponsor’s cost share only to the extent matching Federal funds are provided; and that the Non-Federal Sponsor is not entitled to any repayment for any accelerated funds obligated by the Government even if the Project ultimately is not completed.”

## LCBP FFY20 Line Item Requests

<b>Project #</b>	<b>Requesting Organization(s)</b>	<b>Short Project Title</b>	<b>Funding Request</b>
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
5	NY DEC	Ag Engineering Capacity in NY	\$25,000



## **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](mailto:helen.carr@vermont.gov)

Ken Kosinski, New York State Department of Environmental Conservation  
(518) 402-8110  
[Kenneth.kosinski@dec.ny.gov](mailto: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 managed<sup>1</sup> 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.

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<sup>1</sup> 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](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](mailto:helen.carr@vermont.gov)

Ken Kosinski, New York State Department of Environmental Conservation  
(518) 402-8110  
[Kenneth.kosinski@dec.ny.gov](mailto: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 lands<sup>1</sup>. 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 shorelands<sup>2</sup>. 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

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<sup>1</sup> 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.

<sup>2</sup> 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 comply<sup>3</sup> with the MRGP:

- Cost of road inventories per mile: \$287<sup>4</sup>
- Cost of improvements per linear mile: \$68,490<sup>5</sup>
- Cost per TP load reduction unit (kg/yr): \$11,838<sup>6</sup>

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<sup>3</sup> Includes both change from not meeting to fully meeting standards and partially meeting to fully meeting standards.

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

<sup>5</sup> Based on SFY 2018 Municipal Roads Grants-In-Aid results

<sup>6</sup> 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:**

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(802) 490-6185

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Ken Kosinski, New York State Department of Environmental Conservation  
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**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 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](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](mailto: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.

<b>VAWQP Annual Budget Summary</b>	
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
<b>Total</b>	<b>125,000</b>

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%.



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

**TITLE:** Increases Agricultural Engineering Capacity for BMP Implementation in New York Lake Champlain Basin

**ONE SENTENCE ABSTRACT:** This project will increase the private sector agricultural engineering capacity in the New York Lake Champlain Basin (LCBP) by providing two one-day training sessions, power point presentations, and design reviews for private sector engineering designs. The presentation will be available as PDF download on the Cornell Pro-Dairy website.

**POINTS OF CONTACT:**

Koon Tang, New York State Department of Environmental Conservation  
(518) 402-8238  
[Koon.tang@dec.ny.gov](mailto:Koon.tang@dec.ny.gov)

Brain SteinMuller, New York State Department of Agriculture and Markets  
(518) 457-3738  
[brian.steinmuller@agriculture.ny.gov](mailto:brian.steinmuller@agriculture.ny.gov).

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

Excess phosphorous nonpoint runoff is negatively impacting Lake Champlain. One source of this runoff comes from animal agriculture within the New York Lake Champlain watershed. To reduce the potential pollution farms are encouraged to accelerate the installation and maintenance of Best Management Practices (BMPs). These BMPs should be installed and maintained according to the NY-NRCS Standards. The planning, design, and construction oversight of these BMPs requires additional personnel who have both the engineering skills, but also knowledge of the agricultural impact of the BMPs. In the past the demand for these services has been met by public agencies at no cost to the farm. Private sector engineering firms are now needed to provide these services to more quickly impact the water quality goals. The objective of this project is to help the private sector to effectively and efficiently deliver the engineering services to the agricultural community.

While New York continues its efforts to reduce nutrient runoff from farms. One of the major challenges echoed by all the Soil & Water Conservation Districts in the Lake Champlain Basin is the lack of agricultural engineering capacity to timely advance many agricultural best management practices that need engineering design and certification. Many agricultural best management practices that have obtained state funding are slow to be implemented due to the lack of agricultural engineering services. There are many instances that state and federal NRCS funds are returned due to the length of time to acquire the needed engineering services to complete the project.

To facilitate the private sector engineering services for BMP implementation this project proposes to offer two one-day training sessions divided into class time in the morning and farm visits in the afternoon. The BMP topics presented will focus primarily on manure storage, manure transfer, barnyard runoff control and milking center waste management. Program opportunities from NRCS and NYS DAM as well as practical private agricultural engineering operations will be included. The farm visits focused on the priority BMPs on farms that have successfully installed and maintained them as well as farms that yet need to install them.

An identical project was selected by the Lake Champlain Basin Program Steering Committee in 2016 for two (2) training sessions in Vermont Lake Champlain Basin. It was well received and participants rated both in class and in field sessions highly and requested more information on both the programs for cost sharing and specific engineering practices. The private sector engineers in Vermont are now better prepared to help farms implement BMPs to help reduce nutrient loading to the Lake Champlain

**Timeframe:** October 1, 2020 – September 30, 2021

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.2: Fund Programs to Reduce Nutrient Inputs from Agriculture

Task Area I.C.2.d: Help farmers meet Clean Water regulations with targeted cost-share support for small farms

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 Provide financial and technical assistance to support practices that help protect water quality.

**REQUEST AMOUNT:** \$25,00

**TOTAL COST WITH NEIWPCC INDIRECT:** \$25,000

**BRIEF BUDGET EXPLANATION:** New York will work with the LCBP and NEIWPCC to procure a contract with Cornell Pro-Dairy to deliver one training session (in class and in field) for the engineering firms in New York Lake Champlain Basin. New York State Department of Environmental Conservation and Department of Agriculture and Markets will be an integral part of the training and outreach to the engineering firms in New York. New York NRCS will also be part of the effort to ensure the training meets NRCS standards.

**TECHNICAL REFERENCES CITED:**

PRO-DAIRY Increases Agricultural Engineering Capacity for BMP Implementation Final Project Report, July 10, 2017 By C.A. Gooch<sup>1</sup> and P.E. Wright