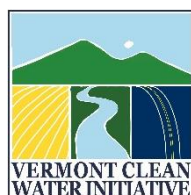


Vermont Clean Water Initiative Program Funding Policy

August 15, 2019



VERMONT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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Background

The Vermont Department of Environmental Conservation (DEC) Clean Water Initiative Program (CWIP) provides funds in the form of grants and contracts to support projects that reduce sediment and nutrient pollution, including phosphorus, from runoff and soil erosion that discharge into the state's rivers, streams, lakes, ponds and wetlands. CWIP also provides technical support to the Vermont Clean Water Board charged with allocating clean water funds.¹ CWIP-funded projects focus on stormwater runoff and erosion abatement from developed lands, natural resource restoration, agriculture and forest management runoff controls, and equipment with demonstrated water quality benefit.

CWIP tracks and reports on priority projects to restore Vermont's waters, and communicates progress toward meeting water quality restoration targets in addition to managing clean water funds. These water quality targets are outlined in long-term remediation plans known as Total Maximum Daily Loads (or TMDLs).² TMDL implementation is supported by state authorities contained in the Vermont Clean Water Act (Act 64 of 2015).

Vermont's rural characteristics mean that much of the state's water quality challenges are the result of "nonpoint source pollution" – diffuse pollution sources caused by rainfall, snowmelt, or erosion. These nonpoint sources are the leading cause of nutrient and sediment pollution in Vermont and come from a variety of land use sectors including developed lands, roads, agricultural lands, and logging areas.

The various land use sectors contributing to nonpoint source pollution require the state to take a comprehensive approach to addressing these sources. The state has adopted an "all in" approach, which involves strengthening partnerships with municipalities, farmers, businesses, regional organizations and landowners. This collaborative approach also involves close coordination across state agencies to track progress in achieving the state's clean water goals that is transparent and accountable to the public.

CWIP leads coordination of budgeting, tracking, and reporting, which involves working closely with the agencies of Administration; Agriculture, Food and Markets; Commerce and Community Development; Natural Resources; and Transportation, as well as federal partners including the U.S. Department of Agriculture Natural Resources Conservation Service through

¹ Act 64 of 2015 created the Vermont Clean Water Fund. The Act created a Clean Water Board to recommend allocation of the funds. See: <https://legislature.vermont.gov/assets/Documents/2016/Docs/ACTS/ACT064/ACT064%20As%20Enacted.pdf>.

² A total maximum daily load (TMDL) sets pollutant reduction targets to achieve state water quality standards of an impaired water body. Federal Water Pollution Control Act of 1972, 33 U.S.C. Section 1251 et seq., Section 303(d).

the Lake Champlain Regional Conservation Partnership Program (RCPP) and the Lake Champlain Basin Program. In addition, CWIP offers technical expertise in municipal stormwater master planning, illicit discharge detection and elimination, and green stormwater infrastructure.

Purpose

The CWIP Funding Policy offers clarity and transparency to grant and contract applicants, clean water improvement project proponents, state agencies, other program partners, and the public by presenting overarching grant program goals. This Funding Policy outlines CWIP's funding priorities, eligibility, and match requirements, as well as CWIP's anticipated SFY 2020 grant programs (Appendix A) and spending plan (Appendix B). Appendix B presents the portion of the SFY 2020 clean water budget to be managed by CWIP and the spending plan provides greater detail on how these funds will be administered. Additionally, Appendix B presents CWIP-managed projects funded by the U.S. Environmental Protection Agency (EPA) through the Lake Champlain Basin Program that align approximately with SFY 2020. The Policy and SFY 2020 CWIP grant programs and spending plan are subject to change.

DEC Responsibilities

CWIP works closely with DEC's Administration and Innovation Division (AID) and the Water Infrastructure Finance Program (WIFP) to develop the Funding Policy, requests for proposals, agreements, and other supporting documentation. CWIP provides outreach and training opportunities to support project proponents seeking grant funding. DEC uses project review committees, comprised of CWIP staff and at least one reviewer external to the program, to review and rank all grant proposals received and make final recommendations for funding. Committee members are provided several tools to use in the evaluation, including scoring criteria and DEC technical staff determinations on projects' prioritization and potential for adverse natural resource impacts.

Grantee/Contractor Responsibilities

Recipients of CWIP funds are responsible for:

- Adhering to the CWIP Funding Policy and the terms of DEC agreements;
- Referring to the most up-to-date documents on the [CWIP Grants Webpage](#);
- Attending trainings on CWIP funding programs;
- Completing all required materials associated with requests for proposals;
- Signing the DEC agreement within 90-days of receiving the final agreement (or the

award may be rescinded);

- Ensuring clean water projects do not cause long-term adverse impact(s) to natural resources without a net water quality benefit; and
- Ensuring long-term operation and maintenance of clean water projects.

State Water Quality Goals

CWIP's primary objective is to target funds to assist in achieving the goals of federal and state TMDLs and compliance with the Vermont Clean Water Act (Act 64 of 2015) and the 2016 Combined Sewer Overflow (CSO) Rule. Another important objective is to restore natural resources to maximize Vermont's overall resilience to future flooding, as describe in Act 138 of 2012.³ Moreover, the U.S. EPA will be evaluating Vermont's progress in achieving Lake Champlain phosphorus reduction targets through the issuance of report cards, as described in the Accountability Framework of the *Phosphorus TMDLs for Vermont Segments of Lake Champlain*.⁴

Given the significant costs of restoring and safeguarding water quality, the state must spend its resources efficiently and effectively. CWIP funding programs rely on tactical basin plans to identify projects that will provide the greatest return on investment for clean water. Tactical basin plans are the implementation roadmaps for TMDLs at the watershed scale. Tactical basin plans identify and prioritize clean water projects across multiple sectors based on scientific monitoring data and assessment results. Potential project opportunities identified through tactical basin planning are available online in the Watershed Projects Database.⁵

The Vermont Clean Water Fund statutory priorities, listed below, also guide CWIP's investments. The Clean Water Board built its SFY 2020 clean water budget based on these priorities. The Clean Water Service Delivery Act of 2019 (Act 76) updated the Clean Water Fund priorities, which will primarily affect the SFY 2022 clean water budget.⁶

Clean Water Fund priorities:

- A. Address sources of water pollution in waters listed as impaired (33 U.S.C. §1313(d));
- B. Address sources of water pollution identified as significant contributors of water

³ Act 138 of 2012 available at: <http://www.leg.state.vt.us/DOCS/2012/ACTS/ACT138.PDF>.

⁴ Phosphorus TMDLs for Vermont Segments of Lake Champlain Accountability Framework, page 58 at: https://ofmpub.epa.gov/waters10/attains_impaired_waters.show_tmdl_document?p_tmdl_doc_blobs_id=79000.

⁵ Watershed Projects Database available at: <https://anrweb.vt.gov/DEC/cleanWaterDashboard/WPDSearch.aspx>.

⁶ The Clean Water Service Delivery Act of 2019 (Act 76) available at: <https://legislature.vermont.gov/Documents/2020/Docs/ACTS/ACT076/ACT076%20As%20Enacted.pdf>.

pollution;

- C. Restore riparian (lands adjacent to waterways) conditions to minimize the risk of flood damage;
- D. Support state and municipal compliance with road-related stormwater permit requirements;
- E. Provide education and outreach regarding the implementation of water quality requirements;
- F. Support innovative or alternative technologies or practices to improve water quality;
- G. Purchase agricultural land in order to take land out of practice when state water quality requirements cannot be remediated through agricultural best management practices;⁷
- H. Assist municipalities in the establishment and operation of stormwater utilities; and
- I. Invest in watershed basin planning, water quality project identification screening, water quality project evaluation and conceptual plan development of water quality projects.

Anticipated Changes to CWIP Funding Programs

Achieving Vermont's clean water goals requires a significant investment. The State of Vermont's investment in clean water has grown significantly since the passage of the Vermont Clean Water Act (Act 64 of 2015). CWIP grant programs are changing, as described in this section of the Funding Policy, to:

1. Better respond to the increased funding levels and to implement the requirements of the Clean Water Service Delivery Act of 2019 (Act 76) and
2. Support the cost of compliance with clean water regulations, including development of funding programs for the Developed Lands General Permit (i.e., "3-acre permit").

1. Anticipated Changes: Clean Water Service Delivery Act of 2019 (Act 76/S. 96)

The Clean Water Service Delivery Act of 2019 (Act 76) changes the administration and implementation of clean water funds in the State of Vermont. Relevant to this Funding Policy, Act 76 requires the establishment of four new grant programs going into effect November 1, 2021 (aligns with SFY 2022), listed below. The Clean Water Board will determine funding levels of each program through its annual public budget process, beginning with the SFY 2022 budget.

⁷ Clean water funding priorities apply to the interagency clean water budget, administered across state agencies. Funds related to agricultural land acquisition are administered through Agency of Agriculture, Food and Markets and Vermont Housing and Conservation Board. Land acquisition is an ineligible expense under CWIP funding programs.

1. § 925. Clean Water Service Provider, Water Quality Restoration Formula Grant Program

Grants to clean water service providers to meet non-regulatory pollutant reduction requirements. The grant amount shall be based on the annual pollutant reduction goal established for the clean water service provider multiplied by the standard cost for pollutant reduction including the costs of administration and reporting. Not more than 15 percent of the total grant amount awarded to a clean water service provider shall be used for administrative costs.

2. § 926. Water Quality Enhancement Grant Program

Competitive grant program to fund projects that protect high quality waters, maintain or improve water quality in all waters, restore degraded or stressed waters, create resilient watersheds and communities, and support the public's use and enjoyment of the state's waters. Not more than 15 percent of the total grant amount awarded shall be used for administrative costs.

3. § 927. Developed Lands Implementation Grant Program

Grant program to provide grants or financing to persons who are required to obtain a permit to implement regulatory requirements that are necessary to achieve water quality standards, including financing for projects related to the permitting of impervious surface of three acres or more. Not more than 15 percent of the total grant amount awarded shall be used for administrative costs.

4. § 928. Municipal Stormwater Implementation Grant Program

Grant program to provide grants to any municipality required to obtain or seek coverage under the Municipal Roads General Permit (MRGP), the Municipal Separate Storm Sewer Systems Permit (MS4), a permit for impervious surface of three acres or more, or a permit required by the Secretary to reduce the adverse impacts to water quality of a discharge or stormwater runoff. Not more than 15 percent of the total grant amount awarded shall be used for administrative costs.

A notable change resulting from Act 76 of 2019, in terms of administering clean water funds, is the establishment of clean water service providers and the Water Quality Restoration Formula Grant Program. Clean water service providers, for watersheds draining to Lake Champlain and Lake Memphremagog, must be established through rulemaking by November 1, 2020. Service providers will be responsible for identifying, prioritizing, developing, and implementing

projects to meet a five-year phosphorus reduction target. The service providers' phosphorus reduction targets will be associated with non-regulatory activities under the Lake Champlain and Lake Memphremagog TMDLs to ensure voluntary measures (i.e., not driven by clean water regulations) will be met and TMDL targets will be achieved. Additionally, a service provider will be responsible for the long-term operation and maintenance of all non-regulatory clean water projects in its region.

While CWIP is required to maintain grant programs in the interim, this CWIP Funding Policy and the SFY 2020 grant programs and spending plan also support programs that will aid in the transition required by Act 76 through:

1. Building partner capacity to manage clean water funds through expansion of block grant and grants-in-aid programs;
2. Enhancing project identification, prioritization, and development activities to increase the number of projects ready to proceed to design and construction; and
3. Bridging gaps in the state's ability to establish interim pollutant reduction targets and account for nutrient pollutant reductions at the project-level.

2. Anticipated Changes: Developed Lands General Permit

The Developed Lands General Permit (i.e., General Permit 3-9050) is a permit for stormwater runoff from impervious surfaces. This general permit will require stormwater treatment at sites with three acres or more of impervious surfaces (i.e., "3-acre permit") that are currently unpermitted or permitted under standards prior to the 2002 Stormwater Management Manual. The state anticipates grant funds and subsidized loans will be available to supplement engineering, design, and implementation costs associated with this permit. The state will release its funding plan for this permit by December 31, 2019, which may affect the CWIP Funding Policy, including eligibility and match requirements.

Block Grant and Grants-in-Aid Programs

CWIP employs block grants and grants-in-aid programs as a strategy to more efficiently administer the increased level of clean water funding. These programs, described in Appendix A, also help develop partner capacity to more independently manage clean water projects, while still benefiting from CWIP oversight and technical assistance. CWIP plans to continue to develop and invest in these programs to aid in the transition toward grant programs required under Act 76 of 2019.

Program Delivery/Administrative Costs

Program delivery (i.e., administrative costs) associated with block grant and grants-in-aid programs are not to exceed 15% of the total award amount. The remaining 85% minimum of the total award amount must be used for project completion. This section of the Policy clarifies eligibility of program delivery expenses versus project completion expenses.

Program Delivery Definition

Program delivery supports grant/subgrant⁸ costs associated with administering a block grant and grants-in-aid program, which may include:

- Implementing a procurement policy;
- Managing the block grant or grants-in-aid award;
- Selecting and awarding projects to subcontractors;
- Developing and monitoring subgrants and subcontracts;
- Processing subgrantee and subcontractor invoices for payment by DEC;
- Verifying project results; and
- Preparing and compiling required deliverables (e.g., final report, operation and maintenance agreements, match certification).

Program delivery expenses applied to a CWIP block grant or grants-in-aid program must not exceed 15% of the total award amount. The 15% cap includes all expenses associated with program delivery, including indirect costs of program delivery and elements of program delivery work subgranted.

Project Completion Definition

Project completion supports subcontract⁹ costs associated with individual projects under a block grant and grants-in-aid program. Project completion costs are expressed as a subcontract to the block grant and grants-in-aid award, including “mark-ups” associated with the project costs that may involve subcontractor indirect and personnel costs. Project completion expenses applied to a CWIP block grant and grants-in-aid programs are deducted from the project completion budget and not the program delivery budget.

⁸ Subgrant definition: Funds passed through to other entities to conduct program delivery, which must be contained within the 15% program delivery cap for the total award amount.

⁹ Subcontract definition: Funds passed through to other entities to complete a project, which must be contained within the 85% total award amount dedicated to completing eligible projects.

Determination of Eligibility

This section of the Policy outlines CWIP funding eligibility requirements. These requirements apply to all CWIP funding programs, including grant programs listed in Appendix A of this Policy. Projects must meet requirements pertaining to (1) project type and standards, (2) funding recipient, and (3) natural resource impacts to be eligible for funds.

Eligible Project Types

Appendix C of this Policy defines clean water project types and minimum standards that must be met to be eligible under CWIP funding programs. Projects' primary purpose must be to improve water quality by reducing nutrient and sediment pollution.

Ineligible Projects

- Land acquisition (may be used as match);
- Projects that solely address flooding, drainage, flood/hazard mitigation, protection of infrastructure and do not primarily address sediment or nutrient pollution;
- Projects that can be funded through other grant sources (projects may be eligible if other options are exhausted and justification is provided, subject to CWIP approval);¹⁰
- Maintenance activities (e.g., re-grading, sweeping, or catch basin cleaning);
- Projects dealing with private driveways;
- Culvert replacements that do not improve stream geomorphology;
- General outreach and education;
- Projects to comply with *Acceptable Management Practices (AMPs) for Maintaining Water Quality on Logging Jobs in Vermont* on active logging/harvesting sites;¹¹
- Projects related to compliance with the MS4 Permit Minimum Control Measures;¹² and
- Projects that treat stormwater associated with new or expanded impervious surfaces to comply with a state permit or state order.

¹⁰ Agriculture projects must first pursue other funding sources (e.g., Agency of Agriculture, Food and Markets, U.S. Department of Agriculture, and Vermont Housing and Conservation Board) before pursuing CWIP funds. Except for the Municipal Roads Grants-in-Aid program, road projects must first pursue other funding sources (e.g., Agency of Transportation) before pursuing CWIP funds.

¹¹ *Acceptable Management Practices (AMPs) for Maintaining Water Quality on Logging Jobs in Vermont* available at: <https://fpr.vermont.gov/forest/managing-your-woodlands/acceptable-management-practices>.

¹² For information regarding the Municipal Separate Storm Sewer System (MS4) General Permit, see: <http://dec.vermont.gov/watershed/stormwater/permit-information-applications-fees/ms4-permit>.

Ineligible Expenses

- Expenses incurred outside award duration;¹³
- Fees associated with permits that require implementation of the clean water project, such as stormwater operational permits (including the “3-acre permit”), MRGP, and MS4 Permit;¹⁴
- In Lieu Fee payments to mitigate wetland impacts;
- Tools and/or equipment (unless intent of project is to purchase equipment to implement clean water best management practices);
- Office supplies such as, but not limited to, computers, cell phones, etc.;
- Uniforms/staff apparel;
- Food/beverage/event space costs (such as for a meeting);
- AmeriCorps host site or member costs;
- Political advocacy;
- Fundraising; and
- Grant writing.

Eligible Entities

Table 1 lists entities eligible and ineligible to receive CWIP funds. Eligible entities may obtain CWIP funds and sponsor a project on land owned by an ineligible entity. “Sponsor” is defined as assuming full legal responsibility of the project, including operation and maintenance, as well as serving as co-permittee for regulatory stormwater projects. CWIP funds can only be used to cover project completion costs and cannot support operation and maintenance costs.

Table 1. Entities eligible and ineligible to receive CWIP funds

Eligible Entities	Ineligible Entities
Vermont municipality Regional planning commission Natural resource conservation district Non-profit private organizations State agencies State colleges and universities Public hospitals and medical centers Public schools	Private citizens, individuals Private for-profit businesses and industries Private for-profit colleges and universities Federal agencies DEC programs

¹³ Expenses incurred outside award duration are not eligible, however, up to 90 days pre-award costs may be allowable under an agreement with approval from the Grants Manager.

¹⁴ Permit fees associated with natural resource permits (e.g., wetlands, rivers, and lake shorelands) to implement a clean water project are an eligible project expense.

Projects on Private Land

Projects on private land are eligible for CWIP funding. Some project types are typically sited on private land, such as floodplain restoration and woody buffer restoration. However, with respect to stormwater and road-related mitigation projects, CWIP places municipal projects at a higher priority for funding than similar projects on private property. Projects on private land that have municipal sponsorship will also be a higher priority. Projects on private land sponsored by an eligible partner must include documentation of commitment from the landowner, including operation and maintenance commitment, to be considered eligible.

Eligible Impacts to Natural Resources

Projects that result in long-term adverse impact(s) to natural resources are not eligible to receive CWIP funds, unless the project will result in a **net water quality benefit**.¹⁵ The decision-tree, shown in Figure 1, defines the process for determining a net water quality benefit and project eligibility. Net water quality benefit is ultimately determined by weighing the existing water quality benefit of the impacted natural resource against the anticipated water quality benefit of the clean water project and determining which is greater.

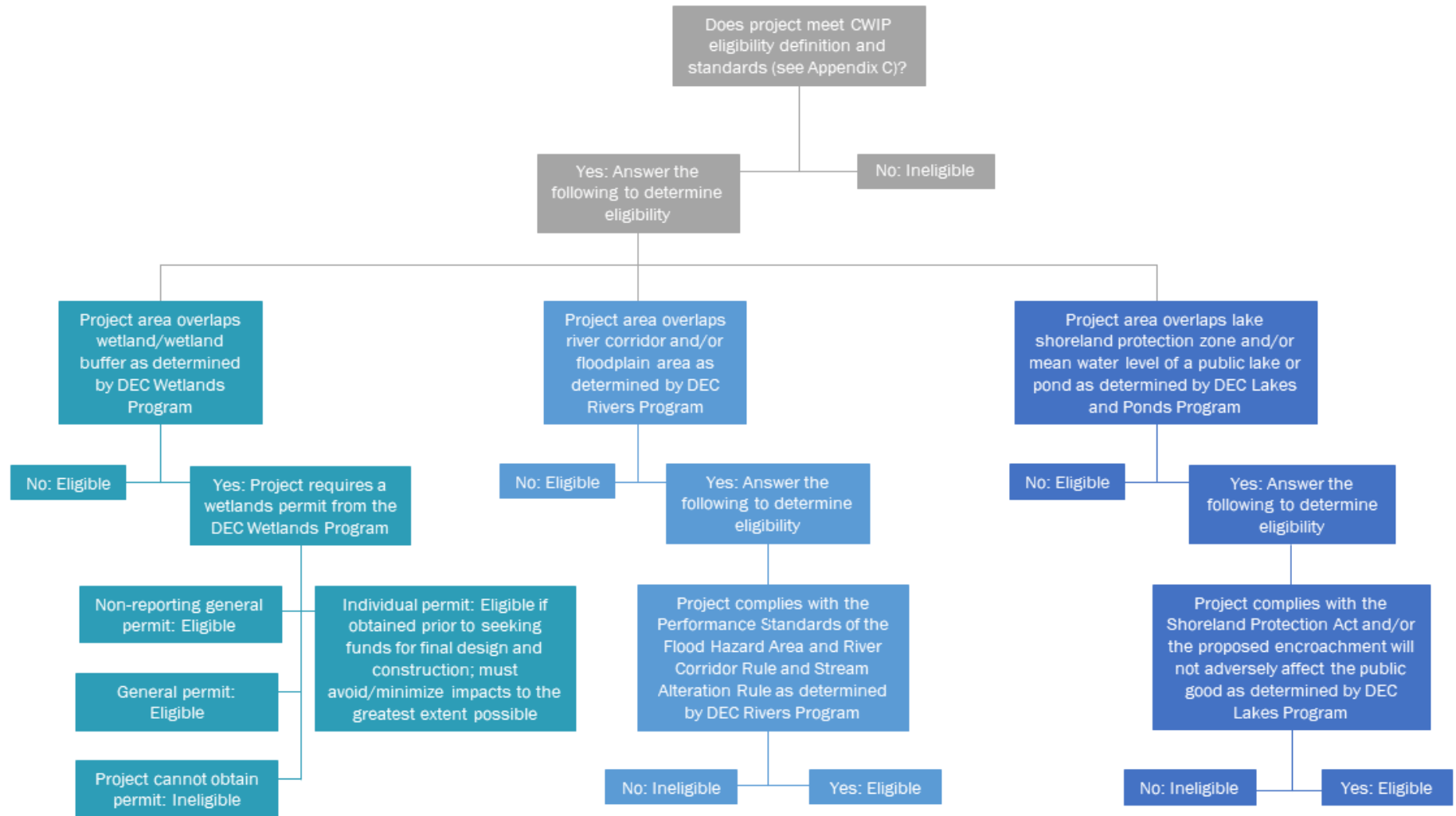
Methods to account for phosphorus storage and attenuation of wetlands are under development. The decision-tree will be updated once the wetland accounting method is in place. In the interim, projects that require a wetland non-reporting general permit or general permit are eligible for funds. Projects that require a wetlands individual permit may be eligible for funds if the individual permit is obtained prior to seeking funds for final design and construction. In accordance with the Wetlands Rule, individual permits cannot be issued when alternative project locations and sizes (i.e., project footprint) are possible.

Applicants and grant/contract recipients are responsible for confirming and documenting project eligibility where adverse natural resource impact(s) may result from implementation of clean water projects. Applicants and grant/contract recipients must contact the appropriate DEC programs to determine project eligibility. DEC program contacts are available by project location using the Water Quality Project Screening Tool.¹⁶ Funding priorities are informed by potential projects in the Watershed Projects Database. However, projects in the Database may not be screened for eligibility related to adverse natural resource impact(s).

¹⁵ "Long-term" is defined as extending beyond the construction or installation of the practice. There may be short-term impacts to natural resources that occur as the result of the construction or installation of water quality improvement projects. CWIP will require adequate erosion and sediment controls to minimize or avoid those short-term impacts.

¹⁶ Water Quality Project Screening Tool available at: <https://anrweb.vt.gov/DEC/cleanWaterDashboard/ScreeningTool.aspx>.

Figure 1. Decision tree for determining net water quality benefit where project presents adverse natural resource impacts



State of Vermont Capital Funds Eligibility

Any grant award for a clean water improvement project that relies on proceeds from the state's general obligation bonds must be "capital eligible" to uphold the tax-exempt status of those bonds. Capital fund-*ineligible* projects typically include an activity *with a primary focus* on one or more of the following: (a) education and outreach; (b) water quality monitoring not directly required for implementation of the capital project; (c) long-term project maintenance, and (d) project identification activities (e.g., assessment and planning). DEC is responsible for ensuring that the use of capital funds for clean water improvement projects will not compromise the tax-exempt status of the state's general obligation bonds.

Match Requirements

CWIP requires match for MS4 stormwater projects and the Municipal Roads Grants-in-Aid program, described in the following sections. While CWIP does not require match for other project types/programs, leveraging match through in-kind services and cash is strongly encouraged and may be a factor in scoring criteria. All match expenses, including cash and in-kind, must be incurred within the start and end date of the associated award. Grant/contract recipient will be required to quantify and document match. Match requirements are subject to change.

Note that CWIP funds cannot be used as match by grantees/contractors to other funding sources, as CWIP funds may be required to meet other DEC match requirements.

Table 2. Eligible and ineligible sources of match

Eligible Match	Ineligible Match
In-kind (e.g., time, labor, transportation)	Funds already matched to other projects
Cash from other funding sources	State of Vermont clean water funds ¹⁸
Equipment	Expenses incurred outside award duration
Clean Water State Revolving Fund loans	Expenses related to political advocacy
Vermont Pollution Control Grants	Expenses related to fundraising
Land acquisition	Expenses related to grant writing
AmeriCorps member time ¹⁷	
Non-DEC state employee staff time	

¹⁷ AmeriCorps member time = host site fee / hours x number of hours worked on the project

¹⁸ State clean water funds include funds obtained through Vermont agencies of Agriculture, Food and Markets; Commerce and Community Development; Natural Resources; and Transportation, as well as the Vermont Housing and Conservation Board.

MS4 Stormwater Match

CWIP requires 50% local match (cash or in-kind) for MS4 stormwater projects. MS4 stormwater projects are located in the MS4 communities listed below and support implementation of MS4 required flow restoration plans and phosphorus control plans.

Vermont MS4 communities:

City of St. Albans	Town of Rutland
Town of St. Albans	Town of Shelburne
City of Burlington	City of South Burlington
Burlington International Airport	University of Vermont
Town of Colchester	Town of Williston
Town of Essex	City of Winooski
Village of Essex Junction	Vermont Agency of Transportation
Town of Milton	

Municipal Roads Grants-in-Aid Match

CWIP requires 20% local match for municipal construction and equipment projects implemented under the Municipal Roads Grants-in-Aid program. Local match associated with construction projects may be in the form of in-kind, transportation, municipal staff time, cash or other demonstration of substantial contribution. Local match associated with purchase of equipment must be cash. The 20% match requirement applies to municipal construction and equipment costs (project completion) and not program delivery costs.


Long-Term Operation and Maintenance

Clean water projects constructed/implemented with CWIP funds are required to establish and submit to CWIP an operation and maintenance plan and agreement. The plan and agreement identify the entity responsible for operation and maintenance and help ensure a project performs properly throughout its useful lifespan. The operation and maintenance responsible party must be established for a project to be eligible for construction funds.¹⁹ CWIP will assess and verify the operation and maintenance status of select projects post-construction to monitor project performance.

¹⁹ CWIP's operation and maintenance plan and agreement template is available at:
<https://dec.vermont.gov/watershed/cwi/grants/ecosystem-restoration#Final%20Reporting>.

Approval

This Funding Policy is approved by the Department of Environmental Conservation for State Fiscal Year 2020 CWIP funding programs.



By: Emily Boedecker, Commissioner, DEC

August 15, 2019

Appendices

Appendix A: State Fiscal Year 2020 CWIP Grant Programs

Program	Area of Focus	Grant Size
Ecosystem Restoration Grants	To support development and implementation of projects identified in tactical basin plans and listed in the Watershed Projects Database.	Minimum grant size: \$20,000
Municipal Roads Grants-in-Aid Program	To provide funds to municipalities to implement road erosion control projects that bring hydrologically connected road segments into full compliance with the Municipal Roads General Permit, including purchase of equipment.	Disbursement formula based on municipal hydrologically connected road-miles
Design/Implementation Block Grant	To support partners in managing multiple projects involving preliminary design, final design and/or implementation. Individual projects are identified in tactical basin plans and listed in DEC Watershed Projects Database. A minimum of 50% of the award must support projects that cost at or below \$20,000.	Minimum grant size: \$500,000
River Corridor Easement Block Grant	To support river restoration and protection through implementation of multiple river corridor easements.	Minimum grant size: \$20,000
Woody Buffer Block Grant	To support multiple woody buffer restoration projects along river corridors, floodplains, shorelands, and wetlands.	Minimum grant size: \$50,000
Watershed Work Crew Block Grant	To support work crew implementation of clean water projects.	Minimum grant size: \$20,000
Project Development and Technical Capacity Block Grant	To prepare for Act 76 by supporting project development to move projects towards design and implementation; support partnerships via technical outreach and capacity building (e.g., train-the-trainer).	Minimum grant size: \$20,000

Appendix B: State Fiscal Year 2020 Clean Water Initiative Program Spending Plan

Table 3. CWIP-managed line items in the final SFY 2020 clean water budget, as passed by the House and Senate and approved by the Clean Water Board June 12, 2019; CWIP-managed funds must be administered consistent with the final SFY 2020 clean water budget²⁰

No.	Sector	Activity	Clean Water Fund	Capital Bill
6	Innovation	Multi-Sector Innovation, DEC and Partner Support	2,555,000	
7	Nat'l Resources	Natural Resources Restoration ²¹	2,310,000	
8	Nat'l Resources	Lakes in Crisis Fund	50,000	
9	Nat'l Resources	Forestry/Skidder Bridges		50,000
10	Roads	Municipal Roads Grants-in-Aid	3,200,000	
12	Stormwater	Municipal Stormwater Project Planning & Impl'tion	2,000,000	
16	Wastewater	Wastewater Treatment Facility Operators Support	110,000	
Total			10,225,000	50,000

²⁰ Final SFY 2020 clean water budget is available at: <https://dec.vermont.gov/watershed/cwi/cwf>.

²¹ Additional \$200,000 are proposed to be added to the SFY 2020 clean water budget through the SFY 2020 Budget Adjustment Act. If the adjustment is approved, approximately \$142,000 of the \$200,000 will be added to the natural resources restoration line item managed by CWIP. The CWIP SFY 2020 spending plan does not include the \$142,000 currently.

Table 4. CWIP SFY 2020 spending plan based on the final SFY 2020 clean water budget; subject to change

		Capital Bill	Clean Water Fund	Total
I. Ecosystem Restoration Grants				
1	Natural Resources Restoration Planning, Design, and Implementation		\$681,428	\$681,428
2	Municipal Stormwater Project Planning, Design, and Implementation		\$403,572	\$403,572
	SUBTOTAL (I)	\$0	\$1,085,000	\$1,085,000
II. Municipal Roads Grants-in Aid Block Grant				
3	Project Delivery and Construction		\$3,200,000	\$3,200,000
4	Municipal Equipment		\$100,000	\$100,000
	SUBTOTAL (II)	\$0	\$3,300,000	\$3,300,000
III. Clean Water Block Grants				
5	Design/Implementation Block Grant		\$1,500,000	\$1,500,000
6	River Corridor Easement Block Grant		\$1,000,000	\$1,000,000
7	Woody Buffer Block Grant		\$175,000	\$175,000
	SUBTOTAL (III)	\$0	\$2,675,000	\$2,675,000
IV. Clean Water Contracts and MOAs				
8	Stormwater/Developed Lands			
9	Illicit Discharge Detection and Elimination (IDDE) Contract		\$50,000	\$50,000
10	Green Schools Stormwater Assessment (3-Acre Early Adoption)		\$100,000	\$100,000
11	Natural Resources Restoration			
12	Lakes in Crisis Fund		\$50,000	\$50,000
13	Regional Conservation Partnership Program Wetland Incentives		\$250,000	\$250,000
14	Forestry WQ Assistance (Portable Skidder Bridge)	\$50,000		\$50,000
15	Forestry WQ Assistance (ANR Roads and Trails Assessment)		\$50,000	\$50,000
	SUBTOTAL (IV)	\$50,000	\$500,000	\$550,000
V. Partnership Grants and Contracts				
16	Watershed Work Crew Block Grant		\$215,000	\$215,000
17	Tactical Basin Planning Support		\$330,000	\$330,000
18	UVM Sea Grant - Extension / Technical Support		\$50,000	\$50,000
19	Vermont League of Cities and Towns - Extension / Technical Support		\$50,000	\$50,000
20	Municipal Wastewater Treatment Plant Optimization Project		\$110,000	\$110,000
	SUBTOTAL (V)	\$0	\$755,000	\$755,000
VI. Analytical Services				
21	LaRosa Laboratory Support for Watershed Monitoring		\$150,000	\$150,000
22	Lake Champlain Conservation Effects Assessment Program (CEAP)		\$100,000	\$100,000
23	Lake Carmi Aeration Monitoring		\$150,000	\$150,000
	SUBTOTAL (VI)	\$0	\$400,000	\$400,000
VII. Innovation				
24	Phase 2 Phosphorus Innovation Challenge		\$750,000	\$750,000
	SUBTOTAL (VII)	\$0	\$750,000	\$750,000
VIII. Program Development Related to Act 76 of 2019				
25	Technical Development of Tracking, Accounting, Target-Setting		\$300,000	\$300,000
26	Project Development and Technical Capacity Block Grant		\$260,000	\$260,000
27	Grant and Financial Management Personnel		\$200,000	\$200,000
	SUBTOTAL (VIII)	\$0	\$760,000	\$760,000
	TOTAL	\$50,000	\$10,225,000	\$10,275,000

Table 5. CWIP-managed projects funded by the U.S. Environmental Protection Agency through the Lake Champlain Basin Program that align approximately with SFY 2020

Project Name	Amount
Functioning Floodplains Initiative: Assessment, Prioritization, and Accounting for Floodplain Restoration Efforts	\$600,000
Using GSI (Green Stormwater Infrastructure) and Other Technologies to Reduce Combined Sewer Overflows (CSOs)	\$1,100,000
Design and Construction of Green Stormwater Infrastructure at Public Schools in the Lake Champlain Basin in Vermont	\$1,100,000
Implementation Support Program for Forestry Accepted Management Practices (through Department of Forests, Parks and Recreation)	\$450,000
Farm Agronomic Practices (FAP) Program (through Agency of Agriculture, Food and Markets)	\$475,000
Program to Expand and Accelerate Wetland Conservation and Restoration in Vermont's Champlain Basin (through Department of Fish and Wildlife)	\$1,325,000
Enhanced Implementation of Vermont Environmental Stewardship Program (through Agency of Agriculture, Food and Markets)	\$100,000
Wastewater Treatment Facility Optimization in Lake Champlain Basin	\$150,000
Bioengineering and Shoreland Best Management Practices to Restore Living Shorelands and Protect Water Quality	\$62,000
How Does Groundwater from the Fractured Bedrock and Surficial Aquifers Affect Nutrient Levels (i.e. phosphorous and nitrate) in Surface Waters from the Lake Carmi Watershed?	\$100,000
Total	\$5,462,000

Appendix C: Clean Water Initiative Program Eligible Project Types Definitions and Standards

The following are tables of standard project types and their corresponding definitions, standards, and mandatory performance measures. Project types are categorized by sector and step. Steps are defined as (1) preliminary engineering/design; (2) final engineering/design, and (3) implementation. Some projects do not require preliminary and/or final engineering/design to be prepared for implementation. All agreements include anticipated performance measures, and grantees/contractors must report on performance measures achieved in the mandatory final performance report.

Table 6. CWIP eligible project types and definitions, standards, and mandatory performance measures for multi-sector projects

Project Type	Step	Definition	Performance Measures
Work Crew-supported Project Implementation	NA	On-the-ground implementation of high priority projects that have been identified and utilize a work crew for final planning and assistance for completion. Examples may include but are not limited to stormwater master planning projects, road inventory projects, or lake assessment projects.	Report performance measures for projects based on type of projects completed. May include Number of drainage structures Installed, Acres of buffer planted, and/or Acres of impervious surface treated.
Technical Capacity Building	NA	Expanding the technical capacity of targeted audiences (such as, but not limited to, municipal governments or nonprofit organizations), to increase local water quality-based stewardship through implementation of clean water improvement projects.	Number of trainings held Number of individuals trained Number of landowners/individuals contacted by the trainers ²²

Table 7. CWIP eligible project types and definitions, standards, and mandatory performance measures for agriculture sector

Project Type	Step	Definition	Performance Measures
Agricultural Pollution Prevention – Identification	NA	Assessments of agricultural lands (including cropland, pastureland, barnyards, and production areas) to target pollution prevention projects. These assessments identify areas with the highest contributions of pollutants. Work includes project development and prioritization to target cost effective actions.	Acres assessed/covered by plan Number of projects identified
Agricultural Pollution Prevention – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of agricultural best management practices that reduce pollutants (e.g., nutrients, pathogens, sediment) and improve soil health. Work includes determining landowner interest,	Number of preliminary (30%) designs completed

²² All grants involving outreach activities (workshops, trainings, and public/stakeholder meetings) are required to complete the Clean Water Outreach Efforts ANR Online form within one week of each event taking place. This online form and corresponding instructions are available at: <http://dec.vermont.gov/watershed/cwi/grants>.

Project Type	Step	Definition	Performance Measures
		site/design considerations, and overall suitability in implementing agricultural BMPs.	
Agricultural Pollution Prevention – Final Engineering Design	2	Final design of agricultural best management practices that reduce pollutants (e.g., nutrients, pathogens, sediment) and improve soil health.	Number of final (100%) designs completed
Agricultural Pollution Prevention – Implementation	3	Implementation of agricultural best management practices that reduce pollutants (e.g., nutrients, pathogens, sediment) and improve soil health.	Acres of agricultural land treated

Table 8. CWIP eligible project types and definitions, standards, and mandatory performance measures for developed lands sector, roads subsector

Project Type	Step	Definition	Performance Measures
Road Erosion Inventory	NA	Inventory of roads and/or culverts required to comply with the Municipal Roads General Permit (MRGP). Inventories identify specific road erosion and stormwater problems impacting water quality and project strategies to address those issues. Inventories will inform MRGP implementation schedules, outlining specific remediation actions to be taken over a specific time-period.	Linear miles assessed/covered by plan Number of projects identified
Road Project – Identification	NA	Identification of potential locations to implement road projects outside of a Road Erosion Control Inventory that will correct high priority road related erosion problems and/or collect, store, infiltrate, and filter runoff from transportation infrastructure. Work includes project development and prioritization to target cost effective actions.	Linear miles assessed/covered by plan Number of projects identified
Road Project – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of projects to correct road related erosion problems for gravel and paved roads and road drainage culverts (e.g., ditches, turnouts, check dams, culvert armoring) and stormwater treatment practices to collect, store, infiltrate, and filter runoff from transportation infrastructure (e.g., bioretention, gravel wetlands, wet ponds). Work includes determining landowner/ municipal interest, site/design considerations, permit needs, and overall suitability for implementing project.	Number of preliminary (30%) designs completed
Road Project – Final Engineering Design	2	Final design of projects to correct road related erosion problems for gravel and paved roads and road drainage culverts (e.g., ditches, turnouts, check dams, culvert armoring) and stormwater treatment practices that collect, store, infiltrate, and filter runoff from transportation infrastructure (e.g., bioretention,	Number of final (100%) designs completed

Project Type	Step	Definition	Performance Measures
		gravel wetlands, wet ponds). Work includes obtaining any required permits.	
Road Project – Implementation	3	Implementation of projects to correct road related erosion problems for gravel and paved roads and road drainage culverts (e.g., ditches, turnouts, check dams, culvert armoring) and stormwater treatment practices that collect, store, infiltrate, and filter runoff from transportation infrastructure (e.g., bioretention, gravel wetlands, wet ponds).	Number of drainage structures installed/repaired ²³ Linear feet of road drainage improved

Table 9. CWIP eligible project types and definitions, standards, and mandatory performance measures for developed lands sector, stormwater subsector

Project Type	Step	Definition	Performance Measures
Stormwater utility development (SWU)	NA	Stormwater Utilities provide a dedicated revenue source for stormwater management activities, such as the design, construction, maintenance and administration of stormwater systems, as well as best management practices and other strategies to control and reduce stormwater runoff pollution to surface waters.	Acres of impervious surface covered by an adopted stormwater utility
Stormwater – Illicit Discharge Detection and Elimination (IDDE)	NA	Illicit Discharge, Detection, and Elimination (IDDE) assessment to detect unauthorized/illicit discharges of wastewater or industrial process water into a stormwater-only drainage system. When illicit discharges are detected and confirmed, municipalities are required to address the illicit discharge, preventing wastewater or industrial process water from entering surface waters through stormwater-only infrastructure.	Number of illicit/unauthorized discharges confirmed
Stormwater Master Plan	NA	Assessment of a geographic area (sub watershed or town) to determine where stormwater pollution is generated, and where it can be captured and removed efficiently by projects. Results in a prioritized list of projects and strategies to address/mitigate stormwater runoff, and contain recommendations to preserve natural features and functions, as well as encourage use of low impact green stormwater infrastructure.	Acres assessed/covered by plan Number of projects identified
Stormwater – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of stormwater management practice(s) that collect, store, infiltrate, and filter runoff that contains nutrient and sediment pollution from hard surfaces associated with developed/urban/suburban areas. Work includes determining landowner interest, site/design considerations, permitting needs,	Number of preliminary (30%) designs completed

²³ This refers to smaller erosion control structures/retrofits such as culvert headers (stabilize where water enters/leaves existing culverts) and water bars. This does not include upgrades/replacements of road drainage culverts or stream culverts. Watershed crews may use this measure.

Project Type	Step	Definition	Performance Measures
		and overall suitability for project implementation. Work must result in at least 30% design of project which includes a design concept report, topographic and boundary survey, geotechnical report, and project drawings/ specifications.	
Stormwater – Final Engineering Design	2	Final design of stormwater management practice(s) that collect, store, infiltrate, and filter runoff that contains nutrient and sediment pollution from hard surfaces associated with developed/urban/suburban areas. Work includes securing permit(s) and final operation and maintenance plan agreement(s).	Number of final (100%) designs completed
Stormwater – Implementation	3	Implementation of stormwater management practice(s) that collect, store, infiltrate, and filter runoff that contains nutrient and sediment pollution from hard surfaces associated with developed/urban/suburban areas. Permit(s) and operation and maintenance plan agreement(s) are in place prior to construction.	Acres of impervious surface treated Acres of impervious area removed (if applicable)

Table 10. CWIP eligible project types and definitions, standards, and mandatory performance measures for natural resources sector, forest subsector

Project Type	Step	Definition	Performance Measures
Forestry – Identification	NA	Assessments of forest logging roads, trails, and/or stream crossings to identify areas with the highest levels of erosion and nutrient and sediment pollution. These assessments identify project areas and prioritize project strategies to address where implementing forestry Acceptable Management Practices (AMPs) would be most beneficial and cost-effective in order to reduce erosion to control nutrient and sediment pollution.	Linear miles assessed/covered by plan Number of projects identified
Forestry – Design	2	Final design of forest logging road, trail, and/or stream crossing Acceptable Management Practices (AMPs) project(s) to address erosion to control nutrient and sediment pollution at prioritized locations.	Number of final (100%) designs completed
Forestry – Implementation	3	Implementation of Acceptable Management Practices (AMPs) to address legacy forest erosion from forest and logging roads, trails, and/or stream crossing to control nutrient and sediment pollution at prioritized locations.	Linear feet of road drainage improved Number of stream crossings improved
Forestry – Equipment	3	Purchase or construction of forestry equipment with demonstrated water quality benefit to enhance/improve the implementation of Acceptable Management Practices (AMPs) on logging jobs in Vermont. The AMPs will address water quality concerns and reduce erosion to control nutrient and sediment pollution (e.g., portable skidder bridges that reduce erosion at stream crossings on forest/logging roads).	Number of stream crossings improved

Table 11. CWIP eligible project types and definitions, standards, and mandatory performance measures for natural resources sector, lakes subsector

Project Type	Step	Definition	Performance Measures
Lake Wise Master Planning	NA	Assessments of lake shorelands to identify areas with the highest levels of nutrient/sediment pollution and habitat degradation for targeting pollution prevention and natural resources restoration projects. Work includes project development and prioritization to target cost effective actions.	Acres assessed/covered by plan Number of projects identified
Lake Shoreland – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of lake shoreland habitat restoration projects and lakeshore nutrient/sediment pollution reduction practices at priority locations. Work includes determining landowner interest, site/design considerations, permitting needs, and overall suitability for implementing practices.	Number of preliminary (30%) designs completed
Lake Shoreland – Final Engineering Design	2	Final design of lake shoreland habitat restoration projects and/or lakeshore nutrient/sediment pollution reduction practices at priority locations. Work includes securing permit(s) and final operation and maintenance plan agreement(s).	Number of final (100%) designs completed
Lake Shoreland – Implementation	3	Implementation of lake shoreland habitat restoration projects and/or lakeshore nutrient/sediment pollution reduction practices at priority locations.	Acres of lake shore restored Linear feet of lake shore restored

Table 12. CWIP eligible project types and definitions, standards, and mandatory performance measures for natural resources sector, rivers subsector

Project Type	Step	Definition	Performance Measures
River Project – Identification	NA	Assessments of potential floodplain/stream restoration areas to identify locations with the highest levels of erosion, nutrient and sediment pollution, and/or habitat degradation. This work is done outside of a Stream Geomorphic Assessment or River Corridor Planning Process or as a follow up to that process. These assessments identify sites where stream/river restoration projects will be most beneficial to restore the stream/river to least erosive form over time (i.e., equilibrium condition) and improve habitat. Work includes project development and prioritization to target cost effective actions.	Stream miles assessed/covered by plan Number of projects identified
Stream Geomorphic Assessment-Phase 1	NA	Remote sensing assessment of rivers/streams at the watershed scale to divide rivers/streams into reaches and provide an initial review of stream reach condition.	Stream miles assessed/covered by plan

Project Type	Step	Definition	Performance Measures
Stream Geomorphic Assessment-Phase 2	NA	Field based assessments of stream reaches to determine current geomorphic and habitat conditions and to determine potential management needs and strategies to restore stream to least erosive form over time (i.e., equilibrium). Could be done in conjunction with a Phase 1 Stream Geomorphic Assessment.	Stream miles assessed/covered by plan Number of projects identified
River Corridor Plan	NA	Plan developed to identify and prioritize projects to remediate river instability that is responsible for erosion conflicts, increased sediment and nutrient loading, and a reduction in river habitat. Results in a prioritized list of projects and strategies to address problem areas. Could be done in conjunction with a Stream Geomorphic Assessment.	Stream miles assessed/covered by plan Number of projects identified
Dam Removal – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of a dam removal project to restore hydrologic connectivity of surface waters. Work includes determining landowner interest, site/design considerations, permitting needs, and overall suitability for implementing project. May involve feasibility or alternatives analysis.	Number of preliminary (30%) designs completed
Dam Removal – Final Engineering Design	2	Final design of dam removal project to restore hydrologic connectivity of surface waters. Work includes obtaining any permits required.	Number of final (100%) designs completed
Dam Removal – Implementation	3	Implementation of dam removal project to restore hydrologic connectivity of surface waters. Permit(s) and operation and maintenance plan agreement(s) are in place prior to construction.	Acres of floodplain restored Linear feet of stream restored Stream miles reconnected for stream equilibrium /aquatic organism passage
Floodplain/Stream Restoration – Preliminary Engineering Design	1	Preliminary determination of feasibility and design of stream/river and floodplain restoration projects to restore the stream/river to least erosive condition (i.e., equilibrium condition) and improve habitat. Restoration work includes channel/ floodplain modification to improve equilibrium dimensions/ connections OR removal/retrofit of river corridor/floodplain encroachments or instream structures. Work includes determining landowner interest, site/design considerations, permitting needs, and overall suitability for implementing project.	Number of preliminary (30%) designs completed
Floodplain/Stream Restoration – Final Engineering Design	2	Final design of stream/river and floodplain restoration projects to restore the stream/river to least erosive condition (i.e., equilibrium condition) and improve habitat. Restoration work includes channel/ floodplain modification to improve equilibrium dimensions/ connections OR removal/ retrofit of river corridor/ floodplain encroachments or instream structures. Work includes securing permit(s) and final operation and maintenance plan agreement(s).	Number of final (100%) designs completed

Project Type	Step	Definition	Performance Measures
Floodplain/Stream Restoration – Implementation	3	Implementation of stream/river and floodplain restoration projects to restore the stream/river to least erosive condition (i.e., equilibrium condition) and improve habitat. Restoration work includes channel/ floodplain modification to improve equilibrium dimensions/ connections OR removal/ retrofit of river corridor/ floodplain encroachments or instream structures. Permits and operation and maintenance plan agreement(s) are in place prior to implementation.	For floodplain restoration: Acres of floodplain reconnected/restored For stream restoration: Linear feet of stream restored For in-stream culvert work: Stream miles reconnected for stream equilibrium/aquatic organism passage For encroachment: Number of river corridor/ floodplain encroachments removed or retrofitted
River Corridor – Buffer Planting	3	Planting of buffer area along rivers/streams with trees and shrubs, resulting in an average minimum buffer width of 35-feet (300 stems per acre), planted with native woody vegetation whose location floats with the river. Buffer supports restoration of river corridor/floodplain, filters nutrient and sediment pollution from runoff, and provides habitat benefits.	Acres of riparian corridor buffer planted/restored Linear feet of riparian corridor buffer planted/restored
River Corridor Easement – Design	2	Evaluation of potential river corridor easement projects identified in an assessment that will remediate river instability that is responsible for erosion conflicts, increased sediment and nutrient loading, and a reduction in river habitat. Work includes determining landowner interest, site/design considerations, and overall suitability for participation in the River Corridor Easement Program.	Acres of river corridor scoped for easement Number of projects identified
River Corridor Easement – Implementation	3	Protection in perpetuity of a high priority river corridor to allow for passive restoration of channel stability by allowing natural erosive forces of the river to establish its least erosive form over time (i.e., equilibrium condition). Requires implementation of land use practices promoting water quality and encouraging flood resilience: landowner sells channel management; no new structures/development can occur within the corridor; a 50-foot river buffer of native woody vegetation is established that moves with the river.	Acres of riparian corridor conserved Linear feet of riparian corridor conserved

Table 13. CWIP eligible project types and definitions, standards, and mandatory performance measures for natural resources sector, wetlands subsector

Project Type	Step	Definition	Performance Measures
Wetland Restoration – Identification	NA	Assessments to identify priority wetlands and buffer areas for restoration and protection work to promote water quality benefit, encourage flood resiliency, and provide habitat benefits. Assessments involve project development and prioritization to target cost effective actions.	Acres assessed/covered by plan Number of projects identified
Wetland Restoration – Preliminary Engineering Design	1	Preliminary design of wetland and buffer area restoration and protection projects to promote water quality benefit, encourage flood resiliency, and provide habitat benefits. Work may include determining landowner/ municipal interest, site/design considerations, permit needs, and overall suitability for implementing project.	Number of preliminary (30%) designs completed
Wetland Restoration – Final Engineering Design	2	Final design of wetland and buffer area restoration and protection projects to promote water quality benefit, encourage flood resiliency, and provide habitat benefits. Work may include securing permit(s) and operation and maintenance plan agreements, and final stewardship agreement(s).	Number of final (100%) designs completed
Wetland Restoration – Implementation	3	Implementation of wetland and buffer area restoration and protection projects to promote water quality benefit, encourage flood resiliency, and provide habitat benefits.	Acres of wetland restored