



Vermont Clean Water Initiative: Stormwater and Water Quality Coordination Efforts

To: Senate Committee on Transportation
From: Emily Bird, Vermont DEC
On: February 23, 2021



AGENCY OF ADMINISTRATION
AGENCY OF AGRICULTURE, FOOD & MARKETS
AGENCY OF COMMERCE & COMMUNITY DEVELOPMENT
AGENCY OF NATURAL RESOURCES
AGENCY OF TRANSPORTATION

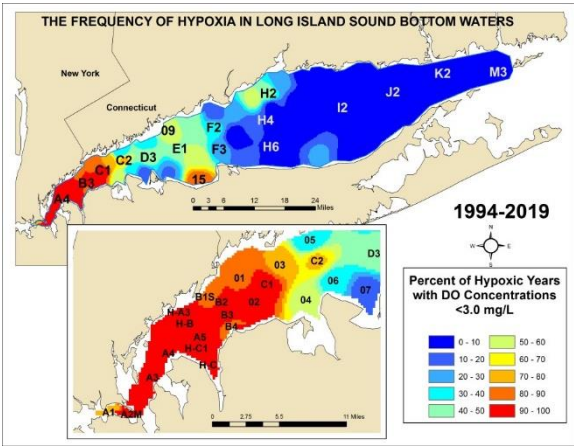
Vermont's Water Quality Goals



Lake Memphremagog Phosphorus Total Maximum Daily Load



Phosphorus Total Maximum Daily Loads for Vermont Segments of Lake Champlain



Nitrogen TMDL for Dissolved Oxygen in Long Island Sound

- Hudson River Drainage
- Lake Champlain TMDL (Phosphorus)
- Lake Memphremagog TMDL (Phosphorus)
- Long Island Sound TMDL (Nitrogen)

Fund



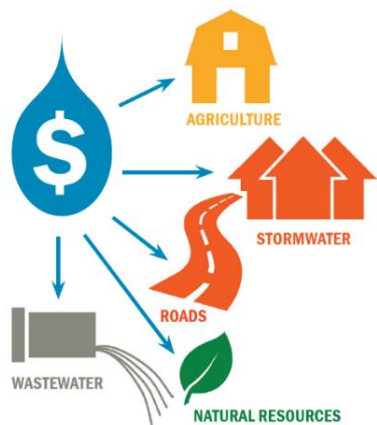
Prioritize



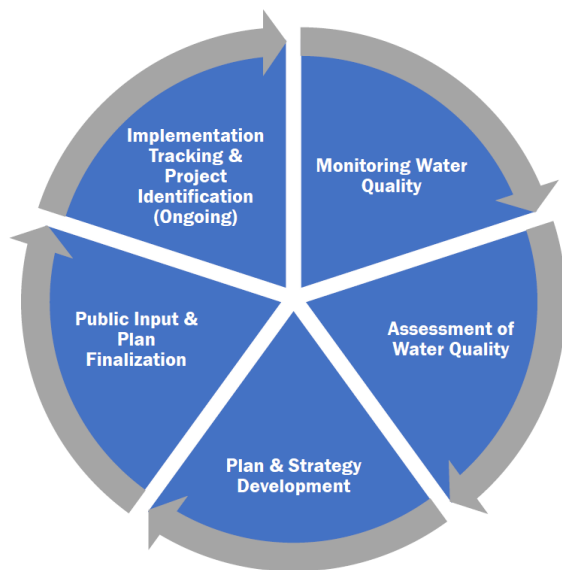
Implement



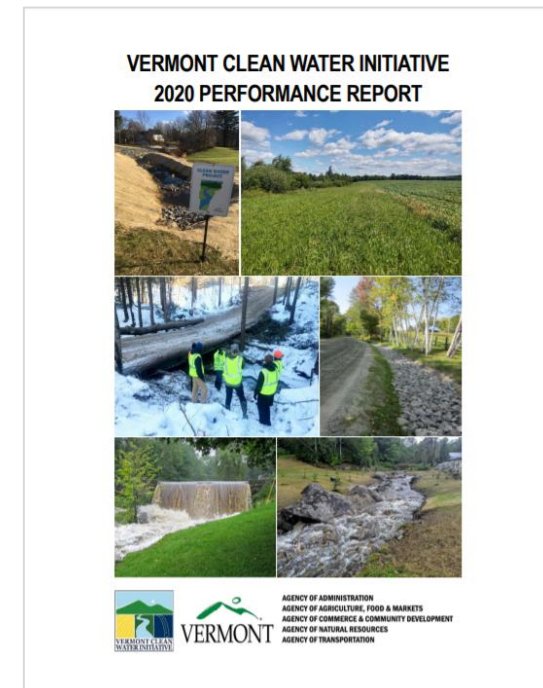
Report



Five-Year Tactical Basin Planning Cycle



Land Use	Clean Water Project Objectives and Example Project Images	
 AGRICULTURE	Addresses runoff and soil erosion from farm production areas and farm fields	
 STORMWATER	Addresses stormwater runoff from developed lands, such as parking lots, sidewalks, and rooftops	
 NATURAL RESOURCES	Restores functions of "natural infrastructure"—river channels, floodplains, lakeshores, and wetlands	
 ROADS	Addresses stormwater runoff from roads	
 WASTEWATER	Decreases nutrients (phosphorus and nitrogen) through enhanced wastewater treatment and addresses aging infrastructure	



Clean Water Board recommends annual budget

Tactical Basin Planning and sector-based assessments prioritize projects

State agencies fund clean water projects across land use sectors; projects compelled by regulatory programs

State agencies report clean water project investments and results

**VERMONT CLEAN WATER INITIATIVE
2020 PERFORMANCE REPORT**



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Part 1: Clean Water Investment Report

State investments in clean water projects and results of investments (project outputs and estimated pollutant reductions)

Part 2: Lake Champlain TMDL Progress Report

Estimated total phosphorus load reductions within the Lake Champlain basin associated with clean water projects completed through state and federal funding programs and regulatory programs

Scope of Vermont Clean Water Tracking

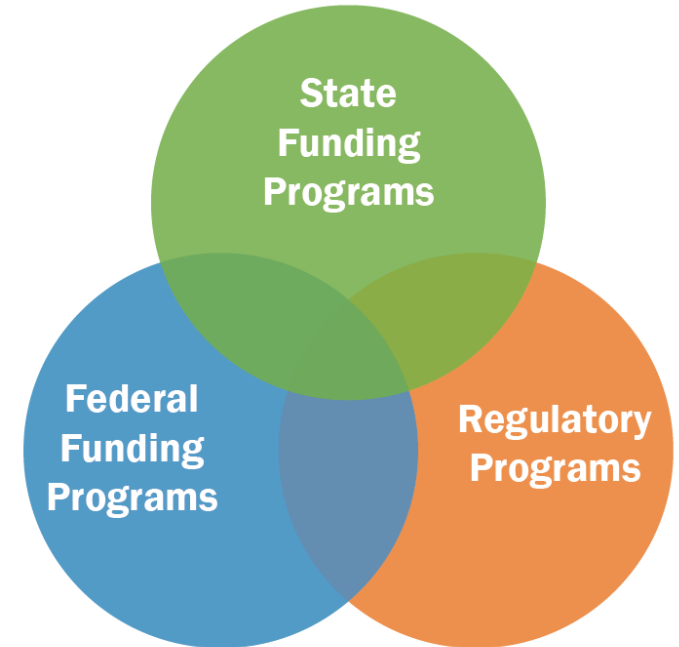


Table 8. Outputs of state-funded stormwater treatment and road erosion remediation projects implemented/constructed statewide, SFY 2016-2020

Project Output Measures	2016	2017	2018	2019	2020	Total
Acres of existing impervious surface treated by stormwater treatment practices	<1	87	35	133	77	332
Miles of municipal road drainage and erosion control improvements	1	12	68	88	31	200
Number of municipal road drainage and stream culverts replaced	-	104	134	245	119	602
Cubic yards of Class IV road gully erosion remediated	-	-	260	33	-	293
Cubic yards of catch basin outlet erosion remediated	-	-	1	784	-	785
Acres stabilized through use of hydroseeder/mulcher equipment per year	-	-	19	98	248	365

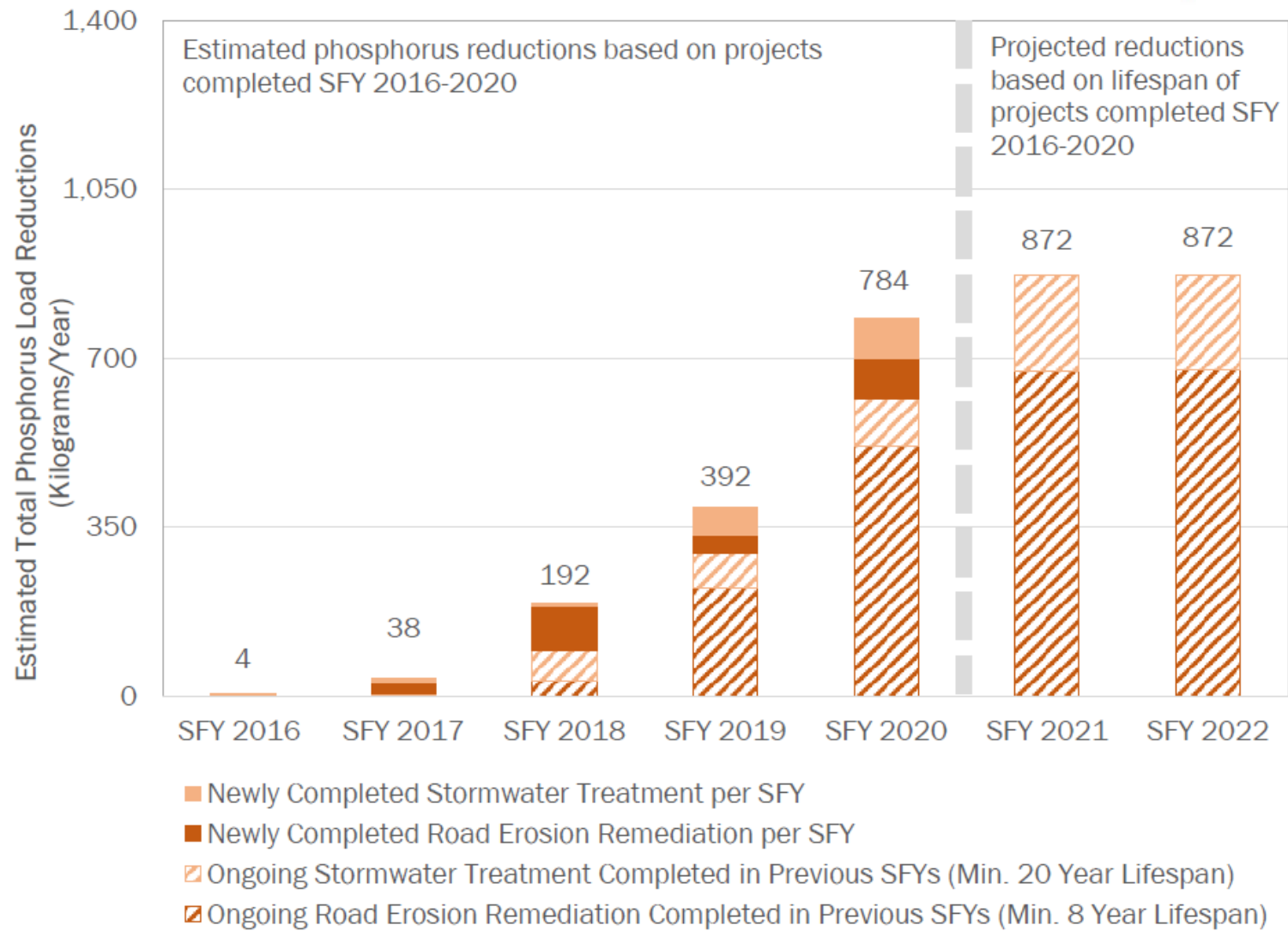


Figure 27. Annual estimated total phosphorus load reductions (kilograms per year) associated with state-funded stormwater treatment and state-funded and regulatory road erosion remediation projects¹⁴ implemented/constructed in the Lake Champlain and Memphremagog basins, SFY 2016-2020¹⁵



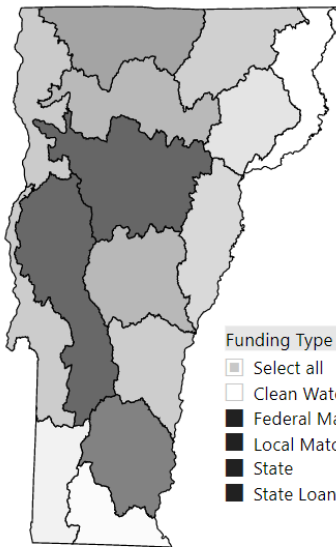
Learn More

Clean Water Interactive Dashboard

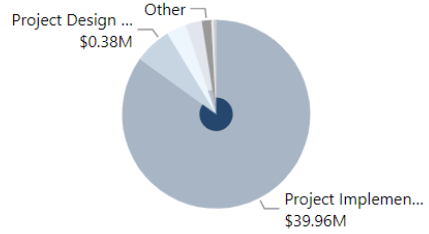
Shown filtering clean water project investments to road projects

Clean Water Investments

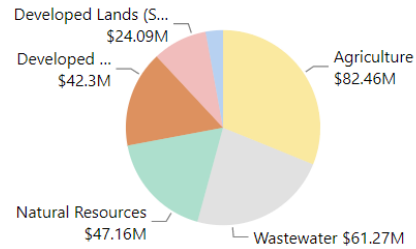
Investments by Tactical Basin Plan



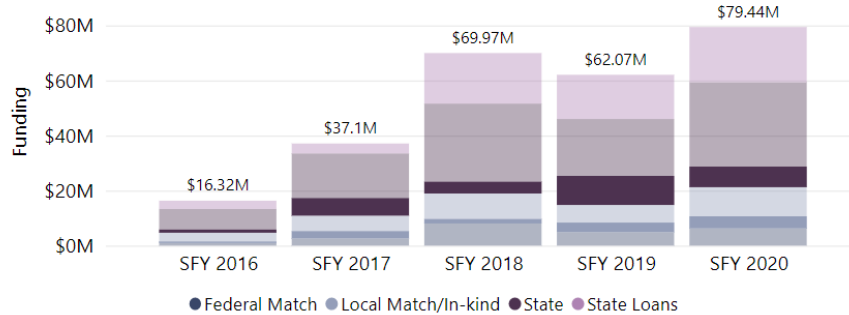
Investments by Project Step



Investments by Sector



Investments by State Fiscal Year & Funding Type



For more information on clean water project investments, see "Part 1.A. Vermont's Clean Water Investments" and "Appendix A" of the [Vermont Clean Water Initiative 2020 Performance Report](#).

For instructions and tips on how to interact with these data, visit the [Clean Water Interactive Dashboard Help page](#).

Clean Water Projects Explorer

Shown searching state-funded road projects

Clean Water Project Explorer <<

Project Status

- Potential Projects
- Projects In Progress**
- Completed Projects

Keyword

Sector

Step

Type

Agency

County

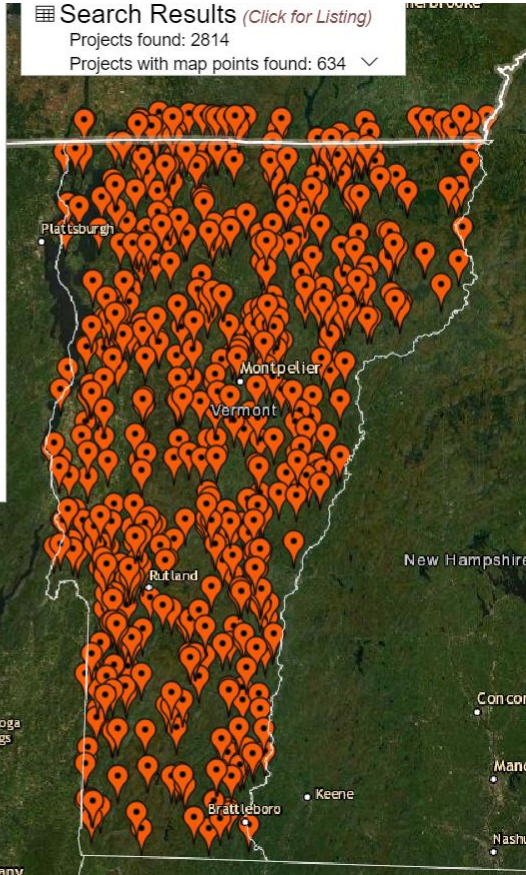
Town

Basin

Include Multi County Projects

Include Multi Basin Projects

WPD ID



Available at: <https://dec.vermont.gov/water-investment/cwi/projects/clean-water-portal>

