

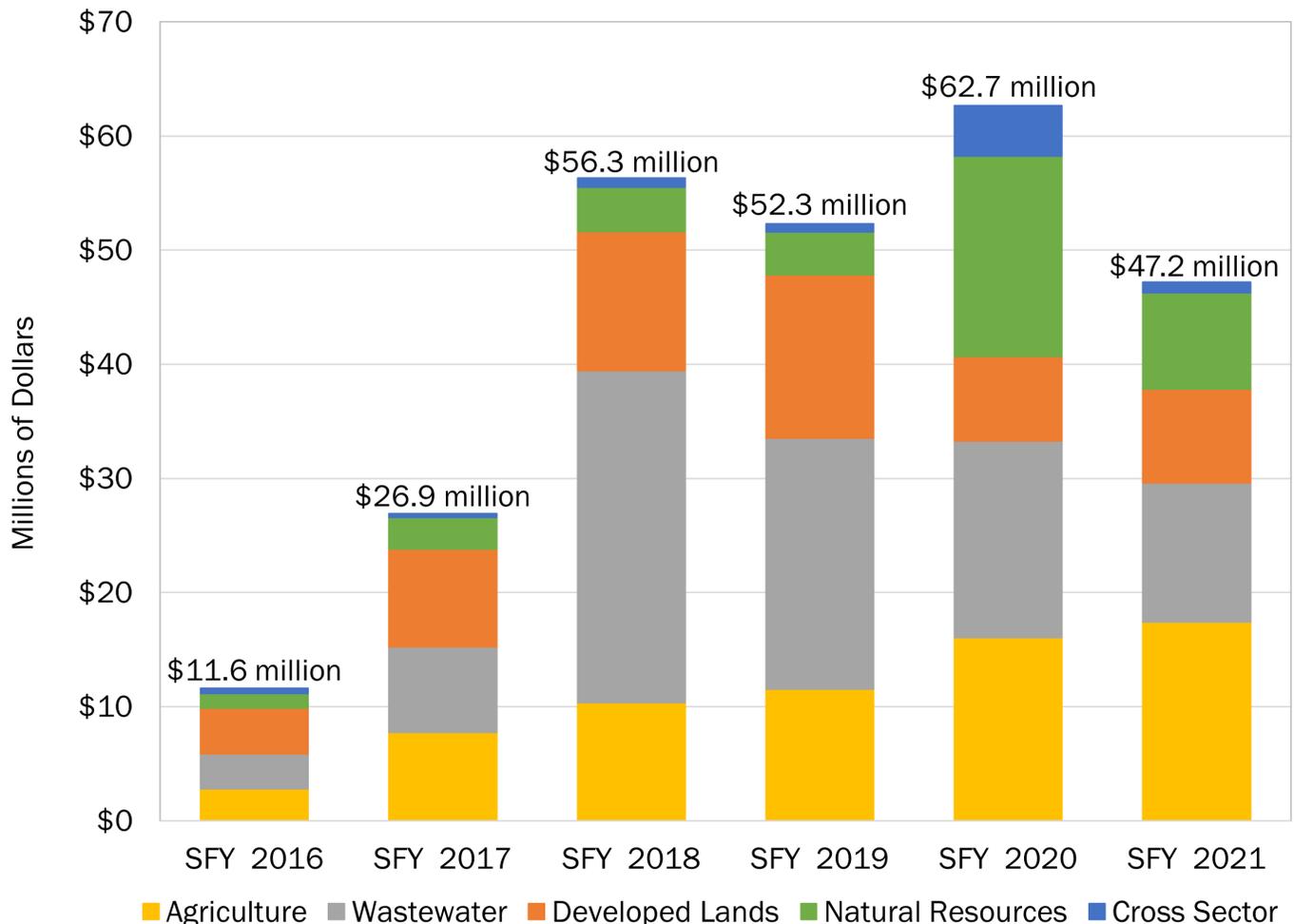
Vermont Clean Water Initiative 2021 Performance Report

Executive Summary

Vermont's lakes, rivers, wetlands, and reservoirs are important environmental and economic resources for residents and visitors. Protecting and restoring water quality is a priority for Vermont. The State of Vermont funds clean water projects to reduce pollution from washing into waters from the landscape. The *Vermont Clean Water Initiative 2021 Performance Report* (Report) summarizes efforts of state government and its partners to improve water quality across Vermont from State Fiscal Year (SFY) 2016 through 2021 (July 1, 2015 – June 30, 2021). View the full Report here: tinyurl.com/CWIProjects.

Clean Water Investments and Results

The State of Vermont invested over \$257 million in clean water projects through grants, contracts, and loans from SFY 2016 to 2021. The following figure summarizes state clean water investments by land use sector statewide. Reaching Vermont's water quality goals requires investments across all land use sectors. Annual clean water investments have increased more than four-fold



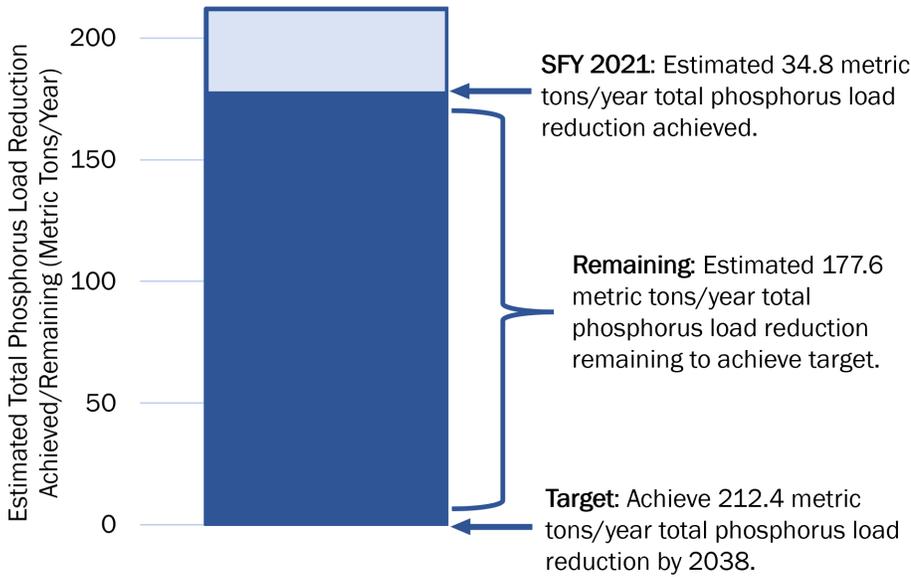
Clean water projects target nutrient and sediment pollution statewide across land use sectors to improve Vermont’s water quality. The following figure highlights the results of state-funded projects completed SFY 2016-2021. See Report Chapter 2 for more information/results.

Land Use	Clean Water Project Objectives	Highlights by Land Use Sector SFY 2016-2021
 AGRICULTURE	<p>Addresses runoff and soil erosion from farm production areas and farm fields.</p>	<ul style="list-style-type: none"> • Over 155,000 acres of agricultural conservation practices implemented on fields and pastures • Over 600 structural practices installed in barnyards/production areas
 NATURAL RESOURCES	<p>Restores functions of “natural infrastructure” – river channels, floodplains, lakeshores, and wetlands</p>	<ul style="list-style-type: none"> • Over 360 riparian acres (adjacent to rivers, lakes, and wetlands) actively restored through buffer planting and floodplain and lakeshore restoration • Over 1,800 riparian acres passively restored through river corridor and wetland easements
 ROADS STORMWATER DEVELOPED LANDS	<p>Addresses stormwater runoff from developed lands, such as parking lots, sidewalks, rooftops, and roads</p>	<ul style="list-style-type: none"> • 260 municipal road miles improved through drainage and erosion control best practices • Over 440 acres of existing impervious/hard surfaces treated by stormwater practices
 WASTEWATER	<p>Decreases nutrients (phosphorus and nitrogen) through enhanced wastewater treatment and addresses aging infrastructure</p>	<ul style="list-style-type: none"> • 6 wastewater treatment facility upgrades completed • 6 combined overflow abatements completed

Total Maximum Daily Load (TMDL) Progress and Results

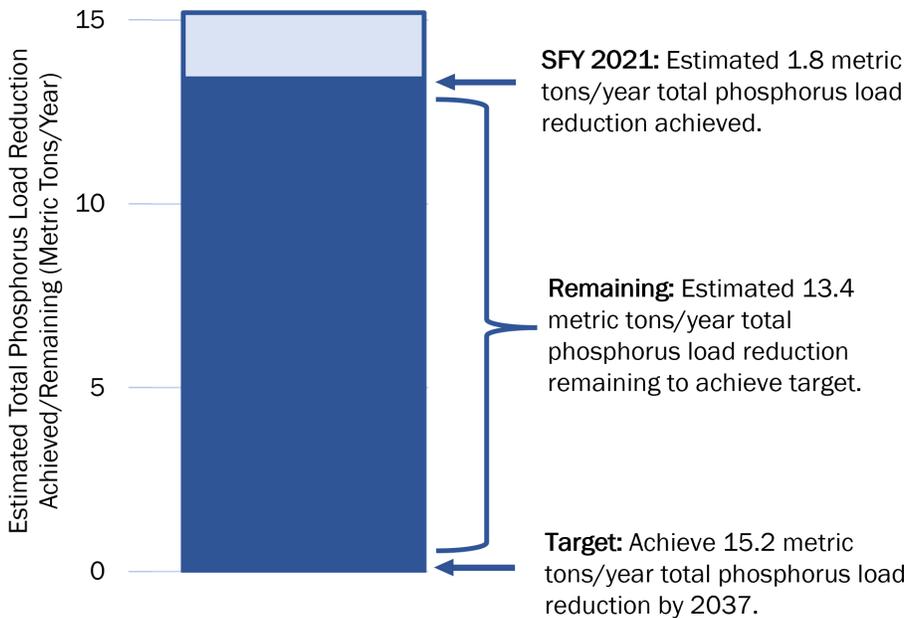
The 2021 Performance Report summarizes the state’s progress implementing the Lake Champlain and Lake Memphremagog phosphorus Total Maximum Daily Loads (TMDLs). TMDLs identify water pollution (e.g., phosphorus) reductions required to restore water quality. The figures on the following page present the estimated total phosphorus load reduction (metric tons per year) achieved by clean water projects that support implementation of the Lake Champlain TMDL and Lake Memphremagog TMDL completed/in effect SFY 2016-2021. See Report Chapters 3 and 4 for more information. Estimates include activities implemented through state and federal funding programs and regulatory programs.

Lake Champlain TMDL Progress



The Lake Champlain TMDL requires a phosphorus reduction of 212.4 metric tons per year by 2038. As of 2021, an estimated 34.8 metric tons of phosphorus reduction has been achieved. This represents 16 percent of the reduction required to achieve Vermont’s water quality goals.

Lake Memphremagog TMDL Progress



The Lake Memphremagog TMDL requires a phosphorus reduction of 15.2 metric tons per year by 2037. As of 2021, an estimated 1.8 metric tons of phosphorus reduction has been achieved. This represents 12 percent of the reduction required to achieve Vermont’s water quality goals.

Learn More and Explore Data

Explore investment, results, and phosphorus data behind the *Vermont Clean Water Initiative 2021 Performance Report* in the online Clean Water Interactive Dashboard via the Clean Water Portal at: tinyurl.com/CWIPProjects.

Clean Water Interactive Dashboard

Welcome to the Clean Water Interactive Dashboard

The Clean Water Interactive Dashboard (CWID) is a data visualization tool, built using Microsoft Power BI, that allows interested parties to filter and customize Vermont's clean water data presented in the *Vermont Clean Water Initiative 2021 Performance Report*. Click the links below to navigate to each page of data.

- Project Output Measures by County
- Project Output Measures by Basin
- Phosphorus Reduction by Tactical Basin Plan
- Cost Effectiveness
- Investments by County
- Investments by Basin

Measure Definitions

- Project Output Measures** quantify the results of clean water projects.
- Pollution Reduction Measures** estimate nutrient load reductions achieved by clean water projects.
- Investment Measures** summarize how the State of Vermont invests in clean water projects from planning to design and implementation.

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