



**State of Vermont
Department of Environmental Conservation
Watershed Management Division**

2016 Annual Report



Clean Water Initiative Program

The Clean Water Initiative Program—formerly the Ecosystem Restoration Program—coordinates implementation of clean water restoration activities and provides financial resources to support nonpoint source pollution controls. The Program also promotes and funds

natural resources restoration, including floodplains, river corridors, wetlands, and riparian areas for flood resilience, water quality, and habitat benefits. In addition, the Program tracks and communicates progress toward achieving and maintaining clean water statewide.

With support from an Ecosystem Restoration Grant, the Vermont River Conservancy and landowners restored nearly 24 acres of floodplain along 1,800 feet of the Lamolle River in the Town of Fairfax. The project will enhance flood resilience and improve water quality by providing sediment and nutrient storage during flood events.



KEY INITIATIVES

Accomplished:

- Implemented nearly \$4.5M of projects through a 5-year \$16M grant from the Natural Resources Conservation Service
- Coordinated an extensive stakeholder involvement process for input to Clean Water Fund allocations
- Developed a tracking system for water quality projects
- Committed \$101,888 for wetland incentives in high priority areas

Upcoming:

- Establish and implement long-term funding for clean water efforts
- Reorganize grant program to coordinate with priority basin plan projects
- Quantify environmental benefits of outreach and technical assistance
- Continue implementation of critical on-farm improvements with the Agency of Agriculture

Amount of funding provided for priority clean water improvement projects:

\$4.4M



Lake Iroquois Recreation District Addresses Stormwater Runoff and Erosion

The swimming beach at Lake Iroquois is an important resource for residents of the four towns that make up the Lake Iroquois Recreation District (LIRD) and other Vermonters. An ecological landscape design, erosion control, and stormwater management project to protect the beach and adjacent lake's water quality was recently funded through a Clean Water Initiative Program Ecosystem Restoration Grant.

The project consisted of the construction of a bioretention stormwater treatment and groundwater diversion facility to minimize stormwater runoff and associated erosion. It also provided plantings and restoration work along the shoreline to further mitigate erosion and enhance habitat.

Prior to the project's implementation, each significant rainfall would send water gushing across the parking lot and the beach. This torrent of water pushed road gravel and beach sand into the lake and carved deep trenches in the shoreland. This erosion added phosphorus to the lake from the finer particles in the sand and decreased the lake's clarity, which adversely impacted aquatic habitat. About 16 yards of sand, on average, were added each season, which by some accounts contributed as much as 6.4 kg of phosphorus to the lake from beach erosion alone.

The newly installed bioretention stormwater treatment structure

will filter phosphorus and other nutrients and decrease the volume of runoff flowing into Lake Iroquois, and thereby runoff-related erosion. Trees planted along the lakeshore will stabilize the bank, reduce erosion, and improve habitat.

The completed project will help improve the lake's water quality and allow the LIRD to continue to provide a valuable recreational resource for years to come.

Trees planted along the shoreline stabilize the bank and reduce erosion.



Before, left, and after, right, the installation of a bioretention stormwater treatment structure at the Lake Iroquois public beach parking lot. The project was completed by the Lake Iroquois Recreation District with support from an Ecosystem Restoration Grant.



- Coordinate Implementation Across All Sectors

Wastewater Treatment



Forestry



**Developed Land
≥ 3 acres**



River Channels



Roads

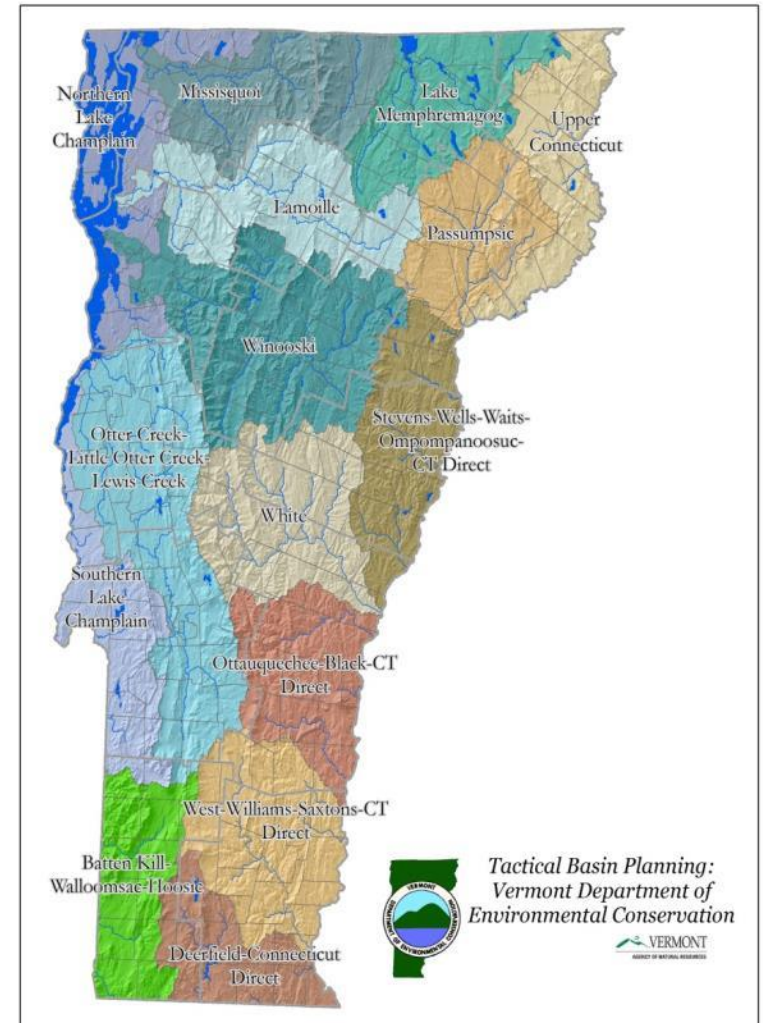


Agriculture



- Work closely with MAAP to Prioritize Implementation via Tactical Basin Planning

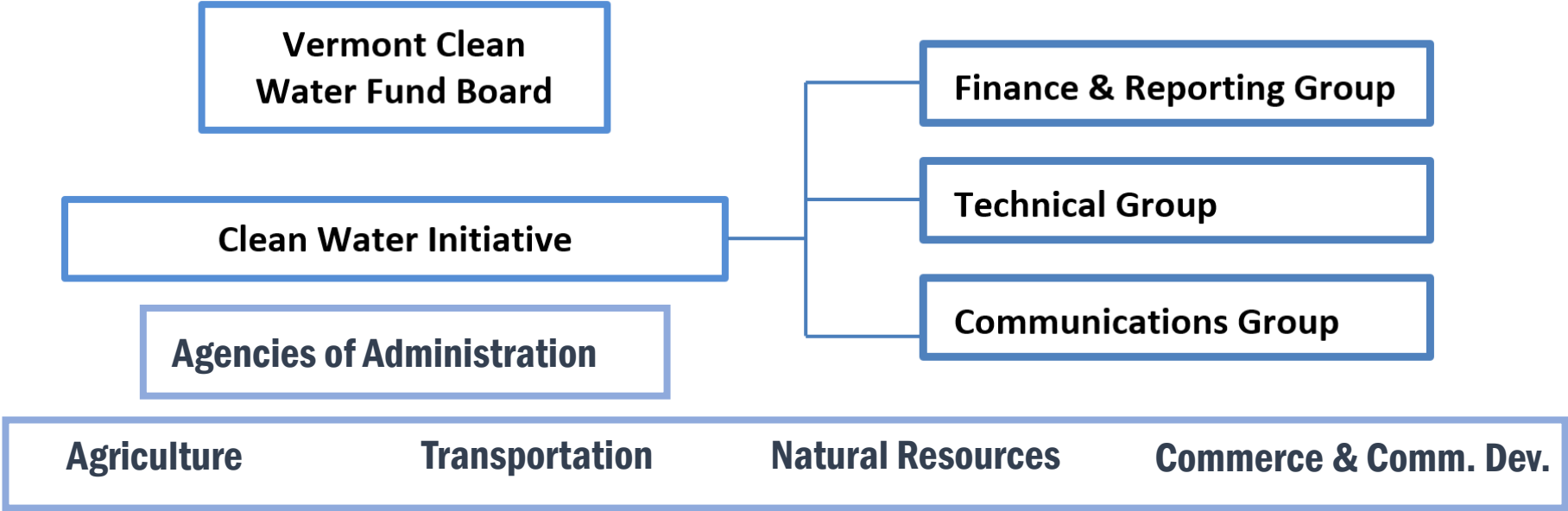
- Tactical Plans are the implementation vehicle for the Lake Champlain TMDL
- 15 Planning Basins
- 5 Planners
- Plans revisited every 5 years



- Provide Administrative Support the Clean Water Fund Board



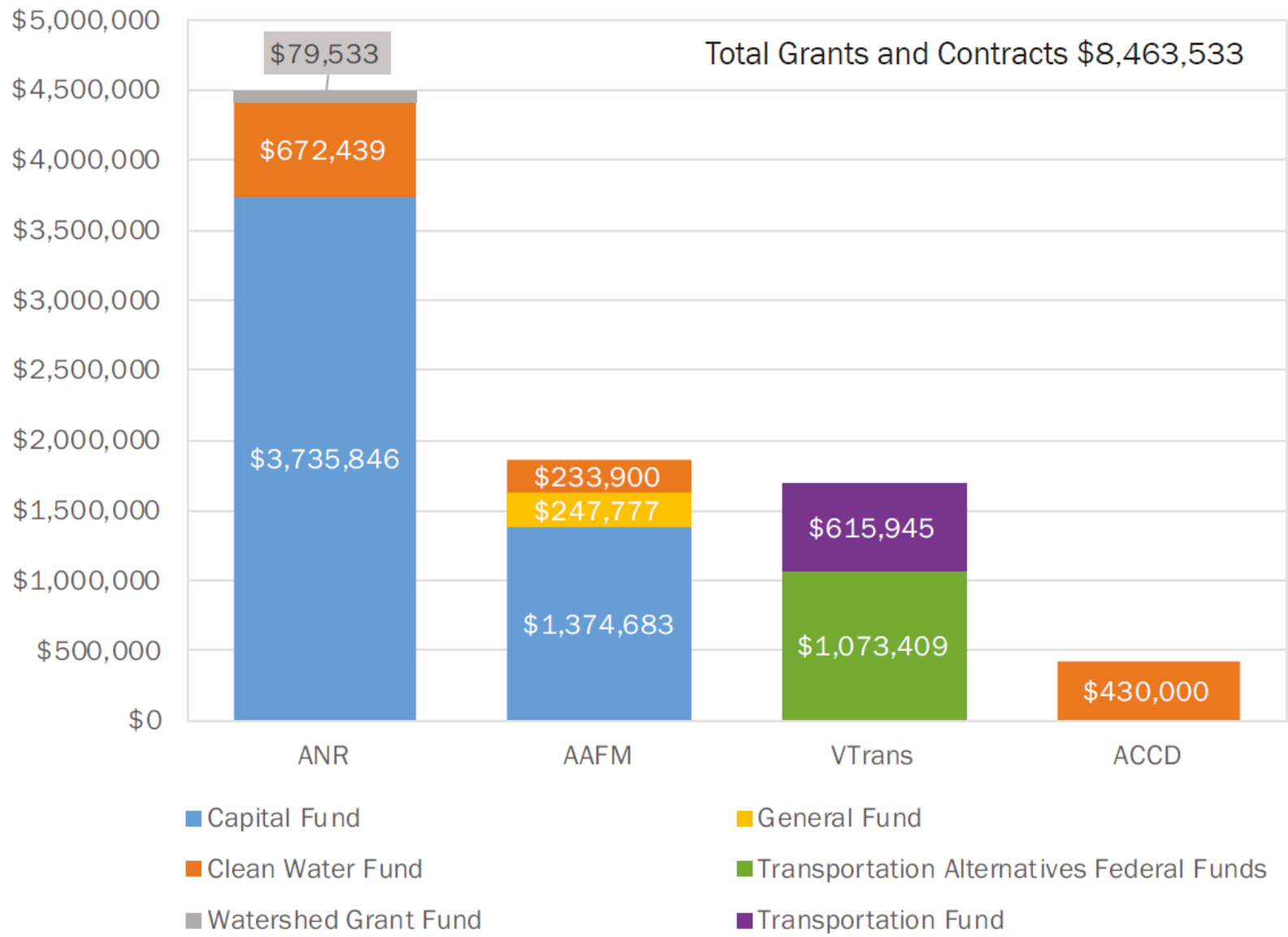
Vermont Clean Water Initiative



- Manage Clean Water Funding

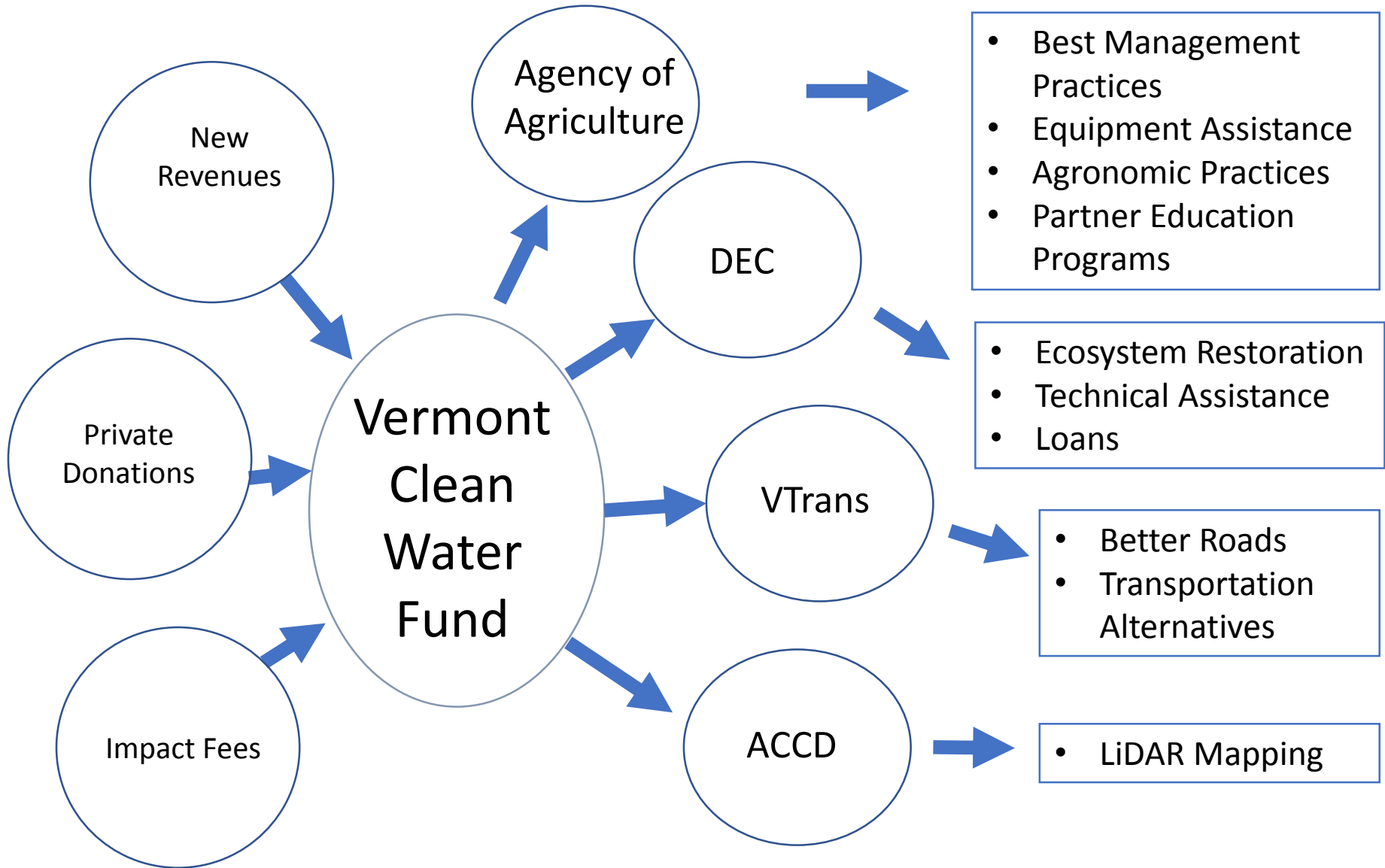


• Manage Clean Water Funding

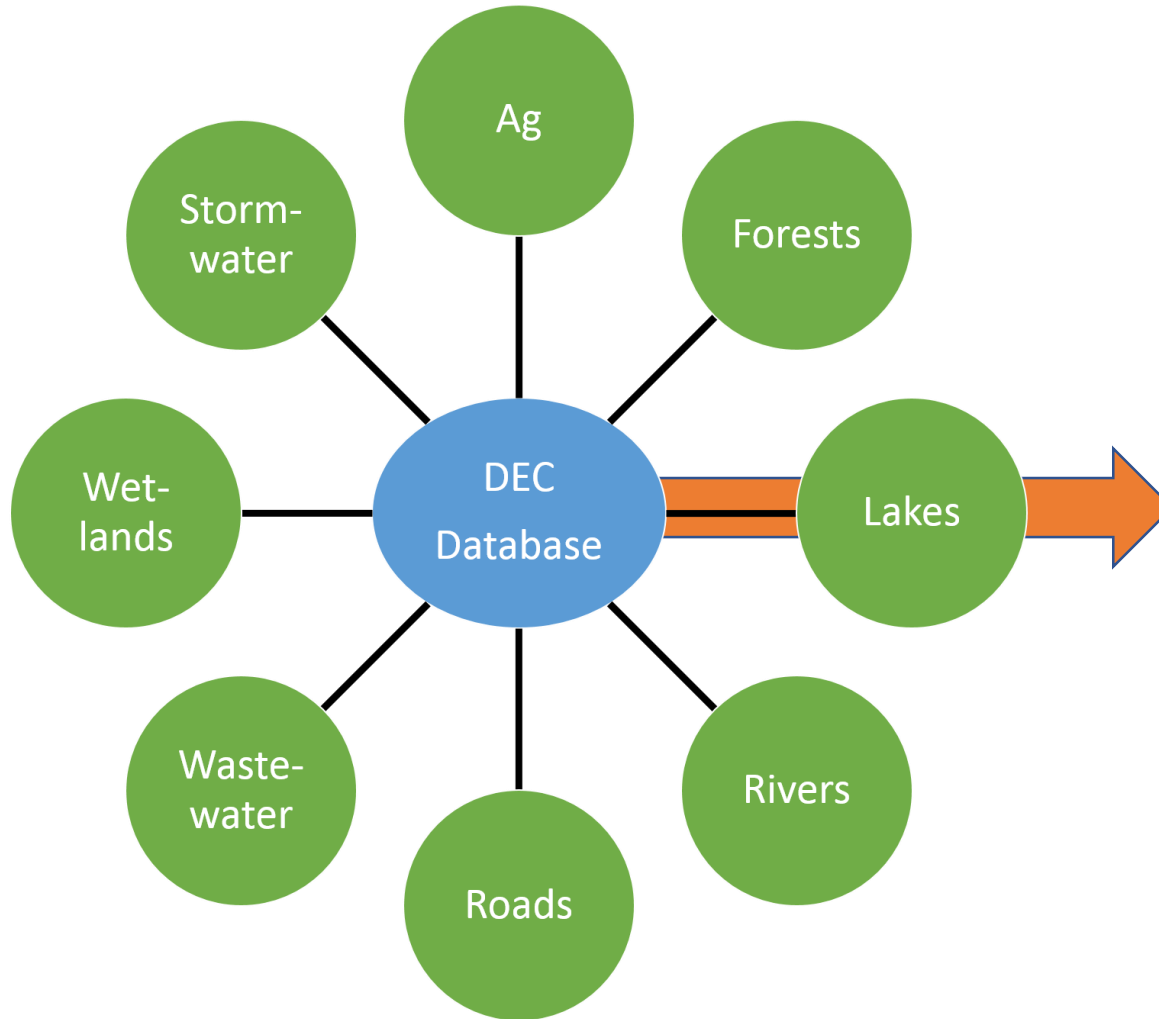


Vermont New Clean Water Fund

Uses Existing Programs to Implement Projects



- Work with other Agencies to Track the State's Progress



Tracking Clean Water Restoration Activities

Clean Water Investment & Performance Report

Financial Outcomes

Social Outcomes

Performance Outcomes

Environmental Outcomes

- Work with other Agencies to Track the State's Progress



Social measures on the level of clean water outreach and technical assistance provided by CWI partner agencies to support implementation of clean water restoration projects;



Investment measures on dollars invested in clean water restoration projects, addressing planning, design, and implementation of water quality improvement practices;



Measures of **project outputs**, quantifying the results of clean water restoration projects completed by project type; and



Measures of **environmental outcomes**, quantifying nutrient reductions achieved through State-funded clean water restoration projects.

- Communicate on our Progress

VERMONT CLEAN WATER INITIATIVE 2016 INVESTMENT REPORT



Agency of Administration
Agency of Agriculture, Food and Markets
Agency of Commerce and Community Development
Agency of Natural Resources
Agency of Transportation

VERMONT CLEAN WATER INITIATIVE 2016 INVESTMENT REPORT

Summary of the Vermont Clean Water Initiative, Describing 2016 State Investments,
Actions, Outcomes and Future Recommendations

Submitted by the Vermont Clean Water Fund Board
December 30, 2016

This report satisfies the following statutory reporting requirements:

Clean Water Investment Report
2015 Act 64, Section 37, codified at 10 V.S.A. § 1389a

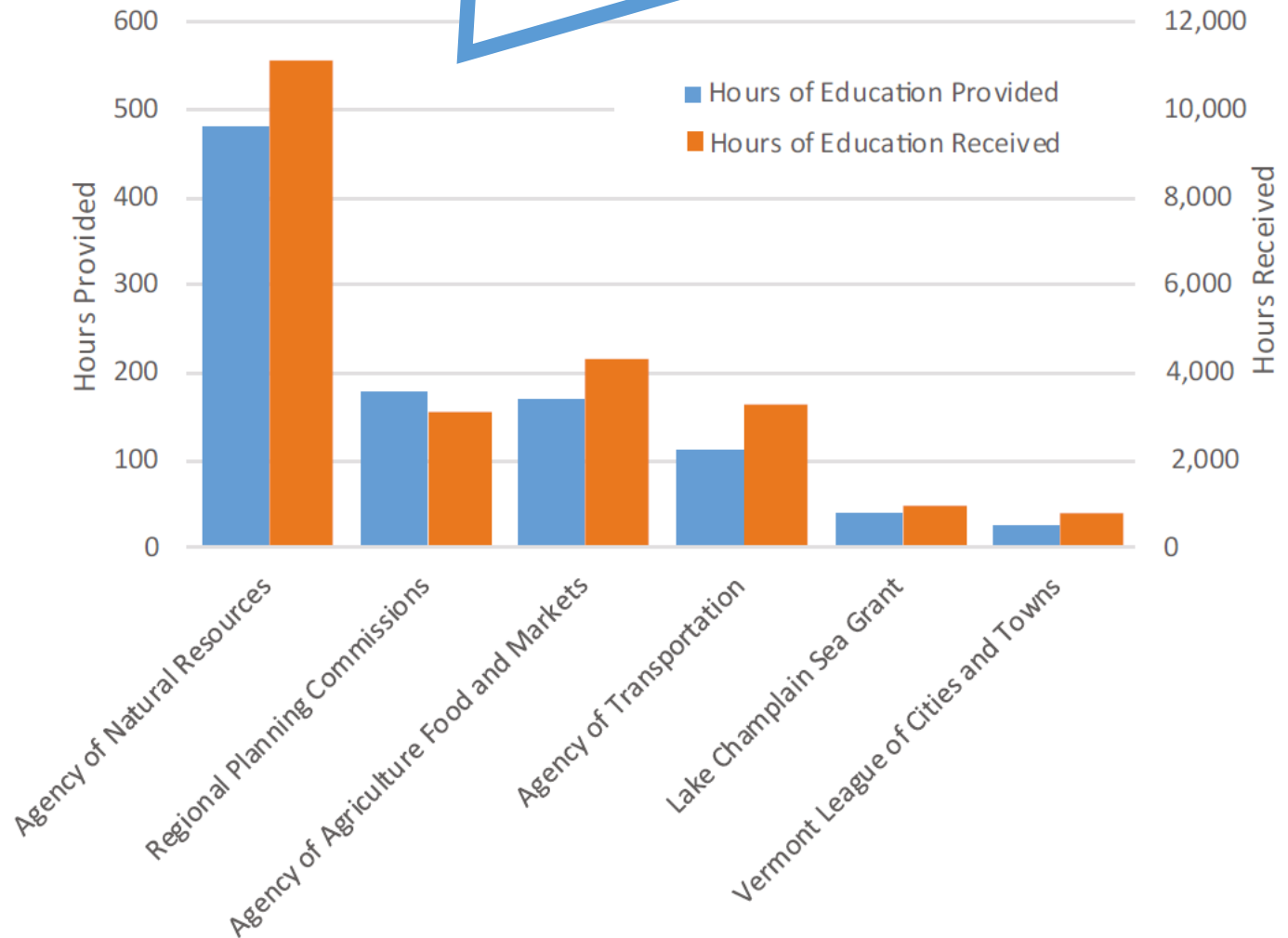
Execution of the Implementation Plan for the Lake Champlain Total Maximum Daily Load (TMDL)
2015 Act 64, Section 36, codified at 10 V.S.A. § 1386(d)

Activities and Progress of Water Quality Ecosystem Restoration Programs
2015 Act 64, Section 36, codified at 10 V.S.A. § 1386(e)

Report available electronically at: <http://dec.vermont.gov/watershed/cwi/cwf#report>

- Engage the Public

Within ANR outreach, WSMD-CWIP held 21 outreach events and provided 39 hours of education; and 1,185 hours of education were received by 745 attendees





2016-2017 Vermont Clean Water Initiative Brown Bag Series

Lecture Series on the Vermont Clean Water Act and its Implementation

- When:** Second Thursday of each month September 2016-June 2017, 11:00 AM-noon (unless otherwise noted)
- Where:** Winooski Conference Room, Vermont Department of Environmental Conservation (DEC)
1 National Life Drive, Main 2, Montpelier, VT (unless otherwise noted)
- RSVP:** If you plan to attend in person, please RSVP to anr.cleanwatervt@vermont.gov
- Live-Stream:** Visit <http://dec.vermont.gov/watershed/cwi/outreach> for details and link to live-stream

Thursday Dec. 8, 2016

11:00 AM-Noon

Winooski Room

Stormwater Manual and Updates on Stormwater Regulations

Speakers: Padraic Monks and Kevin Burke, DEC

Thursday Jan. 12, 2017

11:00 AM-Noon

Winooski Room

Municipal Roads General Permit Update

Speaker: Jim Ryan, DEC

Thursday Feb. 9, 2017
11:00 AM-Noon
Winooski Room

Phosphorus Controls for Municipal Stormwater and State Highways

Speaker: Christy Witters, DEC

Thursday Mar. 9, 2017
11:00 AM-Noon
Winooski Room

Agricultural Tile Drains Update

Speaker: Vermont Agency of Agriculture Food and Markets

Thursday Apr. 13, 2017
11:00 AM-Noon
Winooski Room

Rivers Projects & TMDL Implementation

Speaker: Staci Pomeroy, DEC

Thursday May 11, 2017
11:00 AM-Noon
Winooski Room

Wetlands Projects & TMDL Implementation

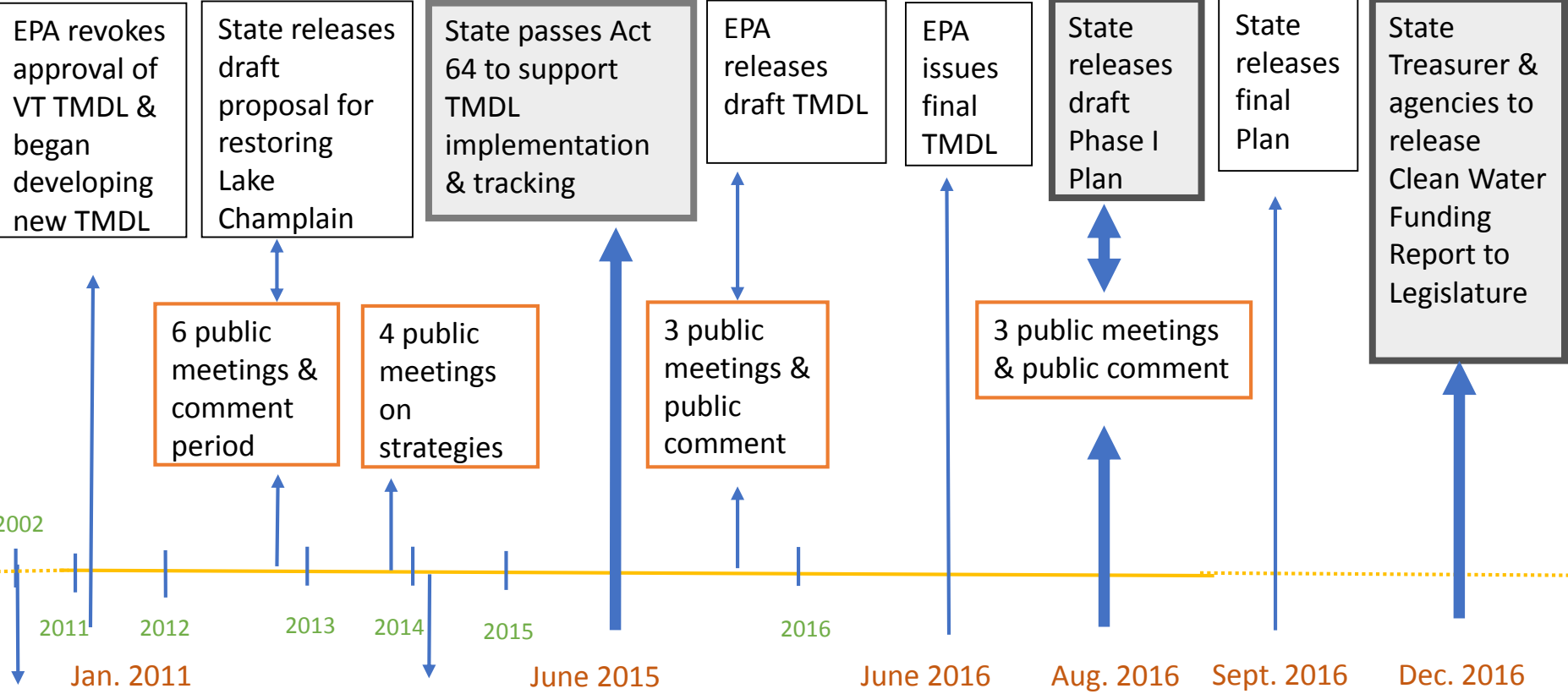
Speaker: Laura Lapierre, DEC

Thursday June 8, 2017
11:00 AM-Noon
Winooski Room

Update on Regional Conservation Partnership Programs (RCPP) in Vermont

Speaker: Alli Compagna, DEC

Lake Champlain TMDL and Phase I Implementation Plan Key Milestones 2011-2016



EPA revokes approval of VT TMDL & began developing new TMDL

State releases draft proposal for restoring Lake Champlain

State passes Act 64 to support TMDL implementation & tracking

EPA releases draft TMDL

EPA issues final TMDL

State releases draft Phase I Plan

State releases final Plan

State Treasurer & agencies to release Clean Water Funding Report to Legislature

6 public meetings & comment period

4 public meetings on strategies

3 public meetings & public comment

3 public meetings & public comment

EPA approved VT/NY Lake Champlain TMDL which includes detailed plan & budget

13 additional public meetings statewide on strategies



Clean Water Funding Legislative Report Timeline & Stakeholder Meetings

23 Stakeholder and Public Outreach Events, March - November

Mar Spring Stakeholder Meetings (6)

Focus: Introduction to revenue needs and funding options

Jun

Aug Fall Stakeholder Meetings (16)

Focus: Evaluation of funding needs and options

Oct

Nov Public Meeting

Public Comment Period
Nov. 16th - Dec. 1st

Jan Final Report

6 Spring Stakeholder Meetings

16 Autumn Stakeholder Meetings

- 3 Business Community Meetings
- 2 Chambers of Commerce Meetings
- 1 Business Roundtable Meeting
- 4 Municipality-Focused Meetings
- 2 Agricultural Sector Meetings
- 1 Non-Governmental Meeting
- 3 State Agency Secretary Meetings

1 Public Meeting
To Discuss Revenue Options



Vermont Clean Water Initiative

An aerial photograph of a Vermont landscape. In the foreground, there's a large, dark blue lake. A road crosses the lake, leading to a small farmstead with a white barn and a silo. Beyond the farm, there are green fields and a large, brown, tilled field. In the background, there's a large, light blue lake, possibly Lake Champlain, with a forested shoreline.

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