

Vermont's Clean Water Service Provider Network to Reduce Nonpoint Source Pollution

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Vermont Department of Environmental Conservation (VTDEC)

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



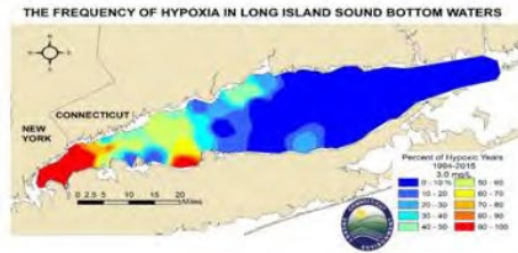
Phosphorus TMDLs for Vermont Segments of Lake Champlain



Lake Memphremagog Phosphorus TMDL

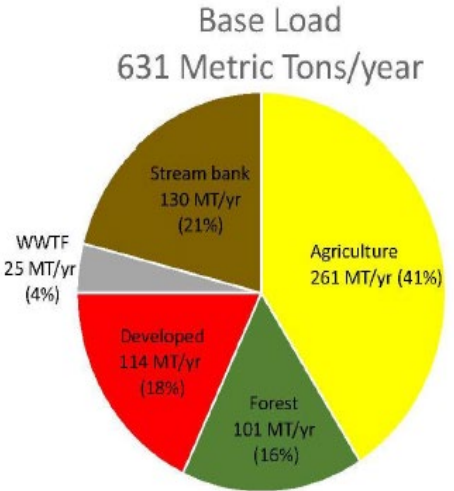


Nitrogen TMDL for Dissolved Oxygen in Long Island Sound

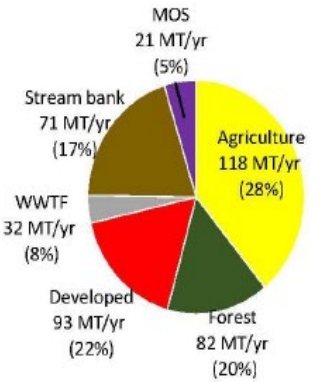


Vermont's Clean Water Priorities and Clean Water Restoration Plans (i.e., Total Maximum Daily Loads, or TMDLs)

The Lake Champlain and Lake Memphremagog Phosphorus TMDL's require reductions across agriculture, developed, WWTF, stream and forest lands to meet TMDL reduction targets



Vermont Reduction Required=213 mt/yr (34%)



TMDL Loading Capacity and Allocations
418 Metric Tons/yr



Agriculture

- Conservation practices that reduce sources of pollution from farm production areas and farm fields.



Developed Lands--Stormwater

- Practices that reduce or treat polluted stormwater runoff from developed lands, such as parking lots, sidewalks, and rooftops.



Developed Lands--Roads

- Stormwater and roadside erosion control practices that prevent erosion and treat road-related sources of pollution.



Wastewater

- Improvements to municipal wastewater infrastructure that decrease pollution from municipal wastewater systems through treatment upgrades, combined sewer overflow (CSO) abatement, and refurbishment of aging infrastructure.



Natural Resources

- Restoration of "natural infrastructure" functions that prevent and abate pollution. Natural infrastructure includes: floodplains, river channels, lakeshores, wetlands, and forest lands.

Vermont Clean Water Act (Act 64 of 2015)

“All-in for Clean Water”

Reasonable assurance to meet nonpoint source targets:

- Water quality regulations
- Clean Water Fund
- Tracking, accounting, and reporting requirements



Clean Water Service Delivery Act (Act 76 of 2019)

- Long term clean water funding source, updated priorities
- Four new grant programs, including Water Quality Restoration Formula Grants awarded to Clean Water Service Providers (CWSPs)
 - Formula Grant based on non-regulatory phosphorus reduction target and cost/unit phosphorus reduction
 - Assurances to meet non-regulatory targets
 - Assurances of project operation and maintenance
 - Interim targets, enhanced accounting
 - Initially targets phosphorus pollution in Lake Champlain and Lake Memphremagog basins, effective July 1, 2022 (State Fiscal Year 2023)



Clean Water Service Providers ('CWSPs')

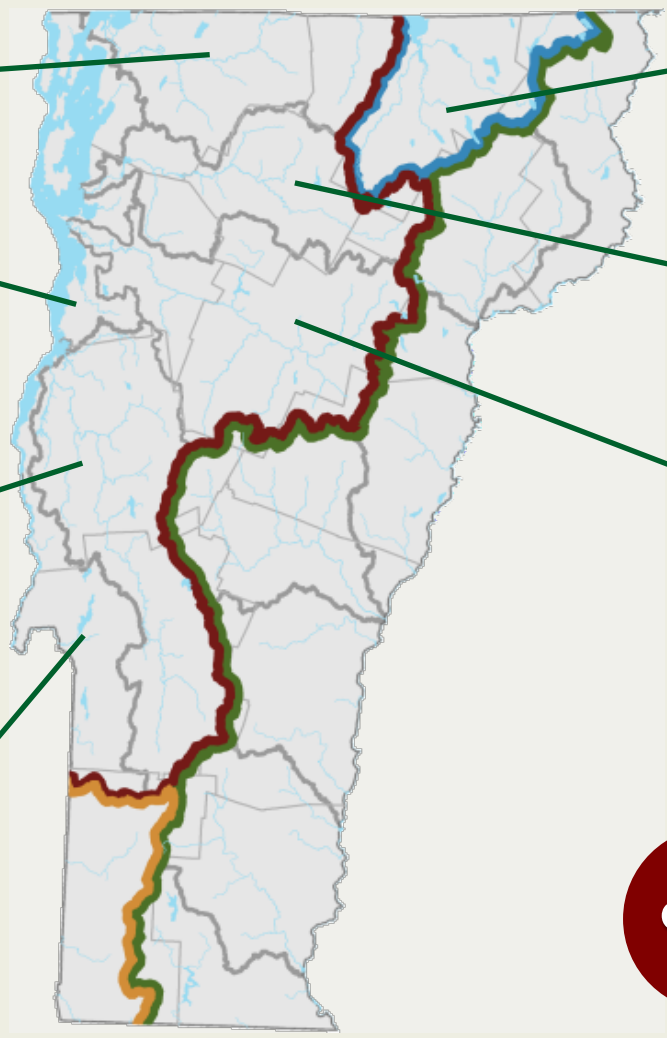
- CWSPs are semi-permanent entities that will typically serve for a 5-year term
- Modeled after the designated agency model used by other Agencies/Departments
- CWSPs are given a phosphorus reduction target, which is a function of the size of their grant; CWSP funding is targeted towards 'non-regulatory' projects
- CWSPs must make 'adequate annual progress' towards achievement of their target; meeting this threshold is a requirement for a CWSP to be reappointed to another term
- This analysis is both a quantitative and qualitative metric

Missisquoi Bay
Northwest Regional Planning
Commission (RPC)

Northern Lake Champlain
Chittenden County RPC

Otter Creek
Addison County RPC

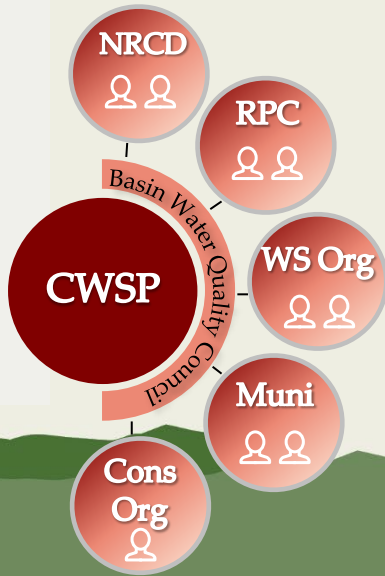
South Lake Champlain
Poultney Mettowee Natural
Resource Conservation
District & Rutland County
RPC



Lake Memphremagog
Vermont Housing and
Conservation Board

Lamoille River
Northwest RPC

Winooski River
Central Vermont RPC



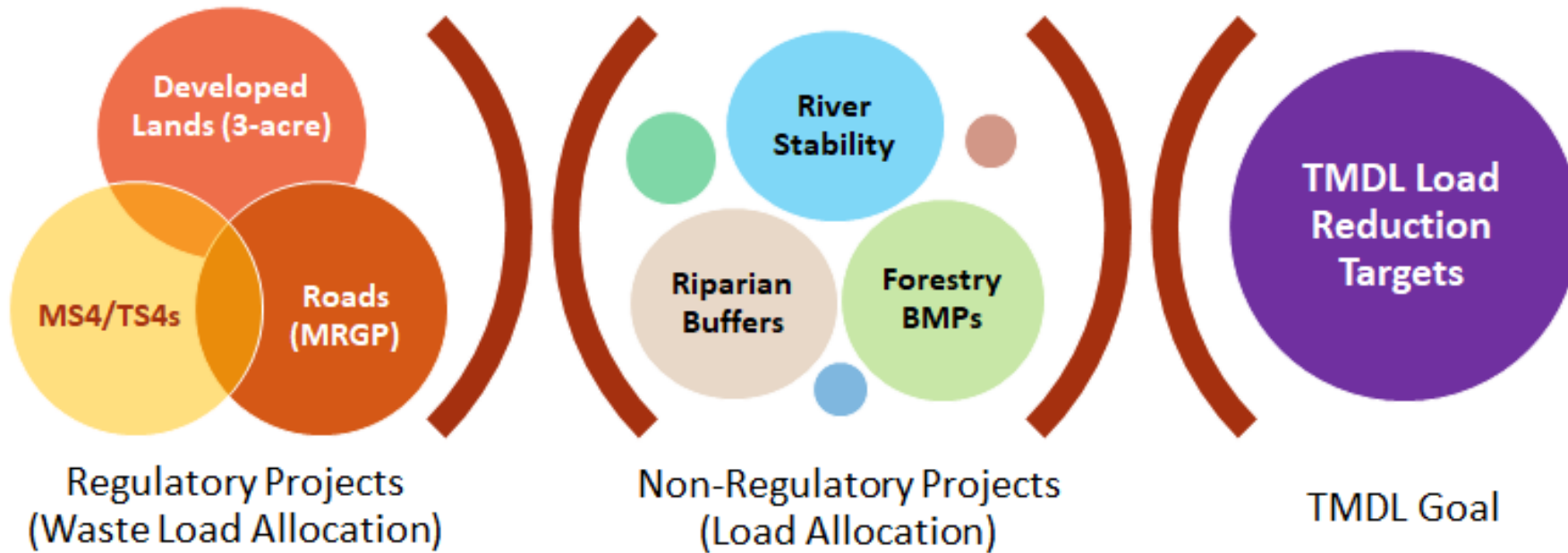
Clean Water Service Providers (CWSP)

- Receive/administer Formula Grants; report progress
- With Basin Water Quality Councils, identify, develop, construct, verify, inspect, operate, maintain clean water projects

Basin Water Quality Councils (BWQC)

- Provide local water quality knowledge
- Advise CWSPs on funding decisions; prioritize projects
- Participate in Tactical Basin Planning process

How will Vermont achieve the TMDLs?



TMDL targets will be primarily met by implementing state regulatory programs plus non-regulatory projects funded through Clean Water Service Providers

Regulatory Reductions

Regulatory

90%

67%

100% (except basin 2/4 & 6)

MRGP, three-acre permit, TS4
and MS4 permits

Agriculture

Streams

Forests

Developed

Non-regulatory

10%

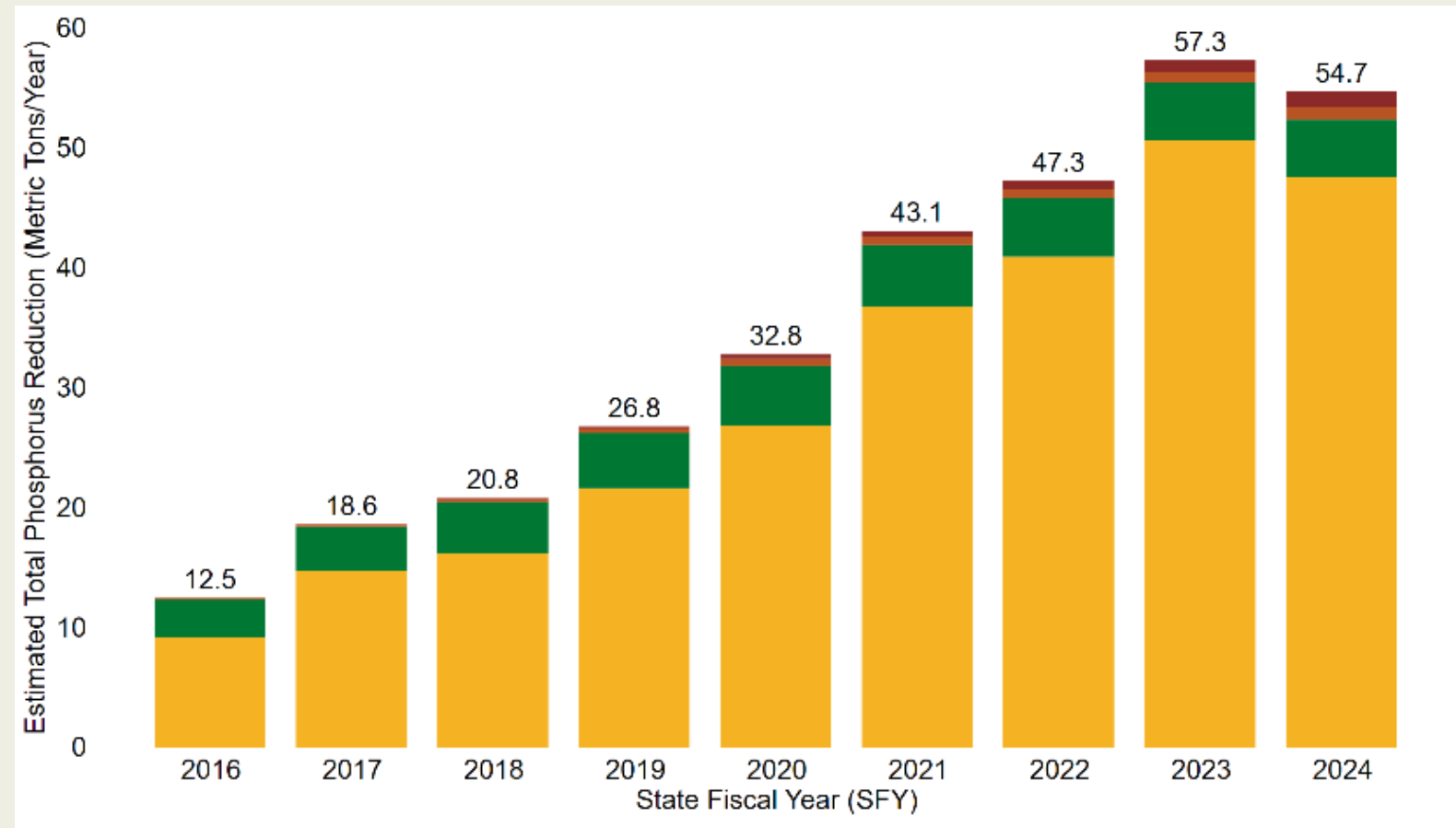
33%

88% for Basin 2/4
90% for Basin 6

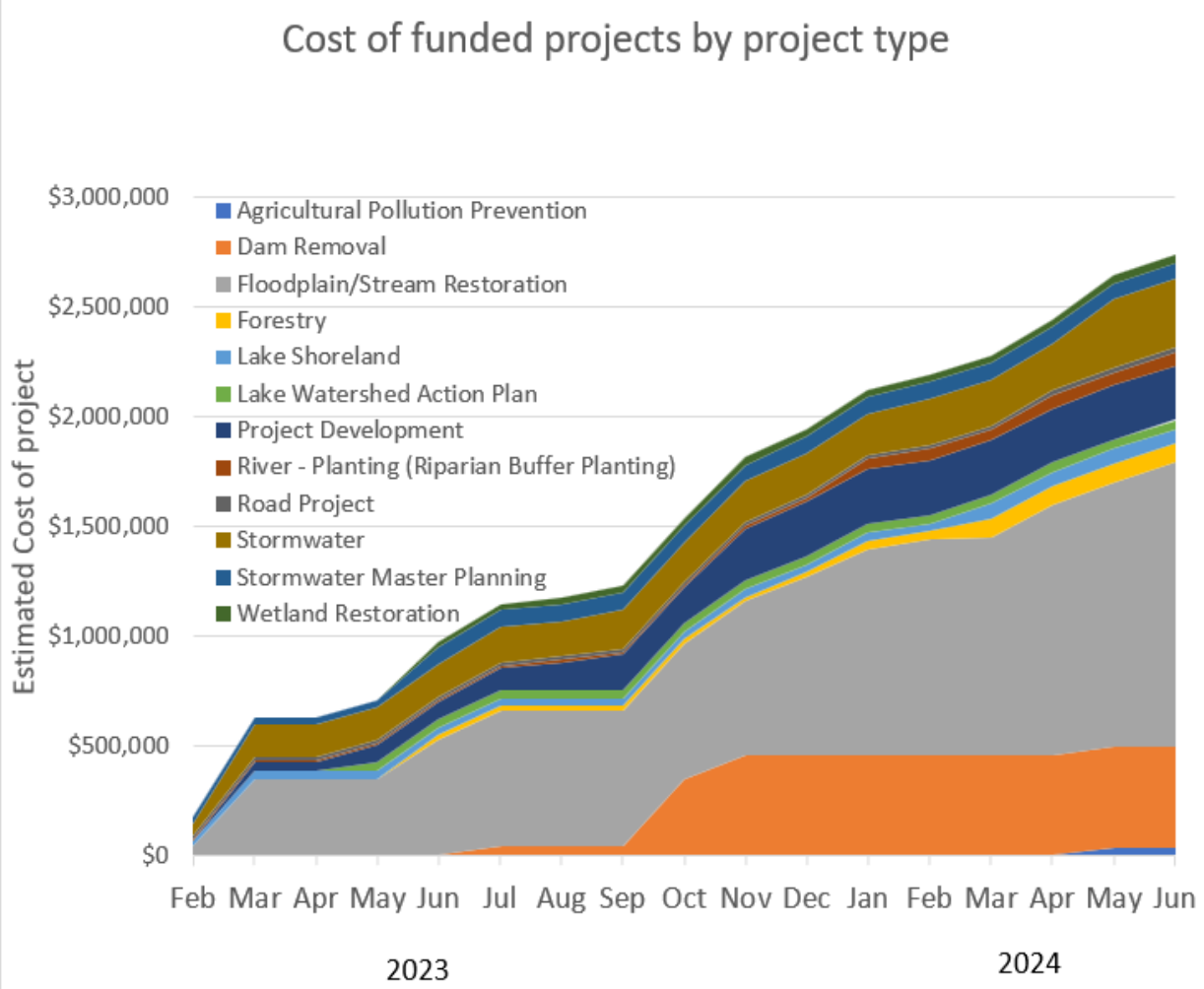
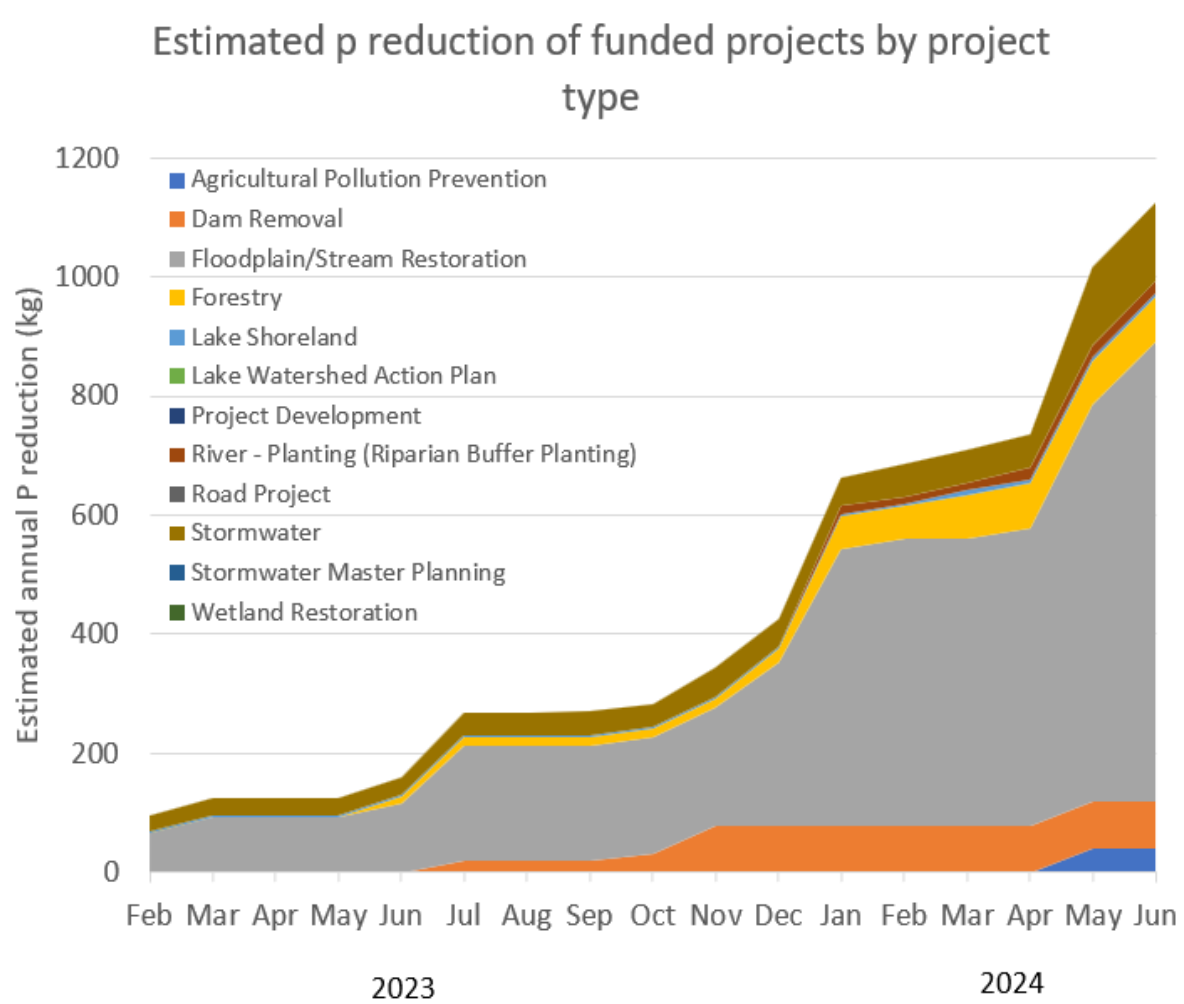
The remaining developed lands
reduction targets

Lake Champlain Basin Phosphorus Reductions

- Key – Reductions by Sector
Yellow = Agriculture; Green = Natural Resources; Orange = Stormwater; Red=Transportation
- Most phosphorus reductions result from agricultural practices
- Reductions from natural resources projects are an important part of the story



CWSPs Are Making Progress



CWSPs Are Making Progress

- To date, CWSPs have awarded 99 separate awards for clean water projects, 21 focused on assessment or project development, 51 focused on design, and 27 to support implementation.
- The projects funded at the implementation phase through the end of SFY 2024 are expected to reduce 200 kg of phosphorus per year once fully implemented.
- Projects at the design phase are expected to reduce phosphorus loading by 933 kg per year once fully implemented, meaning that once all projects at the design and implementation phase are completed an expected 1133 kg will be reduced per year which is in excess of the CWSP targets through SFY 2024 awards of 1074 kg.
- Projects may change through the course of the design process and so not all phosphorus reductions expected at the design phase will necessarily be accounted for but CWSPs are collectively making significant progress towards targets.

Overview of Progress Made More Recently

- Issued two years of Formula Grant funds, with year three (FY2025) funding appropriated and awaiting amendments
- Increased the level of project development funding to respond to the need for increased project implementer capacity and to support the accelerated identification and development of projects.
- Drafted all [9 Guidance Chapters](#).
- Completed revisions to Chapter 3 of Guidance that streamline two provisions that relate to sole sourcing and subawardee procurement.
- CWIP prepared a [Guide to Phosphorus Accounting eligibility](#) that provides eligibility criteria for estimating phosphorus reductions, regulatory/non regulatory determinations, and other relevant information by project type to address common points of confusion.
- [Operations and Maintenance](#) – Clean water project adoption available as of the new 2025 fiscal year
- Completed a more simplified template for the [Site Access License Agreement](#)
- Developing guidance on strategic wood addition projects (*in progress)
- Developed a recent projects query to make it easier identify projects added to the [Watershed Project Database](#)

A76 and Change Management – “Building the Boat While Sailing”



Dana Schutz's "Building the Boat While Sailing"

- Stakeholder Engagement is Critical to Success
- Adaptive Management – Assessing Gaps and Pursuing Process Improvement
- Breaking Down Barriers for Participation
- Bringing New Project Types Online Takes Time

Moving the System Forward – On-going Process Improvement

- Building Capacity
 - Capacity Development Grants, Expanding Trainings, Increased Engagement
- P Accounting Methodologies
 - Forest Roads/Forest Trails
 - Private Roads
- Adaptive Management
 - CWSP Summit
 - Clean Water Action Plan
 - Increasing Landowner Interest in Clean Water Projects
- Entrepreneurial Approach Required
 - ‘All-in’ culture of problem solving
 - System is growing and evolving, with more to come

Thank you!

Learn more: <https://dec.vermont.gov/water-investment/statutes-rules-policies/act-76>

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