Building Vermont's Clean Water Service Provider Network

Clean Water Lecture Series

Thursday, June 30, 2022

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Clean Water Service Providers:
Dan Albrecht (CCRPC), Dean Pierce (NRPC)

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

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Outline

- History/Background of Vermont's Clean Water Efforts
- Launching Vermont's Clean Water Service Delivery Network; Key Elements:
  - Clean Water Service Providers and Water Quality Restoration Formula Grants
  - Non-regulatory Phosphorus Reduction Targets and Fund Allocation
  - Clean Water Project Tracking and Accounting
  - Clean Water Project Operation and Maintenance
- Lessons Learned; "Building the Boat While Sailing"

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Vermonters care about clean water

Photo credit: Friends of the Winooski River

Photo credit: Blaine Hastings

Photo credit: Jim Deshler

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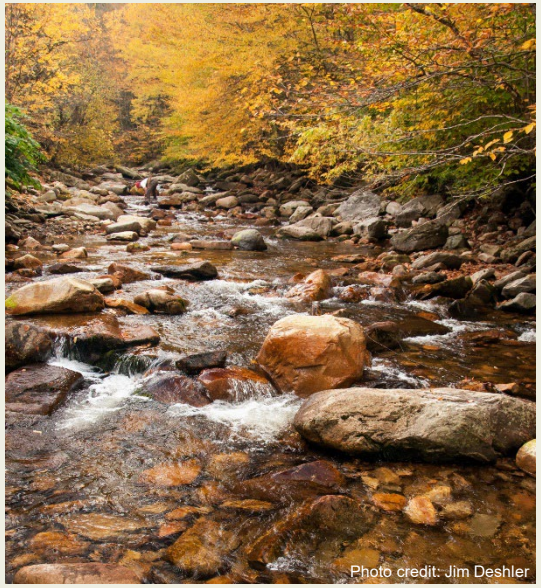
Photo credit: Jim Deshler

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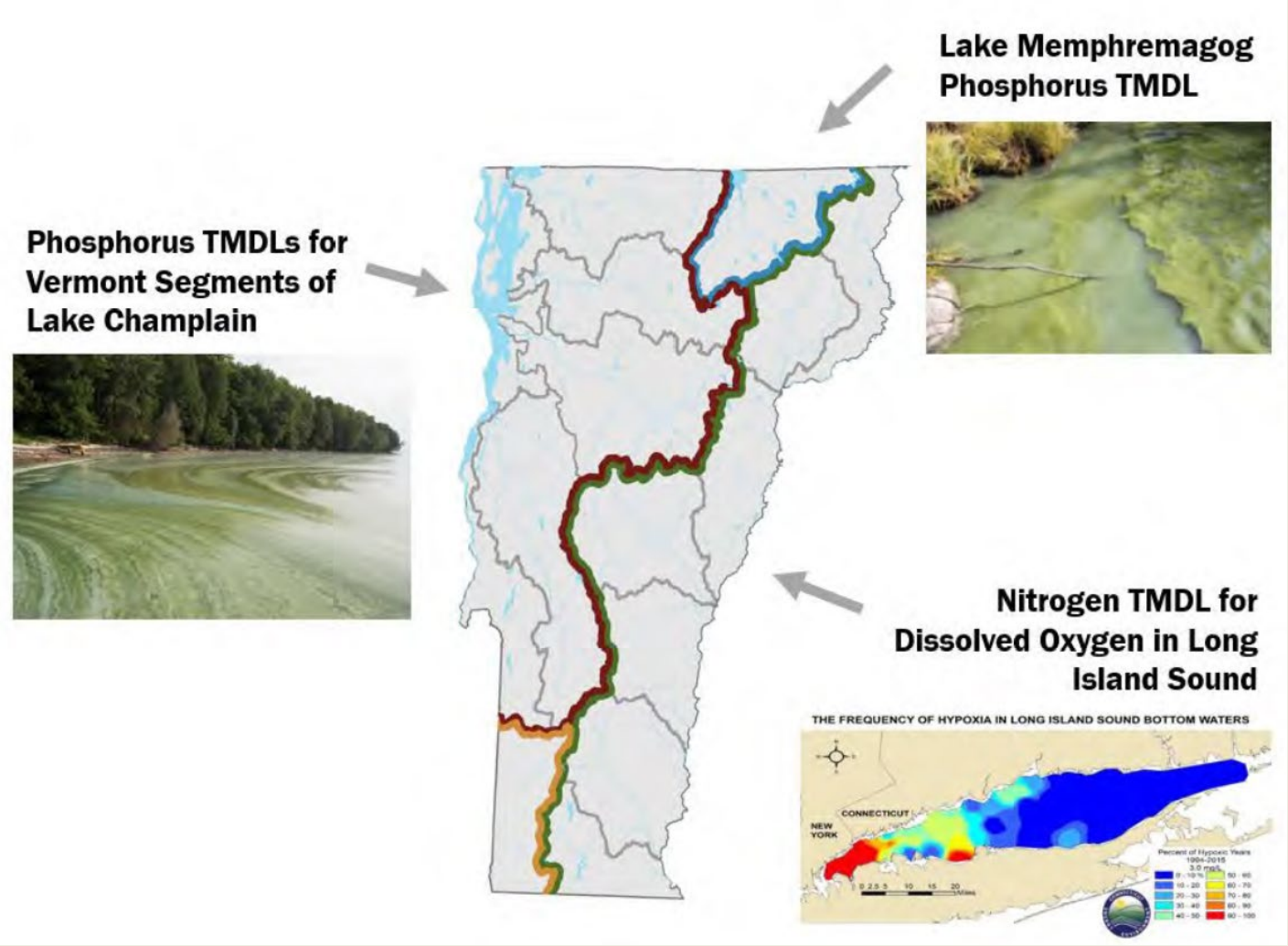

Vermont's Clean Water Priorities and Clean Water Restoration Plans (i.e., Total Maximum Daily Loads, or TMDLs)

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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

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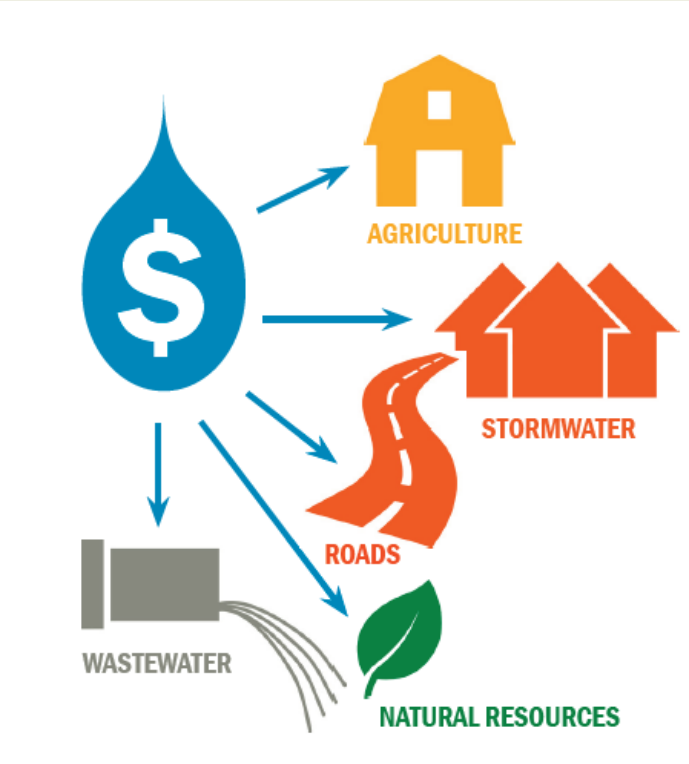
Clean Water Service Delivery Act (Act 76 of 2019)

- 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)



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Progress Made since Act 76 Enactment

- Development and Adoption of the Clean Water Service Provider Rule (August 12th, 2021)
- Development of Act 76 Guidance, including topics on governance, financial management, the formation and role of the BWQC, and for project prioritization and selection
  - In coordination with the Act 76 Advisory Committee of stakeholder groups
  - Chapters 2, 3, and 4 currently out for public comment
- Development of clean water project cost calculators and pollution reduction calculators
- Other natural resource assessment tools and analyses
  - e.g., the Functioning Floodplains Tool and the Forestlands Spatial Analysis (still in development)
- Development of the Act 76 Website

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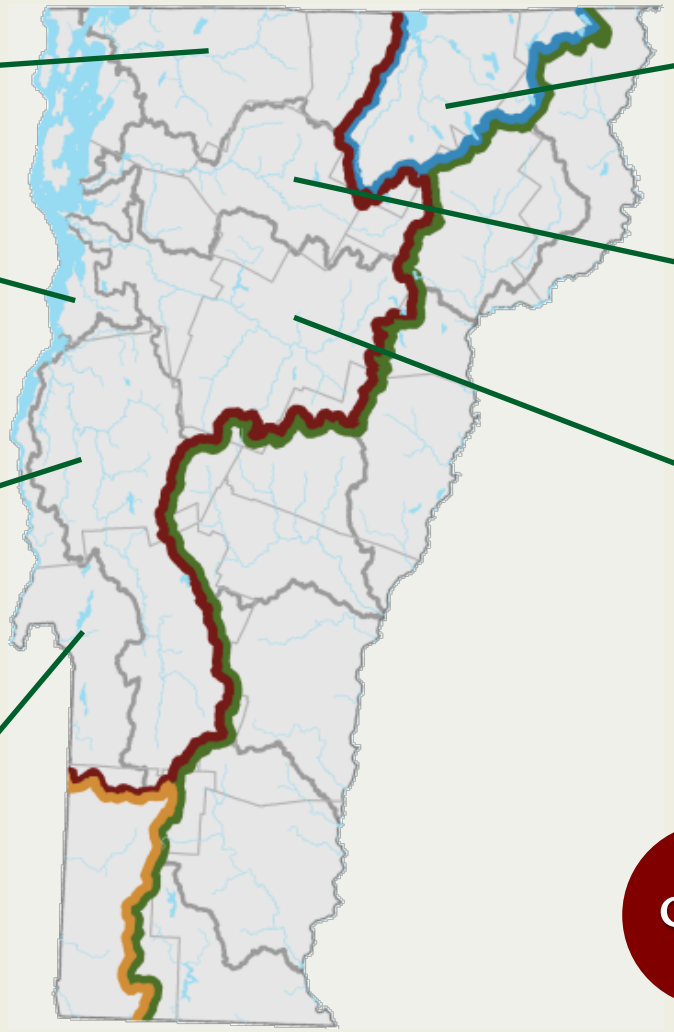
Missisquoi Bay
Northwest Regional Planning Commission (RPC)

Northern Lake Champlain
Chittenden County RPC

Otter Creek
Addison County RPC

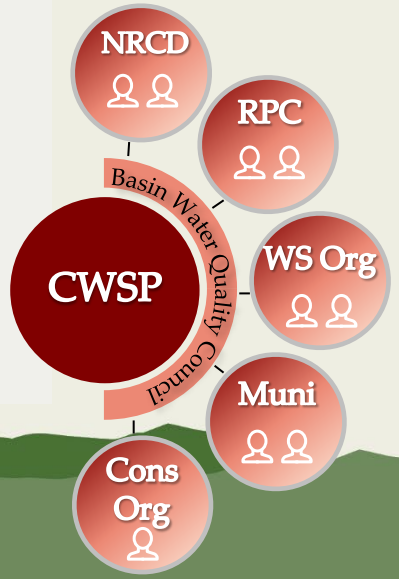
South Lake Champlain
Poultney Mettowee Natural Resource Conservation District & Rutland County RPC



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

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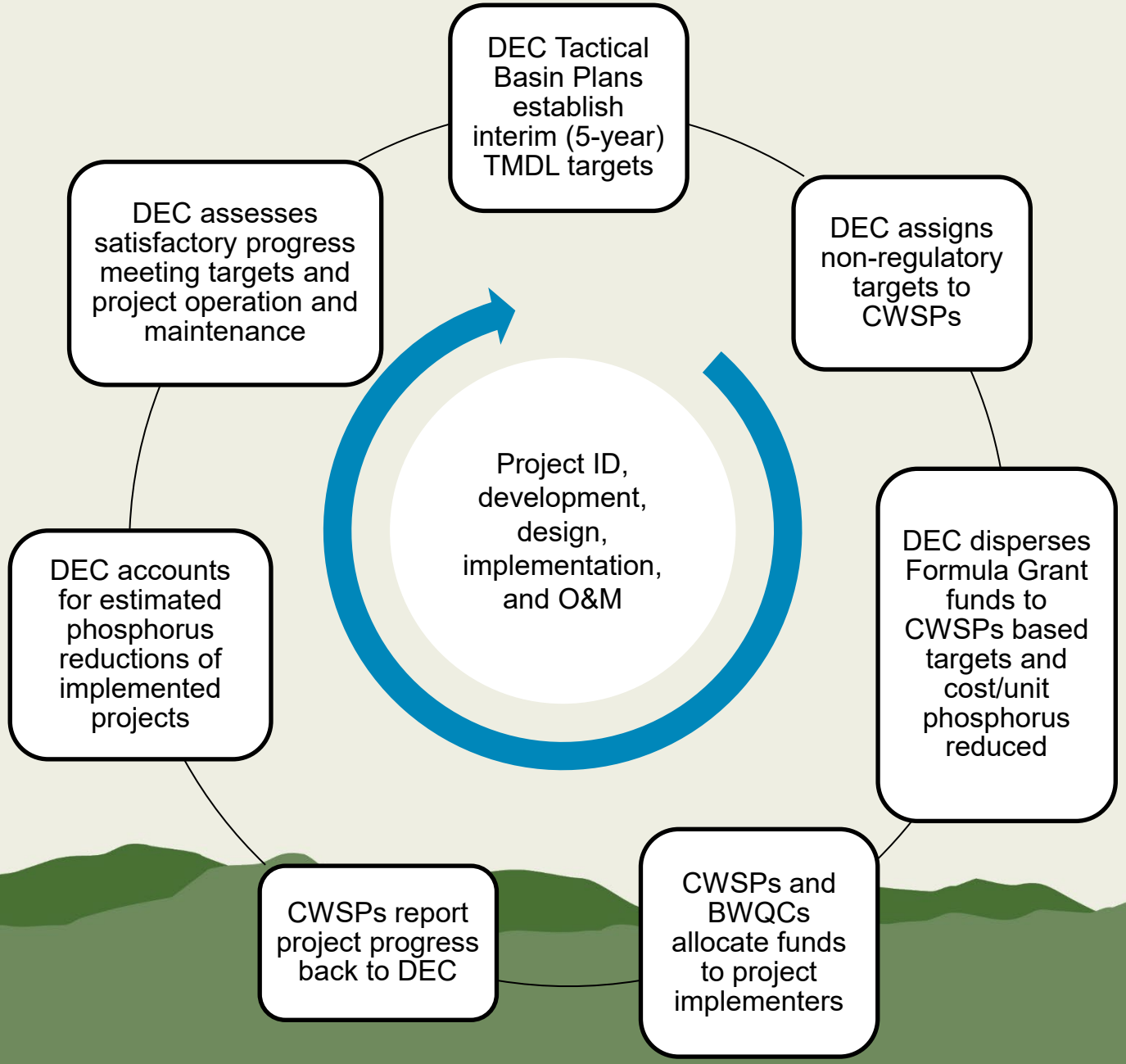
Formula Grant Target-Setting and Accountability Cycle



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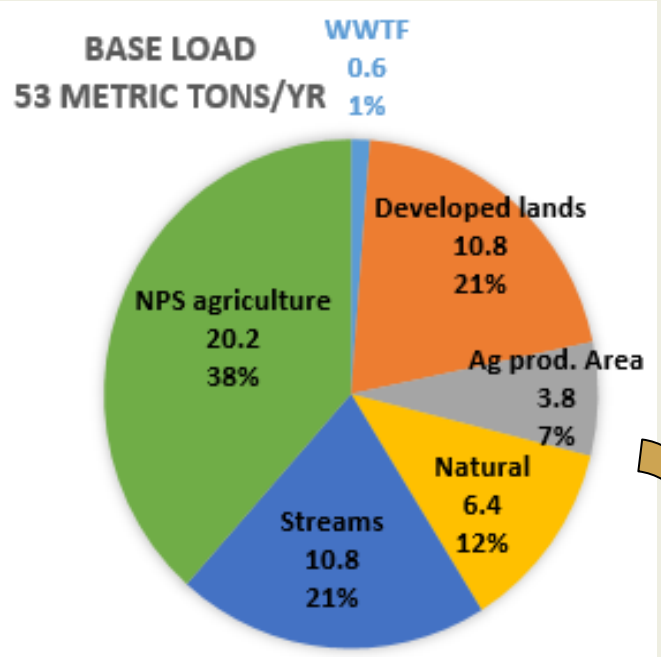

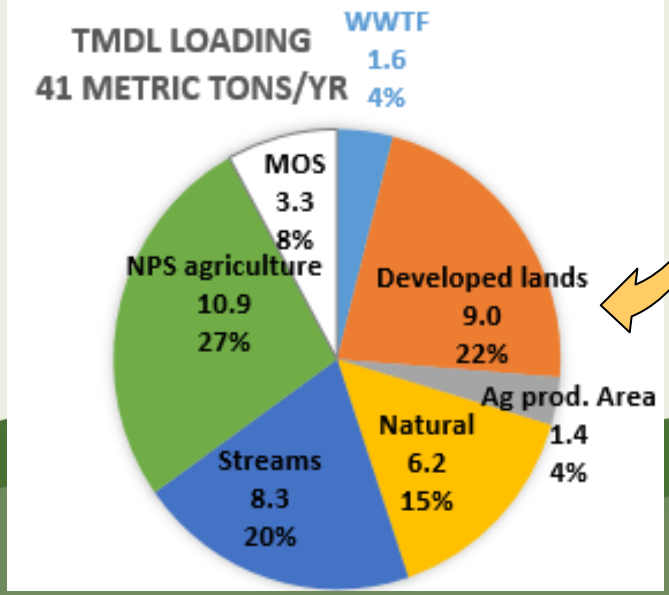

The Lake Champlain and Lake Memphremagog Phosphorus TMDL's require reductions across agriculture, developed, WWTF, stream and forest lands to meet TMDL reduction targets

AGRICULTURE

Agriculture

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

DEVELOPED LANDS

Developed Lands--Stormwater

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

ROADS

Developed Lands--Roads

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

WASTEWATER

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

Natural Resources

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

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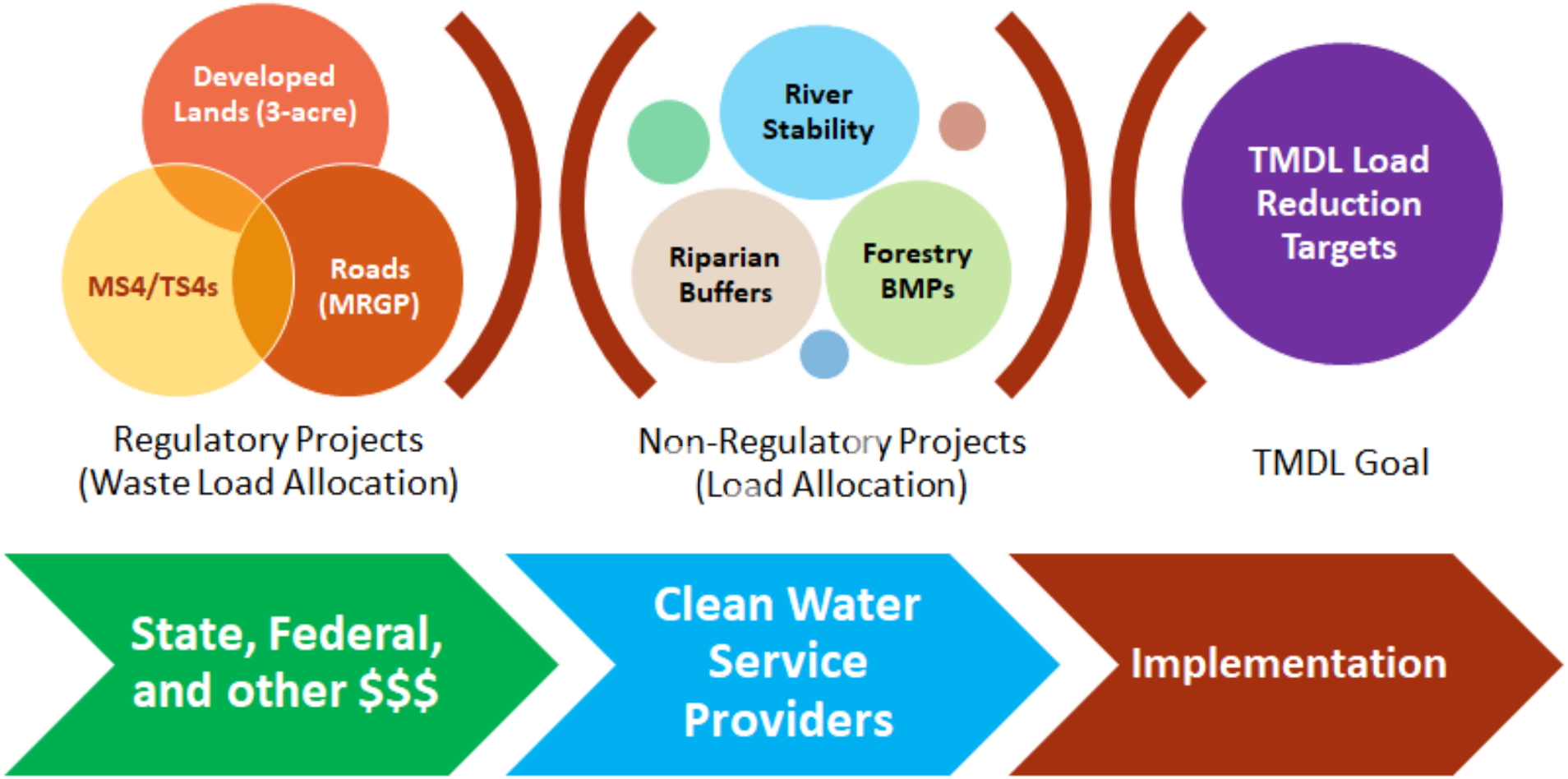
How will Vermont achieve the TMDLs?



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

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Clean Water Service Provider Targets

TMDL reductions – **Regulatory reductions** = CWSP target reductions

CWSP target reductions x **Sector costing rates** = Total dollars need per sector

Total dollar need x **Scaling to available budget and capacity** = Year-1 reduction targets and fund allocations

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TMDL reductions – **Regulatory reductions** = CWSP target reductions

Regulatory		Non-regulatory
90% of reductions for AAFM/ NRCS regulatory and BMP programs	Agriculture	10% of targets for CWSP for Non-RAP farms/NR projects
67% through implementation of River regulatory programs	Streams	33% of targets are assigned to the CWSP
100% Basins 3, 5, 7, 8, 17 12% basin 2/4 & 10% Basin 6	Forests	88% for Basin 2/4 90% for Basin 6
Stormwater regulatory reductions from the four permit programs	Developed	The remaining developed lands reduction targets after subtracting loading from permit programs

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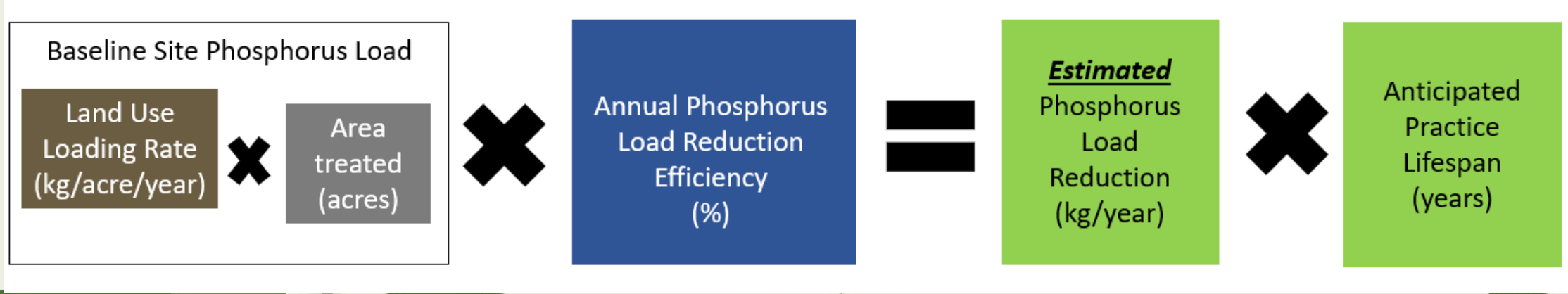
TMDL Tracking & Accounting

- To estimate progress towards achieving TMDLs, we estimate total phosphorus reduction estimates at the individual clean water project level
- **Tracking** – collecting data (i.e., watershed, land use, storage volume, area treated, etc.) on clean water projects
- **Accounting** - estimating nutrient and sediment reductions for clean water projects



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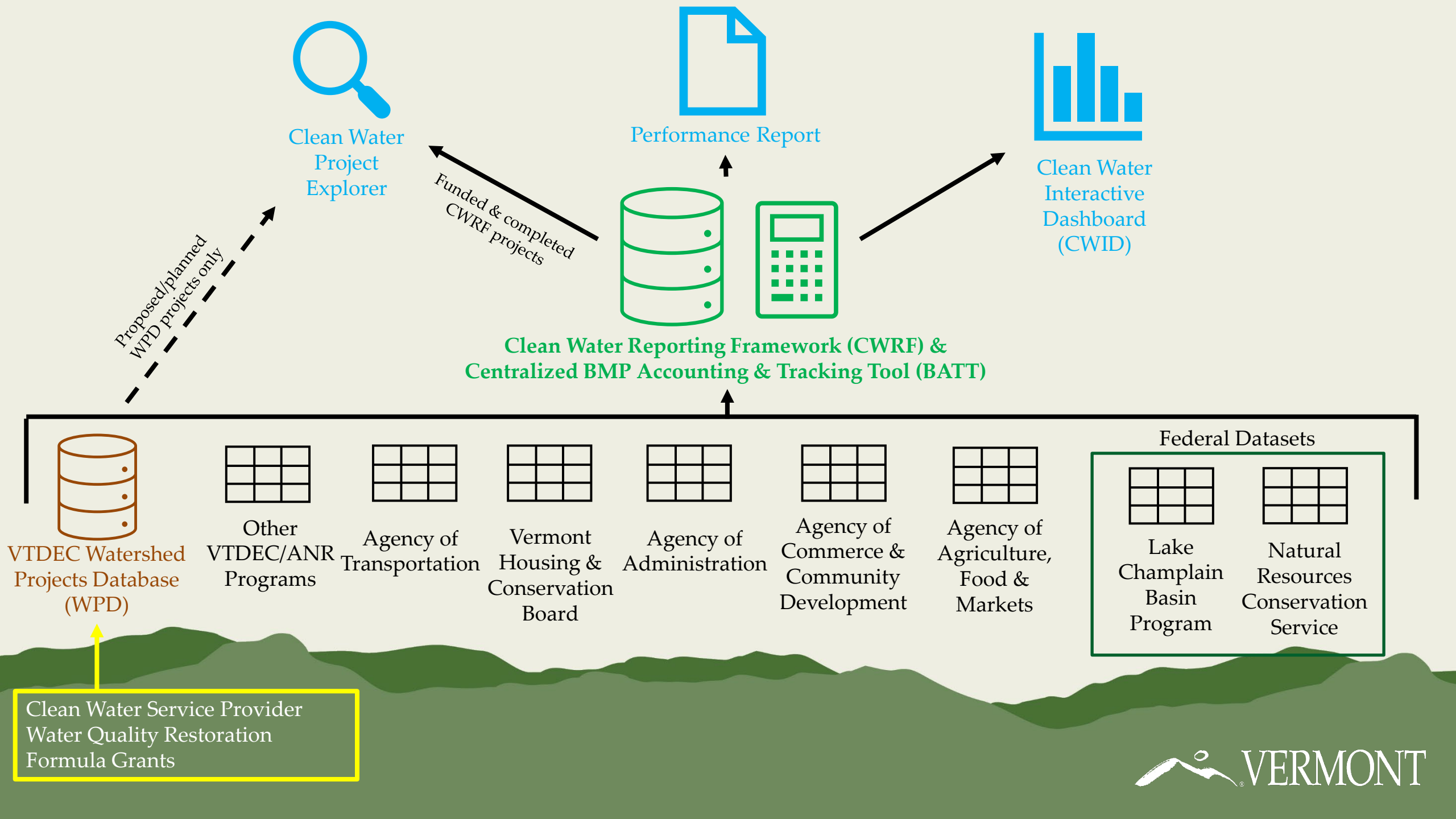
Clean Water Project Explorer
Performance Report
Clean Water Interactive Dashboard (CWID)
Funded & completed CWRF projects
Proposed/planned WPD projects only
Clean Water Reporting Framework (CWRF) & Centralized BMP Accounting & Tracking Tool (BATT)
VTDEC Watershed Projects Database (WPD)
Other VTDEC/ANR Programs
Agency of Transportation
Vermont Housing & Conservation Board
Agency of Administration
Agency of Commerce & Community Development
Agency of Agriculture, Food & Markets
Federal Datasets
Lake Champlain Basin Program
Natural Resources Conservation Service
Clean Water Service Provider Water Quality Restoration Formula Grants
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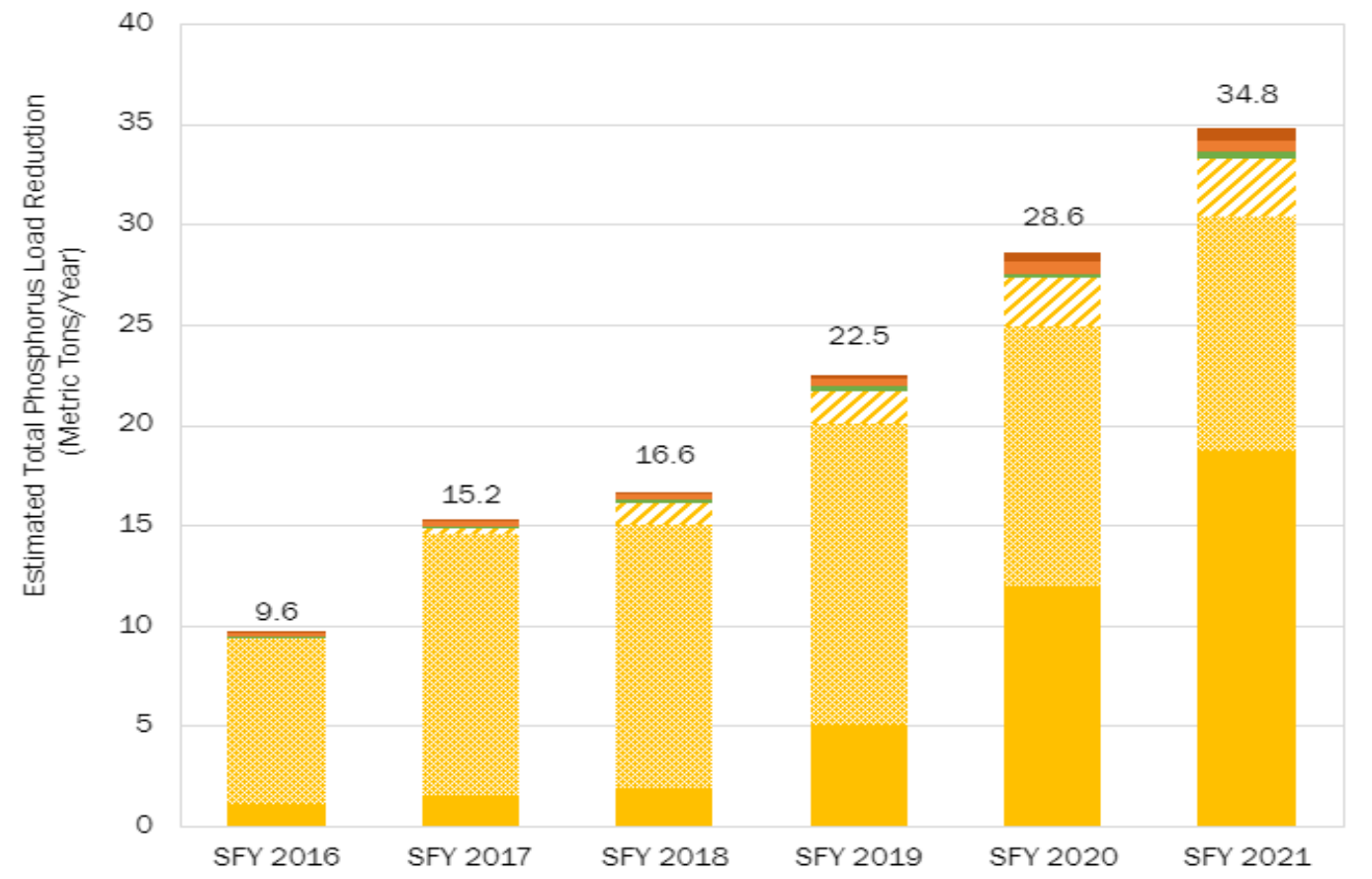
Lake Champlain Basin Phosphorus Reductions

- An estimated 34.8 metric tons (~77,000 pounds) of total phosphorus loading reduced as of SFY 2021
- 16% of the way toward meeting the TMDL
- Most phosphorus reductions result from agricultural practices funded through US Department of Agriculture Natural Resources Conservation Service (USDA NRCS)



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Best Management Practice Verification

- Purpose: To verify state-funded projects exist and are properly operating
- To provide accountability that practices meet phosphorus reduction rates
- To educate DEC's partners and expand partnerships
- To increase confidence that state dollars are being spent effectively

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Lessons Learned, "Building the Boat While Sailing"

Dana Schutz's "Building the Boat While Sailing"

- Stakeholder Engagement is Critical to Success
- Adaptive Management – Assessing Gaps
- Recognizing Areas for Process Improvement
- Breaking Down Barriers for Participation

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Stakeholder Engagement is Critical to Success

Developing and Deploying Engagement Strategies

- Tactical Basin Planning (TBP) as the TMDL Implementation Vehicle
  - "Phase 3 Content" - Identifying Gaps in Regional/Local Engagement
  - TBP Support Grants for Partner E&O Efforts on the Regional Level
- Clean Water - Multi-Media - Outreach Efforts
  - Clean Water Lecture Series (supported by Eco-AmeriCorps), Training Videos (YouTube), Stakeholder Surveys, Social Media, Workgroups, Newsletters, etc.

https://dec.vermont.gov/water-investment/cwi/outreach

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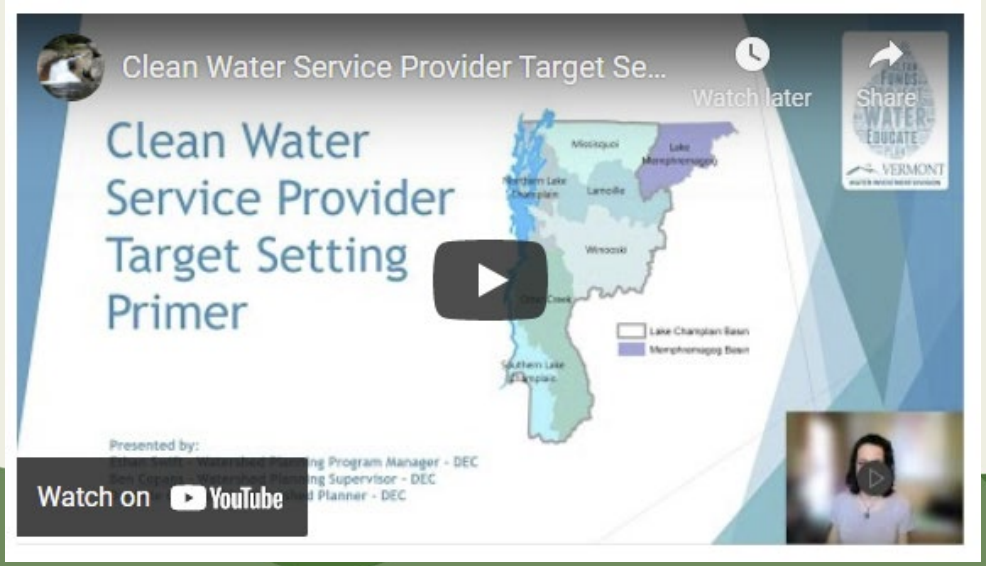
Assessing Gaps - Ongoing Process Improvement

- Funding – an Adaptive Management Approach
  - Block Grant Approach to Expand the Queue for Project Readiness
  - Enhanced Project Management/Technical & Administrative Coordination
- Building Capacity
  - Developing Systems to Expand Capacity in Partner Network
- Training
  - On New Methods, New Tools, Enhanced Reporting
  - Short Tutorial and "Primer" Videos
  - Guidance Materials

https://dec.vermont.gov/content/engagement-training-0



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Breaking Down Barriers for Participation

- Building on Title VI Requirements
  - Nondiscrimination, Language Translation, Enhanced Accessibility (includes hybrid options for public participation) - https://anr.vermont.gov/content/notice-nondiscrimination
- Expanding Opportunities for Environmental Justice, Equity, Diversity, and Inclusion (JEDI)
  - Applying JEDI Principles to Clean Water Funding – working to incorporate JEDI criteria in community engagement, project prioritization to reach under-served, disadvantaged communities
  - Bringing Indigenous Peoples' Perspectives into the Clean Water Network
    - Nebi: Abenaki Ways of Knowing Water | Lake Champlain Sea Grant (uvm.edu)

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Thank you!

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

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