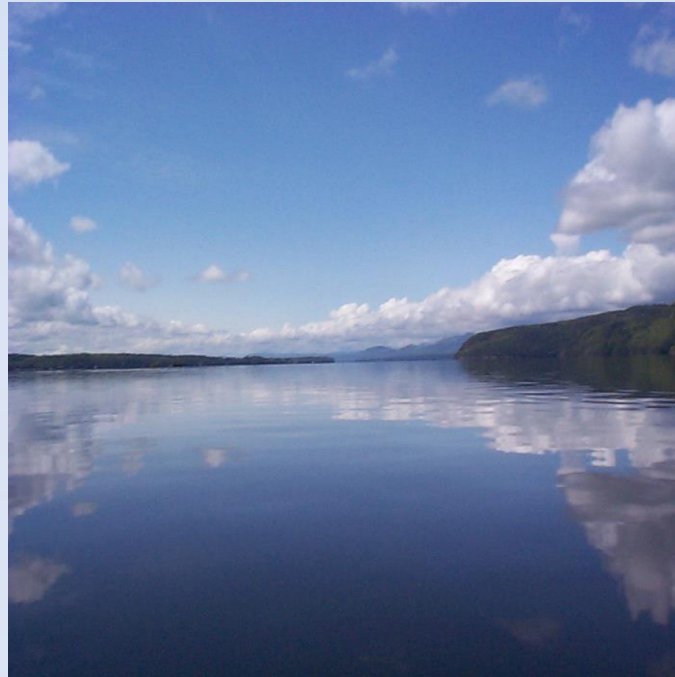


Vermont's Clean Water Initiative

The Lake Champlain Phosphorus TMDL
and the Legislative Response



Kari Dolan, Ecosystem Restoration Program Manager

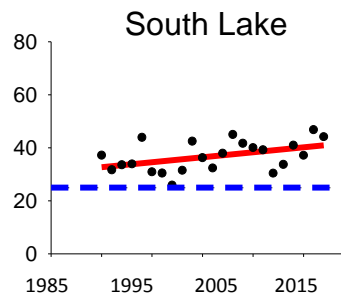
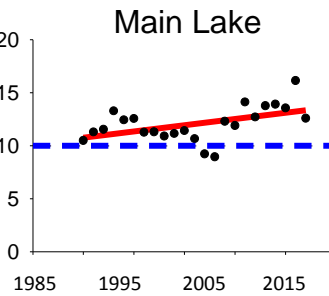
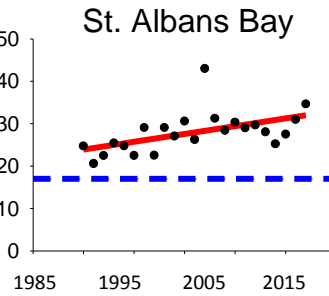
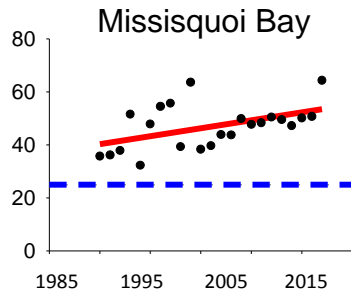
May 29, 2015



Total Phosphorus Concentrations in Lake Champlain, relative to VT water quality standards

— Trend line
- - - Water quality standard

Annual Mean Total Phosphorus ($\mu\text{g/L}$)



TMDL = WLA + LA + MOS

Total Maximum Daily Load
(Total Loading Capacity)

The amount of pollution the lake can receive and still meet water quality standards. Determined by data and modeling. Will be expressed at the lake segment level (e.g., Main Lake; St. Albans Bay, etc.).

Wasteload Allocation
("Point Sources")

Achieved by federally required permits or other regulations.

Examples

- Wastewater discharges
- Construction stormwater
- Municipal Separate Storm Sewer Systems (MS4s)
- Combined Sewer Overflow (CSOs)
- Concentrated Animal Feeding Operations (CAFOs)

Load Allocation
("Nonpoint sources")

Achieved by regulatory or non-regulatory methods. Requires "reasonable assurances."

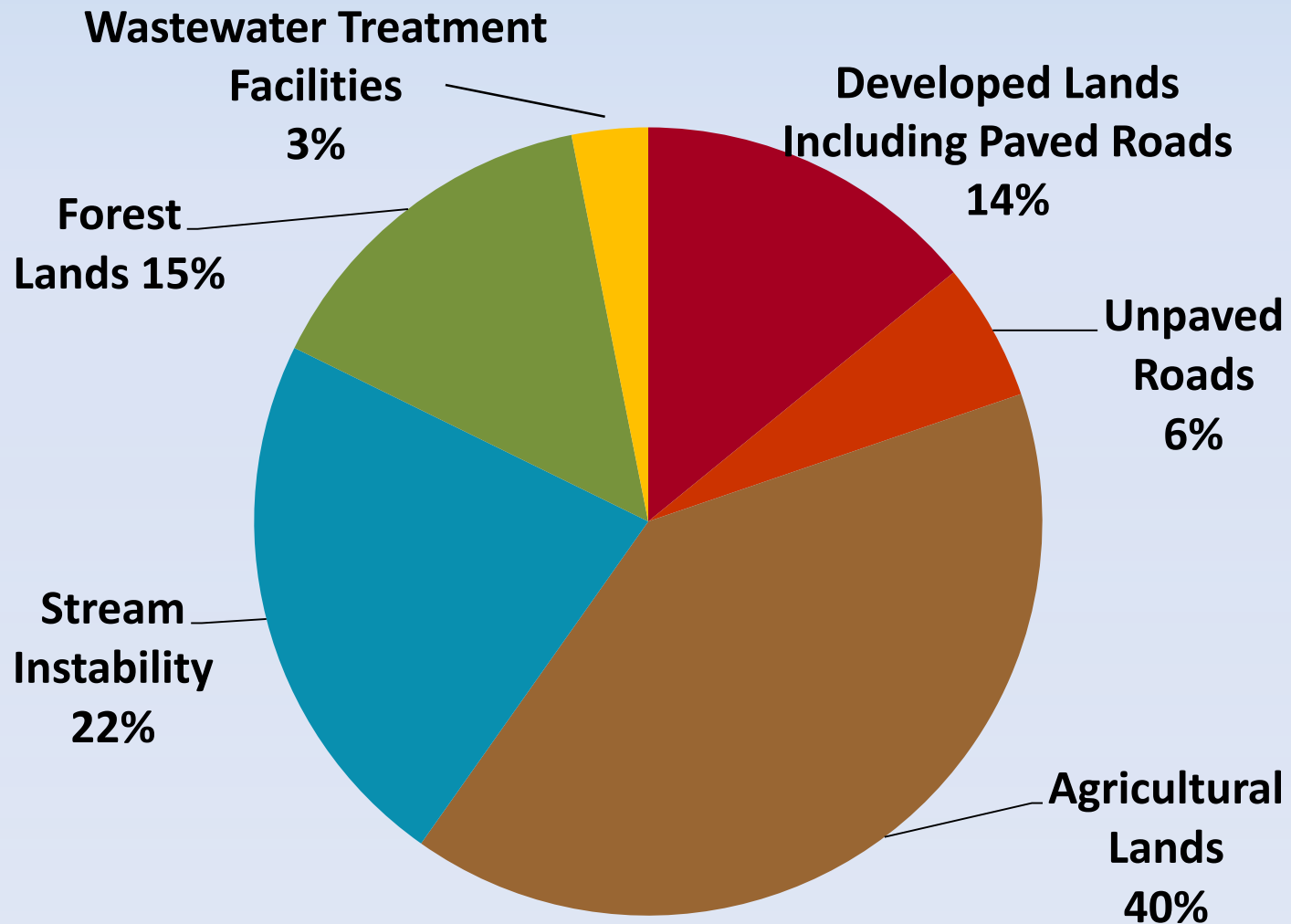
Examples

- Agricultural runoff
- Unregulated stormwater
- River channel instability
- Road drainage networks
- Forest runoff

Margin of Safety

Could be a percentage (e.g., 5%) of the TMDL.

Phosphorus Sources in the Vermont Portion of the Lake Champlain Basin



Challenges in Providing Clean Water Statewide



Overview of the Legislative Bill, H.35

- Stormwater Runoff Management
- Road-related Stormwater Management
- Agricultural Water Quality
- Phase 1 Plan
- Phase 2 Plans - Tactical Basin Plans
- Increased Fees & New Positions
- Clean Water Fund

Changes to Stormwater Requirements – Existing Development

- Addresses discharges of stormwater from impervious surface of 3 or more acres that were:
 - Unpermitted or
 - Permitted prior to 2002 stormwater manual.
- Requires ANR to adopt a general permit by Jan. 2018
- Requires ANR to develop a schedule to require:
 - Retrofits in the Champlain Basin no later than 2023
 - Retrofits in the rest of the State no later than 2028

Implementation Plan - ANR is to:

- Update the Implementation Plan within 3 months of TMDL issuance
- Include natural resources restoration actions to achieve the State's obligations under the Phase 1 Plan
- Hold a 30-day public comment period before issuance of the Plan update
- Establish a method of tracking to account for activities
- Increase coordination between regional planning commissions and DEC basin plans
- Report on the execution of the Plan

Funding Vermont's Clean Water Initiative



Federal Revenue Sources that Support Vermont's Clean Water Initiative by Year



Revenue Source	Past FY	Current FY Budget (proposed)
USDA NRCS – Farm Bill Conservation Programs targeting water quality (includes \$45M over 5 years for Lake Champlain)	\$10.8M	\$13.8M
USDA NRCS – VT/NY Partners Grant (\$16M RCPP 5-year grant)	\$0	~\$2.6M
USDA NRCS – VACD Partners Nutrient Management Grant (RCPP, 5-year grant)	\$0	\$0.14M
U.S. EPA State Revolving Fund (wastewater, stormwater, statewide)	\$6.9M	\$6.9M
Lake Champlain Basin Program Grants (monitoring, research, grants)	\$0.6M	~\$3M
FWA Transportation Alternatives Grants	\$0	\$1.1M
VTrans Stormwater Compliance	~1.1M	~1.1M

Key: FWA: Federal Highway Administration
 RCPP: Resource Conservation Partnership Program (USDA NRCS partnership grant program)
 USDA NRCS: U.S. Dept. of Agriculture Natural Resources Conservation Service
 U.S. EPA: U.S. Environmental Protection Agency
 VACD: Vermont Association of Conservation Districts

State Clean Water Initiative Funding



Revenue Source	FY15	FY16 Budget
Various AAFM fees	N/A	\$621,000
Capital Bill – Agriculture Best Management Practices (BMPs) Program (statewide)	\$1M	\$1.4M
Capital Bill – Ecosystem Restoration Grants (statewide)	\$2.57M	\$3.75M
Capital Bill – State Revolving Fund (SRF) Match (statewide)	~\$1.3M	~\$1.3M
Transportation Bill – Municipal Mitigation Grants (includes Better Back Roads Grants, statewide)	\$440,000	\$650,000
DEC Clean Water Permit Fees (statewide)	~\$1M	~\$2.3M
NEW: Clean Water Fund	\$0	\$5.3M
VTrans Stormwater Compliance	~\$2.1M	~\$2.1M