

# Development of a Phosphorus Control Plan for the Lake Champlain Basin



## Services / Expertise

TMDL Implementation Support  
Phosphorus Control Planning  
TS4 Permit Compliance  
Stormwater BMPs  
Regulatory Compliance & Reporting  
Spatial Analysis & Mapping  
ArcGIS Online  
Mobile Field Application

## Market

State Government  
Regional Planners  
Municipalities

## Project Location

Vermont

## Date Completed

2016–present

## Project Owner

Vermont Agency of Transportation  
Highway Division  
Maintenance Bureau

## Stone Project No.

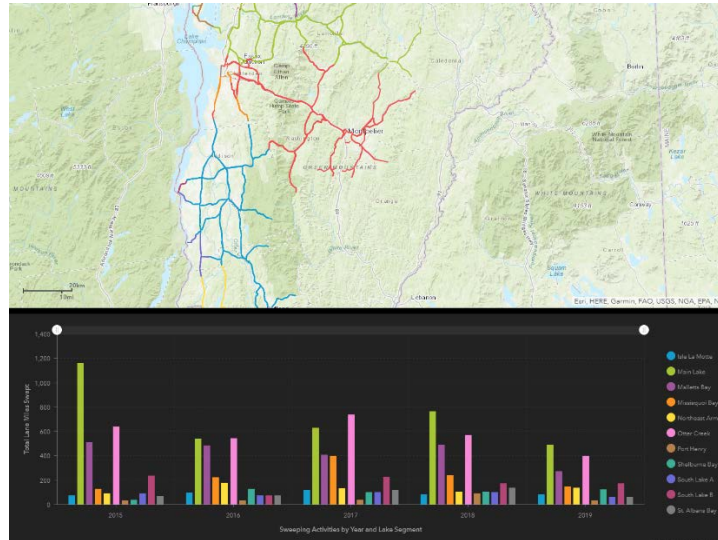
18-008-A

## Project Manager

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## Link to Story Map

<https://arcg.is/0DS4LC0>



Stone developed a public progress report, including interactive mapping and dashboards, to summarize VTTrans' Phosphorus Control Planning efforts. The dashboard at left shows where VTTrans has completed street sweeping, a maintenance activity with some phosphorus reduction benefit, in 2015-2019.

**THE** Vermont Agencies of Natural Resources (ANR) and Transportation (VTTrans) have been working together for several years to develop and implement permitting programs, plans, policies, and designs to comply with the Lake Champlain Phosphorus Total Maximum Daily Load (TMDL), including ANR's Phase 1 TMDL Implementation Plan. A key component of the plan was the issuance of the *General Permit 3-9007 for Stormwater Discharges from the State Transportation Separate Storm Sewer System (TS4)* to VTTrans. Among other requirements, the TS4 permit requires VTTrans to develop and implement Phosphorus Control Plans (PCPs) for each Lake segment within the Vermont portion of the Lake Champlain Basin. The PCPs, developed in phases, will identify and document a suite of best management practices that should collectively achieve the required reductions in phosphorus loading from VTTrans stormwater discharges.

Since 2016, Stone has worked in collaboration with VTTrans and ANR to develop supporting datasets and an implementation framework for the VTTrans PCPs. Compliance milestones achieved by VTTrans and ANR to-date include the implementation of the TS4 General Permit in 2017.

Recently, Stone developed a story map that served as both a compliance submittal to ANR and an interactive [VTTrans Lake Champlain Basin Phosphorus Control Plan Progress Report](#). The report summarizes what VTTrans has already done to develop the framework for a basin-wide PCP and provides a roadmap for how the agency intends to meet its goals. The story map allows VTTrans staff, ANR regulators, and the public to clearly see how VTTrans will reduce the amount of phosphorus its roads, rights-of-way, and facilities contribute to each segment of Lake Champlain. Key components from that progress report were expanded in VTTrans's Generalized Phosphorus Control Plan, submitted in draft form to ANR on April 1, 2020.

