Statewide Class 3 & 4 Road Erosion Risk Analysis

STONE
ENVIRONMENTAL

Services / Expertise
Geospatial & Data Solutions (GIS)
Water Quality
Spatial Analysis
Runoff Reduction
Climate Change Resiliency

Markets
State Government
Diverse GIS

Project Location
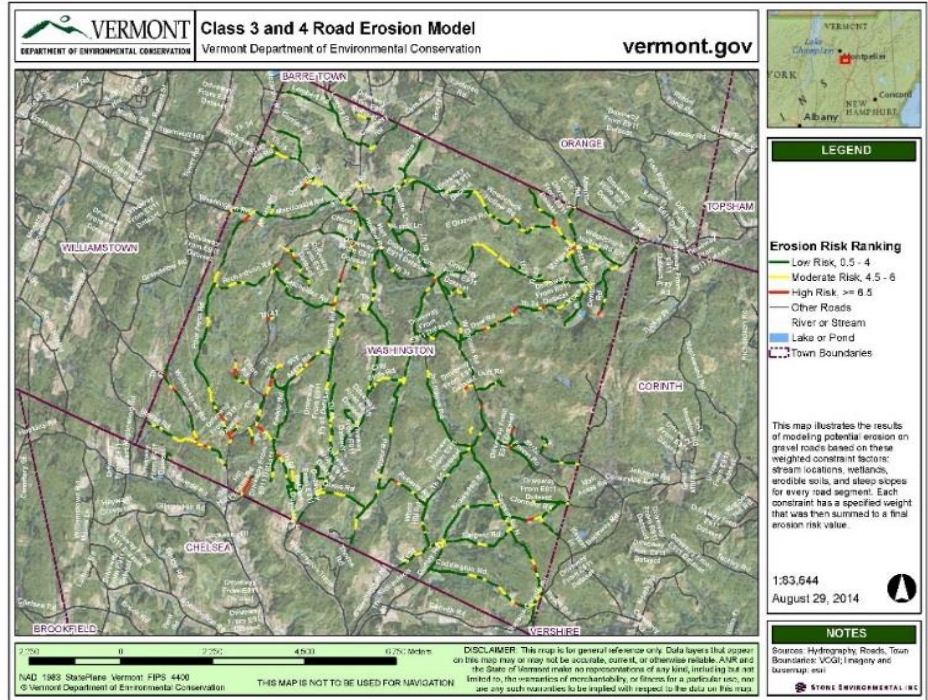Vermont

Date Completed
September 2014

Project Owner
Vermont Department of Environmental Conservation

Project ID#
14-036

Stone worked with Ecosystem Restoration Program and Better Backroads staff to develop and refine a methodology for using desktop GIS to identify areas of the Class 3 and 4 road network that are likely susceptible to erosion and sedimentation resulting in water quality impact.

CLASS 3 and 4 roads a significant source of pollution to the waters of Vermont. The Department of Environmental Conservation's Watershed Management Division, through the Ecosystem Restoration Program, was interested in addressing this issue by identifying locations where the potential risk of erosion and sediment and phosphorus pollution is considered high.

Stone worked with Ecosystem Restoration Program and Better Backroads staff to develop and refine a methodology for using desktop GIS to identify areas of the Class 3 and 4 road network that are likely susceptible to erosion and sedimentation resulting in water quality impact. Stone gathered all necessary data layers; identified processing steps and set up an ArcGIS project for this analysis; completed test runs to verify desired output; confirmed results with Ecosystem Restoration Program and Better Backroads staff.

Much of the methodology used in this assessment has been directly applied by DEC in developing the 'Hydrologically Connected Roads' GIS dataset that municipalities will be required to consult in complying with inventory and implementation planning for the Municipal Roads General Permit when issued later in 2017.