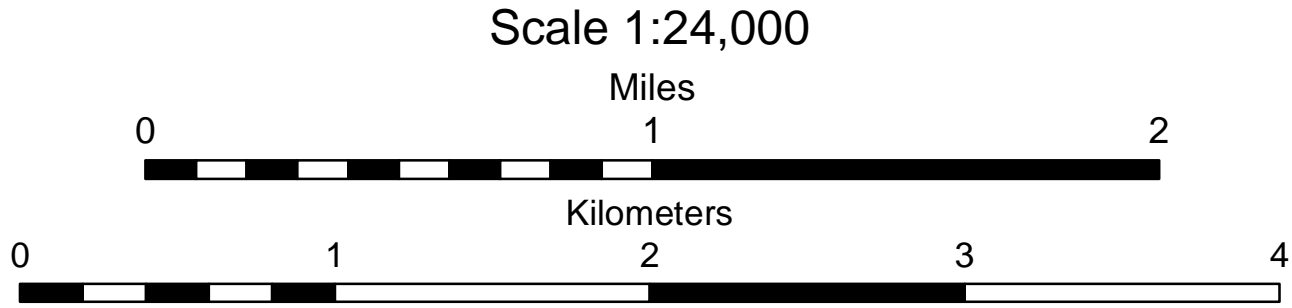




Potentially Unstable Slopes, Town of Highgate, Vermont

by George E. Springston
2016



Vermont Geological Survey
Open File Report
VG2016-4, Plate 5

- Highgate Boundary
 - Study Sites
 - Low-angle Landslides
 - Minor Roads
 - Major Roads
 - Interstates
 - Streams
 - Water Bodies
- Potential Instability**
- 0 - Low
 - 1 - Low
 - 2 - Moderate
 - 3 - High
 - 4 - High
 - 5 - High

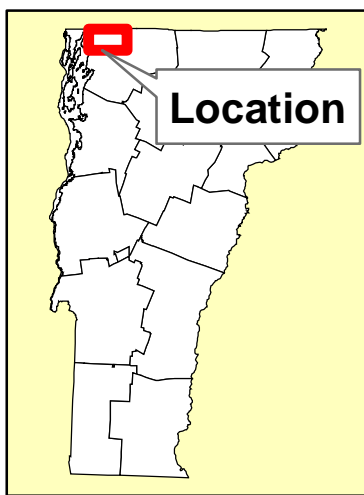
EXPLANATION

This plate shows a model of potential slope instability. It is based on the data shown in Plates 2 through 4. This data consists of raster classifications of the steepness of slopes, distance to streams and large water bodies, and valley depth. Weighted scores are calculated by summing up the values as listed below. Note that steep slopes are weighted the heaviest.

- Slope:
- Class 1 - 0 to 30 % (0 to 16.5°), Score = 0
 - Class 2 - 30 to 72.7 % (16.5 to 36°), Score = 2
 - Class 3 - > 72.7 % (>36°), Score = 3
- Distance to Stream:
- Class 1 - > 30 meters, Score = 0
 - Class 2 - 0 to 30 meters, Score = 1
- Valley Depth:
- Class 1 - 0 to 10 meters depth, Score = 0
 - Class 2 - > 10 meters depth, Score = 1

The sum of the three factors can range from 0 to 5. Sums of 0 and 1 are interpreted to represent low potential for slope failure. Sums of 2 represent intermediate or moderate potential. Sums of 3 through 5 represent high potential.

The final values should be interpreted cautiously as there are many other factors that can influence the stability of slopes. Areas with scores of 2 that are in the vicinity of areas with higher scores should probably be considered to have increased potential for slope instability.



Base map layers from Vermont Center for Geographic Information. Coordinate System: Vermont State Plane, meters, NAD 83. Geographic coordinates shown at top corners are in NAD 83.

Digital cartography by George Springston, June 30, 2016. Research supported by the Vermont Geological Survey, Dept. of Environmental Conservation, VT ANR.

The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the State of Vermont.

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Vermont Geological Survey Open File Report

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