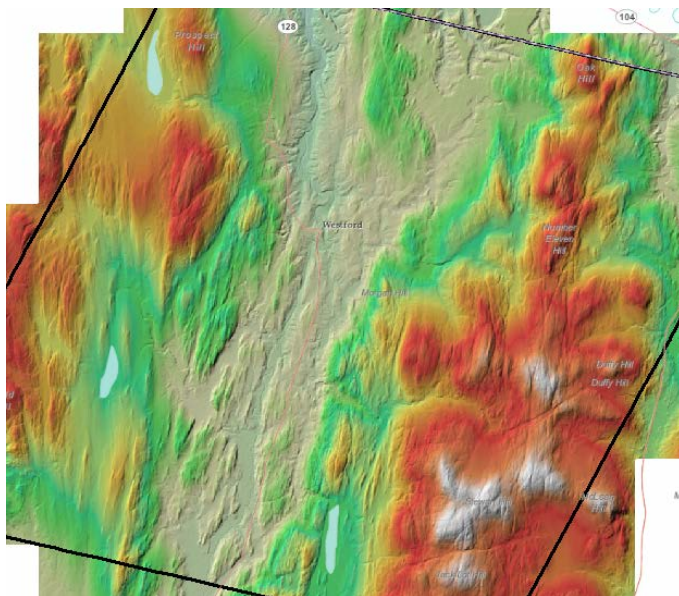LIDAR, which stands for *Light Detection and Ranging,* is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the Earth. These light pulses—combined with other data recorded by the airborne system— generate precise, three-dimensional information about the shape of the Earth and its surface characteristics.

A few years ago, CCRPC provided funds to help with the LIDAR acquisition for Chittenden County, a project that included Lamoille, Orleans and Washington Counties as well. This acquisition is called the Quad Counties LIDAR Project and is part of an effort to acquire LIDAR for the whole state. The LIDAR, which was acquired in 2014, has been delivered to CCRPC! The delivery includes more than just the LIDAR point cloud data.

CCRPC now has the raw and classified data, 1 ft contours, Digital Elevation Models, and intensity images for the whole region. Here is a DEM of Westford:

This DEM as well as the contour data will soon be added to Westford's Map Viewer - http://map.ccrpcvt.org/westfordmapviewer/.

There are many benefits to having this data. Highly accurate elevation data on hydrologic features, landforms, infrastructure and other features is beneficial for improving flood readiness, public safety and emergency management, water quality, resiliency and decision support. LiDAR technology is currently the most efficient and cost effective means of acquiring this data. To learn more about uses of LIDAR, check out this article.

CCRPC is interested and excited to put this high-quality data to use for the region. If you have a project or issue that might benefit from the LIDAR or any of its derivatives, please contact Pam Brangan (pbrangan@ccrpcvt.org).