**“Using Sequential LiDAR to Monitor & Catalog Landslides in Kenton and Campbell Counties in Northern Kentucky”**

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**Abstract:**

 Landslides are a well-known but costly natural hazard in Cincinnati & Northern Kentucky, but are difficult to catalog and monitor because of the steep forested slopes that characterize the region. Using elevation change maps derived from successive LiDAR surveys from 2007 and 2012, locations of previously reported and cataloged landslides were observed, and new uncatalogued landslides were searched for. In the initial study area representing 1.6% of Kenton & Campbell counties, six out of ten previously cataloged landslides showed signs of activity, and eight previously uncatalogued landslides were identified. Both thin colluvial slides and slumps were identified using this method, and previously uncataloged landslides were either field checked or confirmed using air photos in Google Earth. The use of sequential LiDAR in this area of heavy vegetation and steep slopes appears to be a useful tool for monitoring known landslides and for delineating and cataloging new landslides, and will support further study into the character of slope movement in the region.