Rivers are constantly changing their shape through everyday erosion, seasonal changes in flow, flood events and changes in the land use on their banks. Significant changes in a stream channel can cause damage to roads, homes and businesses located along the channel. The pattern of settlement and topography of Vermont puts Vermont infrastructure at a high risk for potential damage from flooding and erosion. Like many Vermont Rivers, the Mad River has undergone great change in the last few decades.

This study examines the magnitude of stream channel change of the Mad River over a 12-year span, using aerial imagery from 1999, 2003, 2008 and 2011. A combination of Geographic Information Systems and River Geomorphic Assessment Data were used to determine what factors contribute to conditions conducive to stream channel migration of the Mad River. Preliminary results suggest that there may be a correlation between the change in elevation of a reach and the magnitude of total lateral change of that reach. Additional results to be presented will explore the effects of recent flood events and distance downstream from tributary junctions.