

ICNet Members' New England Research & Project Survey



Research/Project Focus	Sea Level Rise and Coastal NH Roadways
Research/Project Description	The goal of this study was to quantify the impacts of increased storm surges, resulting from an anticipated increase in sea level rise, on the New Hampshire seacoast transportation infrastructure by analyzing the wearing course of a typical pavement.
Primary Category*	Pavement
Geographic Location	NH Seacoast
Funding	Unfunded
Contact	Jennifer Jacobs, UNH: Jennifer.Jacobs@unh.edu ; Jo Daniel, UNH; Jo.Daniel@unh.edu
Infrastructure sectors effected, subject area	Pavement
For modeled climate or sea level rise projections, AOGCM or other sources used	Kirshen et al. 2010
Other Information, data, models, used	Stillwater Elevations (SWEL) determined for Portsmouth, NH for 10, 20, 50, and 100-year storms with sea level rise projections (Kirshen, et al.). GIS maps of topography from Light Detection and Ranging (LiDAR) and NH road layer data

Time periods analyzed	Present Day and 2050
Status /Date submitted to ICNet	Completed. Submitted to ICNet 2013
Brief key findings to date	Total Inundated Interstate & Secondary Road Lengths along NH Coastline for all Design Storms Selected indicate significant increases in frequency of inundation and extent (e.g., the 100-yr event will be the 50-yr event).
Key publications/reports?	Shingleton, C., M. Giroux, and S. Welch. 2012. Impact of Climate Change on Road Design. Unpublished Report
Other information (e.g., web links to technical reports).	See contacts

*** Categories: Roads, bridges, and culverts; Pavement and/or soils; Hydrology (study of data/floods); Environmental/water resources (stormwater, drinking water); Transportation assets (network); Climate model output**