ICNet Members' New England Research & Project Survey

Research/Project Focus	Sea Level Rise For Route 1 Bridge Designs
Research/Project Description	Address cost and risk issues associated with projected sea level rise and threats to state infrastructure elements that are also designed to pass freshwater streams and rivers. More specifically, this project aims to help develop storm surge-sensitive design standards for large, tidally influenced transportation structures along the Maine coast.
Primary Category*	Roads, Bridges ,Culverts
Geographic Location	Southern Maine (Portland) and downeast Maine (Machias)
Funding	MaineDOT
Contact	Ellen Douglas, UMass-B: Ellen.Douglas@umb.edu ; Paul Kirshen, UNH" Paul.Kirshen@unh.edu, Charlie Hebson, Maine DOT
Infrastructure sectors effected, subject area	Bridges
For modeled climate or sea level rise projections, AOGCM or other sources used	For SLR: Vermeer, M. and S. Rahmstorf, 2009. Global sea level linked to global temperature, Proceedings of the National Academy of Sciences, 106 (51): 21527–21532
Other Information, data, models, used	Coast Tool

Time periods analyzed	Mid-Late 21st century
Status /Date submitted to ICNet	Machias complete (2012); Portland In progress (anticipated completion 2013). Submitted to ICNet Oct 2013
Brief key findings to date	N/A
Key publications/reports?	Cost-Efficient and Storm Surge-sensitive Bridge Design for Coastal Maine: A Case Analysis. Douglas, E., Kirshen, P., and Merrill, S., through the New England Environmental Finance Center, 31 Dec 2012.
Other information (e.g., web links to technical reports).	N/A

*** 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**