



Name	An Evaluation of Flood Risk to Infrastructure across the Chignecto Isthmus
Description	With sea-level rise (SLR) estimates of 1 to 5 m predicted for the Chignecto Isthmus by 2100, and more intense storms another likely consequence of climate change, Nova Scotia Transportation and Infrastructure Renewal (NSTIR) has real concerns for protecting the significant public infrastructure that it has to manage. Flood modeling using a new high-resolution digital elevation model (Lidar-DEM) of the Isthmus terrain between the upper Bay of Fundy and the Northumberland Strait clearly shows (1) critically low segments within agricultural dykes in NS and NB that would flood during storm surges that coincide with high tides,(2) dyke overtopping at these low areas and flooding of portions of the Canadian National Railway and Trans-Canada Highways(delays in inter-provincial and international trade with a value of \$50 million per day), (3) extensive flooding of local roads and protected dykelands, and (4) salt water damage to agricultural lands and the many non-agricultural, public and private assets (with more than ten times the value of agricultural assets according to recent estimates from NS Agriculture).
Type	
Sector	- Infrastructure - Economic Resources
Focus Area	- Coasts and Climate Resilience (including sea-level rise)
Region	
Lead Agencies	Atlantic Climate Adaptation Solutions Association Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR)