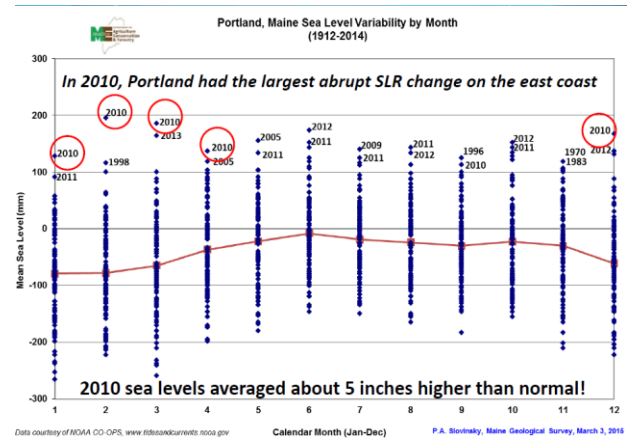


Effects of Sea-level Rise on Scarborough, Maine

General Overview—Sea-level Rise in Maine:

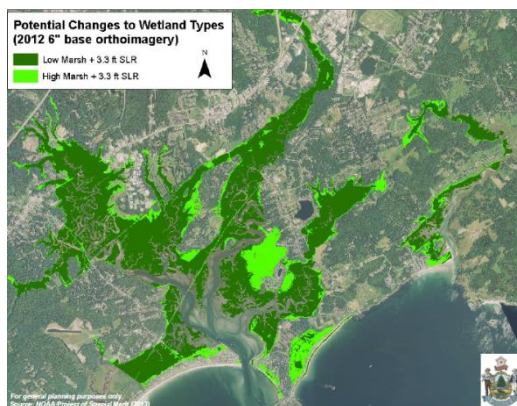
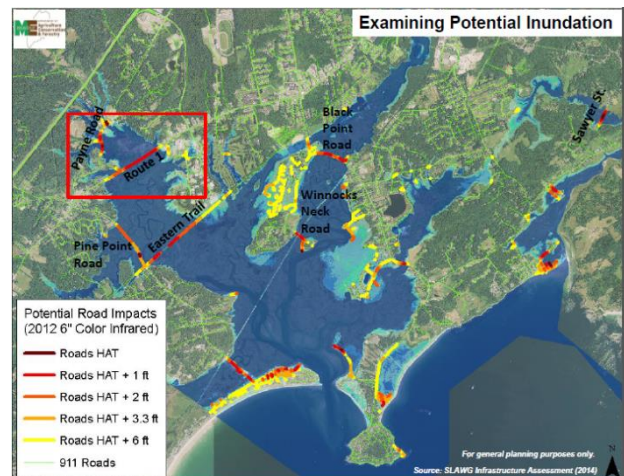
- Sea-level rise can change much more abruptly than we think. In 2010, Maine experienced the most erosion in 50 years and the Gulf of Maine rose 8-16 inches in just a few months.
- The Gulf of Maine is much more susceptible to sea-level rise because it's an enclosed basin, so is rising faster than other places.
- There's only a one-foot difference between Maine's 10-year and 100-year flood levels, so a moderate amount of sea-level rise would create a lot of trouble.
- Sea-level rise does not occur in a vacuum – flooding effects can be made far worse when there are significant changes in rainfall, too.



Impacts on Scarborough:

Structures and Roads:

- There are 1,213 structures in Scarborough within the 100-year-flood plain, worth \$124 million.
 - Rising seas will expand the flood plain involving even more structures.
 - Higgins Beach contains a particularly large amount of private real estate at risk.
- Many road networks in Scarborough are low lying, some already flood and with even minimal sea-level rise would be even worse. Some major connectors that are low lying and at risk include Route 1, Pine Point Road, and Black Point Road.
 - Just one foot of sea-level rise could inundate 2.2 miles of road.



Wetlands:

- Scarborough is also home to the largest expanse of coastal wetlands in Maine.
 - Most of the coastal wetlands are near developed land or high slopes, so there's not a lot of room for them to expand. This would lead to loss of the high marsh and dramatic growth of low marshlands.
 - High marsh is vital habitat for birds like the Saltmarsh Sparrow as well as an important buffer for storms.

Community Response in Scarborough:

- Scarborough joined SLAWG (Saco Bay Sea Level Adaptation Working Group) made up of Scarborough, Old Orchard Beach, Saco, and Biddeford. They are using sea-level rise maps from Maine Geological Services to help guide town planning.
- The Scarborough Conservation Commission is currently engaged with town departments, making presentations about sea-level rise and storm surge to help determine existing knowledge, problems, and issues. They will use that information to then develop recommendations.