**Comprehensive Planning Resource Packages**

**April 2021**

**Geological information from the Maine Geological Survey**

**Castine**

Significant Sand and Gravel Aquifer Maps:

Neil, Craig D., and Foley, Michael E., 2006, [Significant sand and gravel aquifers in the Castine quadrangle, Maine](https://digitalmaine.com/mgs_maps/1517): Maine Geological Survey, Open-File Map 06-13, map, scale 1:24,000.

Surficial geology maps:

Thompson, Woodrow B., 2013, [Surficial geology of the Castine quadrangle, Maine](https://digitalmaine.com/mgs_maps/1971): Maine Geological Survey, Open-File Map 13-8, map, scale 1:24,000.

Coastal geology maps:

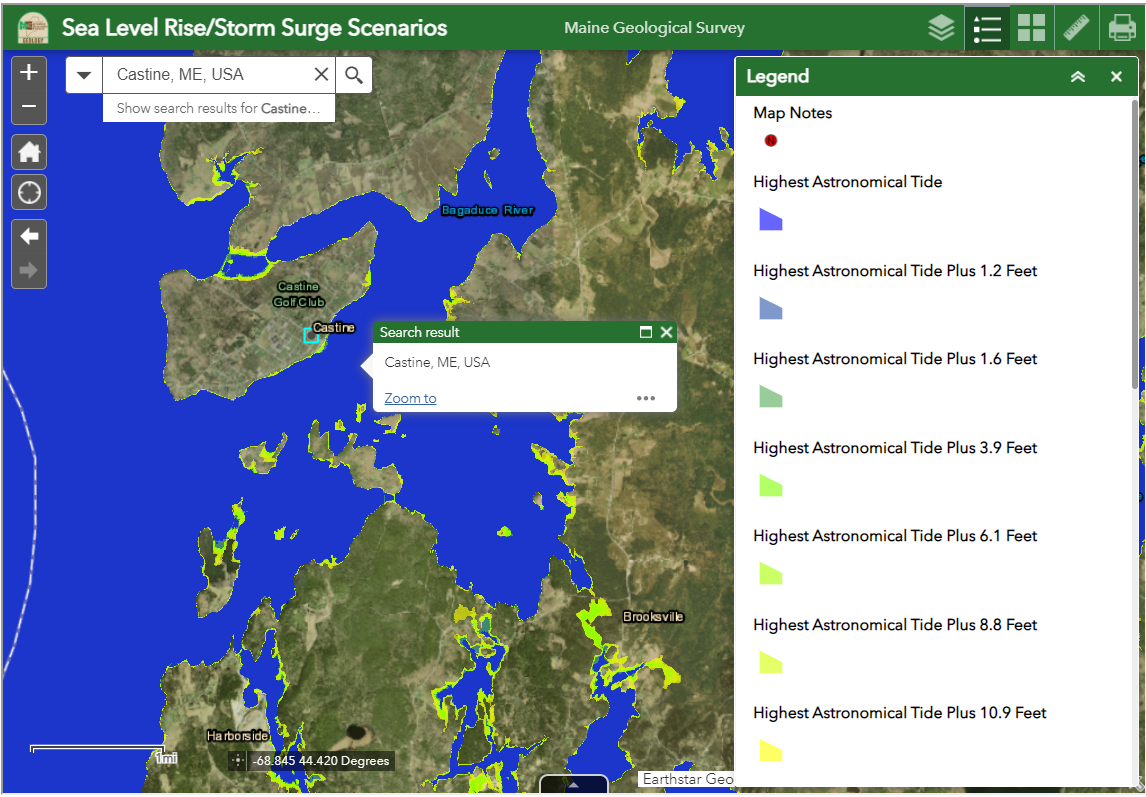
Dickson, Stephen M., 2003, [Coastal landslide hazards in the Castine quadrangle, Maine](https://digitalmaine.com/mgs_maps/350): Maine Geological Survey, Open-File Map 03-101, map, scale 1:24,000.

Barnhardt, Walter A., Bryant, Marita, Keblinsky, Corinn C., Dickson, Stephen M., and Kelley, Joseph T., 2003, [Coastal bluffs in the Castine quadrangle, Maine](https://digitalmaine.com/mgs_maps/346): Maine Geological Survey, Open-File Map 03-102, map, scale 1:24,000.

Sea-level Rise and Storm Surge

The Maine Geological Survey’s mapping portal approximates the potential inland extent of inundation from several scenarios (1.2, 1.6, 3.9, 6.1, 8.8 and 10.9 feet) of sea level rise or storm surge along the Maine coastline on top of the Highest Astronomical Tide. Scenarios include low, intermediate low, intermediate, intermediate high, high, and extreme sea level rise at the 50% confidence interval. The data were developed with a static (“bathtub”) inundation model that uses LiDAR topographic data as a base digital elevation model. The primary purpose of these data is to help inform storm surge and sea level rise vulnerability assessments and community planning.

Sea-level rise and storm surge mapping portal: <https://www.maine.gov/dacf/mgs/hazards/slr_ss/index.shtml>

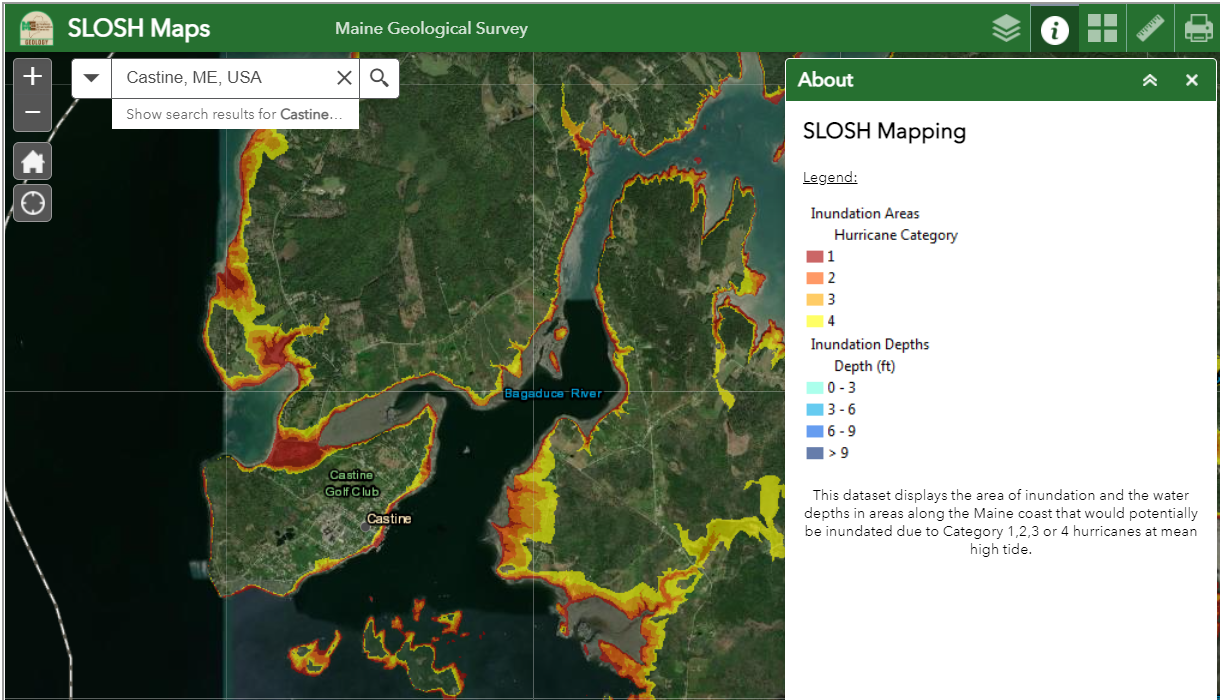


This image is example output from the portal for the Castine area.

Sea Lake and Overland Surges from Hurricanes (SLOSH) Maps

This dataset displays areas along the Maine coast that would potentially be inundated due to Category 1, 2, 3, or 4 hurricanes at mean high tide. Areas of inundation shown are expected to be below the overall storm tide, which is a combination of predicted astronomical tide and storm surge. Additional layers show potential inundation depths associated with the different events. These data were produced using the Sea, Lake, and Overland Surges from Hurricanes, or SLOSH, model. Data is meant to support emergency and evacuation planning purposes.

SLOSH mapping portal: <https://www.maine.gov/dacf/mgs/hazards/slosh/index.shtml>



This image is example output from the SLOSH portal for the Castine area.

Sand and gravel aquifer map information

From the map explanation:





Coastal bluff map information



Additional information on coastal bluff maps: <http://www.maine.gov/dacf/mgs/pubs/mapuse/series/descrip-bluff.htm>

Coastal landslide hazard map information



Additional information on coastal hazards: <http://www.maine.gov/dacf/mgs/explore/marine/facts/coastal-hazard.htm>

Surficial geology information

Surficial deposits are the unconsolidated earth materials that overlie bedrock. They cover a large percentage of the State and include sediments deposited by wind, water, and glacial ice. Glacial deposits are by far the most abundant surficial materials in Maine.

Consideration of surficial materials is important for land-use planning. The properties of these materials affect their values as aquifers, landfill or sewage disposal sites, construction sites, and sources of gravel and other resources.

Glacial sand and gravel deposits: These coarse-grained deposits are often good groundwater aquifers; sources of gravel aggregate

Glacial marine mud and lake deposits: these fine-grained deposits are poorly drained and are the material in which most landslides occur in Maine.

Further information can be found in [Bulletin 44: Surficial geology handbook for southern Maine.](http://digitalmaine.com/mgs_publications/2/)

All maps, reports, and digital data are available from the Maine Geological Survey

<http://www.maine.gov/dacf/mgs/>

207-287-2801

93 State House Station, Augusta ME 04333