Building Resilience to Climate Change in Maine’s Coastal and Island Communities

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Photo credit: Jack Sullivan
...and the global average will rise 1.72 mm/yr, but local geophysical forces and steric expansion...

Yea, bud, but when do we get wet?
SEAL LEVEL RISE
It's Happening!

https://www.youtube.com/watch?v=fJSGvxoHV3g
Cost of Sea Level Rise - Vinalhaven

Sea Level Rise Inundation

All of Maine's coastal communities will experience changes because of sea level rise. The amount and type of change each community experiences will be dependent on multiple factors. Here the map shows the percent of total acreage of each community that will be flooded by a sea level rise of 6.1 feet. Vinalhaven could lose more than 10% of its land by 2100 given current projections.

Projected Scenarios

*The Maine Geological Survey viewers use sea level rise scenarios ranging from 1.2-10.9 feet on top of the highest astronomical tide. For our analysis, we used the 3.6 feet (Intermediate low), 3.9 feet (Intermediate), and 6.1 feet (Intermediate high) scenarios.*

*Shown in the chart are sea level rise scenarios for Bar Harbor with probabilities for future.*

<table>
<thead>
<tr>
<th>cranberry Isles</th>
<th>Total Acres</th>
<th>SLR 1.2 ft (acres)</th>
<th>SLR 1.6 ft (acres)</th>
<th>SLR 3.9 ft (acres)</th>
<th>SLR 6.1 ft (acres)</th>
<th>SLR 8.8 ft (acres)</th>
<th>SLR 10.9 ft (acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,028</td>
<td>236</td>
<td>260</td>
<td>438</td>
<td>595</td>
<td>825</td>
<td>971</td>
</tr>
</tbody>
</table>
How We Work

• Facilitating community conversations to spur adaptive actions
• Providing planning and technical support to move communities forward
• Making targeted investments to leverage larger returns from State and Federal Programs
With Partners

[Logos of partners: Maine Department of Agriculture, Conservation, and Forestry, Maine Coastal Program, Maine Coast Heritage Trust, Nature Conservancy (Maine), Gulf of Maine Research Institute, Island Institute, NOAA]
Join the ShoreUp Maine Google group!

The intent of this group is to share information and provide tools to coastal communities so that they better understand implications of sea level rise in their communities and can make informed adaptation decisions, especially around critical waterfront infrastructure.

Tools include resources, events, and best practices that help build community awareness and resilience around rising seas and Maine coastal flooding.

Managed by the Island Institute, this group strives to leverage, connect and expand existing coastal and island networks necessary for communities to prepare for changing impacts.

https://groups.google.com/forum/#!forum/shoreup-maine
Ex) Monhegan Island-
Freshwater
Drinking Supply
Ex) Vinalhaven “Downstreet”

Economic Heartbeat
- 30+ businesses
- $13 million in RE value
- Emergency Services
- Boatyard
- Lobster Buyers
- Mixed Use
> 2/5 of residential properties and > 2/3 of commercial properties will experience flooding.
Late in 2017, the U.S. government released a report on climate change that estimates more extreme and damaging weather disaster events and a rise in global sea levels amounting to several inches in the next 15 years and one to four feet—with the possibility of rising even by as much as eight feet—by 2100. Looking to the future, the National Oceanic and Atmospheric Administration (NOAA) identifies the coast of Maine as being particularly vulnerable to storm events and sea level rise. In fact, the coast and islands are already grappling with historic storm damage and coastal flooding.
Strengthening communities by supporting community infrastructure projects and small businesses focused on diversifying our economy while generating measurable impacts that are at once economic, social, and environmental.

These small grants, up to $10K, have leveraged over $985K for communities to date!
SHOREUP MAINE 2019

Sea Level Rise: Who Pays and How?

FRIDAY, SEPTEMBER 27, 2019
UNITED FARMERS MARKET OF MAINE • BELFAST, MAINE

What We Need

We need direct investments into the state...

It’s about the ability to Plan...

...and the ability to implement once we know the cost and time horizon
Governor Mills Signs Major Renewable Energy and Climate Change Bills Into Law

June 26, 2019

Signed legislation establishes in law and will help achieve Governor's goals of 80 percent renewable energy by 2030 and emissions reductions of 80 percent by 2050

More asthma, fewer cod: Mills cites impacts on Maine as she pitches climate council to lawmakers

The governor tells the Environment and Natural Resources Committee that Maine will need to diversify its industries and find new sources of energy in response to climate change.
Thank you. Questions?

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