

The University of Maine Cooperative Extension and Maine Sea Grant Program at the University of Maine are public, non-advocacy organizations; therefore we would like to provide neither-for-nor-against informational testimony on L.D. 49, An Act To Authorize a General Fund Bond Issue To Invest in Infrastructure To Address Sea Level Rise.

Based on an intermediate global emissions scenario, there is a 67% probability that sea level will rise between 3 and 4.6 feet by the year 2100. With this rate of sea level rise, not accounting for increased intensity and frequency of storms, Maine would see a 10-fold increase in coastal flooding by 2050.

The Science and Technical subcommittee of the Maine Climate Council recommends that we commit now, to manage for 1.5 feet of relative sea level rise by 2050 (3.9 feet by the year 2100), and suggests also to prepare for the more extreme possibility of 3.0 feet by 2050, and 8.8 feet by 2100.

We consistently work with coastal communities and impress upon the legislature that such preparations are an enormous undertaking for municipalities accustomed to budget constraints and limited capacity for even routine responsibilities. For municipalities to accommodate increasing sea level, protect vulnerable infrastructure, and relocate critically vulnerable infrastructure out of harm's way, are imperative actions. The *cost* of these actions are more aptly called investments, as research has now abundantly shown that the dollars spent on pre-disaster preparedness have far greater returns in the form of avoided damages. However, such preparation within coastal communities in Maine is unlikely to occur without a Bond instrument available to municipalities.

In our 2019 study, which assessed municipal preparedness to climate change, [Preparing for a Changing Climate: The State of Adaptation Planning in Maine's Coastal Communities](#), we determined that lack of access to funding was the primary barrier for municipalities to prepare for climate change.

In our current work with 14 coastal communities in Penobscot Bay and Passamaquoddy Bay ([Collaborating Toward Climate Solutions](#)), sea level rise, storm surge and flooding are the most vocalized concerns across communities. Here too, financing adaptation is the most often discussed barrier for each town's ability to improve local resilience to climate change.

Coastal municipalities state-wide, seek and require external funds to prepare for climate change. As sea level rise is collectively the most consequential challenge faced by coastal communities, it is timely and necessary to "provide funds to improve waterfront and coastal infrastructure in municipalities to address sea level rise." Issuing a general fund bond, in an amount not exceeding \$50,000,000, substantially expands coastal communities access to funding in addressing sea level rise.

We add that, as municipalities decide how to prepare for sea level rise, it is important that the proposed bond not inadvertently limit options for local decision making. We ask that the costs of re-location qualify for funds to "improve waterfront and coastal infrastructure in municipalities to address sea level rise" as stated in LD 49. Re-location is a process whereby a community's public infrastructure or assets are strategically moved, abandoned or rebuilt in another location that is out of the path of coastal hazards. It is important that the approach of LD 49 never leads to maladaptive outcomes, and that the availability of funds does not bias a community to reinforce particular infrastructure which is better suited for relocation.