Dear Senator Brenner, Representative Tucker, and Esteemed Members of the Environment and Natural Resources Committee,

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. 1572, Resolve, To Analyze the Impact of 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.

LD 1572 requires state agencies that manage and regulate coastal land use, to review the laws and rules they administer and recommend changes to this Committee, by January 1, 2022, that: 1. Incorporate consideration of 1.5 feet of relative sea level rise by 2050 and 3.9 feet of relative sea level rise by 2100; and 2. Implement "Strategy F3" in the state climate action plan. It is imperative that we revise our laws now to give the guidance to our coastal communities to adequately site or modify infrastructure, protecting valuable working waterfronts by adapting to our changing climate.

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 guidance from the best science 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 and information to adapt to rising sea levels were the primary barriers 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 was the most vocalized concern across communities, followed by storm surge and flooding. Here too, financing and information to adapt are the most often discussed barriers for each town's ability to improve local resilience to climate change.

As sea level rise is collectively the most consequential challenge faced by coastal communities, it is timely and necessary to provide the critical information that the Science and Technical Subcommittee of the MCC has advised: Maine must commit to manage for 1.6 feet of SLR by 2050 and 3.9 feet by 2100. They further advised that we must be prepared to manage for 8.8 feet of SLR by 2100. These levels of SLR, coupled with the Highest Astronomical Tide, will have staggering consequences.

Respectfully,

Esperanza Stancioff, Extension Professor
Climate Change Lead
University of Maine Cooperative Extension/Maine Sea Grant
377 Manktown Rd
Waldoboro, ME 04572
(207) 832-0343
esp@maine.edu