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Committee on Appropriations and Financial Affairs  
c/o Legislative Information Office  
100 State House Station  
Augusta, ME 04333

April 26, 2021

## RE: LD 49, An Act To Authorize a General Fund Bond Issue To Invest in Infrastructure To Address Sea Level Rise

Dear Senator Breen, Representative Pierce, and Distinguished Members of the Committee,

Friends of Casco Bay submits this testimony in support of LD 49, An Act To Authorize a General Fund Bond Issue To Invest in Infrastructure To Address Sea Level Rise. This bond would provide \$50,000,000 in funding to improve waterfront and coastal infrastructure in municipalities to address sea level rise.

Friends of Casco Bay is a marine stewardship organization formed in 1989 to improve and protect the environmental health of Casco Bay. We monitor the health of Casco Bay, and use that data to inform our advocacy and engage our communities in efforts to protect the health of our coastal waters.

Our data confirm that the biggest threat to the health of Casco Bay is climate change. We serve on the Coastal and Marine Working Group (CMWG) of the Maine Climate Council (MCC), and whole-heartedly agree with the MCC that we must act quickly to curb the causes and be resilient to the consequences of climate change. The “Maine Won’t Wait” climate action plan is based upon sound science and calls for swift action. The plan recognizes that municipalities will need technical and financial assistance to implement resilience solutions. The funding must occur now so that timely changes can be made to address current consequences and prepare for the future.

Sea level rise (SLR) poses one of the biggest and most visible threats to our coastal communities.<sup>1</sup> In our recent program, “Sea Level, Storms and Surges, Oh My,” attended by about 350 participants, Mainers identified SLR and its impacts on both built and natural environments as their top coastal concern. (See footnote 1 below.)

Based on projections calculated by the Science and Technical Subcommittee and adopted by the MCC, we must commit to manage for 3.9 feet of SLR and be prepared to manage for 8.8 feet of SLR by 2100. We likely will have 1.6 feet of SLR by 2050.

<sup>1</sup> For an overview of the science behind SLR and the actions Maine must take, please watch <https://www.cascobay.org/rising-seas-and-storm-surges-in-casco-bay/>.

If we couple those levels of SLR with the Highest Astronomical Tide,<sup>2</sup> the MCC projects that:

- With 1.6 feet of SLR, six of the ten waste water treatment facilities currently within the 100 foot floodplain will be permanently inundated.
- The nuisance flooding that already impacts coastal Maine will increase 10-15 fold with just 1 foot of SLR, increasing from average flooding of about 14 hours per year to about 142 hours per year.
- With 1.6 feet of SLR, 26 miles of coastal public roads, 6 miles of rail, and 977-1022 crossings and culverts (ERG Summary, p. 11) will be inundated. With 3.9 feet of SLR, 116 miles of roads, 23 miles of rail, and 1128-1180 crossings and culverts will be flooded (ERG Summary p. 11).
- With 1.6 feet of SLR, 61% of undeveloped dunes and 85% of developed dunes will be inundated. By 2100, 3.9 feet of SLR will inundate 93% of undeveloped dunes and 96% of developed dunes. (STS Report, Table 17, p.99).
- In addition, 1.6 feet of SLR will inundate 43% of protective dry beach, and with 3.9 feet of SLR, we will lose 74% of dry beach. (STS Report, Table 15, p. 98).

The economic consequences of these changes will be staggering for municipalities. Economists hired by the MCC estimate that by 2050, Maine's coastline will sustain damages of up to \$17.5 billion. The costs to redesign or move wastewater treatment facilities, raise or relocate roads, move infrastructure in dunes, and replace and resize crossings and culverts will be staggering. Yet, we continue to be a state that gravitates to coastal living and coastal livelihoods. Providing \$50,000,000 now will provide municipalities with a chance to leverage additional funds so they can address current infrastructure failures related to SLR and prepare for a more resilient future.

Friends of Casco Bay respectfully and ardently requests that this Committee support LD 49, An Act To Authorize a General Fund Bond Issue To Invest in Infrastructure To Address Sea Level Rise. Thank you for considering our testimony.

Respectfully submitted,



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<sup>2</sup> As referenced on the web page for the Maine Geological Survey, the Highest Astronomical Tide is the elevation of the highest predicted astronomical tide expected to occur at a specific tide station over the National Tidal Datum Epoch, or NTDE. The NTDE is a specific 19-year period adopted by the National Ocean Service as the official time segment over which tide observations are taken and reduced to obtain mean values (e.g., mean lower low water, etc.) for tidal datums. It is necessary for standardization because of periodic and apparent secular trends in sea level. The present NTDE is 1983 through 2001 and is actively considered for revision every 20-25 years.

