



Committee on Environment and Natural Resources
c/o Legislative Information Office
100 State House Station
Augusta, ME 04333

May 7, 2021

RE: LD 1572, Resolve, To Analyze the Impact of Sea Level Rise

Dear Senator Brenner, Representative Tucker, and Members of the Committee:

Thank you for the opportunity to share testimony in support of LD 1572, a Resolve, To Analyze the Impact of Sea Level Rise, on behalf of Maine Audubon and our 30,000 members and supporters.

LD 1572 would direct the Maine Department of Environmental Protection; Maine Department of Transportation; Maine Department of Defense, Veterans and Emergency Management; Maine Department of Inland Fisheries and Wildlife; the Maine Department of Marine Resources; and the Maine Department of Agriculture, Conservation and Forestry to conduct a comprehensive review of their associated statutes and rules and to recommend to the Maine Legislature revisions to incorporate consideration of the best available science on sea level rise in Maine, specifically, 1.5 feet of relative sea level rise by 2050 and 3.9 feet by 2100, into administration of those laws. Maine Audubon supports this legislation because it is an essential first step toward policy development and changes that will better protect Maine wildlife species that are imminently threatened by rising sea levels.

This legislation is a result of the Maine Climate Council's Scientific and Technical Subcommittee's "Scientific Assessment of Climate Change and its Effects in Maine". The "Assessment" is the most comprehensive analysis of climate change's effect on Maine in more than a decade and represents the contributions of nearly a hundred leading scientists and other experts. The report's conclusion is unequivocal: There is an urgent need for Maine to reduce harmful greenhouse gas emissions to support global efforts to slow climate changes and to prepare for the impacts of climate change. This legislation addresses the latter.

The Gulf of Maine is warming faster than 99 percent of the world's oceans. Among the effects of warming oceans is rising sea levels. Sea levels along Maine's coast have risen about 1 foot/century (approximately 0.1 inches/year) in the last few decades, after rising 0.6 to 0.7 feet/century since the early 1900s. As Maine's sea level rises, coastal communities and ecosystems will see increased frequency of nuisance flooding, inundation of coastal lowlands with saltwater, erosion, and loss of dry beaches, sand dunes, saltmarshes, and other habitats. A 1.6-foot sea-level rise may submerge 67% of Maine's coastal sand dunes, reduce dry beach area by 42%, and wipe out Maine's saltmarshes.

Sand dunes, dry beaches, and saltmarshes provide invaluable ecosystem services and

economic benefits. Coastal dunes protect buildings and infrastructure from waves and flooding. Saltmarshes protect coastlines from erosion. Beaches are elemental to Maine's tourism economy. But closest to Maine Audubon's mission, these areas contain critical wildlife habitat. This legislation is an essential first step in the development of policy that prepares for these habitat changes as a result of climate change.

Sea level rise is causing more frequent marsh inundation, loss of marsh, conversion of marsh types, and as a result, increased stress to the species that call these areas home. Maine's Natural Resource Protection Act rules, which serve to protect saltmarshes, do not account for these impacts, the eventual migration of marshes inland, and sea level rise generally. This will have grave implications for species such as the Saltmarsh Sparrow if the regulations are not modified.

It is estimated that 4 out of every 5 Saltmarsh Sparrow has already disappeared from the Atlantic Coast, leaving the species vulnerable to extinction within 50 years if no action is taken. Tidal flooding drowns chicks or washes out eggs. While Saltmarsh Sparrow have adapted to tidal flooding from monthly lunar tides, they are not adapted to increased flooding from rising seas and storms. However, if high marsh areas where they typically nest are allowed to migrate inland and upland over time, there may be hope. In the meantime, work is being done to artificially elevate some nests to save the species from extinction.

The Saltmarsh Sparrow is but one example of a species that is imminently threatened by rising sea levels and would benefit from the incorporation of sea level rise projections into existing regulations. Endangered Least Terns and Piping Plovers rely on sandy beaches and sand dune habitat on Maine's coast to nest and rear their young. Piping Plovers feed on small invertebrates found in the sand and mud flats, and Least Terns feed on small fish found in our estuaries. Flooding and erosion of these areas could be devastating to these birds if these areas are not allowed to naturally expand. Flooding and erosion of saltmarshes and estuaries is similarly troubling; it is already degrading the nursery havens for many young fish and shellfish that are the basis of Maine's commercial fisheries, but if allowed to migrate upland over time, may ameliorate these challenges.

Thankfully, Maine's Coastal Sand Dune Rules already look forward and account for sea level rise. However, the amount and rate of sea level rise needs to be updated based on the latest science, i.e., as recommended by the "Scientific Assessment of Climate Change and its Effects in Maine."

By asking Maine's natural resources agencies to review these and other statutes and rules for places where sea level rise should be updated or incorporated, we can stay one step ahead of potential devastation. These steps will help protect habitat for both endangered birds and people by planning ahead for shifting beaches, dunes, saltmarshes, and estuaries. We urge the Committee to support this bill. Thank you for your consideration of our testimony.

Sincerely,



Nick Lund
Outreach and Network Manager
Maine Audubon

