New Hampshire Association of Conservation Districts Position Paper
November 2022

NHACD contends that negative impacts on New Hampshire **coastal wetlands** and **tidal waters** adversely affect environmental and economic sustainability.

Coastal wetlands and tidal water resources provide vital ecological and economic benefits to NH. They protect against flooding and storm surges, provide habitats for wildlife and commercial fisheries, maintain and improve water quality, and offer outdoor recreation and nature oriented activities. Beaches and tourist based businesses provide substantial tax revenues and job growth, making the coastline one of the state's major economic drivers. The 2015 NH Wildlife Action Plan lists NH's 18 miles of Atlantic coast and 235 miles of tidally influenced bays, estuaries, and brackish rivers as the highest ranking habitat in our state for conservation need. Due to the expansive plans for development and accelerated sea level rise, NH coastal wetlands and tidal waters face degradation and depletion.

Development

Coastal wetlands and their natural benefits are negatively affected by direct and indirect impacts of increased population and development. Developmental infringement on and near coastal wetlands weakens an ecosystem's ability to sustain life. Roads crossing over tidal streams cause erosion, pesticide run off, and deterioration of both soil and water. Loss of upland buffer absorption and increasing impervious surfaces diminish effective water runoff and drainage. Man made infrastructures, building foundations, fisheries, storm water protections, wildlife habitats, and corridors on public and private lands become threatened. Rockingham County, which comprises all of New Hampshire's Atlantic sea coast, was the state's fastest growing county from 2010 to 2020. Continued pressure for development puts this sea coast region at high ecological risk.

Accelerated Sea Rise (ASR)

Coastal resources are also imperiled by accelerated sea rise. Projected sea level rise will result in widespread salt marsh/wetland loss as the land loses its capability to regulate its elevation relative to the rise in sea levels. Above water vegetation will drown. Submerged aquatic species will lose sufficient light necessary for growth and reproduction. Salt water will seep into freshwater aquifers. Developed land will flood. Home and business owners, as well as natural ecosystems face debilitating effects from rising seas.

Actions

NH has a long history of proactive stewardship and management actions directed at protecting and restoring coastal resources. To help stem the tide of negative impacts on coastal resources and prepare for projected sea level rise, the New Hampshire Department of Environmental Services (NHDES) recently updated both the state's wetlands regulations Env-Wt 600 Coastal Lands and Tidal Wetlands and Env-Wt 900 Stream Crossings to include increased and more stringent design standards for proposed impacts associated with coastal wetlands and tidal resources. NHACD county districts offer landowners and occupiers assistance in understanding and complying with state and federal regulations. The districts also help landowners and occupiers come into compliance with wetlands regulations and

related concerns upon request. Districts may seek grants to carry out restoration and protection efforts. Monies spent on NH coastal conservation serve benefits to the entire region.

NH scientists have joined world wide researchers to better understand the existing conditions of tidal wetlands, the effects of ASR, and possible intervention and restoration strategies to increase the resilience of tidal wetlands. Several agencies and groups including, but not limited to, the Coastal Adaptation Workshop (CAW), NHDES, NH Coastal program, Great Bay National Estuarine Research Reserve, Piscataqua Regional Estuaries Partnership (PREP), University of New Hampshire (UNH), and The Nature Conservancy (TNC) continue to work collaboratively on coastal issues. These organizations have been able to bring together multiple funding sources in support of new, innovative ecosystem assessment and planning tools:

- Tidal Wetland Maps - a high-resolution map depicting 14 categories of tidal wetland plant types and physical features on the salt marsh plain

- Comprehensive Plan for Resilient Salt Marsh - landscape-scale geospatial analysis that uses the latest mapping products to characterize salt marsh based on 24 metrics of condition, vulnerability, and adaptation potential (March 2022)

- Sea Level Affecting Marshes Model (SLAMM) - a mapping product that simulates the dominant processes involved in wetland conversions and shoreline modifications during long-term sea level rise

- Living Shoreline Site Suitability Model - a model that identifies sites that may be suitable for specific living shoreline approaches in order to address erosion issues along the NH shoreline

Collaboration between agencies, organizations, land owners, land occupiers, and conservationists have been instrumental in achieving policy changes and on-site practices.

NHACD must continue to assist those whose lives affect or are affected by negative impacts from development and accelerated sea rise along the NH seacoast in order to promote environmental and economic sustainability.

Resources

National Estuarine Research Reserve Association (NERRA), Biological Conservation, September, 2016. nerra.org/reserves/national-tools/marsh-resilience-assessment/

New Hampshire Coastal Flood Risk Science and Technical Advisory Panel (2020). New Hampshire Coastal Flood Risk Summary, Part II: Guidance for Using Scientific Projections. Report published by the University of New Hampshire, Durham, NH

Stickler, Peter, Brickner-wood, Dean, C*onnect the Coast-Linking Wildlife Across New Hampshire,* The Nature Conservancy New Hampshire, October 31, 2019

US Environmental Protection Agency, The Land Conservation Plan for New Hampshire's Coastal Watersheds, August, 2005. www.epa.gov/sites/default/files/2015 -09/documents/piscataqua_land_conservation_plan.pdf