



NEW HAMPSHIRE COASTAL RISK AND HAZARDS COMMISSION

REPORT & RECOMMENDATIONS BRIEF

PREPARING NEW HAMPSHIRE FOR PROJECTED STORM SURGE, SEA-LEVEL RISE, AND EXTREME PRECIPITATION

WHY SHOULD NEW HAMPSHIRE PREPARE FOR COASTAL FLOODING?

The increasing risk of coastal flooding from storm surge, sea-level rise, and extreme precipitation requires action to protect state and local assets from increased flood hazards and ensure vibrant coastal communities in the future. By starting now and taking incremental steps, we can make our communities more resilient to coastal flooding. Failing to address the threat of increased flooding now will make it more expensive to do so in the future and will put coastal communities and our local and regional economies at much greater risk.

WHAT IS THE PURPOSE OF THIS REPORT?

The report provides essential, common sense, science-based guidance to prepare for coastal flooding risk in New Hampshire. In recognition of the need to prepare for future coastal risks and hazards, the State Legislature established the New Hampshire Coastal Risk and Hazards Commission in 2013 to *“recommend legislation, rules and other actions to prepare for projected sea-level rise and other coastal watershed hazards such as storms, increased river flooding and stormwater runoff, and the risks such hazards pose to municipalities and state assets in New Hampshire.”*

WHAT TYPES OF RECOMMENDATIONS DOES THE COMMISSION MAKE?

The 35 recommendations and associated actions focus on improving science-based understanding of coastal flood risks, completing detailed assessments of our vulnerabilities, and implementing actions that protect and adapt our built structures and facilities, our economy, our natural resources, and our recreational, cultural, and historical resources. The recommendations are primarily directed at the State Legislature, state agencies, and municipalities, but successful implementation of the recommendations will require collaboration between the public and private sectors and among many stakeholder groups.

WHAT SHOULD YOU DO WITH THE REPORT AND RECOMMENDATIONS?

The report and recommendations are intended to help municipalities, state agencies, and the State Legislature raise community awareness of and take action to prepare for future flood risks; identify cost-effective measures to address changing conditions; improve resiliency of structures, facilities, and other community investments; protect life, property, and local economies; protect natural resources and the benefits they provide; and preserve historical assets. Municipal and state agency staff and legislators can use the report as a reference for information and sources on science and vulnerabilities related to storm surge, sea-level rise and extreme precipitation in coastal NH, and they can use the recommendations to inform decision-making and to take appropriate actions.

WHO IS ON THE COMMISSION?

The New Hampshire Legislature established a 37 member Commission consisting of representatives from 17 coastal communities as well as state legislators, state agencies, regional planning commissions, and other coastal New Hampshire stakeholders.



Photo: Mike Barron



Photo: Nathalie Morison

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Understanding What We Are Facing

A Science and Technical Advisory Panel (STAP) formed by the Commission summarized best available science about projected storm surge, sea-level rise, and extreme precipitation for coastal New Hampshire.

- Global and regional sea levels have been rising for decades, though not uniformly.
- NH sea levels are expected to rise between 0.6 and 2.0 feet by 2050 and between 1.6 and 6.6 feet by 2100.
- Today's extreme storm surge events will have a significantly greater inundation extent and destructive impact due to higher sea levels.
- It is likely that coastal storms will be more severe, but the research continues to be uncertain about whether storm frequency will change in the future.
- Annual precipitation is expected to increase by as much as 20 percent by the end of the 21st century compared to the late 20th century, and extreme precipitation events are projected to increase in frequency and in the amount of precipitation produced.

Understanding Our Risks and Vulnerabilities

Regional vulnerability assessments show that storm surge and sea-level rise pose significant risks to existing assets in coastal communities.



Our Economy

The coastal region accounts for 15 percent of state jobs, and 8,600 parcels are at some risk from flooding under the highest 2100 sea-level rise + storm surge scenario.



Our Built Landscape

113 public infrastructure sites, 33 critical facilities, and 25 miles of state and local roads would be subject to daily tidal flooding if sea level rises four feet.



Our Natural Resources

95 percent of New Hampshire's salt marshes could turn to mudflat under the highest 2100 sea-level rise scenario.



Our Heritage

Only 11 percent of the coastal region has been inventoried for historic architectural resources and less has been inventoried for archeological resources.

Understanding What We Need To Do

The Commission report is the first step in an effort to take a proactive approach to prepare for coastal risks and hazards. The following six guiding principles will help coastal NH take action in the face of uncertainty about future projections.

Six Guiding Principles

- Act Early
- Respond Incrementally
- Revisit and Revise
- Collaborate and Coordinate
- Incorporate Risk Tolerance
- Make 'No Regrets' Decisions



Photo: Christopher Harmon