State of the Science from the Scientific and Technical Subcommittee

Over the last century, sea levels in Maine have been rising about 0.7 feet/century, but over the last few decades, the rate has accelerated to about 1 foot/century. Based on an intermediate 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. There will be significant impacts to both the built and natural coastal environments from an intermediate path of sea level rise. With “business as usual” global emissions of greenhouse gases, sea level in Maine could rise as much as 10 feet by 2100.

Community Resilience Planning Subgroup

Strategy 1: Comprehensive review of Maine laws to achieve resilience and economic security in the face of climate change (see Appendix A in this report for the draft review of Maine statutes and rules)

- Designed to remove inconsistent regulatory definitions and standards and the need to reduce the burden on those who will be impacted by the changes (municipalities and their consultants)

Strategy 2: Improve delivery system of technical assistance on resilience to municipalities

- Establishes the institutional infrastructure at the state and regional levels to support resilience in all municipalities and provides access to the most recent data and tools
Strategy 3: Funding mechanisms to achieve resilience (due to economic disruption posed by COVID-19, this strategy stresses coordination, efficiency, collaboration, and incentivizing behavior in addition to investment dollars)

- Assembly and maintenance of a clearing house of funding options
- Incentivize communities to cooperate regionally and to include resilience into plans, regulations, capital investment and staffing
- Create a municipality-centric Maine Infrastructure Bank; merge management of existing funds
- Develop new financing/leverage mechanisms, such as Climate Resilience Authorities and a State Infrastructure Climate Adaptation Fund; pursue a climate resilience bond issue

PUBLIC HEALTH SUBGROUP

Strategy 3: Reduce Impacts from High Intensity Weather Events—increase private homeowners', businesses', and municipalities' capacity to prepare and reduce long-term damage. Part of this strategy pertains to inundation of flood waters into drinking water

- Identify drinking water wells (serving public water systems) in danger of flood inundation
- Maine’s CDC’s Drinking Water Program, the Maine Geological Survey, and the Maine DEP jointly develop programs to educate and assist private well owners to assess vulnerability of private drinking water wells to flood inundation and provide resources to help mitigate vulnerabilities

EMERGENCY MANAGEMENT SUBGROUP

Strategy 1: Develop and implement a non-disaster related “State Infrastructure Climate Adaptation Fund” that would allow municipalities and state agencies to access the funds needed to supplement the often-excessive local cost shares associated with adaptation projects

- Incentivizes further mitigation measures by receiving points towards state matching funds—see page 4 in THIS REPORT for the requirements; ex) to receive a state match of up to 10%, municipalities must 1) have adopted an up to date County Hazard Mitigation Plan, 2) possess an approved Climate Adaptation Plan, and 3) participate in the National Floodplain Insurance Program

The working group did not create a strategy around “getting out of harm’s way”, or the decision to rebuild or retreat/relocate away from an area with repeated flooding. See page 7 HERE for a list of questions they thought society must grapple with to inform this decision.

- Please complete THIS SURVEY to provide feedback on the Community Resilience Working Group strategies
Strategy 1: Track coastal and ocean climate impacts to support adaptive decision making. Establish a state-level strategy and coordinating body, the “Climate Collaborative for Coastal and Ocean Monitoring” or C2COM

- (5.) Improve tracking of economic and social conditions in Maine’s coastal communities
- (6.) Enhance and coordinate tracking and modeling of future changes to the extent of intertidal habitats and beaches including tidal marshes, mudflats, dunes, and beaches as well as to subtidal habitats, including their flora and fauna
- (7.) Develop and implement a coordinated funding strategy that leverages federal, state, foundation, and private sources towards an integrated monitoring system

Strategy 2: Provide technical assistance on and outreach networks for climate adaptation and mitigation to coastal and marine stakeholders

- (1.) Create a Coastal and Marine Information Exchange to provide accessible, relevant informational and decision support to facilitate climate mitigation and adaptation in Maine’s coastal communities and industries. The Exchange would coordinate with C2COM (above) and a Maine Seafood Business Council (see 2.)

Strategy 4: Promote climate-adaptive ecosystem planning and management using nature-based solutions (NBS)

- (1. and 2.) Fosters climate-adaptive planning by supporting monitoring, assessment, and outreach (through the C2COM and Information Exchange above); (3.) Promotes NBS, also known as natural or green infrastructure; protect and restore ecosystems to foster resiliency; and strengthen stormwater management tools

Strategy 6: Climate-ready working waterfalls

- (1.) Develop innovative funding mechanisms (e.g. Infrastructure Trust Fund, Revolving Loan Fund) for small-medium wharf and pier owners to plan for and install resilient infrastructure; (2.) Improve guidance and technical assistance for municipalities and business owners regarding vulnerability assessments, feasibility and design of resiliency measures, and information on funding sources; (3.) Reform and improve regulatory and non-regulatory approaches to development and redevelopment of WWFs, including challenges associated with increased flood insurance costs and regulations that address sea-level rise, flooding, and storm surge; (4.) Publicize case studies of successful examples of mitigation and adaptation and incentivize this work through business recognition programs

Please complete THIS SURVEY to provide feedback on the Coastal and Marine Working Group strategies
WORKING GROUP

Natural and Working Lands

FULL REPORT AVAILABLE HERE

Strategy 1: Conserve working and natural lands and waters through a dedicated, sustained funding source to support a robust forest products and agricultural economy, increase carbon storage opportunities, avoid future emissions, and enhance climate adaptation and resilience

Strategy 2: Create new and update existing financial incentives and support for private land management and infrastructure that supports climate mitigation and adaptation

• (f.) Increase funding to improve aquatic connectivity at private and publicly owned barriers (including dams and road-crossing infrastructure), using Stream Smart practices for freshwater bridges and culverts, Coast Wise practices for tidal crossings, and a temporary steel bridge cost share program for forestry operations (administered by the Maine Forest Service), thereby reducing flooding damage, supporting habitat functionality, and responding to seal level rise

Please complete THIS SURVEY to provide feedback on the Natural and Working Lands Working Group strategies

WORKING GROUP

Transportation

FULL REPORT AVAILABLE HERE

Strategy 4: Adapt Maine’s infrastructure critical to the state

• Conduct a statewide infrastructure vulnerability assessment (considering roads, bridges, multimodal and non-transportation infrastructure) and create a plan to address vulnerabilities, considering green infrastructure

Please complete THIS SURVEY to provide feedback on the Transportation Working Group strategies

NEXT STEPS

During the summer and fall, the Governor’s Office of Policy Innovation and the Future (GOPIF) and Climate Council members will prioritize strategies while considering costs. A “Cost of Inaction” study is underway, weighing the costs of taking action vs. doing nothing, and will be completed for use by the Council in their decision making. A Climate Action Plan is due to the Governor on December 1, 2020, and revisions to statutes proposed during the 130th Legislature this winter could take effect in the summer of 2021; associated rule changes could take a few months longer. Your voice is needed now to help the Council determine the priorities for Maine’s Climate Action Plan.