Climate Vulnerability Mapping Update
I. Community Vulnerability
Social Vulnerability Index

Maine Social Vulnerability Index
County Subdivisions

Social Vulnerability Index (SVI) Quantiles
- Lowest Third (Least Vulnerable)
- Middle Third
- Upper Third (Most Vulnerable)
SVI & Sea Level Rise (HAT + 3.9 ft)
SVI + 1% and 0.2 % Annual Chance Floodplain
SVI + 1% Annual Chance Floodplain
Heat Vulnerability

- Heat vulnerable populations:
  - 65+ and living alone
  - Under 5 years old
  - No Air Conditioning
  - Low population density

Credit: Maine’s Climate Future 2020
Tick-borne Disease

Suspected Tick-Related Emergency Department Visits by Week, Maine

Chart Time Scale Options: 20 Weeks Year

Credit: Maine Center for Disease Control and Prevention
Municipal Planning Capacity

- Land Use Planning Commission data on town government planning capacity
  - To be considered within context of SVI data and climate data
  - Work in progress
II. Climate Impacts on Employment
Natural resource sector jobs: Tourism
Natural resource sector jobs: Winter Tourism
Natural resource sector jobs: Agriculture
Natural resource sector jobs: Fishing
Natural resource sector jobs: Forestry
III. Mapping Flood Damages to Property and Infrastructure
Damage to Infrastructure + Property

- **Apply existing flood exposure analysis:**
  - Maine Department of Environment Protection
    - SLR impacts on wastewater treatment plants, water storage, landfills, brownfields
  - TNC and Maine DOT
    - Assessment of culvert vulnerability to 25-year flow event

- **Run our own flood exposure analysis:**
  - HAZUS
  - Additional transportation assets
  - Hospital and medical facilities
Our Pathway Forward

▪ April 7:
  – ERG begins providing information on feasibility of monetizing WG strategies [received on 3/31] (mitigation and adaptation)
  – Synapse provides information of feasibility of modeling strategies (mitigation) and communicates data needs to WGs

▪ April 10:
  – WGs provide comments on baseline emissions analysis (mitigation)

▪ April 14:
  – ERG provides final vulnerability maps
  – WGs provide any updates to initial strategies for modeling based on 4/7 feedback from ERG/Synapse
Our Pathway Forward (2)

- **May 5**
  - ERG will provide relative/ballpark costs/benefits for draft strategies to help inform prioritization (adaptation and mitigation)

- **May 22**
  - ERG develops draft estimates of cost of doing nothing.
  - Synapse provides analysis of decreased emissions from mitigation strategies (mitigation) and revised baseline emissions analysis.

- **June 8:**
  - Working groups submit final templates for all strategies.

- **Beyond June 8 (after WG submission of priority strategies):**
  - Synapse provides final strategy emissions analysis (mitigation) and ERG performs economic analysis on final strategies
  - ERG provides benefit-cost and economic impact analysis on final strategies (adaptation and mitigation)