

Summary of Scientific and Technical Subcommittee (STS) Internal Questionnaire Regarding Federal Budget Cut Impacts on Maine's Scientific Assets and Climate Work

The following narrative is not a formal research survey and is highly sensitive to the time of the data input given the rapidly changing federal landscape of science funding in 2025. The summary includes the June 27, 2025 snapshot of federal impacts released by the University of Maine System, informal input from STS in preparation for a June 5, 2025 in-person meeting of the STS in Augusta, Maine, followed by additional input from STS members primarily through June 20, 2025. This is not intended to be an all-encompassing, ongoing inventory of federal impacts on Maine science, but rather to provide insights into the kinds of lost science capacity that can have direct impacts on Maine's ability to respond to climate change.

Overall Impact Scale as Reflected in University of Maine System Example

As of June, the UMaine System alone had to cancel 21 research awards worth \$12.1 million, pause 15 awards worth \$18 million, and pause and resume 50 awards worth \$41 million. These impacts threaten UMaine's science research and education workforce and infrastructure, and in turn, its prestigious status as the state's only Carnegie-classified R1 institution.

Examples of Scientific Asset Loss Already Impacting Maine

U.S. Forest Service Northern Research Station: Early staff retirements since February 2025 have diminished the capacity for forest science collaboration with Maine, including critical work on wildland fire, climate change, forest pathology, forest inventory analysis (FIA), and monitoring of emerging forest pests like emerald ash borer, hemlock woolly adelgid, and beech leaf disease.

EJSCREEN Environmental Justice Tool: EPA's Environmental Justice Screening and Mapping Tool was removed from EPA's website on February 5, 2025. This tool was essential for ensuring equitable representation of environmental justice communities in studies and resource allocation decisions.

Examples of Critical Priority Scientific Assets at Risk

Climate Data Infrastructure: Climate.gov, the federal gateway to climate data and information, has been discontinued, now housed under NOAA.gov, potentially making vast climate datasets less or inaccessible to researchers and the public. Potential risks to EPA State Inventory and Projection (SIT) and consumption-based inventory (CBI) tools and data that support greenhouse gas reporting by states and provide uniformity across the nation, as well as US Environmentally-Extended Input-Output (USEEIO) models that support decision-making regarding the consumption of goods and services. EPA did not publish their Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2023 report. In addition, the sixth National Climate Assessment (NCA) has been terminated, a loss of critical national and regional climate science assessment.

Weather Forecasting Systems: The U.S. Global Forecast System is already less accurate than European and Canadian models. NOAA resource cuts threaten further degradation. National Weather Service force reductions at the Gray and Caribou offices in Maine have already suspended weather balloon launches due to short staffing, diminishing forecast accuracy during severe weather events. The elimination of the distribution of key weather satellite data (e.g.,

Defense Meteorological Satellite Program) has greatly reduced Maine's capacity to prepare for resource-damaging and life-threatening hurricanes and other tropical cyclones.

Agricultural Climate Services: UMaine Extension's commercial orchard management advisories, which rely on NOAA hourly weather data, face elimination. In 2025 alone, apple growers attributed \$14 million in avoided crop damage and reduced pesticide costs to these advisories. The potato late blight prevention model has saved millions annually and helped prevent major outbreaks of this devastating disease (the same pathogen that caused the 1845-1849 Irish potato famine).

Forest and Carbon Research: Beyond confirmed Northern Research Station losses, averaging 55% of staff, the entire U.S. Forest Service (USFS) has eliminated all climate change adaptation and carbon stewardship staff and leadership, including the Climate Change Advisor. Forest Service R&D faces extensive staff reductions and loss of funding for long-term experiments critical to Maine's forest management and carbon goals. These and other cuts greatly reduce the USFS capacity to protect and maintain productive and resilient forests in Maine.

Marine and Coastal Resources: Coastal Zone Management Grants face elimination, threatening the Maine Coastal Program and science-based resiliency planning for Maine's 5,408 miles of coastline. The Northeastern Regional Association of Coastal Ocean Observing Systems (NERACOOS) ocean buoys, which provide critical weather data for maritime safety as well as early warning signals for ecosystem changes such as whale foraging and lobster movements, are at risk. Funding for Maine Sea Grant was terminated in February and restored in April.

Wildlife Conservation: State and Tribal Wildlife Grants, which have provided Maine \$550,000 annually since 2000 for conservation of rare and endangered species, received \$0 in the President's proposed budget to Congress for the first time since program inception. Significant staff and resource losses are also evident in the Fish and Wildlife Service here in Maine.

Climate Data Centers: Four of six NOAA Regional Climate Centers went offline due to funding lapses before temporary restoration. These centers provide critical climate services, observational data portals, and agro-weather tools used by state climate offices nationwide.

Health and Safety Programs: The Center for Disease Control's (CDC) Climate and Health Program faces elimination, threatening Maine's pollen monitoring network, heat illness prevention campaigns, and emergency response planning. Maine AgrAbility services for 1,600+ agricultural workers were suspended, but that decision was reversed at the time of this writing.

Research and Training Capacity: The UMaine Advanced Structures and Composites Center laid off nine employees. Over 120 AmeriCorps positions were eliminated then were recently restored for the remainder of this year. Graduate student opportunities are severely limited, threatening the ability to train the next generation of scientists with the critical skills needed in the world of tomorrow.

Economic and Safety Impact: The cuts threaten Maine's ability to meet greenhouse gas emission goals, support working waterfronts, maintain maritime safety through oceanographic data, provide climate forecasts essential for agriculture, monitor forest carbon, and train natural resource professionals. The systematic elimination of federal climate science capacity represents a fundamental threat to Maine's environmental security, economic resilience, and workforce, with cascading effects that will compound over time as scientific knowledge gaps widen, and adaptation capacity diminishes relative to the growing needs.