



30 April 2024

The Honorable Patty Murray
154 Russell Senate Office Building
Washington, D.C. 20510

The Honorable Susan Collins
413 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Tom Cole
2207 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Rosa DeLauro
2413 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairwoman Murray, Chairwoman Collins, Chairman Cole, and Chairwoman DeLauro,

Friends of NOAA, composed of the undersigned representatives of industry, academia, and the nonprofit sector, write in support of robust funding for the National Oceanic and Atmospheric Administration (NOAA) for Fiscal Year (FY) 2025.

The President’s Budget Request, drafted to the caps set by the Fiscal Responsibility Act, falls far below what is necessary to protect lives and property and fulfill the mission of the Agency. In order to recognize the world-class scientific, economic, national security, and public health benefits that NOAA provides to our nation, we urge you to **provide robust funding for the Agency in FY25. At a minimum, we request you restore the over \$800M in cuts proposed by the Administration and fund the Agency at a level of no less than \$7.5 billion in FY 2025.**

Unfortunately, while other science agencies have seen considerable growth over the past several years, NOAA has failed to receive the same consideration and instead has seen their top line appropriation remain relatively flat. The agency has long operated under a mantra of “doing more with less,” but the time has come to reverse that posture and provide NOAA with an appropriation that better reflects the critical role of the agency. To that end, Friends of NOAA would urge Congress to consider a level of funding even higher than this request as a starting point for achieving this important goal. This increased level is not arbitrary but rather a reflection of the critical needs and opportunities that lie ahead. Investing in NOAA is investing in America’s future. It is a commitment to protecting our communities, sustaining our natural resources, and fostering economic growth. The return on this investment is clear: a safer, more resilient, and prosperous nation.

There is no other agency in the federal government more closely connected to the combined economic, scientific, national security and public health and safety interests of this nation. NOAA is the front-line agency leading federal and supporting state efforts to address the worsening crisis of severe storms and floods, prolonged droughts, rising sea levels, sustained heat waves, atmospheric rivers, geomagnetic storms, changing ecosystems, and other earth system issues that impact the daily lives of people in this country and around the world.

The services and outreach provided by NOAA offices are critical to citizens’ and decision-makers’ ability to protect life and property and mitigate environmental impacts. They play an important role in









informing strategic investments and improvements needed to reinforce and rebuild an improved and more equitable economy and society. Robust and predictable science funding for NOAA is critical for our nation’s security and for the United States to remain a world leader in climate, atmospheric and oceanic science, research, natural resources management, and technology. This support will also allow the agency to continue to build partnerships with industry, which improves the nation’s ability to turn science into real-world success, and with community stakeholders, who are critical to locally-informed solutions and public education. A well-funded, world class NOAA is essential to these, and so many more, efforts.

The following NOAA functional areas highlight just a few of the countless benefits NOAA provides to the nation and its citizens.

Costly Severe Weather and Climate Events

According to data published by the agency¹, from 1980–2024 (as of April 8, 2024), there have been 378 confirmed weather/climate disaster events with losses exceeding \$1 billion each affecting the United States. These events included 31 drought events, 44 flooding events, 9 freeze events, 188 severe storm events, 62 tropical cyclone events, 22 wildfire events, and 22 winter storm events. Overall, these events resulted in the deaths of 16,356 people and had significant economic effects on the areas impacted. The 1980–2023 annual average is 8.5 events (CPI-adjusted); the annual average for the most recent 5 years (2019–2023) is 20.4 events (CPI-adjusted).

Billion-dollar events to affect the United States from 1980 to 2024 (CPI-Adjusted)*

Disaster Type	Events	Events/Year	Percent Frequency	Total Costs	Percent of Total Costs	Cost/Event	Cost/Year	Deaths	Deaths/Year
 Drought	31	0.7	8.2%	\$356.4B	13.2%	\$11.5B	\$7.9B	4,522	100
 Flooding	44	1.0	11.6%	\$198.3B	7.4%	\$4.5B	\$4.4B	738	16
 Freeze	9	0.2	2.4%	\$36.6B	1.4%	\$4.1B	\$0.8B	162	4
 Severe Storm	188	4.2	49.7%	\$465.1B	17.3%	\$2.5B	\$10.3B	2,100	47
 Tropical Cyclone	62	1.4	16.4%	\$1,395.4B	51.8%	\$22.5B	\$31.0B	6,897	153
 Wildfire	22	0.5	5.8%	\$144.0B	5.3%	\$6.5B	\$3.2B	535	12
 Winter Storm	22	0.5	5.8%	\$99.3B	3.7%	\$4.5B	\$2.2B	1,402	31
 All Disasters	378	8.4	100.0%	\$2,695.1B	100.0%	\$7.1B	\$59.9B	16,356	363

Weather disasters continue to be more frequent, more dangerous, and costlier to the nation, especially in rural, agricultural, and disadvantaged communities. All over the country, “insidious” costs are being incurred by communities dealing with daily, yet increasingly frequent and severe, weather events. Vulnerable communities across the country are living through daily challenges tied to the basic freedoms provided by our constitution that require both immediate and sustained action. Challenges such as: How much smoke is in the air today? Is it safe to breathe outdoors? Is my family safe from hot temperatures? Is my home safe from storms and flooding?

¹United States Summary; Billion-Dollar Weather and Climate Disasters (2024)
<https://www.ncei.noaa.gov/access/billions/state-summary/US>

NOAA's mission demands strong financial support to be able to bolster research, education, outreach, risk communication, and on-the-ground climate resilience implementation necessary to prepare for this evolving climate reality, mitigate worsening conditions, improve our national and economic security, and build climate resilience.

World Class Research and Development

NOAA research and observations have led to a better understanding of climate change, mitigation techniques, and adaptation strategies. Continuing this cutting-edge work and leading the cross-agency approach will require vibrant extramural research, observing, outreach, and education components through extramural programs, the Cooperative Institutes, Integrated Ocean Observing System (IOOS), and the Sea Grant Program. Increased funding at the agency will support the expansion of research and data services programs to ensure every region and state is adequately served by the agency.

NOAA must continue the modernization of observation and monitoring operational systems, including its oceanographic fleet of vessels, fleet of aircraft, a suite of in-situ ocean and coastal sensors, and remote capabilities. Funding for NOAA will also support the new Earth Prediction Innovation Center, a major advancement in coordinating observational data for future scientific discovery such as more accurate hurricane forecasts, and the Airborne Phased Array Radar, an advanced atmospheric system which will open new research frontiers in Earth Systems Sciences and high-impact weather events. With this support, the agency can more efficiently transition the most promising research into operations, applications, and commercialization, as well as expand regional research to help manage climate risks and support climate assessment efforts.

Innovative and Cutting-edge Geostationary and Polar Satellite Systems

NOAA satellites provide weather forecasting, storm tracking, and long-term Earth observations that protect lives and infrastructure. Strong support for the agency will allow NOAA to maintain current launch and development schedules in addition to embarking on developing the next generation geostationary satellites, known as GeoXO, to further enhance the geostationary satellite mission well into the 2030s and beyond. The need for such investments has never been more important to the economy, particularly as the U.S. renews its commitments to address climate change.

Robust funding for NOAA also translates into the continuation of exploring all avenues of collecting and disseminating crucial data derived from NOAA's modeling and forecasting of earth systems including weather and climate change. Increased funding will help ensure current launch dates stay on schedule and develop new systems that address the future, long-term needs of Americans who rely on products and services derived from these critical observations day in and day out. The nation's burgeoning weather and climate demands necessitate increased investments in observing architecture to ensure NOAA is able to fulfill its mission.

Timely and Accurate National Weather Service Forecasts and Warnings

Every day, more and more Americans are coming to terms with our new climate reality -- a reality in which severe weather events are occurring with increasing intensity and greater frequency. The National Weather Service plays an indispensable role in providing essential information to a public ever more reliant on weather data to make decisions about how they protect themselves and their livelihoods. NOAA and NWS should continue to enhance and improve the reliability of critical foundational data dissemination services. These services provide mission-critical data, including radar, satellite,

observations, numerical model outputs, and various other types of weather, water, climate, and environmental data and information that are vital for supporting industry partners, academic institutions, and the American public. Robust funding for NOAA enables NWS, and the programs across NOAA with which it works, to ensure that progress is maintained toward building a “Weather Ready Nation” and “Climate Ready Nation.”

In order to assist communities to be prepared for severe and extreme weather events, the NWS is undergoing a long-term transformation². Some of the transformations needed are to ensure flexibility, particularly where NWS resources, including labor, may need to surge to forecast offices that are in need when severe weather strikes hard. Other changes are needed for hosting AWIPS in the Cloud in order to take advantage of scaling flexibility and cloud-hosted redundancies (and uptime). The NWS transformations require solid funding – which will have direct benefit to communities and their decision makers. These transformations are part of the paradigm needed to save lives and property through timely warnings and communication channels, including language and pathways needed to convey critical information to diverse communities. These changes will also benefit other agencies, including the emergency management community and agricultural stakeholders.

NWS must continue to build community resilience in the face of growing vulnerability to extreme weather events by increasing warning lead times, strengthening its observations capabilities, improving forecast communication and data access, and expanding decision support infrastructure. NOAA has implemented Decision Support Services that need to deepen and further evolve as communities face worsening weather and climate damage. More specifically, strong support for NOAA will allow the agency to continue developing the next generation of flood and drought forecasts. Continued funding is also required for NOAA to maintain its NEXRAD Weather Radars and Automated Surface Observing Systems, including mesonets, which are essential for severe weather warnings and avoiding data gaps. While such investments are needed now, increased funding also allows for the development of new solutions and partnerships that will be necessary in an ever-changing global weather community.

Building Resilient Coastal Communities Through Healthy Oceans, Coasts, and Great Lakes

NOAA’s work to understand, protect, and manage oceans and coasts is essential to our economy, ecology, community resilience, public health, and safety. NOAA provides a robust suite of programs and tools to help coastal communities adapt to coastal changes, mitigate impacts of coastal hazards, and build long-term resilience to climate change. NOAA-sustained ocean research and observations, such as the Integrated Ocean Observing System, are integral to understanding coastal climate impacts including sea level rise and related hazards, blue carbon ecosystems, harmful algal blooms, ocean acidification, and much more.

Importantly, a NOAA budget that deprioritizes extramural partnerships during times of fiscal austerity ignores constituent priorities, which are best addressed by strong regional programs that regularly engage with communities to understand and deliver information that meets their needs. NOAA’s external partnerships received disproportionately large proposed cuts in the President’s FY 2025 budget. These programs would be left unable to fill important gaps in community engagement and localized data and related services that NOAA cannot address on its own. For example, the impact of the FY25 funding reduction proposed to the IOOS Regional Associations will be the loss of the long-term data and real-time services that local decision makers need and which also improve federal models and forecasts.

² NWS Priorities & Action Strategies for the Future (2024)

<https://www.noaa.gov/NWStransformation>

As coastal and island communities and economies are increasingly affected, NOAA and its network of extramural partners, including State and Territory Coastal Zone Management Programs and place-based programs such as the National Marine Sanctuaries and National Estuarine Research Reserve System, and the Climate Strong Islands Network, play a key role in supporting regional, state, and local efforts to address these challenges on the ground. These programs are also working to address elements of environmental justice and the undue burden that climate change has placed on disadvantaged communities. Additionally, protected ocean, coastal, and estuarine habitats are sentinel sites providing information, tools and community support for changing conditions and adaptation strategies.

NOAA is working in tandem with on-the-ground partners and stakeholders to ensure coastal communities have robust, accurate, and reliable data, innovative tools, and effective management strategies to inform decision-making and build community resilience to climate change impacts. With increased and consistent funding, NOAA can provide these robust tools and resources to support informed decision-making that is essential to our economy and environment and to ensure public safety, healthy oceans, and resilient coastal communities.

Sustainable Management of Fisheries and Protected Resources

Sustainable fishing feeds us, connects us to the ocean, and sustains vibrant cultures. The commercial and recreational fishing industry generated \$321 billion in sales impacts and supported 2.3 million jobs in 2022. Healthy fisheries are vital to both our economy and the environment. The continued success of American fisheries depends on sustained and abundant fishery resources, which are achieved through strong, science-based management.

U.S. fisheries are among the most sustainable in the world, but in 2022 the most recent government data found that only half of U.S. fish stocks have a fully known status, and 48 fish stocks are overfished, a number which represents almost 20% of fish populations evaluated. Climate change adds to the already-complex process of ensuring that our fish stocks are healthy. Our coastal communities and marine wildlife are drastically affected by warming waters and extreme weather events. According to a 2019 study, the productivity of the fish stocks evaluated globally declined by an estimated 4% since 1930 because of warming.³ Funding continues to limit even maintaining the status quo for core conservation and management. Securing sustainable and climate-ready fisheries as part of a broader suite of climate solutions presents a critical opportunity to build climate adaptation directly into our fisheries management processes. Investment in NOAA and NMFS is vital to achieving this goal. In particular, funding the Climate, Ecosystems, and Fisheries Initiative will enable NMFS to provide fishing communities and other ocean users with the information and tools they need to prepare for and respond to changing oceans.

Since enacted over fifty years ago, the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) have been successful in preventing marine mammal extinctions and supporting the recovery of certain populations of humpback whales, California sea lions, and Northern elephant seals. In fact, over the course of that history, not a single species covered under the protection of the MMPA has gone extinct in U.S. waters. In recent years, there have been frequent cuts to NOAA programs dedicated to protecting and assessing vulnerable species. This has led to programmatic issues for many protected

³Impacts of historical warming on marine fisheries production (SCIENCE, Mar 1, 2019, vol.363, issue 6430, pp.979-983)

<https://www.science.org/doi/10.1126/science.aau1758>

species, including 54.5% of NOAA-managed sharks stocks having an “unknown” overfishing and overfished status, including, but not limited to, the tiger shark, lemon shark, and the great hammerhead. Yet the last several decades have seen a surge in new and growing threats to marine mammal survival and health, and many marine mammal populations are declining, some precipitously so. Habitat loss and degradation due to development and rapid climate change pose extraordinary challenges to marine mammals. Direct threats, such as being caught as bycatch or struck by vessels, is causing harm and mortality, including to critically endangered populations like the North Atlantic right whale and Rice’s whale. Without robust, consistent funding, NOAA will be unable to fulfill their mandated activities under the ESA and MMPA, among other relevant statutes. Under the President’s Budget Request, NOAA’s Office of Protected Resources will be forced to either pause hiring or lay off employees.

NOAA also has a vital role to play in ensuring that seafood imported into the United States does not come from illegal, unreported, or unregulated (IUU) fishing sources and is not caught, farmed or processed with forced labor. The U.S. International Trade Commission estimated that in 2019, the U.S. imported seafood worth about \$2.4 billion from IUU sources. Recent investigative reporting has uncovered imports of seafood violating U.S. conservation, labor, and food safety requirements. While a whole-of-government approach is needed to address these challenges, NOAA requires funding to strengthen and expand its policy tools, including the Seafood Import Monitoring Program and biennial report under the Moratorium Protection Act.

Supporting NOAA’s Current and Future Workforce

Investments in NOAA’s research and management programs must be matched by investments that address the workforce needs of the agency. As with many agencies and industries, NOAA has faced numerous long-standing vacancies and will need to continue taking steps toward rebuilding and supporting its premier workforce. Critical programs such as fellowships, internships, and extramural programs like Sea Grant and the Cooperative Institutes engage the next generation of scientists from around the country, helping to expand the agency’s capacity and prepare for the future. Smart and robust investments in the current and future scientific community must be made in order to build a NOAA that authentically reflects a diverse nation, and that is squarely focused on resolving long-standing issues of inequity and exclusion.

A Well-Funded NOAA for A Healthy and Secure Nation

Friends of NOAA urges Congress to support a robust budget for NOAA, which serves every corner of the nation by providing information and tools to support industry, advance marine resource stewardship, and address storms, floods, and climate hazards. Our weather, climate, and ocean systems do not work independently of one another, and our understanding of these systems cannot either. From satellites and weather operations, to fisheries and coastal management, every facet of NOAA serves an essential purpose.

Therefore, we—as long-standing partners of NOAA, who support the Agency in meeting its mandates—strongly encourage you to continue to support NOAA with robust funding. We urge you to continue to recognize its role in protecting and supporting our national economy, national security, and public health, by funding the Agency at no less than \$7.5 billion in FY2025.

If Friends of NOAA can be of service or provide additional information, please contact Paul Heppner (co-chair), pheppner@gst.com, or Pamitha Weerasinghe (co-chair), pamitha.weerasinghe@maxar.com. Thank you for your consideration of this request.

Sincerely,

Pamitha Weerasinghe
Paul Heppner
Co-Chairs, Friends of NOAA

Friends of NOAA Member Signatories

American Geophysical Union	Marine Fish Conservation Network
American Institute of Biological Sciences	Maxar Space Systems
American Rivers	NV5
Association for the Sciences of Limnology and Oceanography	National Aquarium
Association of National Estuary Programs	National Association of Marine Laboratories
Association of Public and Land-grant Universities	National Estuarine Research Reserve Association
Association of State Floodplain Managers	National Marine Sanctuary Foundation
Atmospheric and Environmental Research	National Ocean Protection Coalition
Association of Zoos & Aquariums	Natural Resources Defense Council
BAE Systems, Inc.	Ocean Conservancy
Campaign for Environmental Literacy	Ocean Conservation Research
Campbell Marketing Group	Oceana
Capitol Meteorologics	Ogeechee Riverkeeper
CASE Consultants International	Oregon State University
Coastal States Organization	Parymon Corporation
Earthjustice	Planet Labs
Earth Resources Technology, Inc. (ERT)	Prescient Weather
Ecological Society of America	RCG
Federal Science Partners	RedLine Performance Solutions
Georgia Conservancy	Reinsurance Association of America
General Dynamics Information Technology	Restore America's Estuaries
Global Science & Technology, Inc.	Riverside Technology, Inc
Hubbs-Seaworld Research Institute	Saildrone
I.M. Systems Group, Inc.	School of Ocean and Earth Science and Technology, University of Hawaii
Inland Ocean Coalition	Scripps Institution of Oceanography
Institute for Global Environmental Strategies	Sea Grant Association
Integrated Systems Solutions, Inc.	Sea Stewards
International Business Sales and Service Corporation	JASON Learning
International Fund for Animal Welfare	TAO Consulting
International SeaKeepers Society	The Mariners' Museum
IOOS Association	TMA Blue Tech
ISciences, LLC	The Ocean Foundation
Joint Ocean Commission Initiative	The Ocean Project
Lamont-Doherty Earth Observatory, Columbia University Earth Institute	The University of Oklahoma
Lewis Burke Associates	The University of New Hampshire
Marine Conservation Institute	The University of Rhode Island
	UC Davis Bodega Marine Laboratory

UCLA Institute of the Environment and
Sustainability
UN Foundation
UCAR
University of Colorado, Boulder
University of Washington

Vaisala, Inc.
Wisconsin Maritime Museum
Woodwell Climate Research Center
Woods Hole Oceanographic Institution
World Wildlife Fund

cc:

The Honorable Chuck Schumer
The Honorable Mitch McConnell
The Honorable Mike Johnson
The Honorable Hakeem Jeffries
Senate Commerce, Justice, Science Appropriations Subcommittee
House Commerce, Justice, Science Appropriations Subcommittee
Senate Committee on Commerce, Science, and Transportation
House Committee on Science, Space, and Technology