



11 April 2022

The Honorable Patrick Leahy
104 Hart Senate Office Building
Washington, D.C. 20510

The Honorable Richard Shelby
304 Russell Senate Office Building
Washington, D.C. 20510

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

The Honorable Kay Granger
1026 Longworth House Office Building
Washington, D.C. 20515

Dear Members of Congress,

We, the undersigned supporters, stakeholders, employees, and partners of the National Oceanic and Atmospheric Administration (NOAA), write to encourage an increase in funding for the agency to meet the critical operations, research, and commercial needs of the nation. Recognizing the world class scientific, economic, safety, and public health benefits that NOAA provides our nation, **the Friends of NOAA (FoNOAA) strongly encourages funding the Agency at a level of at least \$7.2 billion in FY 2023.**

This funding increase is essential to enable NOAA to continue its leadership, front-line role in confronting the global climate crisis. The services and outreach provided by NOAA offices are critical to citizens and policy makers' ability to protect life and property, and to make decisions that mitigate environmental impacts. They also play an important role in informing strategic investments and improvements to build back an improved and more equitable economy and society in the wake of the COVID-19 pandemic and beyond. Robust and predictable science funding for NOAA is critical for our nation's security and to remain a world leader in climate, atmospheric and oceanic science, research, 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.

To support the historic sustainable and resilient infrastructure investments being made by the federal government, NOAA can leverage its longstanding partnerships with agencies like the Department of Energy to advance the energy-water nexus and the Department of Commerce to support industry in the transition to a more green economy. These are just a few examples of the partnerships that NOAA plays an instrumental role in supporting, but the Agency reaches across the entire federal government and all the way down to local leaders.

NOAA also serves as a key information source for the nation's communities to improve their resilience and preparedness for disaster. Coastal storms, wildfires, droughts, tornadoes, and floods inflict billions of dollars of damage each year. According to NOAA, "In 2021, the U.S. experienced 20 separate billion-dollar weather and climate disasters, putting 2021 in second place for the most disasters in a calendar year, behind the record 22 separate billion-dollar events in 2020. What really made 2021 stand out was the diversity of disasters. 2021 was also unusually deadly, in that the 20 events of 2021 caused at least 688 direct or indirect fatalities—the most disaster-related fatalities for the contiguous U.S. since 2011 and more than double last year's number of 262¹." The total cost of the weather disasters during 2021 was \$145 billion. Weather disasters are becoming more frequent, more dangerous, and costlier to the nation, especially in rural, agricultural, and disadvantaged communities. NOAA needs strong financial support to be able to bolster climate research, to prepare for our new climate reality, mitigate worsening conditions, improve our national and economic security, and build climate resilience.

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

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, IOOS, and the Sea Grant Program. Increased funding at the agency will support the expansion of research programs to ensure every region and state are adequately served by the agency's research programs. NOAA needs to continue 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, 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 GEO-XO, to further enhance the geostationary satellite mission well into the 2030s and beyond. The need for such investments have never been more important, 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. Robust funding for NWS is needed to ensure that progress made towards building a "Weather Ready Nation" is maintained. 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 flooding 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. Critically, the NWS also has an immediate workforce need to fill more than 500 vacant positions. While such investments are needed now, increased funding also allows for the development of new solutions and partnerships that will be needed 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. As coastal communities and economies are increasingly affected, NOAA and its network of extramural partners and place-based programs such as the National Estuarine Research Reserve System play a key role in supporting regional, state, and local efforts for ocean and coastal management. These regional and state programs can also be used to address elements of environmental justice and the undue burden that climate change has 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, in tandem with on-the-ground partners and stakeholders, can ensure coastal communities have robust, accurate, and reliable ocean and coastal 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 public and private sector decision-making that is essential to our economy and environment and to ensure public safety, healthy oceans, and resilient coastal communities.

Informed and Productive Fishery Management

Fisheries are an important part of our nation: sustainable fishing feeds us, connects us to the ocean, and sustains vibrant cultures. The commercial and recreational fishing industry generated \$238 billion in sales impacts and supported 1.7 million jobs in 2018. Healthy fisheries are vital to both our economy and the environment. The continued success of the 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 2021, 20% of fish stocks were overfished, the largest percentage since 2012. The rebuilding of stocks has also slowed, with only 3 stocks rebuilt since 2017. Climate change adds to the already-complex process of ensuring that our fish stocks are healthy fisheries. Our coastal communities and marine wildlife are being drastically affected by warming waters and extreme weather events. The productivity of fisheries worldwide has declined 4.1% since 1930 because of warming. 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.

Supporting NOAA's Current and Future Workforce

The great work of NOAA's research and management programs can only be realized if investments are made that address the immediate workforce needs of the Agency. As with many agencies and industries, NOAA has faced several long standing vacancies and will need to work quickly to continue rebuilding 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 inclusion.

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 who assist the Agency in meeting its mandates—strongly encourage you to continue to support NOAA, and continue to recognize its role in developing environmental resilience, sustainable economies, and national security by funding the Agency at a level of at least \$7.2 billion in FY23.**

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

Sincerely,
The Friends of NOAA:

a.i. solutions
AccuWeather, Inc.
American Association of Port Authorities
American Geophysical Union
American Rivers
Association for the Sciences of Limnology and Oceanography
Associaton of National Estuary Programs
Association of Public and Land-grant Universities
Atmospheric and Environmental Research
Association of Zoos & Aquariums
Blue Climate Solutions
BreezoMeter
Campaign for Environmental Literacy
Campbell Marketing Group
CASE Consultants International
Coastal States Organization
Coastal Universities Coalition
Consortium for Ocean Leadership
Earthjustice
Earth Resources Technology, Inc. (ERT)
Ecological Society of America
Federal Science Partners
Georgia Conservancy
General Dynamics Information Technology
Global Science & Technology, Inc.
Hubbs-Seaworld Research Institute
I.M. Systems Group, Inc.
Inland Ocean Coalition
Institute for Global Environmental Strategies
Integrated Systems Solutions, Inc.
International Business Sales and Service Corporation
International Fund for Animal Welfare
International SeaKeepers Society
IOOS Association
ISciences, LLC
Joint Ocean Commission Initiative
Lamont-Doherty Earth Observatory, Columbia University Earth Institute
Marine Conservation Institute
Marine Fish Conservation Network
Maxar Technologies
NV5
National Aquarium
National Association of Marine Laboratories
National Estuarine Research Reserve Association
National Marine Sanctuary Foundation
National Ocean Protection Coalition
National Weather Service Employees Organization
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Ogeechee Riverkeeper
Oregon State University
Raytheon
Reinsurance Association of America
Restore America's Estuaries
Riverside Technology, Inc
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School of Ocean and Earth Science and Technology, University of Hawaii
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Sea Grant Association
Sea Stewards
JASON Learning
The Mariners' Museum
TMA Blue Tech
The Nature Conservancy
The Ocean Foundation
The Ocean Project
The University of Oklahoma
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
Woods Hole Oceanographic Institution
World Wildlife Fund



cc:

The Honorable Chuck Schumer
The Honorable Mitch McConnell
The Honorable Nancy Pelosi
The Honorable Kevin McCarthy
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