

15 April 2021

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 in support of the increases requested by President Biden for NOAA's fiscal year (FY) 2022 discretionary funding. While this request does much to recognize 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 2022.**

This funding increase is needed because NOAA is poised to be the agency on the front lines of understanding climate change and leading the whole-of-government approach to addressing the climate crisis. The services and outreach provided by NOAA offices are critical to citizens and policy makers' ability to protect life and property and 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. Robust and predictable science funding for NOAA is critical for our nation's security and for it 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.

NOAA is the front-line agency helping define and act on the ocean/climate nexus. While warming, rising, more acidic oceans are clearly bearing a major brunt of climate impacts, oceans, coasts, and great lakes also have enormous potential to mitigate these impacts, and to help put the United States back in a leadership role in the global efforts to address the climate crisis. A well-funded, world class NOAA is essential to these efforts.

During 2020, there were 22 weather events that resulted in more than \$95 billion of damage¹. Since 1980 there have been 285 major weather events totaling nearly 2 trillion dollars in damage and these storms often disproportionately harm our nation's most vulnerable communities. In addition to coastal storms, wildfires, droughts, tornadoes, and floods inflict billions of dollars of damage each year. 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.

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

¹<https://www.climate.gov/news-features/blogs/beyond-data/2020-us-billion-dollar-weather-and-climate-disasters-historical>

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, and the Sea Grant Program. NOAA needs to continue modernization of observation and monitoring operational systems, including its oceanographic fleet of vessels, fleet of aircraft, 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 over 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 to adapt to coastal changes, mitigate impacts of coastal hazards, and build long-term resilience to climate change. NOAA sustained ocean research and observations are integral to understanding coastal climate impacts including sea level rise and related hazards, blue carbon ecosystems, harmful algal blooms, and ocean acidification and much more. As coastal communities and economies are increasingly affected, NOAA and its network of extramural partners and place-based programs 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: fishing feeds us, connects us to the ocean and sustains vibrant cultures. The seafood industry generates \$244 billion in sales impacts, supports 1.74 million jobs and is a critically important industry in many coastal communities. 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 climate change jeopardizes the management system and the health of fish stocks, and the costs of inaction are growing. Managing fisheries, with their ecological, social, and economic components, is a complex task, and funding continues to be a constraint to even maintain core functions and mandates. Because of the far reach of climate change impacts, climate-ready fisheries and new investments in aquaculture will require concerted efforts in science and research, modernized and expanded data collection including the development of eDNA capabilities, uptake of new management and policy tools and practices, and sustained engagement with fishing sectors and communities. Securing sustainable and climate-ready fisheries as part of a broader suite of climate solutions is an opportunity to build resilience of both the ecosystem and coastal communities. 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. Like many federal agencies, especially those related to climate and environment, NOAA saw significant vacancies over the last four years and will require significant investment and coordination to rebuild 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. While existing programs should be fully funded, new programs are also needed to better facilitate the entrance of early and mid-career scientists into the NOAA workforce. Critically, the NOAA workforce cannot simply return to a prior state of being. Smart and robust investments 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 don't work independently of one another, and our understanding of these systems can't 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 NOAA's role in our climate, environmental resilience, economy, and national security by funding the Agency at a level of at least \$7.2 billion in FY22.**

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 Steering Committee:
Coastal States Organization
Coastal Universities Coalition

Consortium for Ocean Leadership
Earthjustice
Global Science & Technology
Institute for Global Environmental Strategies
IOOS Association
Joint Ocean Commission Initiative
National Association of Marine Laboratories
National Weather Service Employees Organization
NV5 Geospatial
Ocean Conservancy
Scripps Institution of Oceanography
Sea Grant Association
The Campbell Marketing Group, Inc.
University Corporation for Atmospheric Research
University of Colorado Boulder
University of New Hampshire
Vaisala, Inc.
Woods Hole Oceanographic Institution

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