



Stacy Murphy
Operations Manager;
U.S. Global Change Research Program
RFI Response: OCAP
Submitted Electronically

November 18, 2022

Dear Ms. Murphy:

Thank you for the opportunity to provide input to the development by the Biden Administration of an Ocean Climate Action Plan. An Ocean Climate Action Plan will be a critical tool in helping the country address climate change risks while protecting the oceans and coasts. This letter provides responses from the *Coastal Flood Resilience Protect** (CFRP) to each of the six questions posed in the [Federal Register Notice](#) seeking input on an Ocean Climate Action Plan.

Please note that the CFRP sent a [letter](#) to the Administration in July 2022 encouraging the development of an Ocean Climate Action Plan. A key recommendation of the letter was that an Ocean Climate Action Plan should include assessment of risks to coastal communities, ecosystems, and infrastructure posed by more severe storms and rising seas and describe the actions federal agencies will take in response to these risks. Although we applaud the Administration's decision to seek initial input for development of a Plan, we are concerned that the Federal Register Notice does not clearly indicate that the Plan will address coastal flood resilience and sea level rise risks. As explained in greater detail in response to Question #2 below, **we strongly recommend that coastal flood resilience be added to the scope of the proposed Ocean Climate Action Plan.**

- 1. *Background Information.*** Please briefly describe the role that you/your organization has in ocean-based climate solutions. If relevant, please describe how you/your organization engages with underserved communities.

The comments in this letter are submitted by people participating in the *Coastal flood Resilience Project* (CFRP). The CFRP is a coalition of national nonprofit organizations working to prepare for more severe storm flooding and rising sea level along the nation's coast; <https://www.cfrp.info/>.

The CFRP has published a [policy agenda](#) and white papers on coastal flood resilience, focusing on steps that Congress and federal agencies should take to strengthen coastal flood resilience. CFRP provides a forum for sharing information among nonprofit organization on topics related to coastal flood resilience. CFRP also works to identify needed national policy and program initiatives and advocates for the implementation of these actions.

Organizations participating in the CFRP strongly support the need to define and address the coastal flood resilience needs of underserved communities. Several organizations participating in the CFRP are directly engaged in supporting underserved communities. For example, the Anthropocene Alliance is the nation’s largest coalition of frontline communities fighting for climate and environmental justice.

2. **Critical Actions.** What ocean-based climate solutions should be considered, and over what time scales? What are specific examples of ocean-based climate mitigation and adaptation activities that the United States should seek to advance? Which are higher priority? Are there actions that should be avoided, and if so, why?

The Federal Register notice requesting input states that an Ocean Climate Action Plan will cover to both coasts and climate change adaptation:

“...help guide and coordinate actions by the Federal government and civil society to address ocean, coastal, and Great Lakes-based mitigation and adaptation solutions to climate change.”

In providing summary background information, however, the notice does not mention the flood risks that more severe coastal storms and rising sea levels already pose to the nation’s coasts. **The Administration should include a coordinated federal strategy to improve coastal flood resilience and prepare for and adapt to rising seas within the proposed Ocean Climate Action Plan.**

Coastal flood resilience and rising sea levels should be addressed in the Ocean Climate Action Plan for several reasons.

- **Ocean Changes Cause Coastal Impacts:** Although the property damages and loss of life that occur as a result of coastal flooding and rising seas do not occur directly in ocean waters, they are the direct result of physical changes in ocean conditions (e.g., warmer waters contributing to more severe storms and temperature increases raising sea levels through melting glaciers and thermal expansion of the ocean).
- **Coastal Impacts Are Costly:** The combination of more severe storms and rising seas is costly to the country. NOAA has [identified](#) 332 disasters of all types with costs of over \$1 billion each since 1980 and found that coastal hurricanes resulted in just over half of the total costs (i.e., \$1.1 trillion and over \$21 billion per event). Storms and rising seas are projected to result in future losses of coastal property running into the [trillions of dollars](#). These sea level rise cost estimates, however, are based on the existing population along the coast and are likely to rise as new development continues to occur in risky coastal places in response to population increases.
- **Damage to Coastal Ecosystems Harms the Ocean:** Coastal storms and rising sea levels are a risk to ocean ecosystems along the coast (e.g., coastal wetlands) that are critical to the health of diverse ocean species. As storms and rising seas inundate these coastal wetlands, landward migration pathways need to be in place to allow

the wetlands to relocate. The health of the ocean requires consideration of coastal flood resilience.

- **Flooding of Coastal Sites Causes Ocean Pollution:** Coastal storms and rising seas pose a significant risk of ocean pollution as a result of damage to coastal waste disposal and storage sites ranging from nuclear waste storage, to coal ash ponds, to septic systems. In addition, storms generate debris from property damage in coastal areas that then pollutes the ocean. Heavy precipitation from coastal storms carries pollutants such as sediment and nutrients down waterways to ocean waters.
- **Assure Ocean Commerce:** Ocean-related infrastructure on shore, such as cargo terminals and fishing ports, is at risk from more severe coastal storms and rising seas. Maintaining ocean commerce and a strong fishing industry requires access to ports and supporting transportation networks.

It is important to note that coastal flood resilience is recognized as an ocean climate problem and addressed in detail in the [Blueprint](#) for an ocean climate action plan developed by many nonprofit organizations (see p. 29). The Blueprint describes key recommended actions that are of the highest priority for agency action to address coastal flood resilience and sea level rise (see p. 29-31). CFRP's [letter](#) of July 2022 also identifies critical agency actions related to coastal flood resilience and sea level rise.

If the Administration determines that the Ocean Climate Action Plan will not include coastal flood and sea level rise risks, these risks should be clearly and fully addressed in another, equivalent interagency planning effort in the near term.

3. **Knowledge, Science, and Technology.** What kind of research is needed to implement and evaluate the effectiveness and impacts of ocean-based climate solutions? How can Indigenous knowledge be highlighted to inform solutions? What are important questions, issues, and unknowns that need to be addressed? What existing technologies might advance implementation of ocean-based climate solutions, and what innovations are needed?

The CFRP has not developed a detailed research agenda for coastal flood resilience and sea level rise, but several key questions need to be addressed:

- **Ice Sheet Basic Research:** Projections of the rate and extent of future sea level rise are greatly informed by understanding of ice sheet response to climate changes and these projections are critical to coastal flood resilience planning. The most recent [NOAA sea level rise report](#) describes the uncertainty around loss of glacier mass (see p. 11). Reducing this uncertainty would significantly improve coastal flood resilience planning. **Federal agencies should more formally coordinate and apply research on the future loss of glacial mass in Greenland and Antarctica and increase their funding for this research in cooperation with other countries and institutions.**
- **Sea Level Rise Projections for the United States:** Sea level rise projections for the coast of the United States are developed by the interagency Sea Level Rise Work

Group and published by NOAA (e.g., 2022 [sea level rise scenarios report](#)). This report, published on roughly a five-year cycle, interprets basic research on glaciers and other factors to provide localized sea level rise projections that are critical to effective planning for a more resilient coast. **The existing Work Group should be formally established by Executive Order and charged with publishing sea level rise projections on a predictable, four-year cycle.**

- **Social Science Research on Place Attachment:** In coming decades, more severe coastal storms and rising sea levels will make many communities along the coast unsafe and generate extensive damages to structures and other property. A key strategy for avoiding loss of life and property as a result of storms and rising seas is to gradually relocate communities to safer, higher ground. Relocation is complicated and controversial. One key obstacle to relocation is that people feel an [attachment to the community where they live](#) and are reluctant to move to another place. **The federal government should support academic research on “place attachment” and related factors to build understanding of successful strategies to encourage people to voluntarily relocate to safer places.**

4. ***Environmental Justice, Diversity, Equity, and Inclusion.*** How can the benefits of ocean-based climate solutions be shared equitably? How should we engage communities in local implementation? How should we ensure that ocean-based climate solutions are implemented in ways that do not harm underserved communities?

Social justice is a critical consideration in developing policies and programs to address more severe storms and rising sea level. The CFRP [Policy Agenda](#) specifically calls for a commitment to social justice (see p. 11) including improving affordability of Federal flood insurance, reforming cost-benefit analysis, and giving disadvantaged people priority for buyouts when structures are unsafe. More information about making flood insurance affordable is provided in this [white paper](#) (see p. 10). More information about priority for disadvantaged people in buyouts is provided in this [white paper](#) (see p. 11). **CFRP urges the Administration to reflect these policies in an Ocean Climate Action Plan.**

5. ***Partnerships and Collaboration.*** What solutions can/should come from outside of government? Where and how can the Federal government partner with external stakeholders across regions and sectors to effectively mitigate and adapt to climate change through ocean-based climate solutions?

The CFRP policy agenda and white papers describe coastal flood resilience solutions that require the federal government to engage with other governments or stakeholders. A key example is the recommendation that federal agencies provide grant support to states for the development of coastal flood resilience plans (see this [white paper](#); recommendation 4.A). Another example is the recommendation that FEMA expand cooperation with local communities to improve local ordinances adopted under the National Flood Insurance Program, including through revised program regulations (see this [white paper](#)) and a stronger Community Rating System (see this [white paper](#)).

The CFRP has also published several white papers supporting expanded disclosure of climate risks, including physical risks such as sea level rise, by corporations reporting to the SEC. This [white paper](#) in 2021 provided initial comments, and this [paper](#) in 2022 provided more detailed comments. In general, CFRP believes that improved disclosure of coastal flood risks to corporate assets will improve management of existing assets and result in more careful siting of new facilities in areas not at risk of coastal storm or sea level rise flooding. Reducing risk of flooding of corporate facilities, ranging from oil refineries to power plants, will benefit ocean waters by reducing pollution from flooded facilities.

CFRP urges the Administration to include policies for expanded cooperation with states on coastal flood planning and expanded corporate reporting of climate risks in an Ocean Plan.

6. *Additional Comments*: Please provide any other input that you believe is pertinent.

The CFRP strongly urges the Administration to develop a draft Ocean Climate Action Plan as soon as possible, to provide for public comment on a draft document.

Thank you for seeking early input to the development of an Ocean Climate Action Plan and for considering adding coastal flood resilience and sea level rise to the scope of the Plan.

Sincerely,

- Daniel Bresette; Environmental and Energy Study Institute
- John Englander; Rising Seas Institute
- Harriet Festing and Stephen Eisenman; Anthropocene Alliance
- Jean Flemma; Urban Ocean Lab
- Julie Hill-Gabriel; National Audubon Society
- Charles Lester; Director of the Ocean and Coastal Policy Center at UC Santa Barbara and former executive director of the California Coastal Commission
- Rob Moore; Natural Resources Defense Council
- Jeffrey Peterson; author of *A New Coast: Strategies for Responding to Devastating Storms and Rising Seas*
- Susan Ruffo; United Nations Foundation and former Associate Director for Climate Preparedness and Resilience, White House Council on Environmental Quality
- Mark Rupp; Georgetown Climate Center and former Deputy Associate Administrator for Intergovernmental Relations, U.S. Environmental Protection Agency
- Jason Scorse; Middlebury Center for the Blue Economy
- Stefanie Sekich-Quinn; Surfrider Foundation
- Shana Udvardy; Union of Concerned Scientists
- Robert Young; Program for the Study of Developed Shorelines; Western Carolina University

*The [Coastal Flood Resilience Project](#) is a coalition of organizations and individuals working for stronger programs to prepare the United States for the more severe coastal storms and rising sea level resulting from a changing climate. The views expressed in this letter are those of the contributors listed above and do not represent the views or endorsements of their organizations.