Principles for Natural and Nature-Based Resilience Measures

- Protecting and restoring natural infrastructure, such as wetlands, dunes, and riparian corridors, can enhance resilience of human communities to climate-tended disasters and provide critical co-benefits to society. Natural and nature-based approaches (e.g., living shorelines and constructed wetlands) are especially promising for hazard mitigation because they are often lower technical risk, reduce ecological risk, and are often more cost-effective.

- Investing in risk reduction now can produce large savings in the long term. Investing in risk reduction measures will not only avoid future losses from occulted storms but also will avoid future costs of adaptability measures. 

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- Implementing the Living Shorelines Act of 2019 (H.R. 3115), which establishes a NOAA grant program and associated monitoring requirements for implementation of living shorelines projects around the nation. 

Policy Priorities for Flood and Storm Risk Reduction (continued)

- The Living Shoreline Act of 2019 (H.R. 3115), which establishes a NOAA grant program and associated monitoring requirements for implementation of living shorelines projects around the nation. 

Reform Army Corps and FEMA Benefit Cost Analyses. These benefit cost analyses (BCAs) are often wildly inaccurate and do not provide a realistic assessment of whether a project in the federal interest. Congress should modernize the BCA requirements to ensure that ecosystem services lost are counted as a project cost, and ecosystem services gained are counted as a benefit. Congress should also prevent the Army Corps from counting as benefits actions that are contrary to federal law and policy, such as agricultural development benefits created by draining wetlands, development benefits resulting from loss or stabilization of fish habitats or wetlands, or flood reduction benefits from non- or unintended uses of lands subject to flood easements or permanent conservation easements. 

Direct the development of national guidance on how to value natural solutions. Despite the many benefits that natural systems provide, the majority of these often go unaccounted for in project or impact evaluations. There have been some federal steps in a helpful direction, but these have not required and incentivized the use of natural and green solutions, for both climate mitigation and climate resilience. 

- The Natural Wildlife Federation supports natural climate solutions as a desired outcome of those adaptation strategies. Recognizing that climate change is already having significant impacts on communities and wildlife, and that further changes are inevitable, climate adaptation is a necessary complement to mitigation efforts. Broadly, climate adaptation refers to strategic actions that enhance the ability of natural and human communities to withstand or adapt to climate change and its associated impacts. 

- The Natural Wildlife Federation has produced the Natural Climate Solutions Federal Policy Platform to set out recommendations to swiftly scale up natural climate solutions. Our water and wastewater facilities have exceeded their intended lifespans and are breaking down, with the worst systems often further stressed by severe weather. Congress should increase federal investments in water infrastructure, including roughly $7.8 billion in FY20 to $15 billion annually and $39 billion over 10 years. 

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Natural Climate Solutions

A Federal Policy Platform of the National Wildlife Federation

Natural climate solutions are critical to the success of any climate change policy. These solutions can enhance the health of our soils and ecosystems, conserving forests, watersheds, grasslands, wetlands, and natural areas while reducing emissions and enhancing the resilience of communities across America.

Recognizing that climate change is already having significant impacts on communities and wildlife, and that further changes are inevitable, climate adaptation is a necessary complement to mitigation efforts. Broadly, climate adaptation refers to strategies that enhance the ability of natural and human communities to withstand or adapt to climate change and its associated impacts. It will be essential to achieve a desired outcome of those adaptation strategies.
Policy Priorities for Flood and Storm Risk Reduction

Establish a Resilient Communities Revolving Loan Fund (RLF) and Grant Program to provide low- to no-interest loans for communities to invest in projects and programs that improve disaster preparedness and long-term resilience by ensuring that coastal communities have the financial means to achieve long-term goals and defend against climate change. Support initiatives to:  
• Prioritize investments in natural infrastructure that have demonstrated resilience benefits and have been shown to be cost-effective. Together with Congress, FEMA should update eligibility criteria to require communities to include within their Flood Hazard Mitigation Plans an analysis of the flood risk mitigation potential of the natural infrastructure within their boundaries. Communities already participating in the program should be given 5-year deadlines to update their plans and complete this analysis.

Strengthen NFIP eligibility rules to address natural infrastructures. FEMA is responsible for establishing eligibility rules for community participation in the NFIP; FEMA should update eligibility criteria to require communities to include within their Flood Hazard Mitigation Plans an analysis of the flood risk mitigation potential of the natural infrastructure within their boundaries. Communities already participating in the program should be given 5-year deadlines to update their plans and complete this analysis.

Reestablish Federal Flood Protection Standards that apply to all federal infrastructure spending. Ensure that all federal dollars expended to construct the construction of public buildings, facilities, and other infrastructure account for the future impacts of climate change and associated risks in their design and construction, and avoid investments in flood-prone and coastal areas vulnerable to sea-level rise.

Strengthen and expand the Coastal Barriers Reimbursement Program (CBRP). As more storms and sea level rise alter high-risk areas along our coast, it is imperative to update and modernize the Coastal Barriers Reimbursement System (CBRS) maps to continue to recognize the benefits of natural infrastructure and to protect coastal community and natural resources. Anticipating the migration of shoreline features inland, we must seek new ways to support open spaces that can accommodate this change if it is finally and environmentally responsibly way. Strategically expanding the CBRS overview, in consideration of anticipated reduced risk scenarios, would make good food, social, and public safety sense.

Significantly increase funding for competitive grant programs that fund natural infrastructure or climate-smart solutions. Such programs can encourage innovation and create a low-risk opportunity for communities to increase their own level of risk reduction with low-cost techniques or types of projects. Grants of all programs that exceed or increased funding including:  
• The National Coastal Resilience Fund, a competitive grant program administered by the National Oceanic and Atmospheric Administration (NOAA), to restore, increase, and strengthen natural infrastructure to protect coastal communities from storm and flood hazards.

Key Principles for Flood and Storm Risk Reduction

• Along our coasts and in floodplains, we must prevent new development and protect natural open space in hazard-prone areas. One of the best strategies to reduce risk to communities from flooding and hurricanes is to keep people out of harm’s way in the first place. We must also work to protect natural open spaces adjacent to vulnerable communities.  
• It is time to adapt to increased risk through new forms of protection, accommodation, and retreat. With rising coastal risks, we will need to shift our traditional approaches to flood control and community protection and effectively buffer communities from natural hazards. We must also plan for inevitable changes and making community (i.e., a resilient community and government) more resilient to sudden and sustained climate and weather.

Increase investments in pre-disaster mitigation programs. Historically, the vast majority of mitigation investments have been directed toward disaster relief, often through Federal Emergency Management Agency (FEMA) and Department of Housing and Urban Development (HUD) grant programs. While this support is critical to help communities get back on their feet, an increased investment in proactive mitigation is an efficient and cost-effective way to decrease future damages. Per provisions in the 2015 Disaster Recovery Reform Act, FEMA now has the authority to set an amount equivalent to three times the past 5-year average of federal disaster damages from 2008-2017 (pre-2017 hurricane season), divided by a factor of 6 per the National Institute of Building Science’s methodology to determine usage and the percentage increased, to ensure adequate investment in resilience projects. Congress must also prioritize direct mitigation investments in historically disregarded and economically vulnerable communities.  
• We should restore for the future, not recreate the past. Our best interventions. Smart, strategic restoration should be future-facing, and protect natural open spaces adjacent to vulnerable marsh habitat, to enable marsh accommodation, and retreat.  
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Citations