

CLIMATE CHANGE

POLICY SOLUTIONS FOR PEOPLE AND WILDLIFE



Climate change is one of the biggest threats to human communities and the long-term survival of America's wildlife. Impacts include worsening megafires and hurricanes, harmful algal outbreaks, habitat loss, the spread of disease, pests, and invasive species, and a host of other dangerous conditions for people and wildlife. As such, we need practical policy solutions that will mitigate the impacts of climate change by quickly reducing carbon pollution and ensuring we are able to adapt to those impacts we cannot avoid. Below are needed policy actions—primarily at the national level—that we must take in order to confront the growing threat of climate change.

CLIMATE MITIGATION

ADVANCE MARKET-BASED SOLUTIONS TO REDUCE EMISSIONS

Over fifty carbon pricing schemes are already in place or are scheduled for implementation throughout the world. Ten U.S. states have also priced carbon pollution, seeing it as an efficient way to speed the transition to a lower carbon economy while earning revenues and boosting economic activity. Two primary policies include a carbon tax, which would establish a specific fee—ideally at an



Owl, Aransas National Wildlife Refuge. Photo: Jeffrey Adams/USFWS

increasing rate over time—to discourage high-carbon activities, and a cap-and-trade program, which would auction off a declining number of pollution permits over time, driving up the cost of available permits and thus incentivizing lower carbon activities. A carbon price could be constructed to drive pollution reductions throughout the economy.

EXPAND RENEWABLE ENERGY

We must continue our rapid transition away from harmful fossil fuels towards responsibly developed wildlife friendly renewable energy that benefits all. Wind power—both on and offshore—and solar power provide increasingly affordable clean alternatives to fossil fuel combustion. The following policies would support this transition:

- Federal and state adoption of renewable energy portfolio standards to drive demand.
- Tax credits to help level the playing field with subsidized fossil fuels.
- Grants to facilitate low-income and rural use of renewable energy.
- Improved transmission policies to ready the nation's power grid to accommodate more renewable sources.
- Robust investment in renewable energy research and development, energy storage, and community renewable energy programs.



Block Island wind turbine, Rhode Island, 2018. Photo: Deepwater Wind

Congress should also ensure the U.S. continues to develop its vast renewable resources wisely by keeping strong bedrock conservation protections in place while supporting federal permitting and leasing processes that are efficient, environmentally responsible, and direct development to low impact areas. The nation's first-ever [offshore wind](#) project in Rhode Island provides an excellent example.

ENHANCE ECOSYSTEM CARBON STORAGE AND SEQUESTRATION

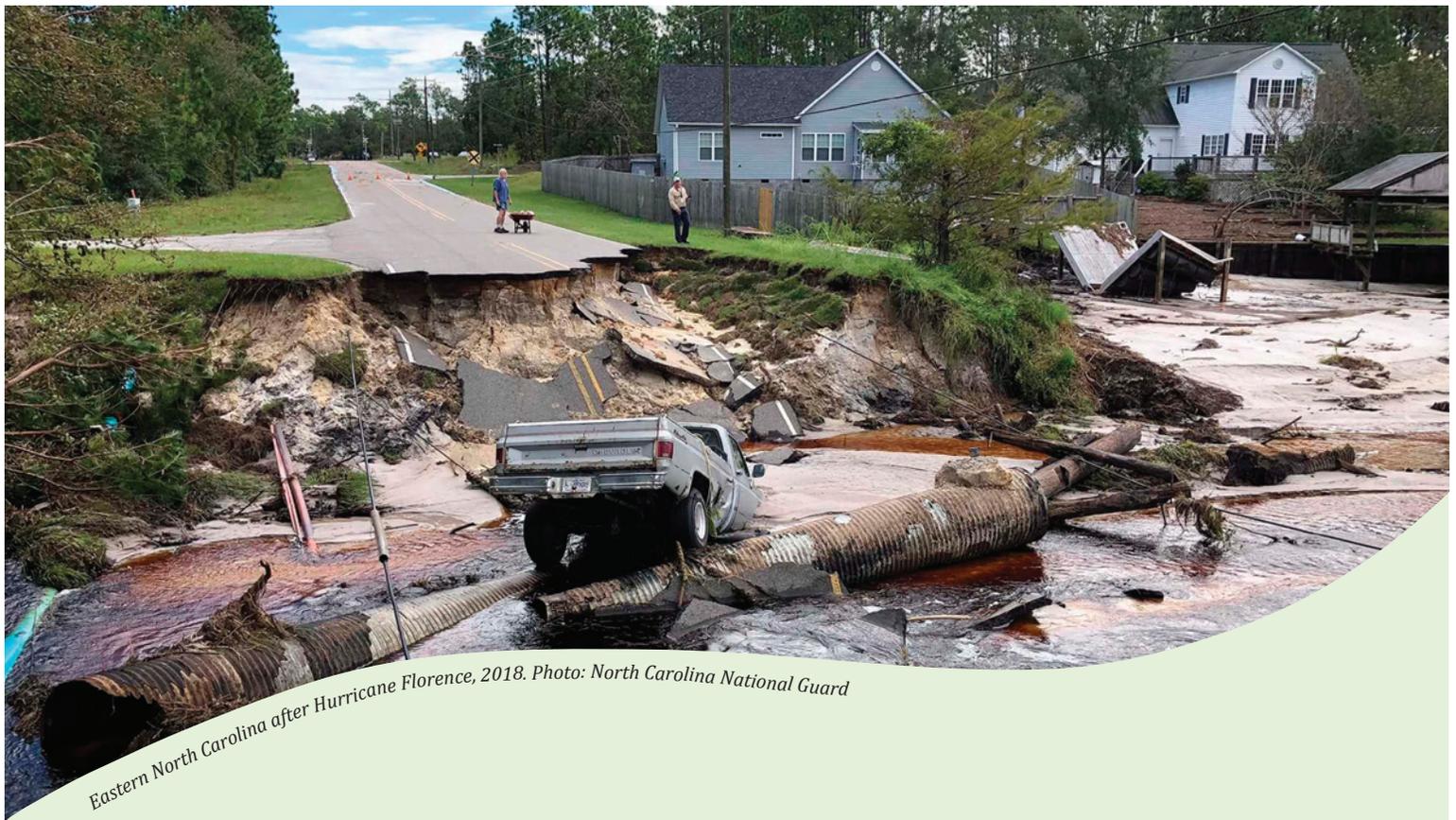
Today, U.S. forests, grasslands, and soils offset approximately 15 percent of all U.S. fossil fuel related emissions each year (equal to half of all transportation emissions). A significant opportunity exists to expand policy measures to increase this carbon storage capacity of our natural and working lands and forests. Measures can include:

- Optimizing existing federal policies that could be tailored to promote land use for carbon storage;
- Developing carbon inclusive forest management principles, including the prevention of massive, climate change-fueled wildfires;
- Incentivizing reforestation and agriculture practices that are good for ecosystems and wildlife; and
- Reducing the risk of forest, wetland, and grassland conversion to development.

IMPLEMENT SENSIBLE MEASURES TO REDUCE GREENHOUSE GAS POLLUTION

Current law gives the federal government clear authority to protect the public health and welfare from carbon pollution and climate change. Sensible measures were put in place to reduce this pollution and related risks to wildlife and people, yet the current administration is undoing this progress. For example, three significant policies that should be implemented, not weakened or repealed, are:

- **The Clean Power Plan.** The Clean Power Plan (CPP) was the first-ever federal limit on carbon pollution from the power sector. The future of the CPP remains uncertain, though the need for rapid reductions in emissions from the power sector remains. Meanwhile, the United States is already transitioning away from coal to clean, renewable energy sources like wind and solar. Policy makers must encourage this trend, and many states are rightfully taking steps now to implement the plan.
- **Oil and gas methane standards.** Methane pollution from oil and gas production is another key contributor to climate change, and a waste of a valuable energy resource. Methane is the second most prevalent greenhouse gas after carbon dioxide, and has 80 times the



Eastern North Carolina after Hurricane Florence, 2018. Photo: North Carolina National Guard

global warming potential of carbon dioxide over a twenty year time period. The Environmental Protection Agency and the Bureau of Land Management must implement rules that will limit methane pollution from new, modified, and existing sources in the oil and gas industry, including intentional venting and flaring of methane, and accidental leakage.

- **Fuel economy improvements.** The transportation sector recently surpassed electricity generation to become the largest source of carbon pollution in the United States. Carbon dioxide emissions from this sector have been rising since 2013. Significant emissions benefits are possible through strengthening federal clean car standards that improve fuel efficiency and lower tailpipe carbon pollution—and preserving California’s Clean Air Act authority to set more stringent standards. Additional clean car improvements were required for new vehicles (equal to a fleet-wide average of 54 miles per gallon by 2025), though the current administration is proposing rescinding these while attempting to block California’s authority. In addition to reinstating these cleaner standards, the United States should also invest in zero-emissions vehicle technologies and batteries, help build out needed electric vehicle infrastructure, and work with local areas to incentivize public transit and design cities and towns to lower vehicle miles traveled.

CLIMATE ADAPTATION

ASSESS CLIMATE RISKS AND CRAFT ADAPTATION AND RESILIENCE PLANS TO REDUCE THOSE RISKS

Assessing climate related vulnerability of coastal communities and ecosystems provides a basis for developing adaptation strategies designed to reduce those risks and enhance community and ecosystem resilience. Proactive adaptation and resilience planning can significantly reduce the impact of hurricanes, coastal storms, and other climate-amplified weather extremes.

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ENCOURAGE THE USE OF NATURAL DEFENSES FROM STORMS

The use of natural and nature-based features, such as living shorelines, should be encouraged for coastal protection over hard infrastructure. Currently, permitting processes make it cheaper and faster to install hard infrastructure, such as bulkheads, than to use softer and more natural approaches, despite the fact that hard armoring is more environmentally damaging and may eventually be overcome by rising seas. Natural and nature-based features have the capacity in some situations to keep pace with sea-level rise and to self-repair after damage from storms and floods. They also provide many co-benefits such as improved wildlife habitat, improved water quality, and recreational value that hard infrastructure does not, making these soft or hybrid “green-gray” options more cost efficient in many instances.

ELIMINATE OR MINIMIZE HARMFUL DEVELOPMENT PRACTICES AND OTHER THREATS THAT FRAGMENT OR DEGRADE COASTAL ECOSYSTEMS

Intact, healthy coastal ecosystems are our first lines of defense against rising seas. Reducing existing stressors can improve the overall health of coastal ecosystems, and improve their capacity to adapt to sea-level rise. Invasive species, nutrient runoff, stream channelization, and hard armoring of the shoreline are some of the threats that can compromise the health of coastal ecosystems.

Photo credits left to right: Baby Loggerhead, photo: Wikimedia Commons; Harris Neck National Wildlife Refuge, photo: Rebecca Miller; Rebuilding dunes with native grasses, photo: NWF

IMPROVE OPPORTUNITIES FOR HABITAT MIGRATION

As sea levels rise, coastal ecosystems like marshes may have the natural capacity to migrate inland. Development can block this shift, creating what is known as “coastal squeeze.” This can lead to the eventual disappearance of the natural ecosystems that help protect communities and support local economies. By conserving open space and zoning appropriately, communities can manage their land in ways that can enhance the capacity for ecosystems to naturally adapt to rising seas.

REFORM THE NATIONAL FLOOD INSURANCE PROGRAM

We should curb the use of taxpayer dollars to subsidize and promote the development and re-development of environmentally sensitive and risky places in coastal areas and floodplains. Instead, the program should move toward risk-based rates for all properties, with means-tested assistance for those who cannot afford actuarial rates. Communities that engage in pro-active hazard mitigation efforts should be rewarded with preferential flood insurance rates.

ENSURE ENVIRONMENTAL JUSTICE

All policies should ensure that the benefits of resilience and adaptation—as well as mitigation—efforts are justly distributed across society. Low income, minority, and other historically underserved populations tend to be on the front lines of the impacts of climate change and sea-level rise, and can be made even more vulnerable by poverty, linguistic isolation, poor infrastructure, and inadequate representation in the policy process.