



Defenders of Wildlife's Recommendations to the Select Committee on the Climate Crisis in Response to Request for Information

Defenders of Wildlife appreciates this opportunity to offer recommendations to the Select Committee on the Climate Crisis for policy recommendations it may make to Congress. Defenders is a national nonprofit conservation organization dedicated to the protection of all native plants and animals in their natural communities. For more than 70 years, Defenders has protected and restored imperiled species throughout North America by securing and strengthening state, national, and international conservation policies; working on the ground at the state and local level; and upholding legal safeguards for wildlife and habitat in the courts. We represent more than 1.8 million members and supporters nationwide.

Defenders has led efforts to develop and implement climate change policies for wildlife for more than a decade. Our work on climate change has two main foci: 1) ensuring that wildlife and habitat are managed in a manner that promotes resilience to climate change impacts; and 2) supporting emissions reduction through wildlife-responsible renewable energy development nationwide.

Our recommendations are organized according to the questions posed by the Select Committee in its Request for Information. We believe it is critical that Congress and the administration provide for wildlife, habitats and ecosystems as part of a climate change policy agenda; therefore, our most detailed recommendations pertain to the Committees questions related to Agriculture, Land and Water Management, Natural Carbon Sequestration and Resilience.

If you have any further questions, please contact Aimee Delach, Senior Policy Analyst for Climate Adaptation, at adelach@defenders.org or Mary Pfaffko, Private Lands Policy Analyst, mpfaffko@defenders.org.

Sector-Specific Policies

1. What policies should Congress adopt to decarbonize the following sectors consistent with meeting or exceeding net-zero emissions by mid-century? Where possible, please provide analytical support that demonstrates that the recommended policies achieve the goal.

a. Transportation

While Defenders has not developed our own specific recommendations for reducing greenhouse gas emissions in the transportation sector, we support mechanisms such as increasing the corporate average fuel efficiency standards, extending and expanding tax credits for the purchase of electric vehicles, and supporting lower-emissions transportation options like public transit.

b. Electric power. The Select Committee would like policy ideas across the electricity sector but requests specific comment on two areas:

i. If you recommend a Clean Energy Standard, how should it be designed?

Ensure that Renewable Energy Development is "Smart from the Start" for Wildlife

Why/what's being solved: It is imperative that the nation accelerate renewable energy development to help reduce greenhouse gas emissions. It is also important that development conserves wildlife, ecosystems and other resources. Smart from the Start planning helps ensure that renewable energy facilities are sited and operated to avoid and minimize impacts on vulnerable species and habitats. This approach: 1) encourages early planning at the landscape-level to identify areas of low-conflict for development; 2) requires up front analysis of potential impacts of projects, including their cumulative environmental impacts, and a robust analysis of alternatives to determine the best option for

development; 3) follows the “mitigation hierarchy,” first seeking to avoid and then minimize impacts to wildlife and important natural resources. Where site-specific and regional wildlife impacts are unavoidable, they are required to be offset by effective mitigation measures; and 4) encourages early engagement by all stakeholders. Congress should restore the Department of the Interior’s mitigation policies, which were rescinded by Interior [Secretarial Order 3360](#) (https://www.eenews.net/assets/2018/01/05/document_gw_04.pdf) and restore protections of migratory birds by codifying prohibitions on incidental take of migratory birds.

Support Solar Energy Generation by Extending the Solar Investment Tax Credit

Why/what’s being solved: The Solar Investment Tax Credit for residential (Section 25D) and commercial (Section 48) property solar installations, enacted in 2006 and extended in 2015, is scheduled to sunset, dropping from the current 30 percent credit on the price of purchase and installation, to 26 percent in 2020, 22 percent in 2021, and thereafter ending for residential properties and dropping to 10 percent for commercial properties.

Example legislation: [Renewable Energy Extension Act](#) (HR 3961/S. 2289) (<https://www.congress.gov/bill/116th-congress/senate-bill/2289>)

Resources: <https://www.seia.org/initiatives/solar-investment-tax-credit-itc>

Expand Opportunities for Farmers and Ranchers to Benefit from On-Farm Renewable Energy Production and Efficiency Upgrades

Why/what’s being solved: On-farm renewable energy production can bolster landowner income, support on-farm energy needs, and in many cases can be situated on disturbed land or co-located with crops or livestock (e.g., co-locating solar energy facilities in fields of cool-season crops). Congress should provide grant funding to farmers, ranchers and rural businesses to support renewable energy development, such as solar panels and wind turbines, and energy efficiency improvements.

Example legislation: [2018 Farm Bill](#) (<https://www.congress.gov/bill/115th-congress/house-bill/2>); [Climate Stewardship Act](#) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>)

Reinstate Stronger Carbon Pollution Emissions Performance Standards for Both New and Existing Electricity Utility Stationary Sources

Why/What’s being solved: The Environmental Protection Agency, as ordered by [Executive Order 13783](#) (<https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/>), is proposing to replace the Clean Power Plan with the much weaker [“Affordable Clean Energy” Rule](#) (<https://www.epa.gov/stationary-sources-air-pollution/proposal-affordable-clean-energy-ace-rule>) (83 Fed. Reg. 44746) (<https://www.federalregister.gov/documents/2018/08/31/2018-18755/emission-guidelines-for-greenhouse-gas-emissions-from-existing-electric-utility-generating-units>). This administration is similarly weakening performance standards for new, modified and reconstructed sources, as ordered by [Executive Order 13783](#) (<https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/>), with new regulation [proposed](#) (<https://www.federalregister.gov/documents/2018/12/20/2018-27052/review-of-standards-of-performance-for-greenhouse-gas-emissions-from-new-modified-and-reconstructed>) in December 2018 (83 Fed. Reg. 65424). Congress should reinstate strong standards to reduce carbon emissions from new and existing power plants.

Reinstate Federal Coal Leasing Moratorium

Why/What's being solved: The Interior Department, as ordered by [Executive Order 13783](https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/) (<https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/>) ended the federal coal leasing moratorium via Interior [Secretarial Order 3348](https://www.doi.gov/sites/doi.gov/files/uploads/so_3348_coal_moratorium.pdf) (https://www.doi.gov/sites/doi.gov/files/uploads/so_3348_coal_moratorium.pdf). Interior [Secretarial Order 3354](https://www.doi.gov/sites/doi.gov/files/elips/documents/3354%20%20-%20Supporting%20and%20Improving%20the%20Federal%20Onshore%20Oil%20and%20Gas%20Leasing%20Program%20and%20Federal%20Solid%20Mineral%20Leasing%20Program.pdf) (<https://www.doi.gov/sites/doi.gov/files/elips/documents/3354%20%20-%20Supporting%20and%20Improving%20the%20Federal%20Onshore%20Oil%20and%20Gas%20Leasing%20Program%20and%20Federal%20Solid%20Mineral%20Leasing%20Program.pdf>) further ordered the Bureau of Land Management to prioritize processing of oil and gas and mineral lease applications.

ii. [How can Congress expedite the permitting and siting of high-voltage interstate transmission lines to carry renewable energy to load centers.](#)

Apply “Smart from the Start” Principles to Transmission Siting

Why/what's being solved: Properly siting new transmission and associated infrastructure reduces conflicts and unnecessary impacts to wildlife, natural resources and communities. Policy should prioritize improving existing transmission infrastructure before incurring the considerable expense of developing additional powerlines. The existing West-Wide Energy Corridor process is an example of this type of planning.

c. Industry and d. Buildings

Ensure that Energy Efficiency Improvements to Buildings are Also Wildlife-Safe

Why/what's being solved: As buildings are upgraded to improve their efficiency and energy performance, it is important that they also incorporate features such as bird-safe glass windows, which can prevent collisions, a leading source of strikes and mortality by birds, a class of species that has suffered precipitous declines in the last 50 years.

Example legislation: [Bird-Safe Buildings Act](https://www.congress.gov/bill/116th-congress/house-bill/919) (H.R. 919) (<https://www.congress.gov/bill/116th-congress/house-bill/919>)

Questions 2) through 5) regarding Job Creation, Environmental Justice, Carbon Pricing, and Innovation Defenders does not have specific policy recommendations for these sectors.

Agriculture

6. What policies should Congress adopt to reduce carbon pollution and other greenhouse gas emissions and maximize carbon storage in agriculture?

Authorize a Program for Measuring Outcomes of Farm Bill Conservation Programs

Why/what's being solved: Measuring outcomes helps ensure that investment in Farm Bill conservation programs is achieving conservation goals, helping to reduce greenhouse gas emissions and increasing terrestrial carbon sequestration.

Example legislation: [Healthy Fields and Farm Economies Act](https://www.congress.gov/bill/115th-congress/house-bill/4751) (H.R. 4751) (<https://www.congress.gov/bill/115th-congress/house-bill/4751>)

Expand the Farm Bill Sodsaver Provision Nationwide to Support Carbon Sequestration

Why/what's being solved: The Sodsaver provision limits the loss of native grasslands by reducing federal subsidies for crop insurance premiums on acres that are converted from prairie to cropland. Currently the provision only applies to the six states of the Prairie Pothole region. Extending the provision to the entire country would help prevent conversion in other areas, such as Texas and Kansas, that are experiencing some of the highest rates of grassland loss. Preserving grasslands allows them to continue to actively sequester carbon rather than contribute to greenhouse gas emissions that results from plowing the land.

Example legislation: [American Prairie Conservation Act](#) (S. 1913/H.R. 3939) (<https://www.congress.gov/bill/115th-congress/senate-bill/1913>)

7. What policies should Congress adopt to help farmers, ranchers, and natural resource managers adapt to the impacts of climate change?

Defenders offers the following climate change adaptation recommendations related to agriculture and working lands programs here. The Select Committee may also find relevant content and concepts for this sector in our recommendations offered under Resilience and Adaptation, below.

Increase Funding for Farm Bill Working Lands Programs to Assist Farmers, Ranchers, and Natural Resource Managers to Adapt to Climate Impacts

Why/what's being solved: Farm Bill working lands programs, including the Environmental Quality Incentives Program and the Conservation Stewardship Program, provide financial and technical assistance to willing landowners to implement conservation practices on their agricultural lands, including climate stewardship practices. Supporting climate stewardship on over 100 million acres of farmland would reduce or offset agricultural emissions by one-third by 2025. Dedicated funding would support practices such as rotational grazing, improved fertilizer efficiency, and use of cover crops to retain and improve soils and carbon sequestration.

Example legislation: [Climate Stewardship Act](#) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>)

Increase Acreage Enrolled for the Benefit of Wildlife under the Conservation Stewardship Program

Why/what's being solved: The Conservation Stewardship Program is a Farm Bill working lands program that supports farmers and ranchers to adopt conservation practices on their agricultural lands, including climate stewardship practices. Defenders recommends that a minimum of 10 percent of the acreage in each state annually enrolled in the program should directly support wildlife conservation. Targeting a minimum amount of the program's funds to wildlife conservation will help ensure that landowners implement practices that benefit wildlife, reduce emissions, and respond to climate change.

Increase Funding for Conservation Easements on Private Agricultural Lands to Prevent Conversion of Land to Development

Why/what's being solved: The Agricultural Conservation Easement Program is a Farm Bill program that that helps landowners protect, restore, and enhance wetlands, grasslands, and working farms and ranches through conservation easements. The Natural Resources Conservation Service provides financial assistance to eligible individuals and entities to secure easements that protect the agricultural uses and conservation values on enrolled land. The conservation of privately held agricultural land helps prevent conversion of land to development, so that they can continue to actively sequester carbon rather than

contribute to greenhouse gas emissions that results from development. Strategic land conservation can also support habitat connectivity and ecosystem resilience against impacts from a range of stressors.

Increase Funding for Restoration and Conservation Easements on Private Forestlands to Support Carbon Sequestration

Why/what's being solved: Preserving forests as forests helps prevent their conversion to development and allow them to continue absorbing greenhouse gases. The 2018 Farm Bill reauthorizes three programs that support habitat acquisition and/or conservation easements on privately held forests. The Healthy Forests Reserve Program, administered by the Natural Resources Conservation Service, provides landowners with 10-year restoration agreements and 30-year or permanent easements for the purpose of recovering species listed under the Endangered Species Act, improving biodiversity, and enhancing carbon sequestration. The program, which was reauthorized in the 2018 Farm Bill, should be improved by allowing land that has already been restored and is providing wildlife benefits to be eligible for long-term or permanent easements. The Community Forest Program, administered by the U.S. Forest Service, and the Forest Legacy Program, administered by the U.S. Fish and Wildlife Service, protect forests that are threatened with conversion to non-forest uses.

Support Enrollment in the Conservation Reserve Program that Creates or Enhances Wildlife Conservation and Habitat Connectivity

Why/what's being solved: The Conservation Reserve Program conserves and improves soil and water quality and creates and maintains wildlife habitat by providing cost-share and rental payments for farmers to establish long-term vegetative cover on highly erodible or environmentally sensitive land that has usually previously been converted to row crops. For grasslands enrolled in the program, the 2018 Farm Bill directs the Farm Service Agency to prioritize land of ecological significance, including land that would conserve habitat connectivity or federally protected species and/or species of conservation concern. We recommend that the Farm Service Agency prioritize properties that simultaneously serve both of those purposes.

Authorize Perpetual Easements for Land Enrolled in U.S. Department of Agriculture Habitat Conservation Programs

Why/what's being solved: To increase cost savings and the effectiveness of U.S. Department of Agriculture conservation programs, we recommend authorizing perpetual easements for land enrolled in any of the Conservation Reserve Program or Natural Resources Conservation Service habitat initiatives. These new permanent easements should be particularly targeted at land enrolled in the Conservation Reserve Program that exceeds an erodibility index of greater than 15 or is adjacent to riparian areas that should be protected as conservation buffers in perpetuity. Perpetual easements extend the conservation investment and prevent agricultural land from being converted to development at the end of the contract.

Prioritize Enrollment of State Acres for Wildlife Enhancement in the Conservation Reserve Program

Why/what's being solved: The Farm Bill's Conservation Reserve Program includes a State Acres for Wildlife Enhancement initiative, which allows states to design and implement practices that conserve soil and water that also benefit high priority wildlife species. However, despite the success and popularity of the initiative, the Farm Service Agency has not made these practices available for sign-ups on a nationwide basis since 2017. We recommend that Congress urge the U.S. Department of Agriculture to prioritize enrollment and implementation of the initiative.

Increase Acreage Enrolled under the Conservation Reserve Enhancement Program and Compensate Participants for the Full Cost of Riparian Buffer Protection

Why/what's being solved: The Conservation Reserve Enhancement Program is part of the Farm Bill's Conservation Reserve Program that targets high-priority conservation concerns identified by a state. Farmers and ranchers are paid an annual rental rate along with other incentives in exchange for removing environmentally sensitive land from production and establishing permanent resource-conserving plant species. The 2018 Farm Bill codifies the program and incentivizes enrollment of riparian buffers, including forested riparian buffers, by authorizing the U.S. Department of Agriculture to make cost-share payments for forested riparian buffer maintenance throughout the term of the agreement, and to cover up to 100 percent of the cost incurred by the owner or operator for maintenance activities. Riparian buffers are a cost-effective way to improve water quality, provide valuable wildlife habitat and enhance ecosystem resiliency. Program participants should be compensated for the full cost of riparian buffer establishment and maintenance, as authorized in the 2018 Farm Bill.

Increase Funding for Natural Resources Conservation Service's Conservation Technical Assistance Program

Why/what's being solved: The Natural Resources Conservation Service's Conservation Technical Assistance program provides land users with proven conservation technology and the delivery system needed to achieve the benefits of a healthy and productive landscape, such as reducing soil loss from erosion, reducing potential damage from natural disasters, and enhancing the quality of fish and wildlife habitat. The long-standing shortage of funding for technical assistance through the U.S. Department of Agriculture hampers delivery of conservation programs, a problem that will be exacerbated by the need to implement new climate stewardship conservation practices on private lands nationwide.

Example legislation: [Climate Stewardship Act](https://www.congress.gov/bill/116th-congress/senate-bill/2452) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>)

Increase Annual Appropriations for the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program for Landowners to Adopt Climate Stewardship and Wildlife Conservation Practices

Why/what's being solved: The U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program provides financial and technical assistance to private landowners interested in improving habitat for migratory birds, and endangered, threatened, and at-risk species on their working lands.

Increase Annual Appropriations for Farm Bill Conservation Programs for Landowners to Adopt Climate Stewardship and Wildlife Conservation Practices

Why/what's being solved: Farm Bill conservation programs help farmers and ranchers adopt conservation practices, such as wildlife conservation and climate stewardship practices. Congress should avoid using Changes in Mandatory Program Spending (CHIMPS) in annual appropriations processes to raid mandatory Farm Bill conservation programs in order to fill discretionary spending gaps elsewhere in the federal budget.

Oceans, Forestry and Public Lands

8. How should Congress update the laws governing management of federal lands, forests, and oceans to accelerate climate adaptation, reduce greenhouse gas emissions, and maximize carbon storage?

Establish a National Ocean Policy to Support Marine Conservation and Adaptation to Climate Change

Why/what's being solved: Reestablish a policy for the health of oceans, coasts, and the Great Lakes that includes "adaptive management to enhance our understanding of and capacity to respond to climate change and ocean acidification."

Example direction: The executive branch established a National Ocean Policy through [Executive Order 13547](https://obamawhitehouse.archives.gov/the-press-office/executive-order-stewardship-ocean-our-coasts-and-great-lakes) (https://obamawhitehouse.archives.gov/the-press-office/executive-order-stewardship-ocean-our-coasts-and-great-lakes) in 2010, but it was subsequently revoked by [Executive Order 13840](https://www.whitehouse.gov/presidential-actions/executive-order-regarding-ocean-policy-advance-economic-security-environmental-interests-united-states/) (https://www.whitehouse.gov/presidential-actions/executive-order-regarding-ocean-policy-advance-economic-security-environmental-interests-united-states/) in 2018.

Protect and Restore Habitat Connectivity and Wildlife Corridors Across Landownerships

Why/what's being solved: The conservation and restoration of existing corridors and establishment of new ecological connections is a key climate change adaptation strategy to support species movement to suitable habitats. Congress should create a National Wildlife Corridor System on federal land and water, tribal wildlife corridors, and establish a grants program to promote wildlife movement on non-federal lands.

Example legislation: [Wildlife Corridors Conservation Act of 2019](https://www.congress.gov/bill/116th-congress/house-bill/2795) (H.R. 2795) (https://www.congress.gov/bill/116th-congress/house-bill/2795)

Restore Protections for the Arctic National Wildlife Refuge

Why/what's being solved: The Arctic National Wildlife Refuge is one of the last intact landscapes in America, home to a diversity of wildlife, and the most important onshore denning habitat for America's vanishing polar bears. Given that the Arctic is warming faster than anywhere else, it is critical that we afford the species there protection from other types of disturbance and habitat destruction. In 2017, Congress mandated a new oil and gas drilling program in the Refuge, despite overwhelming opposition from the American people.

Example legislation: [Arctic Cultural and Coastal Plain Protection Act](https://www.congress.gov/bill/116th-congress/house-bill/1146) (H.R. 1146) (https://www.congress.gov/bill/116th-congress/house-bill/1146)

Protect Sensitive Wildlife Habitats in the National Petroleum Reserve-Alaska

Why/what's being solved: Given the rapid warming of the Arctic, the most sensitive habitat areas in the region should be protected from destruction and disturbance. The 2013 [Integrated Activity Plan for National Petroleum Reserve-Alaska](https://eplanning.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf) (https://eplanning.blm.gov/epl-front-office/projects/nepa/5251/42462/45213/NPR-A_FINAL_ROD_2-21-13.pdf) excluded oil and gas development in areas of the National Petroleum Reserve-Alaska (NPR-A) that are most important for wildlife and habitat resilience, notably Teshekpuk Lake region. Interior [Secretarial Order 3352](https://www.doi.gov/sites/doi.gov/files/elips/documents/3352%20%20-%20National%20Petroleum%20Reserve%20-%20Alaska.pdf) (https://www.doi.gov/sites/doi.gov/files/elips/documents/3352%20%20-%20National%20Petroleum%20Reserve%20-%20Alaska.pdf), ordered a review of oil and gas resources in the NPR-A and revision of the Integrated Activity Plan, and is clearly intended to eliminate these important habitat protections. The Bureau of Land Management has conducted scoping and is in the

process of developing a [new plan](#) that will likely open more areas to drilling (<https://www.blm.gov/planning-and-nepa/plans-in-development/alaska/npr-a-iap-eis>). Congress should legislatively restore protections for the most sensitive habitats in the NPR-A.

Protect the Sagebrush Sea

Why/ what's being protected: The 2015 [National Greater Sage-Grouse Planning Strategy](#) (<https://www.fs.fed.us/sites/default/files/sage-grouse-overview-.pdf>) was the most comprehensive land use planning process ever undertaken by the federal government. Interior [Secretarial Order 3353](#) (<https://www.doi.gov/sites/doi.gov/files/elips/documents/3353%20-%20Greater%20Sage%20Grouse-Conservation%20and%20Cooperation%20with%20Western%20States.pdf>), directed a review and potential revision of federal sage-grouse conservation plans and provisions conflicting with Interior [Secretarial Order 3349](#) (https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-american_energy_independence.pdf). The Bureau of Land Management subsequently [developed new plan amendments that reopened millions of acres to oil and gas development](#) (<https://eplanning.blm.gov/epl-front-office/eplanning/planAndProjectSite.do?methodName=renderDefaultPlanOrProjectSite&projectId=90121&dctmId=0b0003e880fb63b3>). Congress should legislatively restore the National Greater-Sage Grouse Planning Strategy and its original implementing guidance.

Protect Wildlife Habitat in the Southern Borderlands

Why/what's being solved: The southern borderlands encompass some of North America's most unique and vital landscapes, including an extensive network of national parks, monuments, wildlife refuges, forests, wilderness areas, preserves and other public lands that are critical for wildlife conservation. Ongoing and proposed new border wall construction threatens to bisect wildlife corridors and cross-boundary habitat connectivity for dozens of sensitive and imperiled wildlife species that are contending with climate change, including jaguars, Sonoran pronghorn and Peninsular bighorn sheep.

Example legislation: Legislation has been introduced in both the House ([H.R. 1232](#), <https://www.congress.gov/bill/116th-congress/house-bill/1232>) and Senate ([S. 254](#), <https://www.congress.gov/bill/116th-congress/senate-bill/254>) that would restore environmental protections to the borderlands that were stripped by the REAL ID Act and repeal the Department of Homeland Security's ability to waive environmental laws for border barrier construction.

Protect Roadless Areas in the National Forest System

Why/what's being solved: Forest plants and animals that are shifting their ranges in response to climate change have more opportunities to do so unimpeded in unlogged and roadless areas. These areas are important to helping wildlife adapt to changes in the climate. The 2001 Roadless Rule protects 58 million acres of roadless public lands in the National Forest System. Congress should not allow the U.S. Forest Service to exempt certain forests from or otherwise weaken the Roadless Rule.

Example legislation: [Roadless Area Conservation Act](#) (S. 1311) (<https://www.congress.gov/bill/116th-congress/senate-bill/1311>).

Protect Sensitive Marine Environments of the Outer Continental Shelf from Fossil Fuel Development

Why/what's being solved: Ecologically important and sensitive marine environments were withdrawn from oil and gas leasing via Presidential memoranda issued on [July 14, 2008](#) (<https://www.govinfo.gov/content/pkg/WCPD-2008-07-21/pdf/WCPD-2008-07-21-Pg986.pdf>), [January](#)

[27, 2015](https://obamawhitehouse.archives.gov/the-press-office/2015/01/27/presidential-memorandum-withdrawal-certain-areas-united-states-outer-con) (<https://obamawhitehouse.archives.gov/the-press-office/2015/01/27/presidential-memorandum-withdrawal-certain-areas-united-states-outer-con>), and [December 20, 2016](https://obamawhitehouse.archives.gov/the-press-office/2016/12/20/presidential-memorandum-withdrawal-certain-portions-united-states-arctic) (<https://obamawhitehouse.archives.gov/the-press-office/2016/12/20/presidential-memorandum-withdrawal-certain-portions-united-states-arctic>). [Executive Order 13795](https://www.govinfo.gov/content/pkg/DCPD-201700287/pdf/DCPD-201700287.pdf) (<https://www.govinfo.gov/content/pkg/DCPD-201700287/pdf/DCPD-201700287.pdf>) revoked protections for these areas and Interior [Secretarial Order 3350](https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf) (<https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf>) directed immediate development of a new five-year Outer Continental Shelf leasing program. A draft plan proposing to [open coastal waters](https://www.doi.gov/pressreleases/secretary-zinke-announces-plan-unleashing-americas-offshore-oil-and-gas-potential) to drilling (<https://www.doi.gov/pressreleases/secretary-zinke-announces-plan-unleashing-americas-offshore-oil-and-gas-potential>) was released January 2018. The U.S. District Court of Alaska [reinstated the Arctic and Atlantic withdrawals](https://www.alaskapublic.org/2019/03/29/judge-blocks-trump-administration-move-to-undo-obama-ban-on-arctic-oil-leasing/) (<https://www.alaskapublic.org/2019/03/29/judge-blocks-trump-administration-move-to-undo-obama-ban-on-arctic-oil-leasing/>); [the current administration filed an appeal](https://www.alaskapublic.org/2019/05/28/trump-administration-appeals-ruling-that-blocked-arctic-offshore-drilling/) (<https://www.alaskapublic.org/2019/05/28/trump-administration-appeals-ruling-that-blocked-arctic-offshore-drilling/>).

Reinstate Protections for Marine Animals and Habitats from Fossil Fuel Development

Why/what's being solved: As directed by [Executive Order 13795](https://www.govinfo.gov/content/pkg/DCPD-201700287/pdf/DCPD-201700287.pdf) (<https://www.govinfo.gov/content/pkg/DCPD-201700287/pdf/DCPD-201700287.pdf>), Interior [Secretarial Order 3350](https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf) (<https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf>) ordered review of several proposed and finalized rules to reduce environmental impacts from offshore drilling, including:

- 1) ["Offshore Air Quality Control, Reporting and Compliance" \(proposed rule\) \(81 Fed. Reg. 19718\)](https://www.federalregister.gov/documents/2016/04/05/2016-06310/air-quality-control-reporting-and-compliance) (<https://www.federalregister.gov/documents/2016/04/05/2016-06310/air-quality-control-reporting-and-compliance>). The administration has not finalized this rule and its [Regulatory Plan and Unified Agenda of Federal Regulatory and Deregulatory Actions](https://www.federalregister.gov/documents/2018/11/16/2018-24084/introduction-to-the-unified-agenda-of-federal-regulatory-and-deregulatory-actions-fall-2018) (<https://www.federalregister.gov/documents/2018/11/16/2018-24084/introduction-to-the-unified-agenda-of-federal-regulatory-and-deregulatory-actions-fall-2018>) (83 Fed. Reg. 57803); per [Executive Order 13777](https://www.federalregister.gov/documents/2017/03/01/2017-04107/enforcing-the-regulatory-reform-agenda) (<https://www.federalregister.gov/documents/2017/03/01/2017-04107/enforcing-the-regulatory-reform-agenda>) (February 24, 2017) suggest an intention to replace it with a weaker rule.
- 2) ["Oil and Gas and Sulfur Operations in the Outer Continental Shelf-Blowout Preventer Systems and Well Control," \(81 Fed. Reg. 25888\)](https://www.federalregister.gov/documents/2016/04/29/2016-08921/oil-and-gas-and-sulfur-operations-in-the-outer-continental-shelf-blowout-preventer-systems-and-well) (<https://www.federalregister.gov/documents/2016/04/29/2016-08921/oil-and-gas-and-sulfur-operations-in-the-outer-continental-shelf-blowout-preventer-systems-and-well>) (strengthening safety standards in response to Deepwater Horizon disaster). Interior [Secretarial Order 3350](https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf) (<https://www.doi.gov/sites/doi.gov/files/press-release/secretarial-order-3350-offshore-508.pdf>) ordered review of this rule, leading to a new [blowout preventer systems and well control rule](https://www.federalregister.gov/documents/2019/05/15/2019-09362/oil-and-gas-and-sulfur-operations-in-the-outer-continental-shelf-blowout-preventer-systems-and-well) (<https://www.federalregister.gov/documents/2019/05/15/2019-09362/oil-and-gas-and-sulfur-operations-in-the-outer-continental-shelf-blowout-preventer-systems-and-well>) in July 2019 (84 Fed. Reg. 21908), whose provisions ["align federal regulations with the American Petroleum Institute's blowout prevention standards"](https://www.eenews.net/eenewspm/2019/05/02/stories/1060261005) (<https://www.eenews.net/eenewspm/2019/05/02/stories/1060261005>).
- 3) ["Oil and Gas and Sulfur Operations on the Outer Continental Shelf-Requirements for Exploratory Drilling on the Arctic Outer Continental Shelf," \(81 Fed. Reg. 46478\)](https://www.federalregister.gov/documents/2016/07/15/2016-15699/oil-and-gas-and-sulfur-operations-on-the-outer-continental-shelf-requirements-for-exploratory) (<https://www.federalregister.gov/documents/2016/07/15/2016-15699/oil-and-gas-and-sulfur-operations-on-the-outer-continental-shelf-requirements-for-exploratory>) (to ensure safe and responsible exploration of Arctic Outer Continental Shelf oil and gas). The June 2019 ["Semiannual Regulatory Agenda"](https://www.federalregister.gov/documents/2019/06/14/2019-11847/semiannual-regulatory-agenda) (84 Fed Reg. 29647)

(<https://www.federalregister.gov/documents/2019/06/24/2019-12077/semiannual-regulatory-agenda>) indicates that a proposed revision to this rule is in development (Regulation Identifier 1082-AA01).

4) Secretarial Order 3350 also directed Bureau of Ocean Energy Management to expedite Incidental Take and Incidental Harassment Authorizations for protected marine species and seismic permitting authorizations offshore.

Congress should legislatively reinstate protections for marine mammals and measures to reduce impacts from offshore drilling activities.

Establish U.S. Fish and Wildlife Service Ecoregional Programs to Support Wildlife and Habitat Restoration and Protection

Why/what's being solved: Congress should authorize the U.S. Fish and Wildlife Service to carry out restoration and protection activities in areas that are critical to wildlife to support conservation and adaptation. For example, the Chesapeake Watershed Investments for Landscape Defense Act would establish a Fish and Wildlife Service grant program to support habitat management in the Chesapeake Bay watershed, which is also a Critical Conservation Area (CCA) designated by the Natural Resources Conservation Service. CCAs are areas of opportunity for stakeholders to collaborate regionally to address common natural resources goals while maintaining or improving agricultural productivity. We recommend passing S. 2591 and establishing similar programs for areas critical to wildlife across the country.

Example legislation: [Chesapeake Watershed Investments for Landscape Defense Act](#) (S. 2591) (<https://www.congress.gov/bill/116th-congress/senate-bill/2591>)

Re-establish the Civilian Conservation Corps to Advance Forestry and Wetlands Restoration

Why/what's being solved: Re-establishing the Civilian Conservation Corps can help advance critical habitat restoration activities that will advance climate change adaptation and connectivity, while also providing youth from around the country with skills and work experience in forestry and wetlands restoration. Examples of these kinds of projects include: 1) repairing, retrofitting or replacing existing culverts on rural and forest roads to improve water flow, enabling fish passage and reducing flood damage; 2) removing obsolete fencing, and upgrading and marking extant fencing to improve connectivity for migratory game and other species and reducing collision mortality by prairie grouse and entanglement by other wildlife; 3) capping open marker pipes on Bureau of Land Management public lands to prevent countless needless bird deaths; 4) collecting and storing seed from native plants to ensure that restoration efforts (such as after a fire or flood) have a ready source of appropriate plant materials; and 5) supporting community, landowner and federal land manager use of native plant landscaping, pollinator gardens, installation of bat boxes and better management of lawn and garden inputs. In addition to supporting ecosystem resiliency, these practices can produce huge benefits for agriculture and public health by providing natural pollination and pest control at local and regional scales.

Example legislation: [Climate Stewardship Act](#) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>)

Address the Extinction Crisis by Increasing Funding for Wildlife and Habitat on Public Lands

Why/what's being solved: Adequate funding and science-based management are vital to protecting wildlife habitat and ensuring climate resilience on our federal public lands systems. Congress should sufficiently fund key federal wildlife programs on the National Wildlife Refuge System, National Forest System, National Park System and the National System of Public Lands so that they can effectively fulfill their vital role in conserving wildlife and habitat and supporting species and ecosystems to adapt to climate change.

Non-CO2 Greenhouse Gases

9. What policies should Congress adopt to reduce emissions of non-CO2 greenhouse gases, including methane, nitrous oxide, and fluorinated gases?

Reinstate Requirements to Reduce Methane Venting, Flaring and Leaks from Fossil Fuel Development

Why/what's being solved: The federal government charted a new course for managing vented, flared and leaked methane in [Report of the Executive Office of the President, "Climate Action Plan Strategy to Reduce Methane Emissions"](https://obamawhitehouse.archives.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1) (<https://obamawhitehouse.archives.gov/the-press-office/2015/01/14/fact-sheet-administration-takes-steps-forward-climate-action-plan-anno-1>); it was rescinded by [Executive Order 13783](https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/) (<https://www.whitehouse.gov/presidential-actions/presidential-executive-order-promoting-energy-independence-economic-growth/>). One outcome of the strategy was a new regulation to reduce waste of methane at oil and gas facilities ([81 Fed. Reg. 83008](https://www.federalregister.gov/documents/2016/11/18/2016-27637/waste-prevention-production-subject-to-royalties-and-resource-conservation)) (<https://www.federalregister.gov/documents/2016/11/18/2016-27637/waste-prevention-production-subject-to-royalties-and-resource-conservation>), but Interior [Secretarial Order 3349](https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-_american_energy_independence.pdf) (https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-_american_energy_independence.pdf) directed the Bureau of Land Management to review the rule. BLM issued a much weaker [final regulation](https://www.federalregister.gov/documents/2018/09/28/2018-20689/waste-prevention-production-subject-to-royalties-and-resource-conservation-rescission-or-revision-of) (<https://www.federalregister.gov/documents/2018/09/28/2018-20689/waste-prevention-production-subject-to-royalties-and-resource-conservation-rescission-or-revision-of>) in September 2018 (83 Fed. Reg. 49184). Similarly, the Environmental Protection Agency's regulation "Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources," (81 Fed. Reg. 35824), has also, in accordance with Executive Order 13783, been rescinded and the agency has issued a [proposed rule](https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0757-0002) to rescind the methane management requirements (<https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0757-0002>). Congress should legislatively implement lasting provisions for methane management.

Carbon Removal

10. How can Congress accelerate development and deployment of carbon removal technology to help achieve negative emissions?

Plant 100 Million Urban Trees

Why/ what's being solved: In addition to contributing to natural carbon dioxide uptake and removal, planting urban trees also has resilience benefits, such as flood reduction, water quality improvement, and decreasing the urban heat island effect. Species used should be appropriate to current and future climate conditions and should not be invasive.

Example legislation: [Climate Stewardship Act](https://www.congress.gov/bill/116th-congress/senate-bill/2452) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>)

Promote Ecologically Appropriate Reforestation and Natural Regeneration

Why/what's being solved: Federal agencies should encourage increased reforestation on federal public lands as a means of addressing the climate crisis, while ensuring that those proposals don't lead to unintended negative outcomes for forests and the biological diversity they support. The following principles should be applied to reforestation policy on public forestlands: 1) reform reforestation and replanting policy on public lands to ensure sound practices that support climate mitigation and biodiversity adaptation and conservation; 2) prohibit harmful salvage logging on burned areas that otherwise exhibit high ecological integrity (e.g., natural habitat characteristics), including complex early seral habitat conditions; and 3) replant forests using the best available science, in a manner that provides measurable benefits to wildlife, watersheds and forest resiliency, and only where natural regeneration has failed.

Example legislation: [Climate Stewardship Act](https://www.congress.gov/bill/116th-congress/senate-bill/2452) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>) includes provisions to plant 4 billion trees by 2030, and 15 billion trees by 2050, on a combination of federal, state, local, tribal, and non-governmental lands.

Protect Mature and Old-Growth Forests on Public Lands

Why/what's being solved: Congress should explicitly protect and encourage the regrowth of big old trees on public lands, which are able to resist wildfire while storing vast amounts of carbon, on public lands. Parallel policy efforts must be made to a) protect high ecological and carbon value forests such as mature and old growth forests and roadless areas; b) restore degraded forests such as dense homogenous plantations and; c) restore natural fire regimes within fire-adapted forests.

Expand Uptake of "Coastal Blue Carbon"

Why/ what's being solved: Protecting coastal wetlands will contribute to both mitigation and resilience by sequestering carbon emissions and reducing coastal flooding. Coastal wetlands act as an important sponge during extreme weather events with heavy rainfall. For example, although New Jersey has lost more than 40 percent of its coastal wetlands, the wetlands remaining helped prevent [625 million](https://www.nature.com/articles/s41598-017-09269-z) (<https://www.nature.com/articles/s41598-017-09269-z>) of property damage during Hurricane Sandy in 2012. Offer rolling easements to protect wetlands that may undergo habitat transition due to sea-level rise.

Example legislation: [Climate Stewardship Act of 2019](https://www.congress.gov/bill/116th-congress/senate-bill/2452) (S. 2452) (<https://www.congress.gov/bill/116th-congress/senate-bill/2452>), includes direction to restore and protect more than 2 million acres of coastal wetlands by 2030.

Extend and Expand the North American Wetlands Conservation Act to Improve Habitat in Wetlands and Adjacent Grasslands

Why/what's being solved: First enacted in 1989, "NAWCA" supports federal agencies, states, tribes, private landowners, conservation organizations, businesses, and local governments in protecting, restoring, and managing wetlands in accordance with the North American Waterfowl Management Plan, a precedential international strategy that provides for the long-term protection of wetlands and associated upland habitats across North America.

Example legislation: The [North American Wetlands Conservation Extension Act](https://www.congress.gov/bill/116th-congress/house-bill/925) (H.R. 925) (<https://www.congress.gov/bill/116th-congress/house-bill/925>) would extend federal authorization and increases funding for a successful national program that conserves more than 900 species of birds and

other wildlife that depend on wetlands, a habitat type that is critical to maintaining ecosystem resiliency against climate change.

Resilience & Adaptation

11. What policies should Congress adopt to help communities become more resilient in response to climate change?

While Defenders recognizes that the Select Committee is interested in recommendations on federal disaster policies and risks to front-line communities, we note that the Committee also “welcomes all ideas on resilience and adaptation.” We are pleased to offer the following in accordance with our expertise on wildlife and habitat adaptation. We refer the Select Committee also to our contributions (above) on natural carbon removal strategies, as many of these have also support systems resilience, such as flood reduction, water quality improvement, and decreasing the urban heat island effect. We recommend prioritizing policies that provide for these co-benefits wherever possible.

Codify the National Fish, Wildlife and Plants Climate Adaptation Strategy

Why/what’s being solved: The existing [National Strategy](http://www.wildlifeadaptationstrategy.gov/) (<http://www.wildlifeadaptationstrategy.gov/>) was released in 2013 with the goal of protecting, managing, and conserving fish, wildlife, and plants contending with the ongoing and expected effects of extreme weather, drought, and other climate change impacts. Unfortunately, the Strategy has languished under the current administration and deserves legislative authorization to both fulfill its aims and provide for needed expansion and updates. The same legislation could also establish a National Fish, Wildlife and Plants Climate Adaptation Strategy Joint Implementation Working Group to serve as a forum for interagency consultation on, and the coordination of, the implementation and revision of the National Strategy.

Example legislation: [Safeguarding America’s Future and the Environment Act](https://www.congress.gov/bill/116th-congress/senate-bill/1482) (S.1482/H.R.2748) (<https://www.congress.gov/bill/116th-congress/senate-bill/1482>)

Address Climate Change in Endangered Species Listing and Recovery

Why/what’s being solved: Forthcoming research by Defenders found that although nearly all animals listed as endangered under the Endangered Species Act are sensitive to climate change effects, yet agencies only considered climate change as a threat to 64% of those species and planned management actions addressing climate change for only 18% of them. These results highlight the gap between climate change sensitivity and the attention from agencies charged with conserving endangered species. The proportion of species whose documents included climate change-related action each year generally increased from 2007 to 2014. Since then, discussion of climate-related action has steadily declined, and done so more steeply in 2017 and 2018. Of documents published in 2017, one species’ five-year review described a management response to climate change, and no 2018 documents mentioned actions to address climate impacts. Congress should ensure that implementing agencies: 1) consider climate change as a factor in listing and delisting decisions and considered in five-year species status reviews; 2) incorporate climate change considerations into Endangered Species Act documents and plans (e.g., use of modeling to determine suitable habitat conditions over time); and 3) address the threat of climate change in critical habitat designations and recovery actions.

Resources: <https://www.biorxiv.org/content/10.1101/647396v1>

Codify the “National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate”

Why/what’s being solved: The [National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate](https://www.epa.gov/sites/production/files/2016-12/documents/2011_national_action_plan_1.pdf) (https://www.epa.gov/sites/production/files/2016-12/documents/2011_national_action_plan_1.pdf) adaptation established a national goal for “Government agencies and citizens [to] collaboratively manage freshwater resources in response to changing climate in order to ensure adequate water supplies, to safeguard human life, health and property, and to protect water quality and aquatic ecosystems.” The strategy has languished since the revocation of [Executive Order 13653](https://en.wikisource.org/wiki/Executive_Order_13653) (https://en.wikisource.org/wiki/Executive_Order_13653).

Reauthorize and improve the National Oceans and Coastal Security Fund

Why/what’s being solved: The National Oceans and Coastal Security Fund supports programs and activities intended to better understand and utilize ocean and coastal resources and coastal infrastructure. Legislation introduced in Congress would 1) clarify definitions for “tidal shoreline” and “Indian tribe”; 2) specifies 80 percent of the Fund would be reserved for state block grants and 20 percent for the national competitive grant program; and 3) details specific eligible uses for the Fund’s grant programs, including ocean, coastal, and Great Lakes restoration, maintenance, and protection; regional planning, management, and resiliency efforts to support sustainable coastal development; scientific research to understand and mitigate coastal risks; and strengthening and protecting coastal infrastructure.

Example legislation: [National Oceans and Coastal Security Improvements Act](https://www.congress.gov/bill/116th-congress/house-bill/4093/) (H.R. 4093) (https://www.congress.gov/bill/116th-congress/house-bill/4093/)

Establish a Coastal Climate Adaptation Preparedness Program

Why/what’s being solved: Coastal zones are home to millions of Americans and provide critical habitat for myriad fish, wildlife and plant species. These vulnerable areas face extreme risk from sea-level rise, storm surge and other climate related threats. One way to prepare for impacts is to amend the Coastal Zone Management Act of 1972 to require the Secretary of Commerce to establish a coastal climate change adaptation preparedness and response program.

Example legislation: [Coastal State Climate Preparedness Act](https://www.congress.gov/bill/116th-congress/house-bill/3541/) (H.R. 3541) (https://www.congress.gov/bill/116th-congress/house-bill/3541/)

Provide Grants for States to Develop Climate Adaptation Plans for Wildlife and Natural Resources

Why/what’s being solved: To encourage states to plan for climate adaptation and close funding gaps, make funding for wildlife and plant adaptation available through mechanisms such as State and Tribal Wildlife grant programs, Coastal Zone Management Act grant programs, Coastal and Estuarine Land Conservation Programs and Cooperative Forestry Assistance Act programs, to States that have in place climate adaptation plan for these respective resources.

Example legislation: [Safeguarding America’s Future and the Environment Act](https://www.congress.gov/bill/116th-congress/senate-bill/1482/) (Sections 8) (S.1482/H.R.2748) (https://www.congress.gov/bill/116th-congress/senate-bill/1482/)

Improve Climate Change Considerations in Public Planning

Why/what’s being solved: Agencies should avoid activities that worsen climate change or exacerbate its impacts to resources through robust National Environmental Policy Act analysis and planning that fully consider emissions calculations and climate change impacts of proposed projects.

Example direction: [Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews](#)

(https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf)

Modernize Federal Programs to Support Climate Change Resilience Investment

Why/what's being solved: Federal agencies should support regional, state, community and tribal climate change adaptation by removing barriers to investment in resilience actions, and by reforming policies and funding that increase the vulnerability of various systems and sectors.

Example direction: [Executive Order 13653](#) (Section 2)

(https://en.wikisource.org/wiki/Executive_Order_13653) (rescinded in 2017 by Executive Order 13783).

Reinstate Federal Agency Planning for Climate Change Risk and Resilience

Why/what's being solved: Federal departments and agencies should assess the ways that climate change could interfere with their ability to accomplish their missions and programmatic goals, and make plans to improve their operational resilience in the face of these threats.

Example direction: [Executive Order 13653](#) (Section 5)

(https://en.wikisource.org/wiki/Executive_Order_13653) (rescinded in 2017 by Executive Order 13783).

Establish an Interagency Council on Climate Change Preparedness and Resilience

Why/what's being solved: Federal departments and agencies should coordinate interagency efforts on climate change preparedness and resilience and to support planning by state, local and tribal governments for the same.

Example direction: [Executive Order 13653](#) (Sections 6 & 7)

(https://en.wikisource.org/wiki/Executive_Order_13653) (rescinded in 2017 by Executive Order 13783).

c. What standards and codes should Congress consider for the built environment to ensure federally-supported buildings and infrastructure are built to withstand the current and projected effects of climate change?

Green the Gray Infrastructure

Why/what's being solved: Save money, improve the durability and functional longevity of traditional infrastructure and minimize its adverse environmental impacts through careful planning, siting, construction and maintenance of roads, bridges and other "gray" infrastructure investments, by 1) requiring a robust public planning process, 2) building or improving culverts to allow water to better bypass or underpass roadways, 3) avoiding projects that perpetuate or worsen drought, fire, erosion, flooding, wildlife habitat loss and fragmentation and other negative social and ecological impacts, and 4) designing compensatory mitigation programs that are consistent with landscape-scale conservation plans and maximize the opportunity for co-benefits, such as improved flood protection, air quality, or water quality or supply.

Example direction: [Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews](#)

(https://obamawhitehouse.archives.gov/sites/whitehouse.gov/files/documents/nepa_final_ghg_guidance.pdf)

Expand Green Infrastructure Investment

Why/what's being solved: Enhance community resilience to climate-driven disasters and improve quality of life by implementing "green infrastructure" solutions. Examples include 1) enhancing natural water retention and avoiding erosion through investments in wetland restoration, riparian buffers, forest watershed protection, and urban green infrastructure; 2) protecting coastal communities with wetland and dune restoration, artificial reefs and living shorelines; 3) investing in forest restoration projects can protect communities at the urban-wildlife interface from the threat of destructive wildfires, while also improving water retention in times of drought (one potential vehicle for future investments is the Collaborative Forest Landscape Restoration Program); and 4) enhancing parks, forests and green spaces within urban areas, which helps combat the "heat island effect," provides recreation opportunities, improves local air quality and enhances habitat for birds and other wildlife.

Example legislation: Natural infrastructure provisions are included in the [Coastal State Climate Preparedness Act](#) (H.R. 3541) (<https://www.congress.gov/bill/116th-congress/house-bill/3541>)

Climate Information Support

12. Our understanding and response to the climate crisis has relied on U.S. climate observations, monitoring and research, including regular assessment reports such as the National Climate Assessment. What policies should Congress adopt to maintain and expand these efforts in order to support solutions to the climate crisis and provide decisionmakers – and the American people - with the information they need? Where possible, recommend the scale of investment needed to achieve results.

Codify the Climate Change and Wildlife Science Center

Why/what's being solved: Codifying the Science Center would ensure permanent science capacity to develop scientific techniques, information, analytical tools, and strategies to help practitioners address the effects of extreme weather and climate change on fish, wildlife, and plants.

Example legislation: [Safeguarding America's Future and the Environment Act](#) (Section 6) (S.1482/H.R.2748) (<https://www.congress.gov/bill/116th-congress/senate-bill/1482>)

Provide Funding for Agencies to Improve Climate Change Data and Tools

Why/what's being solved: Federal agencies should continue to develop and provide data and analytical tools to support climate change preparedness.

Example direction: [Executive Order 13653](#), Section 4 (rescinded in 2017 by E.O. 13783) (https://en.wikisource.org/wiki/Executive_Order_13653)

International

13. The climate crisis requires a global response. U.S. leadership is critical for successful global solutions. What policies should Congress adopt to support international action on the climate crisis?

Remain in the Paris Climate Agreement

Why/what's being solved: Withdrawal from the agreement threatens global cooperation on climate crisis.

Example legislation: [Climate Action Now Act](https://www.congress.gov/bill/116th-congress/house-bill/9) (H.R. 9) (<https://www.congress.gov/bill/116th-congress/house-bill/9>)