

GREEN INVESTMENTS

How Budget Cuts are Impacting Our Communities and the Environment: the Case for Reinvestment in FY17



The organizations shown above do not necessarily endorse or have expertise in every program represented in this report. Please refer to the contacts listed following each section for more information on a particular program.

TABLE OF CONTENTS

Introduction.....	4
Lands.....	7
Bureau of Land Management.....	7
National Park Service.....	10
US Fish and Wildlife Service	11
US Forest Service	12
Cross-Cutting Lands Issues.....	14
Wildfire Suppression Funding	14
Land and Water Conservation Fund.....	15
Public Lands Corps Program	16
Wildlife.....	18
US Fish and Wildlife Service	18
Endangered Species Program.....	18
Migratory Birds.....	19
Landscape Conservation Cooperatives	20
Office of Law Enforcement.....	20
Wildlife of Global Concern.....	21
State and Tribal Wildlife Grants Program.....	22
North American Wetlands Conservation Act	23
Bureau of Land Management (BLM): Wildlife and Fisheries and Threatened and Endangered Species Management	24
US Forest Service (USFS): Wildlife and Fisheries Habitat Management	24
US Forest Service: International Programs:.....	25
US Geological Survey (USGS): National Climate Change and Wildlife Science Center.....	26
Clean Air, Water and Public Health.....	27
Environmental Protection Agency.....	27
EPA’s Clean Water and Drinking Water State Revolving Funds	28
National Institute of Environmental Health Sciences	29

Energy	30
Renewable Energy and Conservation.....	30
Landscape-scale Approach to Energy Development	31
Department of Energy (DOE).....	32
Energy Efficiency.....	32
Clean Energy Research	33
Grid Modernization	34
Oceans and Coasts	36
National Oceanic and Atmospheric Administration (NOAA).....	36
National Ocean Service.....	36
National Marine Fisheries Service	37
Office of Oceanic and Atmospheric Research	39
International Programs	41
Department of Treasury	41
Global Environment Facility (GEF).....	41
Green Climate Fund (GCF).....	41
Tropical Forest Conservation Act (TFCA).....	42
USAID.....	43
Biodiversity Conservation Program.....	43
Sustainable Landscapes Program (SLP)	44
Adaptation Program	44
Clean Energy Program (CEP).....	45
Population Assistance Program.....	46
Department of State.....	46
Combatting Wildlife Trafficking Programs at Department of State & USAID	46
International Conservation Programs	48
Multilateral Funds to Combat Climate Change Supported by the State Department	48
Forest Carbon Partnership Facility (FCPF)	48
Adaptation Programs	49
International Agreements on Climate Change and Ozone Pollution	50

INTRODUCTION

GREEN INVESTMENTS highlights the growing need for Congress and the Administration to provide proper funding for conservation programs, communities and environmental protection. Agency budgets have been constrained for years, which has led to many difficult decisions, including staff reductions, inadequate scientific research and monitoring, compromised conservation and management actions, growing maintenance backlogs, reduced visitor services and recreational investments, and other impacts. The damaging across-the-board sequestration imposed by the Budget Control Act of 2011 further restricted agency budgets and exacerbated the challenges they face.

Discretionary spending has been declining for years as a percentage of the economy, [CBO outlays](#) project that by 2026 discretionary spending will fall to the smallest percentage of GDP since 1962 – the first year for which data are available. In part due to those disproportionate reductions, funding for environmental programs has failed to keep up with needs over the last several years.

American communities deserve budgets that protect public health, prioritize conservation, and ensure the world we leave our children is cleaner, healthier and more sustainable than the one we inherited. Our federal agencies are doing everything in their power to meet their obligations; leveraging public-private partnerships, volunteer support, and matching grant programs. They have been tremendously successful in doing more with less and have tightened belts in every way possible before making decisions that impact program funding. Nevertheless, years of funding constraints have taken their toll.

The environmental programs outlined in this report are by no means a comprehensive collection of the many programs that warrant additional investments. Rather, they constitute a broad and representative sample, assembled by numerous groups, that demonstrates the harm of recent cuts, the broader impact of years of underfunding, and the value and potential of these programs with modest reinvestments.

In total, these programs are a small portion of the federal budget and thus a minor percentage of the average American family's tax expenditures, yet they provide invaluable benefits: clean air for children to breathe, clean water for families to drink, healthy public lands for recreation, vibrant wildlife populations, clean oceans to support healthy fisheries, and a renewable energy future that powers a clean, sustainable economy and creates high quality American jobs that cannot be exported.

In addition to important domestic investments, the federal budget includes critical international funding for biodiversity, conservation, and climate change. Each of these programs plays an important role in sustaining the societies, economies and ecological systems to which we are inextricably linked. Many US agencies have taken a leadership role to help developing countries combat illegal trade, protect natural capital, and promote strong and sustainable economic development. Continuing and expanding these efforts will be essential to meeting the challenges of the future.

The contributors to this report urge Congress to find a permanent solution to budget sequestration and ask appropriators to provide investments in natural resources and the environment that are improved over enacted levels, since much work remains to get back on track.

Natural Resources and Environment Spending Just 1% of Federal Budget

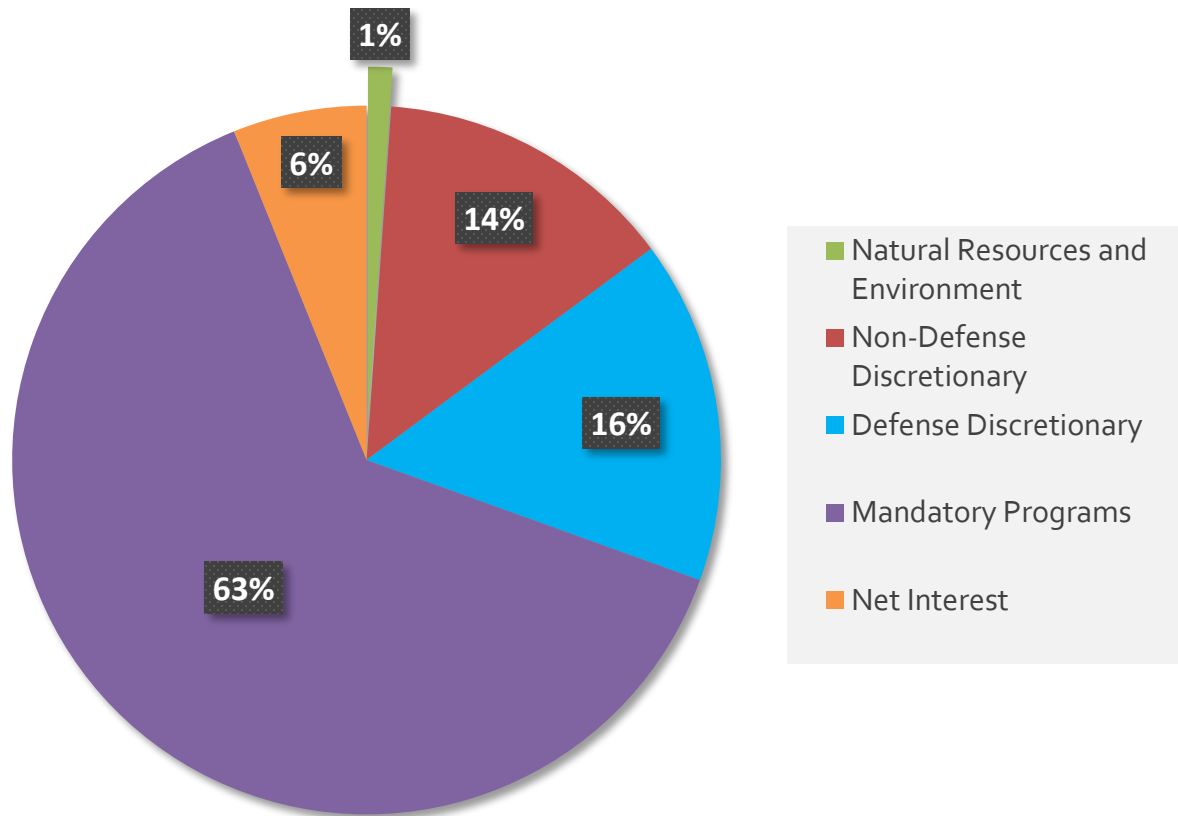


Figure 1: Percent of FY15 Federal Budget by Spending Category¹

All federal spending on domestic land, water, ocean, fish and wildlife programs accounts for just 1.11 percent of the federal budget, and, as you will see in the next chart, this meager percentage continues to decline. Without increased investments in conservation and environmental programs it will be difficult or impossible for agencies to recover from years of cuts and meet their numerous obligations.

Further constraining agency budgets are various fixed costs such as inflation, deteriorating equipment and facilities, staff salaries, rent, and utilities. This translates in to even tighter budgets and fewer working funds as our natural resource and environmental agencies struggle to do more with less.

¹ Source for all data is from the Office of Management & Budget's Historical Table 3.2, 8.5, and 8.7. Figure 1 and Figure 2 provided by The Nature Conservancy. For more information, please contact Michelle Dietz, Policy Associate, The Nature Conservancy, at michelle.dietz@tnc.org or 703-841-2075.

Investments in Natural Resources and the Environment Have Been Falling for Decades

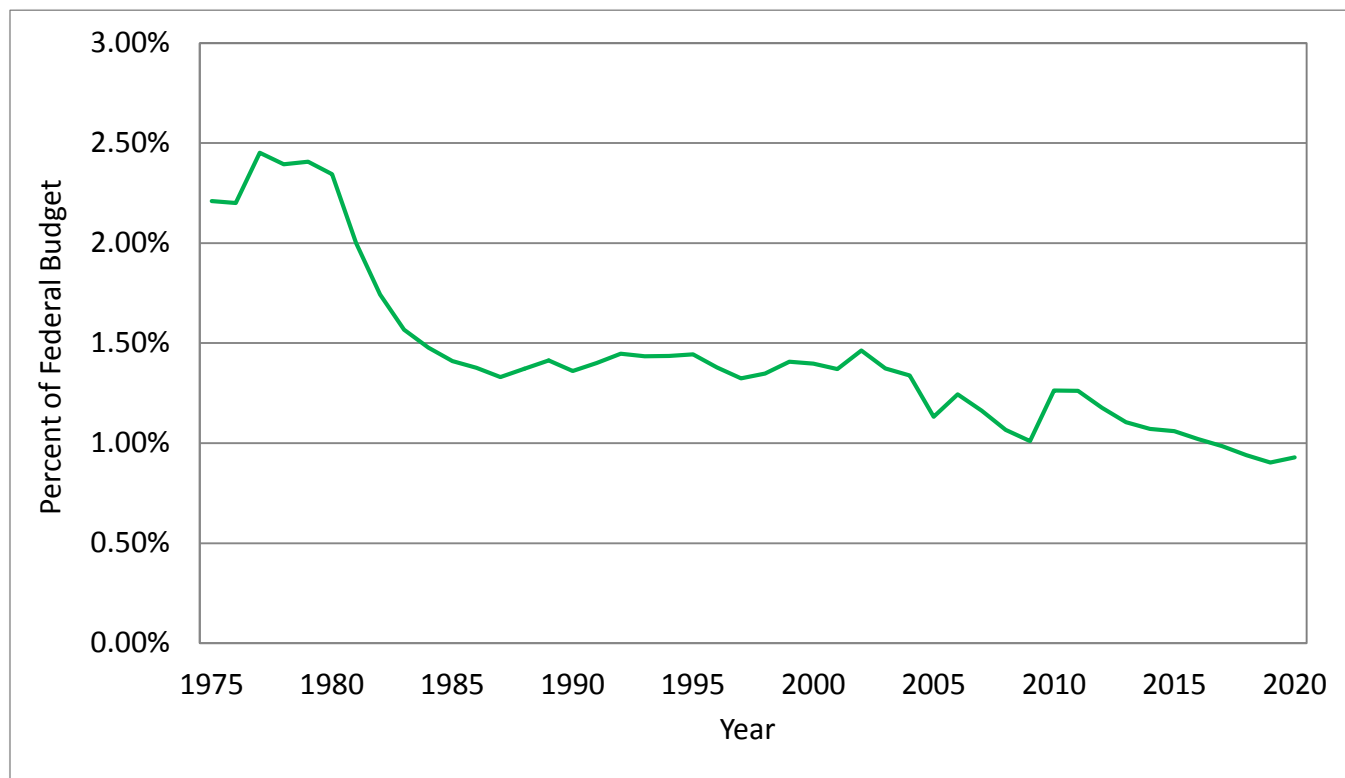


Figure 2: Function 300 Spending as a Percent of Overall Budget (FY1975 – FY2020)²

As illustrated in this chart, the primary environmental budget category, Function 300, has been steadily declining for decades as a percentage of the total federal budget. This translates into tangible program shortfalls for the agencies tasked with safeguarding our environment.

Investments in natural resource and environmental programs are not even minor contributors to the national debt, due to both the negligible portion of the federal budget that they represent and their invaluable contributions to the national economy. Investing in conservation and the environment strengthens our economy in various ways: reducing health care costs by improving public health, enhancing the multibillion-dollar outdoor recreation industry, ensuring ecosystem services that reduce the costs associated with resource damage, and supporting our transition to a clean renewable energy economy that will create countless jobs and further spur our economic growth.

² Function 300 includes programs the primary purpose of which is concerned with environmental protection and enhancement; recreation and wildlife areas; and the development and management of the nation’s land, water and mineral resources. Source for all data is from the Office of Management & Budget’s Historical Table 3.2, “Outlays by Function and SubFunction”. The data provided for FY15-20 funding is estimated spending.

LANDS

Our public lands are a central component of our national identity and natural heritage. Our unique system of public lands was created so that all Americans, from all walks of life, could enjoy the outdoors and the benefits our public lands provide in perpetuity. Our public lands provide outstanding opportunities for outdoor recreation that bolster the massive outdoor recreation economy. The outdoor recreation industry supports 6.1 million American jobs, and generates \$646 billion in outdoor recreation spending each year, \$39.9 billion in federal tax revenue, and \$39.7 billion in state/local tax revenue. To put that in perspective, this significantly outpaces annual consumer spending on pharmaceuticals (\$331 billion), gasoline and other fuels (\$354 billion) and motor vehicles and parts (\$340 billion).³

Investments in our public lands have incredible benefits for public health, wildlife conservation, outdoor recreation, ecosystem services, local economies that benefit from recreational tourism, and the larger national economy. For example, over [66 million Americans](#) – one in six – depend on national forests for their water supplies. This staggering statistic represents only a small sliver of the estimated \$1.6 trillion in ecosystem services provided each year by public lands and other irreplaceable habitat in the contiguous 48 states.

[Numerous polls](#) have shown that Americans care very deeply about the proper management and stewardship of this shared national resource. Over the past few years we have seen a small but vocal minority attempt to use the management difficulties created by chronic underfunding as a reason to strip these lands from the public and allow state and private entities to seize control, sell off or develop our public lands as they see fit. The seizure of our public lands is [widely opposed](#), and in fact [over 80 percent](#) of Westerners believe that funding for our public lands should not be cut. This further underscores the need for investments in our land management agencies, to both meet the needs of communities in and around our public lands and preserve this irreplaceable resource for future generations.

Bureau of Land Management

Value of Investing:

Bureau of Land Management (BLM) lands are America's backyard. Over [64 million](#) Americans, more than one in six, live within 100 miles of these public lands. These lands provide outstanding opportunities for outdoor recreation (including hunting, angling and wildlife viewing), protect priceless cultural and historic resources, and promote 21st century conservation through innovative and collaborative scientific research.

The National Conservation Lands, which represent the crown jewels of BLM lands, comprise only 1/10th of BLM's total estate. Yet they alone account for one-quarter to one-third of annual visitors to BLM lands

³ https://outdoorindustry.org/images/researchfiles/OIA_OutdoorRecEconomyReport2012.pdf

and they create or sustain over 20,000 jobs annually, all while receiving less than \$2.50 per acre in federal funding. The Conservation Lands program supports local economies by building partnerships and locating agency facilities within surrounding communities, driving visitation, generating economic returns and reducing impacts on the landscape.

The BLM's volunteer program is another great example of how modest investments can translate into significant conservation benefits for our public lands. Volunteers provide tremendous support, both in terms of hours of labor and financial value. The Bureau depends on them and has leveraged them to great effect to make the most of taxpayer dollars.

Impacts of Cuts:

The FY16 Omnibus restored some much needed funding for the agency, dollars that are critical for supporting the planning and conservation efforts of the BLM. However, the agency has faced funding cuts for several years, and, despite the best efforts of our land managers to meet their obligations, this is placing significant strains on day-to-day operations. Vacant positions are left unfilled, the Bureau is hiring fewer part-time and seasonal personnel, science grants are being cut, critical planning processes are being delayed, Resource Advisory Councils—which provide public input into land use planning and management—are canceling their meetings, and even volunteer efforts are being undermined. Examples of the direct impacts of budget cuts include:

- **Las Cruces District, NM:** The BLM Las Cruces Field Office, like many, is lacking staffing resources, especially law enforcement. They currently have two full time Law Enforcement Officers (LEO) who are responsible for visitor safety on two National Monuments and 10 wilderness study areas covering 5.4 million acres. Several other positions are being left vacant at present, following high rates of retirement in the district. This district will also shortly be undertaking two Resource Management Plans⁴ (RMP); the launch of the Organ Mountains-Desert Peaks National Monument RMP and the completion of the Tri-County RMP. Additionally, the local office is about to undertake implementation of the revised RMP for Trackways National Monument. These planning processes are incredibly important to protect natural and cultural resources and will require significant staff time, especially in regards to recreation and visitor services. Furthermore, this district has recently seen nearly a 30 percent increase in visitation following the designation of the Organ Mountains Desert Peaks National Monument with even more visitation expected as visibility and marketing increase in the coming years. The current staff capacity and facilities require additional investments to accommodate the expected increases in visitation, especially school groups.

⁴ From the Bureau of Lands Management's [website](#): "An RMP is a blueprint explaining how the BLM will manage areas of public land over a period of time (generally 10-15 years). BLM Field Offices or District Offices prepare RMPs for the lands within their boundaries. RMPs contain decisions that guide future management actions and subsequent site-specific implementation decisions. RMPs establish goals and objectives for resource management (desired outcomes) and the measures needed to achieve these goals and objectives (management actions and allowable uses)."

- **Battle Mountain District, NV:** Since 2010, the BLM has been working on revising the Battle Mountain RMP. Due to the lack of a planner and several other key vacancies in the Battle Mountain District this RMP has been delayed for some time. Other important processes, such as wilderness characteristic inventories, have also been delayed. Battle Mountain is the largest district in the lower 48, and this RMP alone would affect conservation and management decisions on more than 10 million acres of public lands. Small investments in planning capacity for this district could have substantial conservation benefits for the surrounding communities.

- **Central Montana District, MT:** The Central Montana District Manager position has been left vacant at present, and there are currently no plans to rehire this position. In the interim, the Hi-Line District Manager has been tasked with managing the Central Montana District on top of his regular responsibilities. This means an additional field office, and the Upper Missouri River Breaks National Monument have been added to the three field offices and the oil and gas operation already under the supervision of the Hi-Line District, potentially placing additional strains on available staff resources.

- **Idaho Falls District, ID:** The Idaho Falls District is lacking staff capacity in the planning department. This has led to planning delays and could be problematic for proper resource management decisions on the ground. The Upper Snake Field Office has never had a field office-wide RMP, and its most recent partial RMP (the Medicine Lodge MFP) was signed 30 years ago in 1985. The Salmon RMP was signed 28 years ago in 1987. The Challis RMP, which was signed in 1999, is 16 years old as of 2015 and would be at least 20 years old by the time a new RMP Record of Decision (ROD) would be signed for this Field Office even if the RMP revision for that field office was started today. Because of their age, the current RMPs fail to address many of the current needs of the Field Offices, including protection of wild lands, migration corridors and management that could allow for climate change adaptation to occur better on the landscape. Modest investments in planning capacity for this district would allow for RMP revisions in the Field Offices that harbor some of the most critical unprotected wildlife migration corridors in the country.

For more information [go here](#), or contact Cameron Witten, Government Relations and Budget Specialist, The Wilderness Society; cameron_witten@twc.org or 202-429-8458. For more information about the Central Montana District, or the Upper Missouri River Breaks National Monument, contact Beth Kampschorr, Executive Director, Friends of the Missouri Break Monument, at beth@missouribreaks.org or 406-502-1334.

National Park Service

Value of Investing:

Areas protected by the National Park Service preserve our natural and cultural heritage and support a robust tourism economy: they are some of America's top tourism **destinations**. **Bipartisan polling** shows 9 out of 10 American voters irrespective of political leaning do not want park funding cut further. **Every dollar invested** in the National Park Service supports ten dollars in economic activity, and national parks support nearly \$30 billion in economic activity and more than 275,000 private-sector jobs annually.

Impacts of Cuts:

Insufficient funding over the last five years has impacted the ability of the National Park Service to effectively implement its mission. Superintendents widely report long term staff losses, deteriorating facilities, and the growth of the **\$11.9 billion deferred maintenance backlog** for lack of funds to perform both cyclical maintenance and larger conservation projects. The restoration of some funds in FY16 will begin to allow parks to recover from years of underfunding. However, with additional needs for the upcoming centennial and funding levels that are still nearly 5 percent below FY10 after controlling for inflation, more will be needed to recover from years of underfunding and allow parks to more adequately achieve their mission as the system enters its second century.

Examples of funding needs include:

- **Yosemite National Park:** Improved Construction funds in FY16 will allow for repairs of a leaking water distribution system that threatens the health of the Mariposa Grove, while Centennial Challenge funds will allow for restoration projects in the grove funded in part by a nongovernmental donor. However, the park continues to struggle with a deferred maintenance backlog of more than \$500 million, demonstrating the need for enhanced funding in the Construction account.
- **Great Smoky Mountains National Park:** The park has been struggling with a deferred maintenance backlog of more than \$240 million and eleven fewer staff positions than a decade ago. FY16 funds may ultimately address some of the lost staff, but funding challenges will remain to maintain the park's 137 building projects and 18 water and wastewater projects.

For more information, go [here](#) or contact John Garder, Director of Budget and Appropriations, National Parks Conservation Association, jgarder@npca.org or (202) 454-3395.

US Fish and Wildlife Service

Value of Investing:

The [National Wildlife Refuge System](#) is the largest land and water system in the world dedicated to wildlife conservation, encompassing more than 150 million acres and protecting over 2,100 species of birds, mammals, reptiles, amphibians, and fish. Expanded protection of Marine National Monuments add an additional 418 million acres outside refuge boundaries. In 2014, refuges were visited by more than 47 million people, created 35,000 private U.S. jobs and \$792.7 million in job income, and generated \$342.9 million in local, county, state, and federal tax revenue. There is a refuge in every state and within an hour's drive of most major American cities.

Impacts of Cuts:

Since the high-water mark of refuge funding in FY10, drastic budget cuts and sequestration have severely impacted work in numerous areas. For example, through FY14, wetland restoration has plummeted by 69 percent, restoration of forest habitat has declined by 56 percent, and even though more than 2.5 million acres of refuge lands are overrun by harmful invasive plants, acreage controlled has dropped by 63 percent. Although funding levels have risen over the last few years, it has not kept up with inflation, and funding shortfalls continue. The FY16 funding level is nearly fifteen percent below the FY10 level adjusted for inflation. Should levels continue to fall, we can expect impacts such as:

- **Prescribed Fire:** A decrease in the use of prescribed fire, which is used on refuges both to improve habitat for wildlife and to reduce hazardous fuels that pose a wildfire risk to nearby communities;
- **Visitor Programs:** A decline in the number and quality of visitor programs, with visitor centers operating at reduced hours, and plans to add or expand hunting programs at refuges being postponed;
- **Crucial Functions:** Elimination of ancillary functions like FWS's operation of Henderson Field at Midway Atoll National Wildlife Refuge, which serves as a critical emergency landing site for trans-pacific flights, as well as the public's main window to the vast marine national monuments;
- **Recovery of Imperiled Species:** Delayed progress in recovering some of the more than 380 threatened and endangered species that depend on refuges.

For more information go [here](#) or contact Mary Beth Beetham at Defenders of Wildlife, mbeetham@defenders.org, 202-772-0231 or Desiree Sorenson-Groves at the National Wildlife Refuge Association, dgroves@refugeassociation.org, 202-292-3961.

US Forest Service

Value of Investing:

America's 193 million acres of national forests and grasslands are essential to our economic, ecological, and social well-being. The Forest Service is vital in managing the forests that provide public benefits and services such as clean air and water, energy and timber, carbon storage, wildlife habitat, and opportunities for outdoor recreation. These benefits also include jobs and economic activity, notably in rural areas where employment opportunities and economic growth are largely tied to the management of our natural resources. The National Forest System contributes over **\$36 billion to the US gross domestic product, supporting 450,000 jobs** through the variety of activities that occur on the forests, from outdoor recreation, to forest products, to mineral and energy production and livestock grazing.

The Forest Service works with a wide range of partners, leveraging taxpayer funds, to implement and advance the Forest Service's mission through land management activities and projects. In FY 2014 the Forest Service entered into more than **9,300 grants and agreements with such partners who added an additional \$613 million in cash and noncash contributions. Combined with the Forest Service's contribution, the total value of these partnerships was over \$1.3 billion, with greater investment in the Forest Service, this ability to leverage funds will only increase.** Continued and increased investment in the Forest Service is essential for America's social, economic, and ecological welfare.

Impacts of Cuts:

The Forest Service's National Forest System, State and Private Forestry, and Research divisions have all endured deep cuts over the past years. In the National Forests, field offices are short staffed, underfunded and thus unable to complete the on-the-ground management that is required. Research is unable to continue to help manage our forests and communities are not receiving the technical assistance from State and Private Forestry that was once available to them. Examples of impacted programs include:

- **Forest Restoration:** At least 65 million acres of national forests are in need of restoration work. Level or decreasing budgets coupled with the rising cost of wildfire suppression has taken funding away from restoration, watershed and wildlife programs, limiting the Forest Service's ability to do the work that would actually prevent fires. The Forest Service started FY2015 with a budget of \$115 million less than the previous year for all work not related to fire. **Budget constraints have also reduced staffing for restoration, watershed and recreation by nearly 40 percent, from approximately 18,000 in 1998 to fewer than 11,000 in 2015.**
- **Legacy Roads and Trails:** In its first eight years, Legacy Roads and Trails (LRT) has proven to be an extremely effective use of federal dollars and has dramatically improved water quality and access

in our national forests. The return on investment with LRT is impressive. On average, for every \$5 million appropriated to LRT, the Forest Service is able to accomplish⁵:

- 3,282 acres of terrestrial habitat and 20 miles of stream habitat are restored
- 87 miles of unneeded roads are decommissioned which improves water quality by stopping sediment pollution from running into streams
- 224 miles of needed roads are maintained, which ensures safe and reliable public access
- 59 miles of trails are improved, which enhances recreational access
- Between 75-120 jobs in rural America are retained or created

For more information contact Rebecca Turner, Senior Director of Programs & Policy, American Forests, rturner@americanforests.org or 202-370-4521.

⁵Estimates are based on the Legacy Roads and Trail Program's averaged annual accomplishments per \$1M using USFS reporting data and multiplying over \$5M.

CROSS-CUTTING LANDS ISSUES

Wildfire Suppression Funding

Value of Investing:

Wildfires response activities are funded through the USDA Forest Service and Department of the Interior budgets. This is very different from how natural disasters like tornadoes and hurricanes are funded, which are provided dedicated disaster funding. The Forest Service and DOI need a more stable and predictable budget, and that can only happen through a permanent long-term fire funding fix. Properly and responsibly funding wildfire suppression activities would stabilize agency budgets by significantly minimizing the need to transfer from non-suppression funds when suppression resources expire and, more importantly, protect land management budgets from increasing fire suppression costs. A solution would 1) access disaster funding, 2) minimize transfers, and 3) deal with the continued erosion of agency budgets over time. The Wildfire Disaster Funding Act is an alternative that meets these criteria by funding a portion of wildfire suppression through a budget cap adjustment similar to what FEMA uses for disasters under the Balanced Budget and Emergency Deficit Control Act of 1985. The House and Senate propose this approach in the bipartisan Wildfire Disaster Funding Act (S. 235 and H.R. 167). Fixing the current fire funding problem will better allow the agencies to accomplish their land management goals.

Impacts of Cuts:

- Increases in suppression costs and transfers from non-suppression accounts are taking away from important land management, restoration, and public service programs to pay for federal firefighting.
- The ten-year rolling average used to estimate the funding needs of suppression continues to rise over time. As suppression costs continue to rise and as budgets remain relatively flat, more funding is allocated to the ten-year average for suppression and less is allocated to all other areas of the USFS and DOI budgets. And yet, as the ten-year average for suppression consumes more of the USFS and DOI budgets, it still remains insufficient to fund wildfire suppression through the end of the fiscal year.
- Increasing firefighting costs and transfers have real and negative impacts on a host of important activities that are vital to managing our nation's public and private lands, from managing roads and water quality to conserving fish and wildlife habitat and recreational opportunities, among many more.

For more information, contact Cecilia Clavet, Senior Policy Advisor, The Nature Conservancy, at cclavet@tnc.org or (703) 841-7425.

Land and Water Conservation Fund

Value of Investing:

Last year marked the long-awaited reauthorization of the Land and Water Conservation Fund (LWCF), though only through September of 2018. Over its 50-plus years LWCF has successfully secured critical outdoor recreation access and protected some of our nation's most vital public lands. Land acquisition through LWCF dramatically improves the management efficiency of our public lands. Consolidation of ownership within our public lands eliminates the need to maintain costly road networks, reducing their impact on habitat and water quality, reduces the cost of fighting wildfires and frees up much needed law enforcement and monitoring resources. Land conservation also protects critical natural resources such as watersheds, drinking water supplies, riparian areas, and T&E species.

Impacts of Cuts:

The concept of reinvesting revenue gained from the depletion of one natural resource in the permanent conservation of another is as sound today as it was when LWCF was enacted more than 50 years ago. LWCF's true promise, however, has never been fully met. Over the life of the program, more than \$19 billion has been diverted from the LWCF trust fund, vanishing into the general revenue stream with no accountability on where the money was actually spent. Until a permanent solution can be found that brings long-term certainty to LWCF's authorization and annual funding, the program cannot live up to its full potential. Again this year, \$450 million—half of what is deposited in the fund—was diverted away from LWCF, leaving hundreds of important projects on the table and leaving willing-seller landowners in the lurch. For example:

- **Appalachian Trail (PA, NC, TN, VA, VT):** The National Trails system, which includes the iconic 2,180 mile-long Appalachian National Scenic Trail, offers the American public a tremendous variety of recreation, preservation, fitness, and heritage opportunities. LWCF plays an important role in protecting and enhancing these opportunities by funding conservation projects along the trail. Unfortunately, the National Trails System received only a portion of the LWCF funding needed in recent years, leaving trails such as the Pacific Crest Trail, Oregon National Historic Trail, Capt. John Smith National Historic Trail, and the Lewis and Clark National Historic Trail and the Appalachian Trail vulnerable to agricultural conversion, commercial development, visual intrusion, and loss of public access.
- **Forest Legacy Program in Washington:** Forest Legacy Program funding is proposed to secure a conservation easement over 23,500 acres in Mason County owned by Green Diamond Resource Company, a Washington-based and family-owned forest products company. The Washington Department of Natural Resources will hold the easement to ensure the property remains a working forest and is available for public recreation. The forest industry provides eight percent of jobs in the region.

In addition to preserving a working forest, the project will benefit the local shellfish industry. Shellfish harvesting is the area's second largest industry. Securing a conservation easement on the property would help preserve the shellfish on 1,400 acres of tidelands for more than 20 shellfish companies and 2,000 recreational and tribal harvesters.

The project would also promote Washington's active outdoor recreation economy. Each year, active outdoor recreation generates \$22.5 billion in consumer spending and supports more than 220,000 jobs in Washington. The proposed investment in the South Puget Sound Coastal Forest project will go far to ensure the continued vibrancy of this sector of the state's economy.

FLP funding will ensure permanent public access on over 5,000 acres for hiking, mountain biking, hunting and fishing, and other recreational uses. Green Diamond is working with public and private partners to identify potential trail corridors on the property and connections to existing and proposed trails. Additionally, Green Diamond will donate 21.5 miles of trail easements to Mason County once all phases of the project are complete. The trail easements will support a 2013 County Comprehensive Parks Plan goal of adding 38 miles of regional trails by 2018. The project's increased recreational access will further strengthen the local economy by attracting visitors to hike the area.

Unfortunately, this project was only partially funded in FY 2016 despite an increase in appropriated levels for LWCF. The Forest Legacy Program and other programs under the LWCF umbrella would be able to address pending conservation needs with full funding of LWCF at \$900 million.

For more information [go here](#) or contact Kathy DeCoster, Vice President for Federal Affairs at the Trust for Public Land Kathy.DeCoster@tpl.org or Amy Lindholm, Director of the LWCF Campaign at The Wilderness Society Amy_lindholm@tws.org

Public Lands Corps Program

Value of Investing:

Since its authorization in 1993, the Public Lands Corps program has enabled hundreds of thousands of youth to participate in environmental conservation and stewardship projects on Department of the Interior and USDA Forest Service lands. Organizations like 100+ members of [The Corps Network](#) depend on this program to engage youth in Service and Conservation Corps all across the country to address some of America's greatest conservation challenges.

The Public Lands Corps Program engages youth in the great outdoors, helps to cultivate the next generation of public lands stewards, and provides significant employment opportunities to conserve and care for our public and tribal lands, waters, and natural and cultural resources. Corps provide countless man-hours and economic value to our public lands agencies, as well as employment opportunities for youth and veterans, many of whom come from at risk and low income communities.

Impacts of Cuts:

- According to [research](#) by The Corps Network, cuts to this program would directly contribute to a major reduction in capacity and conservation projects. In FY13 some Corps saw their membership and funding cut in half. This resulted in:
 - 3,700 less Corps members working across America
 - 200,000 fewer trees planted
 - 116,000 fewer acres of wildfire fuel removed
 - 26,000 fewer acres of habitat restored
 - 24,000 fewer acres of invasive species removed from our public lands
 - 2,600 fewer homes were weatherized or retrofit for increased efficiency

- Many of our land management agencies have come to rely on the Corps services to maintain and restore our public lands. Decreased funding has made it more difficult to agencies to implement vital conservation strategies.

- Many Corps are running skeleton crews due to funding cuts. In a national survey of Service and Conservation Corps over 80 percent of respondents said if their funding was reduced Corpsmember enrollment would be the first thing to be cut, with reductions in staff a close second at 79 percent.

For more information, contact Tyler Wilson, Government Relations Director, The Corps Network at twilson@corpsnetwork.org or 202-737-6272, or contact Cameron Witten, Government Relations and Budget Specialist, The Wilderness Society at cameron_witten@tw.s.org or 202-429-8458.

WILDLIFE

Protecting wildlife means also protecting habitat that safeguards the health of natural systems which [provide clean air and water, food, medicines, and other products that are required for the health of American families and communities](#). Federal programs that protect imperiled species, migratory birds, and habitat all are helping to ultimately ensure the health and well-being of the American people. Wildlife also makes an important economic contribution through wildlife-related recreation, [generating nearly \\$145 billion for local economies in 2011](#).

Unless otherwise noted below, for more information on this section, please contact Mary Beth Beetham at Defenders of Wildlife, (202) 772-0231, mbeetham@defenders.org.

US Fish and Wildlife Service

The [U.S. Fish and Wildlife Service](#) (FWS) is the primary federal agency responsible for conserving wildlife and habitat both domestically and internationally. Below are examples of some FWS programs and the kinds of damage caused by funding cuts.

Endangered Species Program

Value of Investing:

[For more than 40 years, the Endangered Species Act has helped to prevent the extinction of our nation's wildlife treasures](#), including beloved symbols of America such as the bald eagle, the Florida manatee, and the California condor. [The Act also benefits people](#) by maintaining healthy natural systems as well as supporting a vibrant wildlife recreation industry that generates income and jobs for local economies.

Impacts of Cuts:

The FWS [Endangered Species program](#) budget suffered an 11.1 percent reduction in real dollars from FY10 to FY15. A restructuring of the budget in the final FY16 omnibus appropriations bill makes direct comparisons between FY10 and FY16 levels difficult, but in general, average dollars per species has decreased every year since 2010 both for recovery of listed species as well as the required consultations which allow projects to move forward while minimizing harm to listed species. Continued cuts will further cripple FWS's ability to save plants and animals from extinction:

- **Delayed and Outdated Recovery Plans.** According to the most recent FWS Recovery Report to Congress, hundreds of listed species have no recovery plans or extremely outdated ones. Without funding to draft or update these documents, recovery actions for many species will not occur or will be delayed. Most species will not recover on their own without considerable investments to the Endangered Species program and the threatened and endangered species programs of other federal agencies.

- **Limit private-lands conservation:** Habitat Conservation Plans (HCPs) are an important part of conserving ESA-listed species on private lands. More and more private landowners are proposing HCPs, but budget cuts have meant FWS doesn't have the staffing needed to review and help craft good plans, nor undertake the section 7 consultations that are part of the HCP process. Currently, a plan advances only if sufficient external pressure is applied to FWS to increase the priority, which means that another plan has to move down the priority list; someone loses, regardless. The opportunities for private landowners to participate in imperiled species conservation will only dwindle if FWS is not funded to play its role.

Migratory Birds

Value of Investing:

Migratory birds are integral to healthy natural systems in many ways, including as predators, prey, seed dispersers, and pollinators, and are actively appreciated and enjoyed by millions of people across the country. The [2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation](#) reports that nearly 47 million Americans enjoy watching and feeding birds, and spent \$107 billion on birdwatching equipment and travel within the US that year alone, creating 660,000 jobs and \$13 billion annually in local, state, and federal tax revenue. More than 17 million Americans travel to see birds, putting millions of dollars into local economies. Sadly, a 2014 [State of the Birds](#) report documented broad declines in US bird populations.

Impacts of Cuts:

The FWS [Migratory Bird Management program](#) budget suffered a 21 percent reduction in real dollars from FY10 to FY16. The already tiny [Neotropical Migratory Bird Fund](#) has seen even larger cuts of 29 percent since 2010, significantly reducing the number of projects funded. Continued cuts will further cripple the ability of these programs to appropriately manage migratory birds and conserve habitat to maintain sustainable populations:

- **Migratory Bird Management:** Cuts in research, permitting, and enforcement capabilities have impacted its ability to develop and implement much-needed programs like an eagle permitting program under the Bald and Golden Eagle Protection Act. To successfully implement the program, the Service must fill research gaps in eagle population science and mitigation options, and needs adequate resources for enforcement.
- **Neotropical Migratory Bird Fund:** Many species of birds that we see in our back yards are affected by habitat conditions in their wintering grounds located outside of the United States. Birds like the Golden-winged warbler, which are currently in decline, may become endangered or threatened resulting in the need for even more resources to be allocated. Additional cuts could also significantly impact the relationships and the ability of our conservation partners in these countries to take action to protect wintering habitat for U.S. migratory bird species.

Landscape Conservation Cooperatives

Value of Investing:

[Landscape Conservation Cooperatives](#) (LCCs) were initiated by FWS in 2009 to enable multiple partners to better work together to address conservation challenges that are bigger than any one entity can manage alone. LCCs are designed to help solve complex problems across large landscapes and multiple resource concerns, like climate change, drought, and habitat fragmentation and to help partners deliver conservation more efficiently, avoiding duplication of effort. In December 2015, the National Academy of Sciences released a [report to Congress](#) that concluded that the LCCs are a unique and important program with a valuable role to play in advancing large-scale conservation priorities.

Impacts of Cuts:

Some of the critically important projects that would be threatened by cuts to the LCC program include:

- **Great Lakes Fish:** The Upper Midwest and Great Lakes LCC has taken on the important task of trying to improve habitat connectivity for fish that move upstream from the Great Lakes and the ocean in order to spawn, while also trying to prevent the spread of invasive species. The LCC has identified 275,000 potential barriers (mainly small dams and poorly-designed road crossings and culverts), and is helping states determine which to remove in order to maximize habitat for native fish while minimizing spread of invasives.
- **Gulf of Mexico:** Seven LCCs, covering over half the area of the contiguous U.S., have banded together to create a framework to address the ongoing problem of hypoxia and dead zones in the Gulf of Mexico. This massive-scale effort will deliver benefits for production agriculture, fisheries, and wildlife habitat
- **Sagebrush Species:** Four LCCs in the sagebrush-steppe region of the Intermountain West have partnered with the USDA's Natural Resources Conservation Service to determine how and where best to deliver conservation programs to maximize benefits for sage-grouse and other sagebrush-dependent species.

Office of Law Enforcement

Value of Investing:

Globally, wildlife faces escalating criminal threats, including illicit trade, illegal habitat destruction, and environmental hazards. [Illegal wildlife trade is also related to our national security](#). The [link](#) between wildlife smuggling and organized crime, drug trafficking and [extremist organizations](#) is well documented. The illegal wildlife trade is among the largest illicit activities worldwide, behind only trafficking in drugs, humans and arms. Wildlife trafficking and poaching has reached crisis levels, leading the Obama

Administration to develop the [National Strategy](#) for Combating Wildlife Trafficking, which adds several new responsibilities to the Office of Law Enforcement.

Impacts of Cuts:

After years of budgets that declined in real dollars, the FWS [Office of Law Enforcement](#) budget received a 12 percent increase over current levels in FY16. Renewed cuts will severely limit its ability to investigate wildlife crimes, break up smuggling rings, and help citizens to comply with the law:

- **Special Agents:** Past budget cuts have prevented the hiring of needed special agents, expert investigators that break up smuggling rings, stop commercial exploitation of protected U.S. species—both key responsibilities under the National Strategy—and work with states to protect US game species from poaching that steals both state income and hunting and fishing opportunities. Even with the funding increase, the number of special agents falls far short of the need.

- **Wildlife Inspectors:** Despite the increase, the Office of Law Enforcement even now has the funds to employ only 130 wildlife inspectors nationwide to process legal wildlife shipments, intercept illegal wildlife shipments and enforce national and international wildlife protection laws. With the current number of inspectors FWS is able to provide full-time staffing for only 18 out of 328 recognized U.S. ports of entry, causing delays in inspections for American citizens returning from abroad and reducing the ability of FWS to interdict illegal wildlife and wildlife products before they get into the US.

Wildlife of Global Concern

Value of Investing:

The American people have long recognized the value of preserving wildlife globally as exemplified by the tremendous popularity of Bei Bei, the baby panda at the National Zoo. The relative wealth of our country in comparison to desperate situations around the globe means that modest investments of U.S. dollars can reap significant returns when invested in the developing world, in recent years leveraging three dollars for every dollar invested by the U.S. government.

Impacts of Cuts:

The [International Affairs program](#) budget saw a 4.8 percent reduction in real dollars from FY10 to FY16. Despite an increase in funding for FY16, the [Multinational Species Conservation Funds](#) which focus on iconic species like elephants, rhinos, tigers, great apes and marine turtles is still 3.8 percent below the funding level in FY10.

- **International Affairs:** Further cuts to the International Affairs operating program will undermine efforts to conserve wildlife by educating and empowering local stakeholders on the ground and preventing unsustainable or illegal international trade in wildlife including in native U.S. species such as ginseng and paddlefish that are sought as caviar substitutes.
- **Multinational Species Conservation Funds:** Continued cuts will severely hinder work to reverse the drive toward the extinction of some of the world's most charismatic creatures. More than 500 tigers are killed each year, and experts estimate that as few as 3,200 tigers now remain in the wild. From 2010 through 2012, more than 100,000 elephants were slaughtered for their ivory tusks and a record number of more than 1,200 rhinos were killed in South Africa in 2014, a 93-fold increase from 2007.

State and Tribal Wildlife Grants Program

Value of Investing:

The State and Tribal Wildlife Grants program is critical to state efforts to prevent federal threatened and endangered species listings. The program funds voluntary proactive conservation measures to monitor and address threats for over 12,000 species in greatest conservation need.

The State and Tribal Wildlife Grants program is the principal source of funding to implement State Wildlife Action Plans which are the blueprints for conserving rare and declining fish and wildlife. These plans were updated last year with the latest information and science to effectively address key threats such as habitat loss, invasive species, disease and extreme weather.

The State and Tribal Wildlife Grants program has a proven track record of success and saves taxpayer dollars by avoiding more costly recovery efforts when species are listed as federally threatened or endangered. The program benefits the business community by reducing endangered species compliance costs and regulatory uncertainty.

The State and Tribal Wildlife Grants program is supported by state fish and wildlife agencies and the 6,400 organizations that make up the national [Teaming With Wildlife](#) coalition which represents millions of conservationists and outdoor enthusiasts.

Impacts of Cuts:

Funding for the State and Tribal Wildlife Grants program has been cut by one third since FY10. State fish and wildlife agencies and their partners have had to reduce assistance to private landowners, cut back on invasive species control and reduce staff needed for environmental review. Following are some examples of the impacts of the loss in funding:

- **New Hampshire** has had to cut back on assistance to private landowners to do voluntary habitat management for the New England cottontail and the Blanding's turtle, delaying important work that is needed to reach conservation goals for these two imperiled species.

- **Pennsylvania** had to eliminate staff that conduct surveys of federally endangered bats and cut back on bald eagle recovery efforts.
- **Virginia** has had to cut technical assistance to private landowners which reduced the number of water quality and habitat restoration projects that could be implemented.
- **Nebraska** had to reduce technical assistance to private landowners to combat invasive species resulting in reduced habitat for wildlife and range quality for livestock.
- **Washington** had to reduce their response to shell disease in Western Pond Turtles, an issue that has the potential to eliminate the state's entire population of this species which has been petitioned for federal listing.

For more information, go [here](#) or contact Mark Humpert, Conservation Initiatives Director, Association of Fish & Wildlife Agencies, mhumpert@fishwildlife.org or (202) 838-3459.

North American Wetlands Conservation Act

Value of Investing:

The North American Wetlands Conservation Act (NAWCA) was created in 1989 to provide grant assistance for conservation and restoration of wetland habitat across North America. With an overall match rate of 3:1, for every federal dollar granted through the NAWCA program, local partnerships raise more than \$3. This funding goes into local communities to provide restoration on wetlands and local jobs. The NAWCA program has conserved over 30 million acres of habitat in all 50 states with over 5,400 partners and 2,500 projects.

Impacts of Cuts:

- While funding has stabilized over the last several fiscal years, overall funding has been reduced by 33 percent in real dollars since its peak of \$47.6 million in FY 2010. Recent studies show that between 2004 and 2009, the US lost a total of 360,000 acres of wetlands, which was an increase of 25 percent over the previous study period of 1998-2004. While NAWCA has helped to replace some wetland losses, continued cuts to federal funding mean fewer acres are being restored and conserved. As the premier federal wetlands conservation program on the continent, without robust NAWCA funding, there is no large-scale mechanism to replace wetland loss.

For more information, go [here](#) or contact Erik Schneider, National Audubon Society, at eschneider@audubon.org or 202-600-7992.

Bureau of Land Management (BLM): Wildlife and Fisheries and Threatened and Endangered Species Management

Value of Investing:

The [Bureau of Land Management](#) manages more wildlife and fish habitat than any other federal agency, including half of the remaining habitat for the imperiled sage grouse and almost 15 million acres of prairie grasslands vital to many declining grassland dependent species. This diverse habitat supports over 3,000 species of fish and wildlife, more than 420 plants and animals listed under the Endangered Species Act, 110 candidates for ESA protection, and more than 1,000 rare plant species. BLM lands also play an important role in providing outdoor recreation opportunities and for the businesses that support those activities. In states with significant BLM lands, [more than 28,000 hunters, anglers and wildlife watchers spent \\$31 billion on wildlife associated recreation in 2014.](#)

Impacts of Cuts:

- **Threatened and Endangered Species Management:** The [program](#) has suffered a 12.2 percent reduction in real dollars from FY10 to FY16, which has greatly hindered work to conserve imperiled species such as the highly endangered black-footed ferret, the endangered southwestern willow flycatcher, and the threatened Chiricahua leopard frog that lives in high elevations in the desert southwest. Previous assessments by the agency have determined that annual funding is only about ten percent of what is required of BLM in endangered species recovery plans.
- **Wildlife and Fisheries Management:** The [program](#) received modest increases in FY14 and FY15 and a substantial increase in the FY16 omnibus appropriations bill for a precedent-setting effort to conserve the [greater sage-grouse](#), which has declined to less than ten percent of historic numbers. In 2015 BLM finalized amendments for dozens of Resource Management Plans (RMPs) in the greater sage-grouse range to address threats to the conservation of the species. Largely because of this effort, the U.S. Fish and Wildlife Service decided not to list the species as threatened or endangered under the Endangered Species Act. However, success in conserving the species will be dependent upon continued funding for implementing the RMPs. Cuts would derail this broadly supported and necessary effort, as well as other important work by the agency to conserve wildlife and fish, such as addressing white-nose syndrome in bats which provide [more than \\$3.7 billion in pest management services](#) to the agriculture industry each year.

US Forest Service (USFS): Wildlife and Fisheries Habitat Management

Value of Investing:

More than 420 animals and plants listed under the Endangered Species Act and an additional 3,250 at-risk species are found on [our national forests and grasslands](#). These lands encompass an amazing array of habitats, from alpine tundra to tropical rainforest, deciduous and evergreen forests, native grasslands,

wetlands, lakes and streams – including the headwaters of many rivers. Fish and wildlife on our National Forests are important to people and economies all across the nation. [A 2011 report](#) estimated that the economic impact of hunting, fishing, and wildlife watching associated with National Forests totals \$9.5 billion in annual retail sales, supports 189,400 jobs and provides \$1.01 billion in annual federal tax revenues.

Impacts of Cuts:

The [Wildlife and Fisheries Habitat Management program](#) budget suffered a 9.6 percent reduction in real dollars from FY10 to FY16.

- **Loss of Biologists:** Cuts have already led to the loss of biologists at the forest level, with consolidation of positions at the regional office significantly hindering effective management of habitat. The national wildlife ecology staff has one-third the capacity it had five years ago and some Regions lack wildlife, vegetation, or aquatic ecologists.
- **Impacts to Wide Ranging Species:** Continued cuts **compromise recovery efforts for listed species** and will impact many of the most charismatic animals in the U.S. such as grizzly bear, wolverine, elk, Canada lynx, and bighorn sheep that persist because of national forest lands. Since national forests often represent intact connected habitat, they are often the only suitable remaining habitat for recovery and reintroduction of rare creatures and form the backbone of many large-scale conservation plans.
- **Diminished Conservation Partnerships:** Continued cuts will severely diminish the agency's ability to foster conservation partnerships. Partnerships enable the agency to leverage watershed and habitat improvements on an additional 200,000 acres of national forest lands including innovative efforts that help both communities and wildlife.

US Forest Service: International Programs:

The US Forest Service International Programs (FS/IP) leverage American expertise and best practices in forest management to improve the management of all forest types around the globe. FS/IP draws upon the agency's exceptional skill set to provide technical assistance on protected area management, forest legality, disaster response, migratory species conservation, landscape-level planning, wildfire management, reduced impact logging, forest certification, and many other technical areas in 90 countries around the world. Funding for FS/IP has declined 18.4 percent since FY10.

Impacts of Cuts:

- FS/IP plays an important role in encouraging international partners to follow their own laws and international standards, better ensuring that US wood products are not forced to compete against low-cost, illegally harvested timber products. A continued decline in the funding for this

program would leave the US producers at a competitive disadvantage in the international marketplace.

US Geological Survey (USGS): National Climate Change and Wildlife Science Center

Value of Investing:

The overall mission of [the National Climate Change and Wildlife Science Center](#) is to work with and provide natural resource managers and partners the tools and information they need to develop and execute strategies for successfully responding to increases in droughts, floods, fires, coastal inundation and other impacts of climate change and extreme weather. The National Climate Change and Wildlife Science Center and the regional Department of the Interior Climate Science Centers leverage significant climate-related research performed by university partners.

Impacts of Cuts:

Important projects underway that would be threatened by cuts include:

- **Improving Fisheries Management:** Projects include global assessments of the production, value, and climate change impacts on both marine and river fisheries.
- **Developing Tools to Assess and Manage Drought Impacts:** Ongoing projects aimed at better managing drought impacts include an integrated assessment of impacts to migratory waterfowl, vulnerability of dryland ecosystems, impacts on cutthroat trout, and tools to improve forest management for drought resilience.

CLEAN AIR, WATER AND PUBLIC HEALTH

Environmental Protection Agency

EPA's funding has been on a downward trajectory for over a decade. Except for one year, 2010, EPA funding has been stagnant or worse. Under the omnibus budget deal, the EPA is funded at \$8.1 billion in 2016, equal to 2015. House Republicans had proposed cutting EPA funding by \$718 million. Every other federal agency except EPA received increased funding because of the budget compromise however Republicans insisted that EPA be an exception. The bill keeps agency staffing levels at their lowest level since 1989. This budget is equal to the budget of 2004 **without** adjusting for inflation. These attacks have meant our environment has suffered while polluters have benefited.

A third of the EPA budget goes to the states to fund their regulatory programs and assist in funding construction for drinking water and sewer systems. The rest of the budget pays for the federal staff including scientists, enforcement personnel and regulatory experts.

In the face of budget cuts, EPA's response has been to ramp down its inspection and enforcement efforts. In a [draft strategic plan](#), EPA indicated intends to place a greater reliance on so-called "Next Generation Compliance Strategies," by which it relies on industry self-regulating, along with enhanced public information, to encourage compliance. It is obvious that this downgrading of inspections is not to get better results but to meet budget-cutting demands.

This high-tech approach may work satisfactorily for the largest companies that have adequate high technology capabilities and the need to keep a positive public profile. However, as the 2014 Charleston, West Virginia spilled showed, many companies in a position to create havoc can only be discovered by inspections or whistleblowers.

Consider how the Agency's new enforcement approach will negatively affect water quality. EPA predicts far fewer pounds of pollution will be controlled – over the next five years. The agency expects enforcement actions under the alternative strategy to "reduce, treat, or eliminate" roughly 220 million pounds of water pollutants per year, while acknowledging that the annual average pollutant control for fiscal years 2005-2008 was 320 million pounds. That's not the "progress" we need for our next generation.

Many of the inspections are carried out by states, partially funded by EPA; those inspections will also plummet as the tiny EPA budget continues to be eviscerated. Rather than retreat on enforcement, Congress should fund, and EPA should invest in, enforcement approaches that have a proven record of curbing pollution.

For more information, contact Scott Slesinger, Legislative Director, Natural Resources Defense Council, at sslesinger@nrdc.org or 202-289-2402.

EPA's Clean Water and Drinking Water State Revolving Funds

Value of Investing:

The [Clean Water](#) and [Drinking Water](#) State Revolving Funds (SRFs) have enabled states to provide more than \$109 billion in low-interest loans and grants to communities to better protect public health and improve the quality of our nation's water resources. They provide critical funding to a wide range of communities—from the nation's largest cities to small, rural towns—for a variety of water and wastewater projects, including drinking water and wastewater treatment facilities and systems to manage stormwater pollution. Every dollar invested in [water infrastructure](#) generates roughly \$2.62 in the private economy, and every job added in the water sector results in the addition of 3.68 jobs to the national economy.

Annual federal capitalization grants from EPA along with state matching funds and loan repayments enable states to provide much-needed funds to communities to meet existing water infrastructure needs and increasingly, to address challenges from natural disasters like floods and droughts. As was witnessed during [Hurricane Sandy](#), power outages and flooding interrupted water and sewer service to tens of millions of people and caused the release of billions of gallons of untreated sewage across the Northeast. In passing the [Disaster Relief Appropriations Act of 2013](#), Congress recognized the need to deploy SRF funds to repair water and wastewater infrastructure and to make our communities more resilient to future storms and other extreme weather events.

Impacts of Cuts:

- In recent years, reductions in federal funding levels for the SRFs have resulted in decreases in state allocations, jeopardizing the number of projects that states can fund. Although the SRFs provide billions of dollars in funding, our nation's water infrastructure needs far exceed the amount of funding available. For example—for more than 19 months, residents of Flint, MI were exposed to high levels of lead in their drinking water. Lead causes a wide range of health problems, and is especially harmful to children. For decades, the City of Flint paid for drinking water from the City of Detroit, which sourced it from Lake Huron. In early 2014, as a cost saving measure, the state-appointed city manager had the city start pumping water from the Flint River. Flint River water is more corrosive than Lake Huron water, causing lead from older water pipes to leach into the drinking water.
- This disaster in Flint comes on the heels of other high-profile water crises – the mining waste spill in Colorado's Animas River, the drinking water ban in Toledo, Ohio, and the chemical spill in West Virginia's Elk River. Nationwide, the American Society of Civil Engineers gives water infrastructure a D grade in its report card on the nation's infrastructure. And at the same time, 44 percent of assessed waterways in the U.S. are too polluted for fishing or swimming. Over the next 20 years, [water infrastructure needs](#) in communities across the US totals more than \$630 billion simply to maintain current levels of service. Drinking water and wastewater utilities will need an additional \$448 billion to \$944 billion to prepare for [climate change-related impacts](#) through 2050. It is

critical that Congress continue to invest in water infrastructure through SRF capitalization grants to the states.

For more information, contact Scott Slesinger, Legislative Director, Natural Resources Defense Council, at sslesinger@nrdc.org or 202-289-2402.

National Institute of Environmental Health Sciences

For the last 25 years, funding for NIEHS has not kept pace with funding for NIH. The focus has always been on treatment and cure. As a result, the science used by public officials and the public to make decisions on how best to protect health and prevent disease and disorders has fallen short of meeting the need.

Value of Investing:

Understanding the impact of environmental exposures on human health and preventing those exposures that are harmful, provides enormous economic and health benefits. A recent NIEHS study in Southern California showed that the reduction in air pollution over the last 20 years has meant a reduction in respiratory disease in children.

Impacts of Cuts:

The percentage of proposals approved for funding that actually receive money has declined in recent years. Excellent researchers and their teams simply don't get funded, making it very difficult for young scientists to continue doing research. New initiatives can be launched only at the expense of ongoing projects. Response to emergencies, such as, hurricanes (Katrina, Rita, and Sandy), chemical spills (BP and Elk River), and other environmental problems (Flint, MI) call for technical expertise supported by NIEHS and for research projects that improve our understanding of the exposures and their impact on public health. These unfunded mandates put additional pressure on limited resources.

Examples of research where new information could be used to prevent chronic disease include:

- The link between early life exposures and the development of disease decades later.
- Environmental exposures that initiate or promote neurobehavioral diseases and disorders, such as Alzheimer's disease and autism.
- The interaction of genes and environmental exposures that leads to cancer.

For more information contact Mary Gant, Government Affairs Director, Green Science Policy Institute, at mary@gant.io, or 301-365-6223.

ENERGY

Renewable Energy and Conservation

Value of Investing:

Since 2009, the Department of the Interior has approved a total of 57 new utility-scale renewable energy projects—enough to power 5 million American homes. In addition, the Department continues to expand offshore wind leasing on the Atlantic coast, and is working to implement its Solar Energy Program on public lands in the West. New wind and solar leasing rules expected in 2016 will improve how projects are permitted by establishing a leasing process that will promote the use of low-conflict public lands for development while providing certainty and efficiencies for companies, protecting natural resources, and ensuring a fair return to taxpayers. Developing and implementing a strategy for renewable energy project siting and permitting that is truly “smart from the start” requires coordinated landscape-scale planning among FWS, BLM, and other departments and agencies to achieve both renewable energy and wildlife and other resource conservation goals. Successfully planning, studying, permitting, and leasing these projects in the right places will help fulfill the President’s Climate Action Plan goal of permitting 20,000 megawatts of renewable energy on public lands by 2020.

Impacts of Cuts:

- **Delay in Construction and Operations of Renewable Energy Resources:** BLM has made significant progress in the number of renewable energy projects approved on public lands in the past seven years, totaling more than 15,000 megawatts of energy permitted. That progress in assessing and permitting projects, overall and on key initiatives such as the BLM’s Solar Energy Program, would be at risk with continued cuts. In addition, the BLM and Forest Service are working together to review and find the best locations for corridors for transmission and other infrastructure across the West. Finally, the BLM has been pioneering the use of Solar Regional Mitigation Strategies to plan compensatory mitigation for Solar Energy Zones prior to development impacts, with five underway or completed and two more kicking off in 2016. Reduced funding levels equate to delays in decisions affecting permits and other essential reviews necessary for developing on public lands.
- **Risk to Critical Efforts to Protect Important Species:** The Fish and Wildlife Service is working with developers and other agencies to improve information and science related to species impacts from renewable energy, with initiatives that address sage grouse, whooping cranes, bald and golden eagles and bats. The Bureau of Ocean Energy Management’s (BOEM) ‘Smart from the Start’ initiative has so far led to eleven successful lease sales in designated Atlantic coast offshore Wind Energy Areas, with early stage planning beginning for areas offshore North Carolina, New York, Oregon, and Hawaii. Reduced funding levels will equate to delays in resource-user conflict resolution and identification of best practices for conservation of sensitive species like the North

Atlantic Right Whale, whooping cranes and desert tortoise, and ultimately could delay renewable energy leasing and necessary project permits.

For more information, contact Mary Beth Beetham, Director of Legislative Affairs, Defenders of Wildlife, at mbeetham@defenders.org or (202) 772-0231.

Landscape-scale Approach to Energy Development

Value of Investing:

The Department of the Interior is charged with both advancing our economy, national security, and meeting the needs of our growing population through development of our nation's energy resources, while also protecting our natural resources to maintain our quality of life and sustain the value of ecosystems and the services they provide for future generations. Following Secretary Jewell's first Secretarial Order 3330 "Improving Mitigation Policies and Practices of the Department of the Interior", in November 2015 President Obama announced a [Presidential Memorandum](#) "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment."

The Memorandum directs federal agencies to establish high and consistent standards for how they avoid, minimize, and offset the impact of development while acknowledging the importance of the private sector in delivering high-quality impact mitigation. Implementing landscape-scale approaches to mitigating the impacts of energy development are practical, efficient and effective in reconciling economic and environmental goals; ultimately delivering more effective conservation and permitting processes for energy development by addressing conflicts early on in the planning process, providing predictability on expectations for compensation, and directing compensation to maximize conservation outcomes.

Impacts of Cuts:

- Opportunities to incorporate landscape-scale mitigation planning into energy development decisions often come at the land-use planning level. For example, BLM is in the process of amending multiple Resource Management Plans (RMPs) and recently completed RMPs for the Great Basin and Rocky Mountain Regions, which supported a landmark decision not to list the greater sage-grouse. These and other RMPs provide a significant opportunity for BLM to incorporate landscape-scale mitigation planning into the land use planning process. However, cuts to BLM's RMP budget significantly jeopardize the Bureau's ability to complete and incorporate this new approach into RMPs. Other important landscape-scale planning efforts impacted by cuts include BLM's Rapid Ecoregional Assessments, Master Leasing Plans, and regional initiatives such as the BLM Solar Energy Program.
- When energy development is likely to impact endangered species, developers must work with the FWS to develop Habitat Conservation Plans (HCPs) to ensure activities do not jeopardize the recovery of the species. HCPs are another opportunity to incorporate a landscape-scale approach

to mitigating the impacts of energy development. Again, cuts to FWS's HCP budget hinder our ability to improve the way our nation plans for and mitigates the impacts of energy development on its natural resources.

For more information, contact Brent Keith, Senior Policy Advisor, The Nature Conservancy, at brent.keith@tnc.org or 703-841-4184.

Department of Energy (DOE)

Energy Efficiency

Value of Investing:

There is [bipartisan recognition](#) that energy efficiency gains have delivered enormous cost savings to consumers, increased competitiveness, and reduced environmental harm over the past 40 years. While energy savings have exceeded new supply added, there remains enormous potential, with good reason to believe that [energy productivity can be doubled by 2030](#), with gross energy savings greatly exceed \$1 trillion. The Department of Energy's efficiency programs have a vital role and a proven track record of spurring new technology and technology adoption.

Impacts of Cuts:

Reflecting the wide recognition of the enormous benefits of energy efficiency, DOE's efficiency budget has been held relatively steady since FY11 and on the whole increased as a result of the FY16 Omnibus Appropriations Act. However, a range of highly prospective efficiency activities has been identified that strongly supports a significant increase in spending, and these have not yet been met. Examples of opportunities for increased funding include:

- **Advanced Manufacturing:** Next Generation Manufacturing R&D projects are focused on transformational improvements that will enable US manufacturers to realize significant gains in energy productivity, environmental performance, product yield, and economic competitiveness. Many areas for support were identified warranting increased funding levels as compared to FY2016.
- **Building Technologies:** R&D in emerging technologies such as non-vapor compression HVAC technology, as well as investments in transactive controls and grid-integration of building systems to optimize energy performance continues to be highly productive, as does market stimulation and building codes and equipment standards.
- **Weatherization Assistance:** The Weatherization Assistance Program has demonstrated long-term success in deploying highly cost-effective efficiency measures in low-income households. DOE's FY16 request of \$223 million was far below the level of annual investment

that was achieved in the period 2009-2012, a step toward bringing the funding back to pre-Recovery Act levels, ensuring a true national program that serves all states, cities and counties.

For more information, contact Scott Slesinger, Legislative Director, Natural Resources Defense Council, at sslesinger@nrdc.org or 202-289-2402.

Clean Energy Research

Value of Investing:

Core programs at the Department of Energy are partly responsible for repositioning the US at the cutting edge of clean energy technology. The Office of Science supports fundamental scientific research, the Advanced Research Projects Agency – Energy (ARPA-E) supports transformational energy-related research and development projects and the Office of Energy Efficiency and Renewable Energy's (EERE) supports incremental technological improvements to accelerate development and deployment. Federal clean energy spending has consistently proven its worth by driving job creation, economic growth and reducing health and environmental costs. Because of investment in all levels of research, wind generation and solar capacity have grown tremendously while at the same time reducing costs nearly 40 percent. This has helped create jobs across the economy, with the Bureau of Labor Statistics finding 3.4 million US green jobs in 2011.

Mission Innovation: In November 2015, the US joined the Mission Innovation coalition, which represents the 20 countries that contribute 80 percent of global clean energy research and development (R&D) budgets, in committing to double its clean energy R&D investments over five years. These additional resources will dramatically expand the new technologies that will define a future global power mix that is clean, affordable, and reliable. Congress should embrace the Mission Innovation goal as it will prove essential to achieving the goal of limiting the rise in global temperatures to below 2°C.

Impacts of Cuts:

Reflecting the wide recognition of the enormous benefits of energy efficiency, DOE's research budget has been held relatively steady since FY11 and on the whole increased as a result of the FY16 Omnibus Appropriations Act. However, the need for new energy solutions is of paramount importance in the race to address the threat of climate change and current funding levels still do not match this need.

- **The U.S. Department of Energy Office of Science** is the lead federal agency supporting fundamental scientific research for energy and the Nation's largest supporter of basic research in the physical sciences. While its work is broader than improving the environment, a large amount does directly contribute to sound environmental understanding and outcomes. Specifically, the Office of Science supports several cross-agency climate-change research initiatives, biological research that will ultimately benefit the affordable production of clean, renewable biofuels. The Office of Science provides 40 percent of the total funding for basic

research in the physical sciences, oversees our national laboratories and is widely involved in science education, helping lay the foundation for innovation, long-term economic growth, and competitiveness.

- **The Office of Energy Efficiency and Renewable Energy (EERE)** accelerates development and facilitates deployment of energy efficiency and renewable energy technologies and market-based solutions that strengthen U.S. energy security, environmental quality, and economic vitality. With Energy sector R&D budgets being among the lowest of all industrial sectors, EERE support of research, development and technology transfer activities in vehicles, bioenergy, hydrogen fuel cells, solar, wind, water, geothermal, advanced manufacturing, and building sectors performs a critical role in transitioning our economy toward next generation power sources.
 - **Wind Technologies Program:** The U.S. Department of Energy (DOE) Wind Program assists in developing and deploying a portfolio of innovative technologies to accelerate the deployment of wind power technologies through improved performance, lower costs, and reduced market barriers. This program saw a 12 percent cut in FY16 – the only energy program to see a reduction – harming its ability to accelerate the country’s transition to a clean energy future.
- **The Advanced Research Projects Agency - Energy (ARPA-E)** is an enormously important cog in the U.S. energy innovation chain, supporting innovative, transformational energy technologies in their earliest stages of development. ARPA-E seeks to catalyze transformational breakthroughs across the energy spectrum focusing on, among other things, developing entirely new ways to generate, store and use energy. Without additional funding the next breakthrough technology may not be funded.

For more information, contact Scott Slesinger, Legislative Director, Natural Resources Defense Council, at sslesinger@nrdc.org or 202-289-2402.

Grid Modernization

Value of Investing:

Modernizing our nation’s electrical grid is a critical part of ensuring accelerated and smooth transition to a clean energy future. Through the Office of Electricity Delivery and Energy Security, DOE works to develop new technologies to improve our energy infrastructure including researching advanced grid integration technologies to facilitate the integration of smart grid technologies, demand response, distributed generation and energy storage.

Impacts of Cuts:

According to the Quadrennial Energy Review, further evolution of our technologically advanced and efficient grid will facilitate the affordable and reliable achievement of our country's climate change goals. Despite slight increases in funding as a result of the FY16 Omnibus Appropriations Act, more funding would allow an accelerated rate of research and development of grid technologies.

- **Clean Energy Transmission and Reliability** program improves energy system decision-making through system measurement, modeling, and risk analysis. The results of these investments include operational improvements that allow operators to better monitor system conditions and maintain system stability, incorporate new generating resources, manage demand response resources, and accommodate active consumer loads. All of these investments make integration of utility-scale and distributed renewable energy easier for grid operators.

- **Smart Grid Research and Development** program pursues investments in improved reliability, operational efficiency, and resiliency, and outage recovery. Continued investment in this program helps develop solutions to better accommodate greater numbers of customer owned distributed generation, including solar photovoltaics (PV); support the shift towards the electrification of transportation such as electric automobiles; enables greater customer choice and control over electricity consumption; provides more resiliency to extreme weather events such as Superstorm Sandy; reduces the length and number of outages overall; and, at the same time, maintains affordability.

- **Energy Storage program** is designed to develop and demonstrate new and advanced energy storage technologies that will enable the stability, resiliency, and reliability of the future electric utility grid as it transforms into a resilient grid. Energy Storage enables increased deployment of variable renewable energy resources such as wind and solar power generation.

For more information, contact Scott Slesinger, Legislative Director, Natural Resources Defense Council, at sslesinger@nrdc.org or 202-289-2402.

OCEANS AND COASTS

National Oceanic and Atmospheric Administration (NOAA)

The U.S. ocean and coastal economy contributes more than \$343 billion annually to the nation's GDP and supports 2.9 million jobs through fisheries and seafood production, tourism, recreation, transportation, and construction. NOAA's mission to protect, restore, and manage our ocean and coasts is vitally important to supporting and growing these economic sectors. By ensuring a healthy ocean, NOAA supports the ocean and coastal economy and the communities that depend on it. The NOAA programs enumerated in this section comprehensively protect and manage our nation's valuable ocean resources, from ending overfishing to mitigating and recovering from disasters.

For more information, contact Addie Haughey at Ocean Conservancy, ahaughey@oceanconservancy.org, (202) 351-0496.

National Ocean Service

The National Ocean Service (NOS) is the nation's ocean and coastal agency, tasked with observing, measuring, assessing, protecting, and managing coastal, ocean, and Great Lakes areas. NOS provides science-based solutions to address evolving pressures on our ocean and coasts. With a focus on coastal resilience, coastal intelligence, and place-based conservation, investing in NOS programs is investing in resilient and healthy coastal communities, economies, and ecosystems.

- The **Marine Debris Program** conducts reduction, prevention, and research activities, and supports grants, partnerships, and contracts to address marine debris. Marine debris, particularly plastic waste pollution, has become one of the most widespread pollution problems facing the world's oceans and waterways. It has serious effects on the marine environment and the economy, causing impacts from wildlife entanglement, ingestion and ghost fishing to navigational hazards and vessel damage. More research is needed in three critical areas (the sources of plastic waste in the ocean, the fates of those materials, as well as their impacts) to support data-driven policy solutions to prevent plastic from entering the environment.
- The **U.S. Integrated Ocean Observing System (IOOS)** is a Federal, regional and private-sector partnership dedicated to enhancing our ability to collect deliver and use coastal information on marine commerce, ecology and fisheries, water quality, hazards and long-term climate trends. IOOS uses state of the art technology to deliver quality information in a cost-effective manner. It's a single system that serves many uses – over 50 percent of the ocean data used by the Weather Service now comes from IOOS data streams. IOOS real time surface current information is used by the Coast Guard to reduce their search area by two-thirds and by NOAA for spill response.

- NOS's **Coastal Management Grants** line includes **Coastal Zone Management Grants** and **Regional Coastal Resilience Grants**. CZM grants support cost-effective, federal-state partnerships. This unique model allows the federal government to empower states to more efficiently manage their coasts. These grants have helped our 35 coastal states and territories, 673 coastal counties, and thousands of coastal municipalities protect natural resources; manage development in high hazard areas; give development priority to coastal-dependent uses; provide public access for recreation; prioritize water-dependent uses, and coordinate state and federal actions. NOS also supports competitive Regional Coastal Resilience Grants. Comprehensive resilience for coastal communities and economies can only be achieved at the regional level, with communities, states, and federal agencies working together to share their collective knowledge and experience and establish a unified direction – RCRG grants support this innovative regional approach.

- Healthy estuaries minimize disasters and yield a high rate of return for coastal communities. The **National Estuarine Research Reserve System** meets these important needs. The nation's 28 (soon to be 29) Research Reserves are protected estuaries and coastal areas in local communities that provide the science-based research and education community members need. By protecting estuaries and coasts, it reduces community vulnerability to hazards, supports the nation's economy, and provides abundant credible scientific research.

- **Sanctuaries and Marine Protected Areas** embody our nation's commitment to protect and conserve the most iconic places in our ocean, coasts, and Great Lakes. From expanding existing sanctuaries to creating new sites, the American people are voicing their support for national marine sanctuaries and the benefits they provide for communities and our nation. Through their community-driven, multi-use approach, sanctuaries are building a stronger, more resilient future for America's communities, ecosystems, and economy by fostering economic growth, supporting fishing and tourism jobs and businesses, preserving underwater and maritime treasures, and providing valuable public access for ocean recreation, research, and education. Sanctuary visitor centers and facilities anchor local economies, enrich communities, and serve as a vital link between our ocean and the millions of Americans who visit the coast each year.

For more information, contact Addie Haughey at Ocean Conservancy (ahaughey@oceanconservancy.org, (202) 351-0496); Josie Quintrell at IOOS Association (jquintrell@comcast.net, (207) 725-8143); Rebecca Roth at National Estuarine Research Reserve Association (roth@nerra.org, (202) 236-4819); or Shannon Yee at National Marine Sanctuary Foundation (shannon@marinesanctuary.org, (301) 608-3040 x304).

National Marine Fisheries Service

NOAA's National Marine Fisheries Service (NMFS) is the federal agency responsible for the stewardship of the nation's living marine resources and their habitat. A significant portion of our coastal economies stems from fisheries, and **[NOAA has made great strides toward ending overfishing](#)**. Information provided

by core data collection, catch monitoring and stock assessment programs within NOAA is critical to the success of this endeavor – the seafood industry and recreational fisheries provide 1.7 million American jobs and contribute \$89 billion to the GDP.

- Funding for **Fisheries Data Collections, Surveys, and Assessments** supports a constellation of programs that provide the baseline scientific information to support implementation of the Magnuson–Stevens Fishery Conservation and Management Act. These funds support the basic **Stock Assessments** for priority fish stocks as fishery managers implement the requirements for annual catch limits (ACLs), creating greater confidence that catch limits will avoid overfishing while providing optimal fishing opportunities. These funds also support key data collection activities beyond just stock assessments, including **Survey and Monitoring Projects** that collect vital fishery-independent information needed for developing and updating specific stock assessments (including red snapper, striped bass, Alaska Pollock and more) and **Cooperative Research** grants, regionally-based competitive grants that fund partnerships between fishermen and scientists to leverage the expertise of fisherman and cultivate advancements like new fishing gear designs. And this budget line supports **Fish Information Networks**, the regional, cooperative state-federal partnerships that collect, manage, and disseminate fisheries data and statistics for each region nationwide.
- **Observers and Training** programs provide trained fishery observers, the best means of verifying fisheries catch and quantifying bycatch (including endangered, threatened, and other vulnerable species). Catch monitoring provides managers and scientists with reliable estimates of fishing mortality as well as catch composition and biological data used in stock assessments to determine how many fish are in the water. Current funding supports observer programs in over forty fisheries nationwide, but as much as half of those have insufficient levels of observer coverage (1-3 percent of fishing trips).
- Domestic **Enforcement** programs ensure compliance with annual catch limits, protect the sustainability of U.S. fisheries and vulnerable species, and help keep illegal, unreported, and unregulated seafood out of U.S. markets – which NOAA estimates causes economic losses of \$10-23 billion every year and comprises up to 40 percent of the catch in some fisheries. Estimates also indicate that 20-32 percent of wild-caught seafood imported into the U.S. is illegal, undermining the hardworking American fishing communities that struggle to survive with stiff competition from cheaper seafood imports. Honest fishermen deserve to know rule breakers will be caught and punished.
- **Fisheries Management Programs and Services** funding supports efforts to reduce bycatch. Bycatch, the incidental catch of non-target fish and protected marine wildlife due to destructive fishing practices, results in up to two billion pounds, or 17-22 percent of total U.S. catch getting discarded every year. The [“Reducing Bycatch”](#) program helps achieve the Administration’s priorities of ending overfishing, ensuring that our fisheries are sustainable, and protecting ocean wildlife. This funding helps develop and test new technologies, supports cooperative research, and aids the collection of reliable bycatch data.

- Healthy coastal habitats are essential for sustainable commercial and recreational fisheries and resilient coastal communities. NMFS' [Habitat Conservation & Restoration](#) programs protect and improve the nation's coastal habitats, which are being lost at an accelerated rate. Habitat restoration supports fisheries by providing critical spawning and nursery habitat for important fishery species while creating jobs and benefiting local economies. The **Community-based Restoration Program** (CBRP) is NOAA's only program focused on funding on-the-ground restoration projects. This non-regulatory program has leveraged significant investments, 3:1 on average, from more than 1,500 project partners from the private sector, non-profits, and state and local governments to fund more than 2,000 projects that have restored over 69,000 acres of habitat in every coastal state. Cuts to habitat restoration funding would inhibit the recovery of federally-listed species that rely on coastal habitat and would undermine efforts to sustainably manage fisheries, which support nearly 2 million jobs and \$199 billion in sales.

For more information, contact Addie Haughey at Ocean Conservancy (ahaughey@oceanconservancy.org, (202) 351-0496); Allison Colden at Restore America's Estuaries (acolden@estuaries.org, (703) 524-0248 x103); or Whitney Webber at Oceana (wwebber@oceana.org, (202) 467-1937).

Office of Oceanic and Atmospheric Research

NOAA's Office of Oceanic and Atmospheric Research strengthens the science that underpins NOAA's products and services. Whether improving warning lead times for hurricanes or understanding the response of ecosystems to a rapidly changing ocean environment, OAR's preeminent research ultimately enables solutions that prevent loss of human life, improve management of natural resources, build understanding of the Earth-system, and strengthen the economy.

- Through the [National Sea Grant College Program's](#) research and outreach activities, the intellectual power of more than 300 universities and thousands of scientists and extension specialists are brought to bear. This integrated system allows Sea Grant to quickly deploy and focus a vast university-based network of professionals, and helps citizens and localities become better stewards of shoreline resources, thus creating more resilient and environmentally responsible coastal communities. The most recent performance metrics (FY 2014) show that as a result of Sea Grant activities, the nation achieved \$450 million in economic benefits; created or sustained 6,500 businesses and over 17,000 jobs; restored over 21,700 acres of degraded ecosystems, 220 communities implemented new sustainable practices, and 300 communities improved their coastal resilience. Sea Grant leveraged an additional \$2 for every federal dollar invested.
- Over the last decade, scientists have discovered that atmospheric carbon pollution is changing the chemistry of the sea and proving harmful to many forms of marine life. The **Integrated [Ocean Acidification](#) Program** coordinates research, maintains a water quality monitoring program,

develops adaptation strategies and techniques, and provides critical research grants to improve understanding of ocean acidification's ecological and socioeconomic impacts. Cuts would damage ongoing efforts, including increases in monitoring and developing an early warning system for vulnerable shellfish farms and fisheries.

For more information, contact Addie Haughey at Ocean Conservancy (ahaughey@oceanconservancy.org, (202) 351-0496) or Joel Widder at Sea Grant Association (jwidder@federalsciencepartners.com, (202) 787-1673).

INTERNATIONAL PROGRAMS

Department of Treasury

Global Environment Facility (GEF)

Value of Investing:

The Global Environment Facility (GEF) is an independently operated, international financial facility that unites 183 countries with international institutions, civil society, and the private sector to address global environmental issues including biodiversity, land degradation, and desertification. The GEF helps countries improve environmental governance and fight the unsustainable depletion of natural resources, which can lead to population displacement, declines in global food supply, water shortages, and other causes of instability that make communities vulnerable to conflict and radicalization. America's investment in the GEF also yields a very high rate of return. For every US dollar invested, about 52 additional dollars are raised from donor and recipient countries and other public and private partners.

Impacts of Cuts:

- The GEF is an integral institution in forest conservation. Low levels of funding will cripple its ability to obtain the co-financing it needs to enact many of its programs and may hurt efforts in some of the world's newest nations, such as South Sudan, where conservation and wildlife tourism can help build stability and sustainability.
- The GEF is in the midst of a new funding cycle, also known as GEF-6, which covers July 1, 2014 to June 30, 2018. This includes new programs that focus on emerging large scale issues, including combating wildlife trade and helping companies reduce deforestation impacts in their supply chains. Reduced USG funding to the GEF would suspend progress on these important initiatives.

For more information, go [here](#) or contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501.

Green Climate Fund (GCF)

Value of Investing:

The Green Climate Fund (GCF) began operations in late 2015 and has received \$10.3 billion in pledges from 48 state, area, and city governments as of January 2016 to support developing country efforts to address climate change. The GCF will replace or complement existing multilateral climate change funds.

Its innovative framework will focus on the development and implementation of country-level strategies and plans for climate resilience and low-carbon development, coupled with robust monitoring and evaluation. It has a focus on particularly vulnerable countries including least developed countries, small island states and African states.

Impacts of Cuts:

- The \$10 billion in pledges for the GCF includes a \$3 billion U.S. pledge and substantial pledges of at least \$1 billion each from Japan, the UK, Germany and France, as well as smaller pledges from Canada, Australia, other European countries, and a number of “nontraditional” donor countries like Mexico, Korea, Peru, Colombia, Panama and Mongolia.
- As of November 2015 the GCF approved its first set of 8 project proposals, with partnering entities from regional, national, and international bodies. Among the projects approved are an energy efficiency green bond in Latin America, an early warning detection system in Malawi, urban water supply and wastewater management system in Fiji, and climate resilient infrastructure mainstreaming in Bangladesh.

For more information, go [here](#) or contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501.

Tropical Forest Conservation Act (TFCA)

Value of Investing:

Enacted in 1998, the Tropical Forest Conservation Act (TFCA) gives eligible developing countries the option to relieve official debt while simultaneously generating local currency to support tropical forest conservation. The TFCA works to strengthen civil society by creating local foundations to provide small grants to NGOs and local communities and offers a unique opportunity for public-private partnerships.

As of December 2014, approximately \$233.4 million in congressionally appropriated funds have been used to conclude 19 TFCA debt treatment agreements with 14 countries. A reauthorization of the TFCA has been proposed and introduced in this Congress by Senator Portman (R-OH) that would extend the TFCA model to include coral reef ecosystems. This would make the TFCA more flexible and allow for a wider range of opportunities to support international conservation. We are urging congress to approve the TFCA Reauthorization Act.

Impacts of Cuts:

- Further cuts to the TFCA will discourage the negotiation of new agreements, thus removing a powerful incentive for developing countries to invest in forest conservation. This could have far-reaching effects in terms of species survival, climate change adaptation and forest management.

For more information, contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501.

USAID

Biodiversity Conservation Program

Value of Investing:

Most US foreign assistance for on-the-ground conservation is delivered through USAID and its robust portfolio of conservation and forestry programs. These programs help protect some of the largest, most at-risk natural landscapes, as well as the livelihoods of millions of people who directly depend on natural resources for their survival and economic growth. By maintaining and restoring the natural resources that supply fertile soil, clean water, food and medicine, these USAID programs play an important role in long-term US foreign policy objectives.

Impacts of Cuts:

- USAID biodiversity programs promote competitiveness of U.S. businesses by ensuring the sustainability of supply chains, strengthening trade relationships around the world and preventing illegal natural resources from flooding legitimate markets and undercutting American products.
- Biodiversity programs through USAID play a central role in US efforts to support wildlife conservation and combat wildlife trafficking, a growing transnational organized crime that is devastating many endangered wildlife populations. Between the start of 2010 and the end of 2012, roughly 100,000 African elephants were killed illegally – out of a remaining population of just half a million. In 2015 alone, 1,175 rhinos were lost to poaching in South Africa – almost tying the previous year’s record of 1,200 - and another 130 were poached in Namibia and Zimbabwe.
- Budget cuts would undermine US efforts to stem the illegal trade in rhino horn and elephant ivory building additional law enforcement and wildlife protection capacity in affected countries and would likely result in continuing high levels of poaching, which are destabilizing local communities and tourism-based economies and becoming a threat to the long-term survival of these species in the wild.

For more information, go [here](#) or contact Vanessa Dick, Senior Policy Officer, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

Sustainable Landscapes Program (SLP)

Value of Investing:

Global deforestation accounts for up to 14 to 17 percent of global greenhouse gas emissions. Addressing forest conversion to agriculture, and other land use changes are cost-effective and readily available solutions to battle rising global emissions.

Impacts of Cuts:

- Low funding for the SLP could affect programs that combat deforestation, the third largest source of carbon emissions after coal and oil. The SLP has the potential to reduce more than 300 million tons of CO₂e, the equivalent of installing 83,000 wind turbines. However, with less funding many initiatives will be forced to scale-back efforts that prepare countries to adopt REDD+ strategies vital to slowing down forest degradation.
- Through USAID and the Congo Basin REDD, 16 master's degree candidates are currently being funded to support innovation in tackling deforestation and climate change efforts. However, budget cuts may hinder the ability of the SLP to support these initiatives.
- Cuts to funding would come at a time when critical results are just beginning to be observed. USAID's Central Africa Regional Program for the Environment (CARPE) currently supports on-the-ground forest management programs within the Democratic Republic of Congo, the Republic of Congo, Rwanda, Gabon, Cameroon, and the Central African Republic—totaling more than 29 million hectares of land. In Vietnam the SLP's three provincial forest funds have serviced 100,000 forest owners and users, protecting 27 percent of the nation's total forested area.

For more information, contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501.

Adaptation Program

Value of Investing:

Targeted and well-planned US climate change investments in adaptation are helping communities in developing countries build capacity to adapt to impacts such as severe weather events, decreased water availability, shifting seasons, and disease vectors.

Impacts of Cuts:

- USAID is currently working to develop resilience to climate change in areas that are most at risk of food-shortages. With estimates that crop yields in the tropics and sub-tropics could fall 10 to

20 percent by 2050 due to climate change and the rising cost of staple foods like maize, budget cuts to adaptation programs will come at a time when it is most desperately needed.

- Under their Climate Change Resilient Development project, USAID is currently operating in 33 countries worldwide and providing 36 grants to research scientists in 19 countries, with a goal of fostering innovation in climate adaptation mainstreaming. Continued declines in funding may force CCRD to scale back such adaptation efforts.
- Budget cuts would come at a time when progress on global adaptation programs has just begun. USAID has been working with Jamaica to develop a drought forecast for local farmers, and preliminary results suggest that in 2014, farmers who utilized the forecasting tool cut their agricultural losses by anywhere between 10 and 40 percent.

For more information, contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

Clean Energy Program (CEP)

Value of Investing:

The Clean Energy Program (CEP) under USAID promotes the sustainable use of renewable energy technologies, energy efficient end-use technologies, carbon sequestration, and carbon accounting. Guided by its 2012-2016 Climate Change and Development Strategy, USAID's clean energy investments have been targeted to countries and regions that fit specific criteria, including 1) existing major emitters, 2) countries projected to significantly increase greenhouse gas emissions under business-as-usual scenarios, and 3) partners most able and ready to demonstrate leadership in clean energy development. Under the flagship initiative, Capacity for Low Emission Development Strategies (EC-LEDS) program, USAID provides technical assistance and capacity building to support countries' efforts to develop economy-wide, long-term low emission development strategies with assistance from the Department of State, Department of Energy, the Environmental Protection Agency, and others.

Impacts of Cuts:

- Low levels of funding for the CEP could endanger efforts to promote sustainability and low-carbon solutions for nations that could spur economic growth in the rapidly growing field of clean energy.

For more information, contact Vanessa Dick, Senior Policy Officer, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

Population Assistance Program

Value of Investing:

Since 1965, the US government has provided family planning and reproductive health services in the developing world as part of its foreign assistance program. There are an estimated 225 million women in the most impoverished parts of the world who want to delay or end childbearing but are not using modern contraceptives. The lack of access to modern contraception is a key driver of the 74 million annual unintended pregnancies worldwide and a net increase in global population of nearly 89 million people in 2015. At the end of 2011, world population reached 7 billion, and the next billion people is projected to be added by 2023 at current growth rates. Population growth in the developing world remains a contributor to deforestation, desertification, the degradation of oceans and waterways, natural resources use, and loss of biodiversity and endangered species.

Impacts of Cuts:

The United States government spent \$610 million on overseas family planning and reproductive health programs in FY15. According to a recent analysis, each decrease of \$10 million in U.S. funding would result in the following:

- 520,000 fewer women and couples would receive contraceptive services and supplies;
- 110,000 more unintended pregnancies, and 50,000 more unplanned births, would occur;
- 50,000 more abortions would take place;
- 200 more maternal deaths would occur;
- 900 more children would lose their mothers.

For more information, contact Craig Lasher, Senior Fellow, PAI, clasher@pai.org or (202) 557-3442

Department of State

Combatting Wildlife Trafficking Programs at Department of State & USAID

Value of Investing:

In response to the global poaching and wildlife trafficking crisis, the Administration issued an Executive Order to Combat Wildlife Trafficking and released a detailed national strategy and implementation plan to address it. Since FY14, congressionally mandated funding to combat wildlife trafficking has been included in the enacted appropriations bills funding the State Department and USAID. As awareness has

grown of the severity of the wildlife trafficking crisis, the devastating impacts it is having on targeted species, including elephants, rhinos, and tigers and its linkages to transnational organized crime syndicates and violent armed groups, including the Lord's Resistance Army and Sudan's Janjaweed militia, Congress has repeatedly increased that funding, which has grown from \$45 million in FY14 to \$80 million in FY16. These funds support efforts to train and professionalize wildlife law enforcement, protect vulnerable wildlife populations on the ground, disrupt criminal networks engaging in trafficking and reducing demand for illegal wildlife products, including elephant ivory and rhino horn.

Impacts of Cuts:

- Many countries lack capacity to prioritize and enforce laws against poaching and trafficking. These programs are essential to help grow that capacity, stop poaching and catch the traffickers, who often operate with impunity. Increasing the effectiveness of law enforcement and the number of successful prosecutions and sentences will serve as a deterrent and help to prevent poaching and trafficking before it impacts endangered species.
- Many developing countries rely on their wildlife resources and the income derived from them, including tourism, as major contributors to their local and national economies. In many countries, including Namibia and Nepal, successful wildlife conservation has been used as a tool to promote America's economic and social development objectives, as well as promotion of democracy at the local level. Underfunding these programs at a time when these wildlife resources are under extreme pressure from poaching risks jeopardizing many years of successful US investment in these goals.
- Reduction in funding would disrupt essential anti-wildlife trafficking programs that have been initiated the last three prior to sufficient monitoring and evaluation of their successes being conducted.
- Given the evidence that illegal wildlife trafficking, which is worth \$8-10 billion in criminal profits annually, is corrupting government officials in the developing world and financing armed insurgencies and other threats to US security interests in parts of the worlds, reducing these funds would prevent the US government from continuing to dry up this source of criminal financing and disrupt the transnational crime syndicates at the heart of it.

For more information, contact Will Gartshore, Senior Program Officer, US Government Relations, World Wildlife Fund, will.gartshore@wwfus.org or (202) 495-4344 or Kelly Keenan Aylward, Washington Office Director, Wildlife Conservation Society, kaylward@wcs.org or (202) 347-0672 x23.

International Conservation Programs

Value of Investing:

The State Department's International Conservation Programs, run out of the Bureau of Oceans and International Environment and Scientific Affairs, supports cooperative approaches to conservation challenges. Core financial contributions go to international organizations including the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Ramsar Convention on Wetlands, the World Conservation Union (IUCN), the International Tropical Timber Organization (ITTO), and the UN Convention to Combat Desertification (UNCCD).

Impacts of Cuts:

- In 2012 the State Department under Secretary of State Clinton made fighting wildlife trafficking a priority, noting that the illegal industry had become more dangerous and widespread than ever before. Since then, a Presidential Taskforce has been established and a strategy is being finalized. Curtailing funding would undermine programs that are just underway and hurt efforts to dismantle criminal syndicates that have been linked to terrorist organizations.

For more information, go [here](#) or contact Vanessa Dick, Senior Policy Officer, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

Multilateral Funds to Combat Climate Change Supported by the State Department

Forest Carbon Partnership Facility (FCPF)

Value of Investing:

The World Bank's Forest Carbon Partnership Facility (FCPF) is divided into two funds, the Readiness Fund, and the Carbon Fund. The Readiness Fund rewards relatively small grants (roughly \$4 million USD) to help finance development of national REDD+ strategies and institutional frameworks. The Carbon Fund pilots large-scale "pay for performance" REDD+ initiatives to test frameworks and benefit distribution systems in approximately five countries. REDD+ policies and programs work towards protecting the future of the forest system by promoting improved forest governance, protecting the rights of indigenous and local communities, and building capacity for community-based forest management.

Impacts of Cuts:

- REDD+ goals advance the rights of indigenous and local communities by building capacity for community-based forest management. Budget cuts could impact programs that develop the tools that allow local communities to practice sustainable forestry instead of deforestation.

- To date, the FCPF Carbon Fund has aided in the development of 18 large-scale emissions reduction programs that, if fully implemented, will reduce greenhouse gas emissions by 300 million metric tons of carbon dioxide equivalent—commensurate with taking 64 million cars off of the road one year. A continued decline in the funding for this program would leave current FCPF emissions reduction programs at a disadvantage.

For more information, go [here](#) or contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

Adaptation Programs

Value of Investing:

The U.S. Department of State contributes to two multilateral climate funds managed by the Global Environment Facility under the UN Framework Convention on Climate Change. The Least Developed Countries Fund (LDCF), established in 2001, targets the needs of least developed countries through the preparation, financing and implementation of National Adaptation Programs of Action (NAPAs), national plans that prioritize the response to a country's immediate needs to adapt to climate change.

The Special Climate Change Fund (SCCF) is a second multinational fund with the objective of supporting programs that are country-driven and integrated into national development and poverty-reducing strategies. The fund finances long and short-term projects related to adaptation and clean technology cooperation, including capacity building, economic diversification, technology transfer, and management in a wide range of areas.

Impacts of Cuts:

- State Department funding for adaptation programs target countries that are most in need and prepare them to deal with a changing climate. Budget cuts threaten to derail investments and progress that has already been made, leaving many countries vulnerable to disasters that could hurt their development and cost lives.
- Studies show that up-front investments in disaster risk reduction have cost savings of \$7 for every dollar spent. Furthermore, investing in community-based adaptation can result in an average increase of \$2.10 a day, with failure to invest decreasing income below one US dollar. Funding these programs now could save a significant amount of money in disaster relief and development aid in the future.

For more information, contact Vanessa Dick, Deputy Director, US Government Relations, World Wildlife Fund, Vanessa.dick@wwfus.org or (202) 495-4501

International Agreements on Climate Change and Ozone Pollution

Value of Investing:

The United Nations Framework Convention on Climate Change (UNFCCC) was initiated in 1990 by the United Nations and signed at the 1992 Earth Summit in Rio de Janeiro by the heads of 154 countries, including President George H.W. Bush. Since 1994, 192 countries have ratified the Convention, acknowledging that increasing anthropogenic emissions of CO₂ and other greenhouse gases threatens to destabilize the global climate system and pledging to set an overall framework for intergovernmental efforts to tackle the challenges created by climate change. For more information, go [here](#).

The Intergovernmental Panel on Climate Change (IPCC) is the leading international body for the assessment of climate change. This scientific body was established by the United Nations Environment Program (UNEP) and the World Meteorological Organization (WMO) to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts. For more information, go [here](#).

Impacts of Cuts:

- Decreasing funds to the UNFCCC and IPCC would be a mistake at a time when the U.S. has pledged to become a leader on climate change. These institutions have been vital in securing a global solution to climate change that is informed by science.

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