

Alaska Wilderness League
 American Bird Conservancy
 American Forests
 American Hiking Society
 American Rivers
 Association of Fish and Wildlife Agencies
 Bat Conservation International
 Chesapeake Bay Foundation
 Defenders of Wildlife
 Friends of the Earth
 IOOS Association
 League of Conservation Voters
 Marine Conservation Institute
 National Audubon Society
 National Marine Sanctuary Foundation
 National Parks Conservation Association
 National Wildlife Refuge Association
 Natural Resources Defense Council
 National Wildlife Federation
 Oceana
 Ocean Conservancy
 Population Action International
 Restore America's Estuaries
 Save Our Wild Salmon Coalition
 Southern Alliance for Clean Energy
 The Trust for Public Land
 The Wilderness Society
 World Wildlife Fund

Green Budget 2014

Losing Our Heritage: Budget Cut Impacts and Our Environment



Losing Our Heritage: Budget Cut Impacts and Our Environment
 2014 Green Budget



**LOSING OUR HERITAGE:
BUDGET CUT IMPACTS AND OUR
ENVIRONMENT**

Green Budget 2014

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LOSING OUR HERITAGE: BUDGET CUT IMPACTS AND OUR ENVIRONMENT

INTRODUCTION

For years, our public interest groups have produced an annual report called the *Green Budget*, outlining recommended appropriations increases to keep up with needs for environmental programs. We look forward to returning to the effort to adequately meet the needs of our underfunded programs but recognize that these are different times. This renamed and reconceived report now details the impacts of devastating spending cuts on critical environmental and conservation projects across the federal government. *Losing Our Heritage: Budget Cut Impacts and Our Environment*,¹ prepared by a coalition of national environmental and conservation organizations,¹ illustrates how indiscriminant spending cuts will adversely affect our nation's ability to respond to environmental challenges of a changing climate, develop our clean energy resources, and sustain our nation's lands, waters, wildlife and other natural resources. It also details a number of revenue raisers and cost savings measures that should be considered as part of any balanced approach to deficit reduction.

Use this document when assessing the impacts of natural resource spending cuts in your state or district. This report includes a short background on the benefits and challenges for many important environmental and energy programs as well as the corresponding impacts we will see without prudent, more adequate investments in them. As stewards of our surroundings, we have a responsibility to act now and sufficiently fund the programs that help ensure the water we drink is clean, the air we breathe is pure, the energy we use is renewable and sited responsibly, and the wild landscapes and wildlife we care about are protected for the enjoyment of countless Americans today and in the future.

**ALASKA WILDERNESS LEAGUE • AMERICAN BIRD CONSERVANCY
AMERICAN FORESTS • AMERICAN HIKING SOCIETY • AMERICAN RIVERS
ASSOCIATION OF FISH & WILDLIFE AGENCIES • BAT CONSERVATION
INTERNATIONAL • CHESAPEAKE BAY FOUNDATION • DEFENDERS OF
WILDLIFE • FRIENDS OF THE EARTH • IOOS ASSOCIATION • LEAGUE OF
CONSERVATION VOTERS • MARINE CONSERVATION INSTITUTE
NATIONAL AUDUBON SOCIETY • NATIONAL MARINE SANCTUARY
FOUNDATION • NATIONAL PARKS CONSERVATION ASSOCIATION
NATIONAL WILDLIFE REFUGE ASSOCIATION • NATURAL RESOURCES
DEFENSE COUNCIL • NATIONAL WILDLIFE FEDERATION • OCEANA • OCEAN
CONSERVANCY • POPULATION ACTION INTERNATIONAL • RESTORE
AMERICA'S ESTUARIES • SAVE OUR WILD SALMON COALITION • SOUTHERN
ALLIANCE FOR CLEAN ENERGY • THE TRUST FOR PUBLIC LAND • THE
WILDERNESS SOCIETY • WORLD WILDLIFE FUND**

¹ *The organizations listed on the back cover do not necessarily endorse or have expertise on every recommendation in this report. Please refer to the Program Contacts at the end of this document for more information on a particular program.*

BUDGET CUT IMPACTS AND OUR ENVIRONMENT

The budget battles which have dominated headlines in the U.S. and around the world for the past three years have been some of the most contentious in recent history. Following a year in which Congress needed eight Continuing Resolutions to keep the government from shutting down, 2012 brought even more chaos to the budget process. The Presidential election was a referendum on the economy and more specifically on tax increases and budget cuts, culminating with the fiscal cliff showdown that dominated the lame duck session of Congress.

The federal government is again operating under a Continuing Resolution, and the short term fiscal cliff deal passed on January 1st has led to two more short term deadlines in March of 2013: sequestration which—absent an agreement to avoid it—will go into effect on March 1st, and the March 27th deadline to fund the federal government for the rest of the fiscal year in order to avoid a government shutdown. As if that wasn't enough, the Budget Control Act of 2011 that was put in place to avoid default on the nation's debt has put austere caps on discretionary spending in place for the next ten years.

Due to Congress' inability to move other pieces of legislation, the annual appropriations process has also become the battleground for a significant number of contentious policy issues that threaten our environment. These policy provisions are either included as 'riders' in the draft legislation or proposed as amendments during committee and floor consideration of spending legislation. The cumulative effect of this pervasion of policy issues has been to stall and taint what has traditionally been a thoughtful and healthy debate about the importance of federal government programs and at what level they should be funded each year. This hijacking of the appropriations process must cease so that policy issues can be debated and voted on in their proper forum, allowing equally important budget decisions to be made on their own merits.

It is in this political backdrop that congressional decision makers must finish the 2013 budget, avert 5% across the board spending cuts from sequestration, and begin the 2014 federal budget process. Following a presidential election year in which the state of our nation's economy was a major deciding factor, Congress must return to a state of normal budgeting while making prudent investments in programs and priorities. We understand that tough decisions will need to be made in this and future years. However, when deciding on funding that affects hundreds of millions of Americans and the resources on which they rely, we must take into account the full economic, social, environmental, and cultural value of the many programs managed by the federal government.

With federal spending on land, water, ocean, and wildlife programs just 1.26% of the federal budget in 2012, it is clear that this spending is not a primary cause of the current federal budget crisis. This proportion has actually declined over the last 30 years as funding for conservation programs has grown only 2% in real dollars over this entire period while other federal expenditures have increased dramatically.

The programs outlined in this Green Budget improve our infrastructure, encourage economic investment in local communities; boost our global competitiveness; keep our air breathable, our water clean, and our wildlife and outdoor spaces protected; and in many ways make our country unique and prosperous. The resources protected by these programs support the abundant natural wealth that has helped to make our nation a great power in the world. They protect the places that define our history as a nation, that encourage tourism investments from abroad, and provide the quality-of-life benefits that support millions of U.S. businesses and jobs.

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Protecting public health and the environment provides net benefits to our U.S. economy by substantially reducing costs, including health care, ecosystem restoration, and water treatment, while ensuring active job creation through renewable energy research and development and protection of ecosystem services. These protections foster and preserve public lands and wildlife-dependent recreation and have spawned a significant tourism industry critical to many local communities particularly in our rural communities. It also keeps our tourism spending here in the U.S., attract tourist and their dollars from around the world and supports healthy economies in gateway communities that surround protected areas.

The cost of these programs together amount to a very small portion of the federal budget and thus a very small percentage of the average American family's tax expenditures, yet the benefits are extraordinary: clean air for children to breathe, clean water for families to drink, healthy public lands and rivers for people to recreate in, clean oceans to support healthy fisheries, pollinators that help sustain American farms, and a renewable energy future that will make our nation a world leader in the global clean economy.

It makes little sense to decimate vital environmental and energy programs that protect our health and well-being and increase our economic competitiveness while at the same time, continuing to fund programs that will lead to the opposite outcome. Our nation's outdated energy policies are a good place to start. This document underscores the need for critical spending cuts and offers a number of examples of programs the funding for which must be limited or discontinued. Eliminating subsidies for programs that pollute and harm our land, water, and wildlife can have a double benefit, as we also reduce the need for programs that solely provide support in the aftermath of ecosystem degradation.

DEBILITATING SPENDING CUTS

Conservation, natural resource, and renewable energy programs have in most cases remained flat funded or have taken cuts over the last three fiscal years. This spending downturn is made worse by the prospect of nearly five percent across-the-board funding cuts that will be triggered in March of 2013 without additional congressional action. *Losing Our Heritage: Budget Cut Impacts and Our Environment* is meant to underscore what those spending cuts would mean in real-world terms.

Further cuts to natural resource and conservation programs inhibit their ability to enhance our public welfare, contribute to the growth of our economy, create millions of well-paying jobs, and, most importantly, protect the value behind our natural capital and ecosystems. Allowing funding levels to be severely cut would leave critical natural resource programs unable to manage day-to-day operations.

Losing Our Heritage: Budget Cut Impacts and Our Environment supports fiscally responsible investments in natural resources that we cannot afford to lose. As Congress strategizes how to successfully address the national deficit and spending while building a stronger and more competitive America, we advocate for investing in the strong foundation of a green economy that can become and remain self-sufficient, innovative, and globally secure. However, over the years, devastating cuts to environmental programs have impeded the potential contributions these programs can make to our national economy.

BUDGET CUT IMPACTS AND OUR ENVIRONMENT

Integral to this discussion is the constant and careful reassessment of conservation program benefits, as well as the full life-cycle costs of those programs to ensure results are in line with the efficient use of taxpayers' investments. *Losing Our Heritage: Budget Cut Impacts and Our Environment*, with compiled expertise from over 30 different organizations, examines conservation programs' benefits and costs, and provides detailed budget cut impacts that render conservation programs unable to achieve maximum effectiveness and efficiency. Many nationwide energy, water, marine, and natural resource programs are crucial facilitators in strengthening our national economy and mitigating future deficit increases.

HEALTH, AIR & WATER

For forty years, polluting industries have accused the EPA of pursuing policies that would hurt the economy. Almost every rulemaking or public statement by the Agency has been followed by comments from industry representatives stating that the Agency's activities would make America less competitive and throw people out of work. These statements have almost always been proven false.

The George W. Bush Administration required EPA to show that the benefits of their rules would outweigh the costs. In addition, the Office of Management and Budget (OMB) prepared a report, using OMB metrics, to evaluate the costs and benefits of rules that were finalized ten years in the past. This ten-year look back showed that EPA rules had cost more than \$7 billion dollars, but that the benefits were between 3 and 24 times the cost, primarily due to health benefits.² Time has shown that environmental rules not only increase the livability of our communities, but are instrumental in incentivizing new industries and jobs to make industry and government less polluting and more efficient. With the proper scientific analyses, EPA can continue to use its authority to improve life for all Americans. We must continue to support a proper scientific approach to regulatory requirements.

EPA rulemaking, and the enforcement of those rules by EPA and its state partners, need to be properly funded so that the Agency can carry out its job as outlined in numerous congressional statutes: to protect the nation's public health and environment.

The American Recovery and Reinvestment Act significantly increased funding for key EPA programs during 2009-2010. The job-creating programs in the Act totaled more than \$6.6 billion and provided local communities with significant funds for sewers, drinking water, brownfield development, and Superfund cleanups. While this was a substantial down payment on America's infrastructure needs, states and localities have billions of dollars in backlogged projects that need only an infusion of support to begin creating jobs and improving our environment and public health.

LAND

Healthy lands, including federal and state publicly held lands, provide ecosystem services - like natural flood prevention and soil formation - which are valuable to our national and individual welfare in both quantitative and qualitative ways. According to a Southwick and Associates report from

² 2008 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities
http://www.whitehouse.gov/sites/default/files/omb/assets/information_and_regulatory_affairs/2008_cb_final.pdf, p 96-98.

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September 2011 “The value of ecosystem services provided by natural habitat in the 48 contiguous United States amount to about \$1.6 trillion annually, which is equivalent to more than 10% of the U.S. GDP.”

For example, National Forests protect watersheds that supply drinking water to approximately 66 million Americans, over 900 cities, and 3,400 public drinking water systems.³ New York City, since the beginning of this year, has taken proper advantage of its 1997 land-acquisition program aimed at buying acres of land around upstate reservoirs. By spending \$541 million in the past 13 years on land purchases and maintenance, the city has ensured a substantial water supply for nine million residents. In addition to this tangible benefit, the city has avoided spending more than \$10 billion to build an upstate filtration plant. This endeavor prevents a cost which would otherwise have likely been passed on to city residents and taxpayers, while simultaneously creating new areas for hiking, hunting, fishing, and observing wildlife, which offer their own set of economic benefits. Similar investments in open space and protected wilderness around urban areas not only increase real property and resale values, but also decrease the need for increased property tax rates.⁴ In regions surrounding the Green Mountain National Forest in Vermont, for example, land values are almost 19 percent higher in townships that border wilderness than in ones that do not.⁵ The direct and indirect values of investing in land conservation far outweigh the initial or alternative expenses, providing a model that will yield more beneficial results as land conservation programs are expanded.⁶

In addition to the quality of life and health benefits for Americans, gateway communities and outdoor industries benefit substantially from this recreational spending. For example, recent research by Michigan State University and the National Park Service found that visitors to the national park system support more than \$30 billion annually and more than a quarter million jobs. Every dollar invested in the National Park Service supports ten dollars in economic activity. Similarly, a recent study by the Outdoor Industry Association determined that active outdoor recreation contributes \$646 billion annually to the US economy, generating \$1.6 trillion in total economic activity and 12 million U.S. jobs.⁷ Investments in public lands management also ensure the preservation of our natural and cultural heritage that draws millions of people annually from around the world.

WILDLIFE

To protect wildlife, its habitat must be protected. By doing this, we are also protecting the health of the natural systems that 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, wildlife refuges, forests, parks, wilderness areas, and other lands essential to wildlife all are helping to ultimately ensure the health and well-being of the American people. Birds and bats are pollinators and seed dispersers – pollination is worth billions each year to the agricultural industry.

³ United States Department of Agriculture. Forest Service. *Fiscal Year 2012 Budget Overview*. 2011. Fiscal Year 2012 Budget Overview. Web. 25 Feb. 2011. p.9 <<http://www.fs.fed.us/aboutus/budget/2012/justification/FY2012-USDA-Forest-Service-overview.pdf>>.

⁴ Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors: A Resource Book. Fourth Revised. National Park Service. 1995. eBook.

⁵ Phillips, S. 2004. Windfalls for Wilderness: Land Protection and Land value in the Green Mountains. PhD. Dissertation. Virginia Polytechnic Institute and State University, Blacksburg, VA.

⁶ "New York City Steps Up Land Purchases in Upstate Watershed." *The Daily Freeman: Serving the Hudson Valley since 1871 (DailyFreeman.com)*. 18 July 2010. Web. 19 Jan. 2011.

⁷ http://www.outdoorindustry.org/research/economicimpact.php?action=detail&research_id=167

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Bats also eat vast numbers of insects, including pests that damage crops such as corn, cotton, and potatoes and carry dangerous diseases like West Nile virus, reducing the need for toxic pesticides. A study published last year in *Science* estimates that bats save U.S. farmers at least \$3.7 billion per year by preventing crop damage and limiting the need for pesticides.⁸ Wildlife also provides far-reaching benefits to treat human disease – the Gila monster lizard provides a drug that helps treat diabetes; chemicals secreted by the Houston toad are used as medicines to treat heart and nervous disorders; while crocodile blood is being studied for an antibiotic; desert pupfish for kidney disease; and black bear for osteoporosis. Programs that protect endangered species and other vulnerable wildlife from pesticides, heavy metals, endocrine disruptors, industrial chemicals, and numerous other pollutants protect people at the same time. And since the link between wildlife smuggling, organized crime, and drug trafficking is well documented⁹, money spent fighting the illegal wildlife trade is money spent on the global war against crime.

Wildlife also makes an important contribution to the economy through wildlife-related consumer spending. According to the *2011 National Survey of Fishing, Hunting and Wildlife-Associated Recreation*, 90 million U.S. residents participated in wildlife-related recreation, contributing nearly \$145 billion to outdoor recreation economies, an increase of 18.8 percent over the last survey in 2006.¹⁰ More specifically, 71.8 million of these people were wildlife watchers who contributed nearly \$55 billion in recreation expenditures, from purchasing bird-watching equipment to eating at local restaurants, while nearly \$90 billion was generated from hunting and fishing.¹¹ National wildlife refuges alone generate more than nearly \$4.2 billion and nearly 35,000 private sector jobs in local economies.¹² Investments in wildlife and its habitat help to ensure the present and future well-being of our communities and families for generations to come. Further cuts will severely undermine our irreplaceable wildlife heritage and all of its extraordinary benefits.

OCEANS, COASTS & RIVERS

Our nation's oceans, coasts, rivers and Great Lakes provide immense economic, environmental, and recreational benefits. The *National Ocean Economics Program* has estimated that the U.S. ocean and coastal economy contributes more than \$258 billion annually to the nation's GDP through fisheries and seafood production, tourism, recreation, transportation, and construction. Additionally, over 2.7 million jobs in the U.S. depend on the oceans and coasts.¹³ Cuts would cause damage to these benefits. For example, cuts will leave states and regions with decreased capacity to enhance coastal resilience and better prepare communities for disasters. As we have learned from disasters like Superstorm Sandy and the *Deepwater Horizon* oil spill, resilient coastal ecosystems contribute to the safety and prosperity of our coastal communities; protection from natural buffers like dunes or coastal wetlands leads to less damage and lower disaster recovery costs when disasters occur.

⁸ <http://www.sciencemag.org/content/332/6025/41.summary?sid=853248fd-6760-4341-93d0-2aeeab9ea450>

⁹ CRS Report for Congress, *International Trade in Wildlife: Threats and U.S. Policy*, Liana Sun Wyler and Pervaze A. Sheikh. Updated August 22, 2008.

¹⁰ <http://www.census.gov/prod/2012pubs/fhw11-nat.pdf> .

¹¹ Ibid. .

¹² <http://www.doi.gov/americasgreatoutdoors/loader.cfm?csModule=security/getfile&pageid=308931>

¹³ *National Ocean Economics Program*, <http://www.oceaneconomics.org/Market/ocean/oceanEcon.asp>.

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In addition, Reductions in fishery stock assessments and support for the regional fishery management councils could leave economically important fisheries closed. Further cuts to coastal zone management grants reduce opportunities for states to maintain and increase public access points to our nation's coasts. And cuts to the National Marine Sanctuary System will take away its ability to safeguard the best of the American ocean for ourselves and future generations.

Significant cuts to funding for our ocean, coasts, and rivers will impact our ability to protect lives and prepare for extreme weather, to adapt to a changing world, and to enhance economic prosperity in our coastal communities and beyond.

ENERGY

Coupled with the management of natural resources, Congress can facilitate the large-scale growth of a domestic clean energy industry that taps American ingenuity and entrepreneurial spirit to continue our economic recovery, create hundreds of thousands of new jobs, strengthen our global competitive standing, and protect our environment. U.S. Secretary of Energy Steven Chu¹⁴, business leaders like Bill Gates, John Doerr, and Jeff Immelt¹⁵, our military¹⁶, and nine in ten Americans¹⁷—including 85 percent of Republicans and 89 percent of independents—say developing renewable energy should be a priority for the President and Congress. According to Bloomberg New Energy Finance, total U.S. clean energy investment in 2011 rose 35% from the previous year to a record \$55.9 billion, as the U.S. recaptured its leadership in this category, overtaking China for the first time since 2008. According to a recent Brookings report, employment in the wind and solar industries grew 10-15% annually, between 2003 and 2010. Solar is the economy's fastest-growing sector and now employs 100,000 people in more than 5,000 companies. The wind industry employs 85,000 American workers, and 38 states host large wind power projects. Bottom line – our country is making significant progress towards a renewable future, and we must continue to move forward.

At the same time, we must also remember that resources are needed to ensure that renewable energy development moves forward in a balanced way that protects fish, wildlife, land, water, and other sensitive resources. By funding processes that compel upfront analysis of the best places to develop our nation's renewable resources and encourage early stakeholder engagement, we can avoid potential siting conflicts for individual projects. Developed, implemented, and managed properly, renewable energy has the means and potential to revitalize the national economy.¹⁸

CONCLUSION

Despite the myriad challenges facing our country in 2013, it remains critically important to effectively invest in conservation, environmental, and clean energy programs that will positively impact both our

¹⁴ <http://energy.gov/articles/secretary-chu-speaks-ge-solar-facility>

¹⁵ <http://www.americanenergyinnovation.org/>

¹⁶ <http://www.serdp.org/News-and-Events/News-Announcements/Program-News/Department-of-Defense-announces-new-installation-energy-technology-demonstrations-for-FY-2012>

¹⁷ environment.yale.edu/climate/publications/PolicySupportNovember2011/

¹⁸ "Economic Drivers." American Environmental Energy. Web. 19 Jan. 2011. <<http://www.americanenvironmental.com/power-parks/economic-drivers>>.

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nation's public welfare and our economy. *Losing Our Heritage: Budget Cut Impacts and Our Environment* makes clear that spending cuts in renewable energy, as well as land, wildlife, and water conservation are hugely problematic and will not help our nation balance its budget. At the same time, the report outlines revenue raisers and spending cuts to programs that subsidize the fossil fuels industry and other ineffective policies. As Americans nationwide have put themselves on a budget and made difficult decisions, environmental programs have done the same and already taken substantial cuts. With our nation beginning to recover from the economic downturn of the last few years, now is the time to support prudent natural resource and other environmental investments with substantial, long-term public benefits. At the same time, we must maintain fiscal responsibility through modest investments and strategic cost-cutting efforts aimed at inefficient policies and programs that compromise a long-term course towards sustainable economic health.

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OFFSETS/REVENUE RAISERS

OFFSETS and REVENUE RAISERS

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Increase Tax on Motor Fuels by 50 Cents per Gallon

The federal gasoline tax of 18.3 cents per gallon has not been increased, or adjusted for inflation, in 20 years. As a result it no longer raises enough money to maintain our current transportation infrastructure, let alone fund the improvements that are needed and so money from the general treasury has been used to fill the shortfall.

Potential Savings: Increasing the tax on motor fuels by 50 cents per gallon would save taxpayers \$604.8 billion over 10 years.¹

Last In, First Out Accounting

A tax accounting method known as “last-in, first-out,” or LIFO, provides a significant tax benefit for oil companies, especially when their inventory costs are rising. LIFO allows oil companies to calculate profits based on the cost of the oil they most recently added to their inventory. Using costs incurred for oil most recently added to their inventory can minimize a company’s taxable income.¹ Taxpayers do not need to help oil companies become even more profitable when Americans are suffering the most from high oil prices.

Potential Savings: Eliminating Last In, First Out accounting for oil and gas companies could save taxpayers \$25.8 billion over 10 years.¹

Reinstating Superfund Taxes

Prior to their expiration on December 21, 1995 polluters were charged taxes whose proceeds were deposited in the Hazardous Substance Superfund to help pay for the cleanup of some of the most contaminated sites in the country. With the tax gone, the Superfund has been out of money since 2002, leaving taxpayers, and not polluters, on the hook for needed cleanups. President Obama has proposed reinstating the Superfund taxes so that polluters are once again paying the cost of cleaning up their mess.

Potential Savings: Reinstating Superfund Taxes would save taxpayers \$19.7 billion over 10 years.¹

End Giveaways of Public Lands and Resources

Every year wealthy corporations are robbing taxpayers by taking valuable public resources at prices well below market costs, and sometimes for free. In many instances the payments made to the Treasury don’t even cover the costs of preparing the resources, let alone their value. We can save taxpayers billions of dollars by making sure that we get. Before we even contemplate allowing additional extraction on public lands and in public waters we should at least make sure that taxpayers are receiving the benefit from the extraction that is currently occurring. Fixing the three programs below could save taxpayers \$19.6 billion over 10 years.

Ending Royalty Relief for Oil and Gas

In order to incentivize drilling when prices are low the Deepwater Royalty Relief Act and the Energy Policy Act of 2005 allowed the federal government to waive or reduce royalties that companies would otherwise have to pay to drill for oil and gas. Typically,

¹ Seth Hanlon, “Big Oil’s Misbegotten Tax Gusher”, Center for American Progress, May 5, 2011.

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only a specified amount of production is exempted, and the royalty relief may only be applicable if oil and gas prices remain below a certain price threshold. However, for a number of leases the Minerals Management Service (now the Bureau of Ocean Energy Management) failed to set thresholds, allowing large amounts of oil and gas to be exempted from royalties despite high gas prices. The General Accounting Office estimates that royalty free leases could end up cost taxpayers as much as \$53 billion.² Several legislative proposals have been suggested for dealing with this in Congress, but these giveaways continue. **Potential Savings: Eliminating oil royalty relief for oil and gas would save taxpayers \$11.4 billion over 10 years.**¹

Place a Royalty on Hard Rock mining of 12.5%

The 1872 Mining Law allows mining companies to extract some of the world's most valuable resources without paying any royalties to the federal government. This proposal is to put a royalty rate, 12.5%, equal to that paid by oil companies for extracting copper, gold, and silver from public lands. Currently the federal government is not even keeping track of the value of the precious metals that it is giving away so it is difficult to know how much the giveaway is. **Potential Savings: Charging mining companies on hard rock mining of 12.5% for the minerals they extract on public lands could save taxpayers \$8 billion over 10 years.**¹

Fair Market Grazing Fees

The federal government often charges less than fair market value for the right to graze on public lands. In fact federal grazing fees are often less than those for state lands in the same state. Setting federal grazing fees at the levels imposed by the states for their own lands would reduce the subsidy from below market grazing. **Potential Savings: Charging ranchers a fair market value price for crazing their livestock on public lands could save taxpayers \$160 million over 10 years.**¹

Potential Savings: Eliminating giveaways of public resources would save taxpayers \$19.6 billion over 10 years.¹

Domestic Manufacturing Deduction for Oil and Gas Companies

Oil and gas producers can claim a deduction for U.S. oil production under Section 199. This provision, enacted in 2004, applies to many industries and was intended to keep manufacturing in the U.S. The provision makes no sense for oil producers for two reasons. First, these companies do not need encouragement to drill at current oil prices. In 2005, President George W. Bush noted "With \$55 oil, we don't need incentives to oil and gas companies to explore. There are plenty of incentives."³ In 2012, oil prices have greatly exceeded that amount and are predicted to increase for the foreseeable future. Second, oil and gas production decisions are based largely on the location of oil and gas deposits. Oil and gas producers must go where the resource is—something no tax incentive can change. Eliminating oil producers from this benefit "will have no effect on consumer prices for gasoline and natural gas in the immediate future,"

² Government Accountability Office, *Oil and Gas Royalties: Litigation over Royalty Relief Could Cost the Federal Government Billions of Dollars*, June 5, 2008.

³ <http://www.nytimes.com/2008/03/03/opinion/03mon4.html>

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and is unlikely to have any effect over the long run, according to a recent report by Congress's Joint Economic Committee.⁴

Potential Savings: Eliminating the Domestic Manufacturing deduction would save taxpayers \$15.9 billion over 10 years.¹

Percentage Depletion Allowance for Oil and Gas production

This tax break, which dates back to the 1920s, allows oil and gas drillers to take a deduction based on how much oil or gas they've extracted from existing wells. It potentially allows the deduction to exceed the capital investment in the original well. In some cases, the depletion allowance can eliminate all federal taxes for these companies.⁵

Potential Savings: Eliminating the Percentage Depletion subsidy for oil production would save taxpayers \$12.1 billion over 10 years.¹

Special Rules for Nuclear Decommissioning Costs

Income earned from funds set aside for nuclear decommissioning trust funds is taxed at a preferential rate. This shifts the costs of nuclear power away from investors and onto taxpayers and violates the principle that polluters should bear the cost of their pollution.

Potential Savings: Eliminating Special Rules for Nuclear Decommissioning Costs would save taxpayers \$11.6 billion over 10 years.¹

Foreign Tax Credit

The tax code allows many companies to claim a credit for taxes paid to foreign governments. This is intended to avoid double taxation of income earned abroad. Oil companies have been able to manipulate royalties paid to foreign governments to get more from this tax credit and lower their tax liability. Excessive Foreign Tax Credits only add to the roughly \$1 trillion in profits that the largest oil companies earned over the past 10 years.⁶ The President's FY 2013 budget proposes to limit oil and gas companies' credits to the foreign country's standard income tax rate for other industries.⁷

Potential Savings: Changing the Foreign Tax Credit so that oil and gas companies are not able to get credits for royalties could save taxpayers \$9.6 billion over 10 years.¹

Expensing for Intangible Drilling Costs

Section 617 of the Internal Revenue Code allows oil and gas producers to deduct costs related to preparing and drilling wells. These include wages, fuel, repairs to drilling equipment, and other supplies. Allowing these costs to be expensed is an exception to the general rule requiring these

⁴ Joint Economic Committee, "The Proposed Modification of Internal Revenue Code Section 199 Will Not Increase Consumer Energy Prices". Last viewed December 16, 2012 at <http://www.jec.senate.gov/archive/Documents/Reports/12.12.07EnergyTaxPackage.pdf>

⁵ Seth Hanlon, "Big Oil's Misbegotten Tax Gusher", Center for American Progress, May 5, 2011.

⁶ Taxpayers for Common Sense, "Big Oil Tops \$150 Billion in Profits in 2011", March 1, 2012.

⁷ Robert Pirog, *Oil and Natural Gas Industry Tax Issues in the FY2013 Budget Proposal*, Congressional Research Service, 2012. Note that the revenue effect described above is based on an administration proposal that may include more than oil and gas activities. However, oil and gas production was a focus of that proposal and is expected to represent a very significant share of the number.

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types of costs to be deducted in increments over a project's useful life rather than all at once.⁸ Taking the full deduction immediately allows these companies to lower their tax bill in the first year, in effect getting an interest-free loan from the government (over 5 years). This provision was originally established in 1916, when energy markets were starkly different. Like other oil and gas subsidies, this outmoded provision should be eliminated; projected oil prices do not justify taxpayer-subsidized drilling.

Potential Savings: Eliminating Expensing for Intangible Drilling Costs would save taxpayers \$9.5 billion over 10 years.¹

Mixed Oxide – Fissile Materials Dispositions - Construction

Cancelling the construction of the mixed oxide fuel fabrication facility at the Savannah River Site in South Carolina would protect to the environment and taxpayers. If constructed the facility would produce mixed oxide fuel for use in commercial reactors from defense plutonium and depleted uranium currently stored at the site. The troubled project was supposed to be completed in 2007 and official costs have already almost tripled, while actual costs are likely to be even higher. All of this money would be spent to create a fuel that makes reactors run hotter, increases storage problems and which has no clear market.

Potential Savings: Canceling the Mixed Oxide project would conservatively save taxpayers \$ 9.3 billion over 10 years.¹

Nuclear Production Tax Credit

The Energy Policy Act of 2005 created a production tax credit for the first eight ears of operation for new nuclear generation. Taxpayers have not yet been impacted by this credit because the industry has not been able to make the economics of a new reactor work. Still, when combined with other subsidies such as the Price-Anderson Act, and Stand By Support it is possible this provision could result in taxpayers subsidizing this dirty and dangers technology to the tune of billions of dollars.

Potential Savings: Eliminating the Nuclear Production Tax Credit could save taxpayers as much as \$ 4.8 billion over 10 years.¹

Special Treatment of Timber Gain

Taxpayers who hold standing timber for over a year are able to treat income from it as a capital gain, instead of ordinary income. This reduces their taxes and serves as a subsidy for logging.

Potential Savings: Eliminating Special Treatment of Timber Gain would save taxpayers \$4.4 billion over 10 years.¹

⁸ Seth Hanlon, "Big Oil's Misbegotten Tax Gusher", Center for American Progress, May 5, 2011.

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Amortization for Certain Pollution Control Facilities

Taxpayers can elect to amortize (instead of taking depreciation) the basis of any “certified pollution control facility” over a 60-month period. The provision allows polluters to avoid paying the full costs of controlling their pollution.

Potential Savings: Eliminating Amortization for Certain Pollution Control Facilities would save taxpayers \$3.4 billion over 10 years.¹

Expensing of Timber Growing Costs

Current law allows most of the production costs of growing timber to be expensed. This is a deviation from most industries where these costs would have to be capitalized and deducted when the product is sold. This accelerated cost recovery serves as an incentive for logging because it makes it more profitable.

Potential Savings: Eliminating Expensing of Timber Growing Costs would save taxpayers \$2.6 billion over 10 years.¹

Domestic Manufacturing Deduction for coal

Coal producers can claim a deduction for U.S. coal production under Section 199. This provision, enacted in 2004, applies to many industries and was intended to keep manufacturing in the U.S. The provision makes no sense for coal producers. Coal production decisions are based largely on the location of coal deposits. Coal producers must go where the resource is—something no tax incentive can change.

Potential Savings: Eliminating the Domestic Manufacturing Deduction for coal would save taxpayers \$2.3 billion over 10 years.¹

Amortization of Reforestation Expenses

Taxpayers may deduct \$10,000 in qualified reforestation costs incurred for each qualified timber property and then amortize expenses above that over 84 months. Expenditures that qualify are direct costs, such as preparation of the site, seedlings and labor and tools. Normal treatment would be to capitalize these expenses.

Potential Savings: Eliminating the Amortization of Reforestation Expenses would save taxpayers \$2.2 billion over 10 years.¹

Reauthorize the Special Assessment on Domestic Nuclear Utilities

Reauthorizing the special assessment on domestic nuclear utilities is needed to help cover the costs of the Enrichment Decontamination and Decommissioning Fund. The fund pays the decommissioning costs of plants in Tennessee, Ohio, and Kentucky and makes sure that polluters instead of taxpayers are held responsible for the costs of their pollution. Reauthorization is part of President Obama’s Budget for Fiscal Year 2013.

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***Potential Savings:* Reauthorizing the Special Assessment on Domestic Nuclear Utilities would save taxpayers \$2.2 billion over 10 years.¹**

Percentage Depletion Allowance for coal and other hard mineral fuels

This tax break allows coal companies to take a deduction based on how much coal they've extracted from existing mines. It potentially allows the deduction to exceed the capital investment in the original mine. In some cases, the depletion allowance can eliminate all federal taxes for these companies.

***Potential Savings:* Eliminating the Percentage Depletion Allowance for coal and other hard mineral fuels would save taxpayers \$1.3 billion over 10 years.¹**

Accelerated Depreciation for Nuclear Reactors

The tax code currently allows owners of a nuclear reactor to expense the reactor over 15 years even though new reactors are expected to run for 40 or even 60 years. This accelerated depreciation could save the industry billions of dollars per reactor over its life and shifts the cost of financing reactors from utilities onto taxpayers.

***Potential Savings:* Eliminating Accelerated Depreciation for nuclear reactors could save taxpayers \$1.2 billion over 10 years.¹**

Percentage Depletion Non-Fuel Minerals

Our tax code allows deductions for the depletion of mineral deposits that are not in keeping with the true economic depletion of the reserve. Percentage depletion deductions can exceed the original capital investment and results in taxpayers subsidizing mineral extraction.

***Potential Savings:* Eliminating Percentage Depletion for Non-Fuel Minerals would save taxpayers \$1 billion over 10 years.¹**

Geological and Geophysical Cost Amortization

This is another provision that allows oil and gas companies to deduct expenses at a quicker rate than other industries. Specifically, the tax code allows geological and geophysical expenditures incurred in connection with oil and gas exploration in the United States to be written off over two years for non-integrated oil and gas companies.⁹ These geological and geophysical expenses include the costs incurred for geologists, seismic surveys, and the drilling of core holes. Subsidies intended to encourage investors to finance oil projects are not needed at 2012 oil prices.

***Potential Savings:* Eliminating the Geological and Geophysical Cost Amortization would save taxpayers \$960 million over 10 years.¹**

⁹ Seth Hanlon, "Big Oil's Misbegotten Tax Gusher", Center for American Progress, May 5, 2011.

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Refinery Expensing

Section 179C allows refiners to immediately deduct 50 percent of qualified refinery costs in the year the refinery is placed in service. Like Section 617, it allows oil companies to expense their costs faster than other companies can for similar types of investments.

Potential Savings: Eliminating Expensing for Intangible Drilling Costs would save taxpayers \$800 million over 10 years.¹

Increasing Oil Spill Liability Trust Fund financing and including alternative oil

Currently an excise tax on crude oil is imposed to fund the Oil Spill Liability trust fund which helps pay for cleanup in case of a spill. Currently the fee does not apply to alternative fuels such as bitumen. In his Fiscal Year 2013 Budget President Obama has called for an increase of the tax and an expansion of the tax so that it includes alternative fuels like bitumen.

Potential Savings: Increasing the tax on the Oil Spill Liability Trust Fund and expanding the tax to include alternative oil would save taxpayers \$717 million over 10 years.¹

Capital Gains Treatment for Royalties from Coal

This provision allows coal companies to treat royalties from certain dispositions of coal held for more than one year before disposal as a capital gain, instead of ordinary income. This reduces their taxes and serves as a subsidy for mining coal.

Potential Savings: Eliminating Capital Gains Treatment for Royalties from Coal would save taxpayers \$ 612 million over 10 years.¹

Expensing of Exploration and Development for Minerals

Coal companies can expense exploration costs, as long as the expenses were incurred prior to the development stage of the mine. This allows them to deduct exploration costs in the year these costs were incurred rather than spreading those deductions out over a longer period of time.

Potential Savings: Eliminating Expensing of Exploration and Development for Minerals would save taxpayers \$279 million over 10 years.¹

Passive Loss Exemption for Working Interests in Oil and Gas Properties

Passive loss is an accounting term categorizing financial losses that incur through “passive activity” business transactions. “Passive activity” refers to a business transaction, in which someone earns a profit, but does not materially participate in the activity. Income from passive activity is treated differently from traditional income. Usually, one is prohibited from using passive losses to offset active income.¹⁰ The Passive Loss Exemption for Working Interests in Oil and Gas Property allows the deduction of passive losses against active income without limitation.

¹⁰ ROBERT PIROG, CONG. RESEARCH SERV., R42374, OIL & GAS INDUSTRY TAX ISSUES IN FY 2013 BUDGET PROPOSAL (2012)

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Potential Savings: Eliminating Passive Loss for oil and gas properties would save taxpayers \$ 86 million over 10 years.¹

Nascar Tax Giveaway

Motorsports racing track facilities, such as Nascar racetrack, are allowed to deduct the costs of their investment over seven years instead of over the life of a project, costing taxpayers millions of dollars each year. This giveaway was extended as part of the tax extenders package in January, 2012 and its costs will rise significantly if it continues to be extended.

Potential Savings: Eliminating the Nascar Tax Giveaway would save taxpayers \$78 million over 10 years.¹

Expensing of Tertiary Injectants

Oil and gas companies receive a full deduction for the cost of tertiary injectants, the fluids and gases pumped into wells as part of enhanced oil recovery, which increases the amount of oil a company can extract from a well.¹¹ If this provision was eliminated these costs would instead be capitalized.¹²

Potential Savings: Eliminating Expensing of Tertiary Injectants would save taxpayers \$ 55 million over 10 years.¹

¹¹ ROBERT PIROG, CONG. RESEARCH SERV., R42374, OIL & GAS INDUSTRY TAX ISSUES IN FY 2013 BUDGET PROPOSAL (2012)

¹² Joint Committee on Taxation, *Description of Revenue Provisions Contained in the President's Fiscal Year 2013 Budget Proposal*, June 2012.

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FARM BILL CONSERVATION/EDUCATION PROGRAMS

AGRICULTURE CONSERVATION PROGRAMS

Natural Resources Conservation Service and Farm Service Agency

At a time when the pressure on the landscape for food, fuel, and fiber is at an all-time high, farm bill conservation programs, which provide quantifiable benefits to soil, water, and wildlife, are needed now more than ever. These voluntary, incentive-based programs have been the driving force behind recent landscape-scale progress on many national conservation priorities, from greater sage-grouse recovery, to Chesapeake Bay water quality, to restoration of the longleaf pine ecosystem. These programs are an essential foundation to many of our nation's public-private conservation partnerships.

Farm bill conservation programs are administered by two USDA agencies. The Natural Resources Conservation Service (NRCS), the technical conservation agency of the Department of Agriculture, oversees a number of voluntary conservation programs. These programs include: the Environmental Quality Incentives Program (EQIP), which helps farmers and ranchers address environmental issues on their operations and meet environmental regulations; the Wildlife Habitat Incentives program (WHIP), which supports landowners efforts to create and improve wildlife habitat; the Farm and Ranch Lands Protection Program (FRPP), which helps local nonprofits perpetually conserve working lands, ensuring these other investments in conservation aren't paved over by unplanned development a few years later; and the Grassland and Wetlands Reserve Programs (GRP and WRP), which enable participants to conserve and restore grasslands or wetlands through long-term or permanent easements.

The Farm Service Agency (FSA) administers the Conservation Reserve Program (CRP), which provides farmers with incentives to take highly erodible and other environmentally sensitive lands out of production and plant grasses or trees. FSA also administers the Voluntary Public Access and Habitat Incentives Program (VPA-HIP), a state agency block grant program that offers private landowners incentives to open their land to hunting, fishing, and wildlife dependent recreation and to improve habitat.

The Food, Conservation, and Energy Act of 2008 – currently under extension through September 30, 2013 – provided mandatory funding for these important conservation programs. For FY14, this funding is threatened in three ways: through automatic sequestration, through the ability of Congress to authorize a new five year farm bill, and through the yearly appropriations process.

Potential Budget/Sequestration Impacts:

- Each fiscal year since its enactment, appropriators have capped mandatory spending for important farm bill conservation programs at levels below those set in the 2008 Farm Bill and used the savings for other areas. Since 2008, these cuts have reduced the overall funding for conservation programs by over \$3 billion, leading to farmers who are unable to enroll new land in conservation programs despite overwhelming demand.
- Because the extended farm bill expires in September 2013, important farm bill conservation programs will not receive any funding moving forward unless Congress reauthorizes or extends the farm bill. However, even if Congress extends the previous farm bill again, programs such as the Grassland Reserve Program and the Wetlands Reserve Program will run out of money without a full five year reauthorization.

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FARM BILL CONSERVATION/EDUCATION PROGRAMS

Potential Budget/Sequestration Impacts (cont.):

- Implementing the sequester mid-way through the fiscal year would have major impacts on the ability of USDA to fund conservation programs, which would lead to further reduced acreage in conservation programs that are a win-win for farmers and the environment.
- The Voluntary Public Access Habitat Incentive Program was zeroed out in FY 12 and can only be fully restored through a Farm Bill reauthorization. In 2011 alone, this program produced an estimated 99% economic return on taxpayer investment. This continued uncertainty is a lost

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FARM BILL CONSERVATION/EDUCATION PROGRAMS

AGRICULTURE EDUCATION PROGRAMS

Access to Local Foods and School Gardens

The Child Nutrition and WIC Reauthorization Act (PL 108-625, Title I, Section 122) authorizes a grant program for schools to receive grants of up to \$100,000 to cover start-up costs for a farm to cafeteria project. These competitive, one-time grants will allow schools to purchase adequate equipment to store and prepare fresh foods, develop vendor relationships with nearby farmers, plan seasonal menus and promotional materials, start a school garden, and develop hands-on nutrition education, demonstrating the importance of nutrition and agriculture. Use of local produce in school meals and educational activities provides a new direct market for farmers in the area and mitigates environmental impacts of transporting food long distances. At the same time, the program helps children understand where their food comes from and how their food choices impact their bodies, the environment and their communities at large.

Sustainable Agriculture Research and Education

The Sustainable Agriculture Research and Education (SARE) program (authorized in USC Title 7, Chapter 88, Subchapter I) is the flagship research and education program for sustainable agriculture administered by the USDA Cooperative State Research, Education, and Extension Service. SARE is a competitive grant program providing grants to researchers, agricultural educators, farmers, ranchers, and students in the United States. Education grants range from \$30,000 to \$150,000 and fund projects that usually involve scientists, producers, and others in an interdisciplinary approach. SARE's strength is based on unique features of cost-effective and equitable regional administration, combined with strong farmer participation, practical, outcome-oriented research results, and top-rated public outreach.

SARE's Professional Development Program (PDP) grants provide information and training on sustainable systems to a wide array of USDA personnel, extension agents, and others who provide technical assistance to farmers and ranchers. PDP provides sustainable agriculture education and outreach strategies for Cooperative Extension agents, Natural Resources Conservation Service staff, and other agricultural educators who work directly with farmers and ranchers. PDP funds have been used for both state-specific planning and competitive grants for learning opportunities

Potential Budget/Sequestration Impacts:

- If sequestration occurs the SARE program which exists within the Research and Activities Education accounts could see a cut of \$58M. This cut would drastically affect SARE's ability to issue grants.
- The Access to Local Foods program which exists within WIC could be wiped out completely if WIC receives a potential cut \$543M under sequestration.

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FOREST AND RANGELAND RESEARCH

U.S. Department of Agriculture Forest Service Forest and Rangeland Research (FS R&D), comprised of five regional stations, as well as dozens of other local sites, provides land managers and policymakers with relevant information and tools to support sustainable management of National Forest System lands as well as non-federal forestlands. The work of FS R&D reaches far beyond the National Forest System, providing contract work for other interested agencies and a platform for research within the academic community.

FS R&D conducts research in targeted strategic program areas such as wildlife and fish research, forest inventory and analysis (FIA), and wildland fire, among others. These individual research areas are integrated with emerging research areas that cut across the programs' work, such as climate change, watershed management, and biomass energy. By strategically directing focused research into these critical issue areas, we can ensure that research information will be directly applied to solving pressing management challenges. For example, targeted investigations into wildland fire and biomass energy support the development of management actions to restore fire dependent forests while providing economic benefits from energy development to local communities.

Potential Budget/Sequestration Impacts:

- Ending or hampering crucial projects that support science-based fish and wildlife management under the *Wildlife and Fish Research and Development* strategic program area, such as developing methods to stop the spread of the deadly white nose syndrome (WNS) that has killed up to 6.7 million bats and to find a cure; developing GIS models to identify places where wildlife crossing structures can help promote both human and wildlife highway safety; and developing information to support restoration of the California Golden Trout, which is at risk from introduced exotic trout, degraded habitat, and warming of streams.
- Ending or hampering crucial projects in the *Climate Change* Emerging Research Area that provide forest managers with the tools to adapt to and mitigate the impacts of climate change, such as using projected climate-change data to map climate-induced shifts in habitat location, extent, and quality to predict species distributions and range shifts and exploring the effects of climate change on unique ecosystems such as Hawaii and the Copper River Delta in Alaska.
- Ending or hampering crucial projects in the *Water Management and Restoration* Emerging Research Area that produces applied information to protect and restore watersheds, such as the development of watershed management practices that will play a vital role in protecting the quantity and quality of water coming out of our national forest watersheds--water used by 66 million Americans.
- Severely impacting work of the FS R&D *Experimental Forests within the National Forest System* that serve as real world laboratories and that have been providing new research and information for 50 years. These experimental forests are not just used by the Forest Service, but the entire scientific community. For example, there have been 5,000 scientific publications produced using research from just one experimental forest. The experimental forests are a social and economic benefit to surrounding communities all across the country, drawing in researchers and academics.

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STATE AND PRIVATE FORESTRY

Forest Legacy

The Forest Service's Forest Legacy Program (FLP), authorized in the 1990 Farm Bill, provides matching funds to assist states in conserving working forests-- those forests that provide an array of environmental services and products. FLP supports timber sector jobs and sustainable forest operations while ensuring permanent protection of air and water quality, wildlife habitat, access for recreation and other public benefits provided by forests. Since its inception, the Forest Legacy Program has provided nearly \$550 million in matching funds to 43 states and territories for the conservation of over 2.2 million acres of forests valued at over \$1.2 billion. This is a strategic partnership program that supports federal, state, and local priorities. About 89% of all FLP-funded acres are adjacent to other protected lands (federal/state/local/private), and approximately 150,000 acres of waterbodies and 2,500 stream miles have been protected through FLP. The program's federal-nonfederal leveraging ratio exceeds the program's required 75% federal-25% nonfederal match and shows the tremendous support for the program in communities in almost every state in the nation.

Currently, 50 states and territories are active in the program, with four more in the planning stages. The Forest Legacy Program has been cut almost 30% from FY 10 levels, yet demand remains high. In FY 13, over \$168 million in FLP funding was requested for 67 projects totaling over 253,000 acres with an estimated value of over \$328 million. At FY 13 proposed levels, less than a third of this need can be met, leaving thousands of acres of valuable working forest lands at risk of development and fragmentation. Research by the USFS has projected that, due to increased populations and expanding urban center demands on our forests, between 44 and 57 million acres of private forests are likely to see increased conversion pressure over the next three decades. With ownership of large forested properties changing hands frequently, a concerted effort to keep forests intact is needed and the Forest Legacy Program is the nation's premier program dedicated to that end.

Potential Budget/Sequestration Impacts:

- Low funding levels for the Forest Legacy Program will significantly reduce the ability of states and local communities across the country to protect thousands of acres of valuable private forests, ensuring permanent loss of those lands to subdivision and fragmentation and inhibiting public access to recreation, water quality protection, and wildlife habitat protection.
- Reduced levels of funding undermine this important working forest program and its role in supporting rural jobs and local economies.
- Many working forest landowners have applied for Forest Legacy Program funds and have ready-to-go projects. Funding cuts will force private forest landowners to seek other non-conservation solutions that address their fiduciary, family, and other financial needs, ensuring the loss of these lands forever.

Community Forest and Open Space

The Forest Service's Community Forest Program (CFP), authorized in the 2008 Farm Bill, provides matching funds to assist local governments, tribes, and non-profit organizations such as land trusts to purchase forestland for local ownership and management. The program helps meet local needs for timber supplies and other forest products, public access for recreation, water supply protection, habitat, and more. In 2012 using a combination of FY12 and prior year

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funding, the Forest Service awarded a first round of grants totaling \$3.5 million to 10 community and tribal forest projects across the country. These 10 projects offered a collective match of \$8.5 million for federal dollars. This high degree of leverage highlights the value of this program for engaging local communities in conservation and management of their local forests and catalyzing local resources for conservation.

In FY12 the Forest Service received 49 applications totaling \$14.5 million in requested Community Forest Program funds. At FY13 proposed levels, less than a third of this need can be met, leaving thousands of acres of potential local acquisitions at risk of development and fragmentation. It is important that FY14 levels begin to catch up with the rapidly building demand nationwide. These proposed community forest acquisitions, often located close to town centers, are especially important for their potential to connect young people with our forests and to promote youth outdoor recreation and public health. Community forests can also offer forest stewardship opportunities for young people and adults alike, providing demonstration sites for model forest management.

Potential Budget/Sequestration Impacts:

- Low FY14 funding levels for the Community Forest Program would significantly reduce the ability of local communities, tribes, and non-profits across the country to conserve thousands of acres of forests and would create lost opportunities for local engagement with forest stewardship and outdoor recreation.
- This relatively new program has struggled to balance strong national interest with its relatively low levels of funding. Further reduction in funding in FY14 could diminish interest from potential applicants over the near and long term.
- Some communities, tribes, and non-profits that applied for Community Forest Program funds in FY12 have extended their agreements with landowners to try to retain the opportunity to move forward. A reduction in FY14 funding relative to previous levels would likely lead to the permanent loss of several ready-to-go and highly attractive projects.

Urban and Community Forestry

The Urban and Community Forestry (U&CF) program provides assistance to promote the stewardship of urban and community trees and forest resources. This program is critical in providing technical and financial assistance to promote stewardship of urban forests in communities of all sizes across the country. The U&CF program assists cities, suburbs, and towns across the country to improve the condition and coverage of their community trees and forests. Sound, pro-active management of these assets secures the greatest economic, social, and environmental benefits for 80% of the nation's population.¹

Urban forests are integral to any community striving to reinvest in itself, to encourage an active and healthy citizenry, and to create a more sustainable environment and economy with green infrastructure. The U&CF program is vital for protecting and restoring important urban and community landscapes and for connecting people to the natural landscapes in which they live. In

¹ <http://www.fs.fed.us/publications/budget-2011/fy-2011-usfs-budget-justification.pdf>
USDA Forest Service Fiscal Year 2013 President's Budget Justification. Last accessed February 21, 2012 at <http://www.fs.fed.us/aboutus/budget/2013/fy2013-justification.pdf>.

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addition, this program is becoming increasingly important as urban areas are expected to increase over the next 50 years and as climate change affects forest conditions.

Potential Budget/Sequestration Impacts:

- Past investment in this program has resulted in a greater than 1:1 ratio of leveraged funding in the local communities that received small grants to improve their urban forests. Without these federal funds, outside sources are less likely to invest.
- In FY 11, The U&CF program delivered technical, financial, educational, and research assistance to over 7,000 communities in all 50 states, the District of Columbia, U.S. territories, and affiliated Pacific Island nations.² Reductions to the program will limit the ability to help thousands of communities and towns to manage, maintain, and improve their tree cover and green spaces.
- This reluctance to invest will result in the decline of our urban forests, the benefits of which have reduced homeowners' electricity costs, mitigated stormwater runoff, and increased community wellbeing.

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US FOREST SERVICE OFFICE OF INTERNATIONAL PROGRAMS

Many countries around the world are struggling to manage their forests and protected areas effectively while balancing economic and environmental interests. These natural resource management challenges often transcend national boundaries. The health of the world's forests has broad implications for the global community, with implications for food security, water security, environmental conflict, trade, livelihoods, and international development.

Through its International Programs (FSIP), the U.S. Forest Service works around the globe to improve forest and protected area management and build cooperation with international counterparts. The Forest Service is uniquely positioned to promote international forest conservation by drawing on the agency's diverse workforce of scientists, resource managers, international specialists, conservation biologists, and other experts. In addition, the USFS/IP responds to natural disasters and humanitarian crises and provides technical assistance on such topics as protected area management, forest legality, disaster response, migratory species conservation, landscape level planning, wildfire management, reduced impact logging, and forest certification. Through cooperation and information exchange, these programs also empower Forest Service personnel to deal more effectively with some of our most pressing national environmental challenges, such as combating invasive species, conserving habitats for migratory species, and encouraging legality in timber trade to level the playing field for the American wood products industry. In addition, FSIP works closely with the Department of State and the United States Agency for International Development (USAID) to advance U.S. interests abroad while assisting other countries with their most pressing humanitarian and environmental challenges.²

Funding cuts to these investments would severely threaten existing commitments and conservation outcomes.

Potential Budget/Sequestration Impacts:

- Compromising FSIP's ability to sustain a partnership with USAID that has supported Lebanese organizations in the forestry sector through the Lebanon Reforestation Initiative (LRI), a national reforestation program that provides technical assistance on sustainable forestry practices and wildfire control in economically depressed and environmentally degraded regions of Lebanon. This partnership, like many others, allows FSIP to export its technical expertise all around the world in advanced forestry management techniques and biodiversity conservation.
- Compromising protection of the only known wintering population of the Kirtland's Warbler on Eleuthera Island in the Bahamas. This endangered species has more than 90% of its population breeding in Michigan and more than a third of that population breeding on U.S. Forest Service land. Cuts to the program would end FSIP's continued implementation of 1) habitat management demonstrations for the benefit of the bird, 2) cost-effective practical management strategies, 3) training Bahamians in warbler habitat management, 4) focal points for public education, 5) generating interest by Bahamians to create KW habitats.

² <http://www.fs.fed.us/global> and <http://www.fs.fed.us/international>

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Potential Budget/Sequestration Impacts (cont.):

- Ending FSIP's success over the past three years to develop and implement a multi-faceted fire-fighting and prevention project in Slavyanka Municipality, a 460 km² area of the Russian Far East, working in close collaboration with the municipal government, which, in 2010 and 2011, led local fire brigades to put out 145 fires with innovative fire-fighting techniques such as high-elevation outposts, has allowed us to dramatically reduce response time and apprehend several arsonists red-handed. Thanks to FSIP, this project has succeeded in reducing the area burnt by an estimated 83% in 2010 and 99% in 2011, compared to what would have burned without interventions. Funding cuts could reverse this trend.

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NATIONAL FOREST SYSTEM

Integrated Resource Restoration (IRR)

The Integrated Resource Restoration (IRR) budget line item was created in the FY12 budget as a 3-year pilot to test whether combining a number of restoration-related separate line items (such as Vegetation & Watersheds Management, Wildlife & Fisheries Habitat Management, Forest Products, Legacy Roads & Trails, and Hazardous Fuels) into one line item would facilitate restoration on the National Forests and Grasslands. The IRR pilot was established in three regions—Regions 1, 3, and 4—at a total authorized funding level of \$146.6 million.

We support the 3-region test pilot of IRR and recommend that it be continued in the same regions at the same or similar funding levels. Taking the time to understand the outcomes of the pilot project and to adjust budgeting and guidance as necessary will be critical to the IRR test pilot's success. We do not recommend that the program be expanded until the test regions have had several years to prove that IRR does, in fact, lead to efficiencies while creating improved restoration outcomes without a loss of program transparency and accountability.

Watershed Condition Framework and Watershed Restoration Action Plans

The Forest Service has made significant strides in implementing the Watershed Condition Framework (WCF). After two years of implementation, the Forest Service has completed a national assessment of watershed conditions, identified priority watersheds in each National Forest and Grassland, and developed Watershed Restoration Action Plans for the 284 priority watersheds. The Watershed Restoration Action Plans (WRAPs) outline a suite of restoration projects that, when completed, will improve the watershed health in our most valuable and sensitive watersheds. Fully implementing WRAPs will greatly benefit drinking water supplies and fish habitat in more than 40 states.

The Forest Service needs funding to take the crucial next step in the WCF process: implementing the WRAPs. Despite the absence of a dedicated program, WRAP implementation should not go unfunded. In IRR pilot regions, we recommend that WRAP implementation be the top priority for IRR funds. In other regions, we recommend that projects identified in the WRAP be prioritized for funding from the full spectrum of available budget line items.

Potential Budget/Sequestration Impacts:

- Failure to fund and continue the IRR pilot in the same regions with the same or similar funding levels will defeat the purpose of the pilot and remove the opportunity to evaluate whether a different funding approach facilitates restoration and achieves efficiencies.
- Failure to fund WRAP implementation will thwart important restoration projects designed to improve fish habitat and aquatic conditions.

Land Management Planning and Inventory and Monitoring

Every value provided by America's national forests—including the provision of wildlife habitat, abundant and clean water, and high quality recreation experiences—is dependent on adequate and consistent funding for forest planning activities that form the basis of adaptive management. Together, the Land Management Planning and Inventory and Monitoring programs allow the Forest Service to rapidly identify and respond to today's forest management

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challenges, including those driven by changes in climate, such as uncharacteristic fires and floods that pose safety risks to people and communities.

The 2012 National Forest Management Act (NFMA) Planning Rule provides a framework for the timely revision of outdated Land and Resource Management Plans (forest plans). Revised forest plans will identify key threats to forests and guide strategic responses to emerging management challenges while providing multiple services and benefits to the nation and local communities. Failure to keep the Forest Service on schedule for plan revisions (according to the Forest Service, more than 30 forest plans are overdue for revision, and many plans are over 20 years old) will force the agency to meet today's forest and land management challenges with yesterday's tools, with deleterious impacts for forests and people.

The Forest Service Inventory and Monitoring program funds the collection of targeted information that forms the basis for the revision of outdated forest plans. Assessments under the 2012 Planning Rule rapidly pull together information on the most current social, economic, and ecological conditions to develop forest plans that are responsive to the most pressing management challenges. The program also funds forest plan monitoring activities to ensure that plans are meeting goals and to facilitate adaptive management and course corrections if necessary.

Potential Budget/Sequestration Impacts:

- A freeze in forest plan revisions will force the agency to meet today's challenges with yesterday's tools and result in failure to adequately address key challenges to our national forests, such as water pollution and changing water flows and supplies. Pivotal forest plans in California, New Mexico, Alaska, and Idaho would be put on hold.
- Today's forest management challenges require big-picture and strategic forest plans that address issues from an "all-lands" perspective. Reliance on outdated forest plans leads to inefficient and piecemealed project-by-project management that fails to make substantial progress in fixing the underlying social and ecological problems on national forests. This means fewer restored watersheds, less resilient forests, and more risks to water quality and quantity, wildlife, and recreation.
- Effective forest management relies on periodic data collection to inform adaptive management. Cuts to the Inventory and Monitoring program undermine the ability of the Forest Service to nimbly identify and address management challenges and needs and can result in management direction that is not in the public's best interest.

Recreation & Wilderness Programs

Recreation is the most popular use of our forest lands, generating 166 million visits to our national forests every year.³ Recreational visitors generate significant economic benefits for local communities, accounting for more than half of all job and income effects attributable to Forest Service programs (over 200,000 jobs and \$12 billion in direct spending by visitors).⁴

³ U.S. Forest Service National Visitor Use Monitoring FY2011 National Summary Report, <http://www.fs.fed.us/recreation/programs/nvum/nvum_national_summary_fy2009.pdf>.

⁴ *Id.*

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The Forest Service's Recreation and Wilderness programs are tasked with ensuring quality recreational opportunities for these visitors, while also ensuring that the ecological integrity of the forests and grasslands is maintained. This requires science-based planning, vigilant management and monitoring, development of partnerships with recreation groups and communities, and integration of resource management, engineering, and recreation program staff.

A long-term downward trend in funding, aging recreation infrastructure, and increased recreation demands from rapid population growth in areas near national forests⁵ has put an enormous strain on the Recreation and Wilderness programs. In order to stretch limited dollars in the face of growing needs, these programs have grown increasingly reliant on partnerships to accomplish their work. While this leverages federal funds and expands community outreach, this multiplier effect also makes the program more vulnerable to budget cuts, because every federal dollar from this program means the loss of many more dollars in non-federal resources, resulting in adverse effects far beyond what the amount cut from the federal budget might suggest.

Potential Budget/Sequestration Impacts:

- The Recreation program consistently benefits from the highest number of volunteers within the agency. In FY10, approximately 89,000 volunteers contributed 4,235,000 hours equivalent to 1,933 employees valued at \$88 million. Nearly half of these volunteers were youth or young adults engaged through the Youth Conservation Corps or partner nonprofit organizations that perform tasks like trail maintenance and reconstruction. Significant budget cuts will eliminate the agency staffing needed to coordinate and manage these volunteer resources. It will also make it difficult for the agency to meet the Chief's 10-year Wilderness Stewardship Challenge of achieving a minimum stewardship level for 90% of Wilderness areas by 2014.
- By FY14, nearly all of the forests will have off-road vehicle travel plans that identify the system of roads and trails that are open for motorized use, and visitors will be expected to stay on the designated system. However, cuts to the Recreation program would jeopardize national forests' ability to manage this system by installing signs and providing education and maps to help visitors understand the new route system. This would result in confusion for visitors, less enforcement by the Forest Service, increased user conflict, and environmental damage
- In a recent estimate, the Forest Service projected that, with funding reduced below FY12 levels, the Recreation program would be unable to manage more than half of its recreational special use permits to standard. Special use permits enable 5,000 outfitter-guides and 122 ski areas to operate on forest lands and provide the public with a broad range of recreational opportunities. These permit holders provide jobs and generate tourism spending that stimulates the economy in nearby communities. Funding cuts will freeze the permit program in place, limiting the potential for economic growth.

⁵ Counties containing at least 10 percent National Forest lands are growing in population at a faster rate than most other counties in the U.S., largely because of recreational and other amenities. Johnson, K.M.; Stewart, S.I. 2007. Demographic Trends in National Forest, Recreational, Retirement, and Amenity Areas. Proceedings: National Workshop on Recreation Research and Management p. 187-199 in Kruger, L. E.; Mazza, R.; Lawrence, K.; (eds). Proceedings: National Workshop on Recreation Research and Management, Gen Tech. Rep. PNW-GTR-698, Pacific Northwest Research Station, Portland, OR.

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Heritage Program

Forest Service lands contain an estimated 2 million cultural resource sites, including 27 National Historic Landmarks, and 325,000 identified cultural resource sites. Among these many sites are sacred sites, historic lookout towers, Civilian Conservation Corps (CCC) camps, Native American archeological sites, and Revolutionary and Civil War battlefields. In the last year, the Forest Service has had some exciting changes, including the establishment of its first National Monument designated primarily for its cultural resources at Chimney Rock, Colorado, and updating internal performance measures. Known as America's Stonehenge, Chimney Rock is of great spiritual significance to the Southwest Pueblos and Tribes. According to the 2012 study by BBC Research and Consulting, "Economic Impacts of National Monument Designation," the designation will conservatively double the visitation to the site and the economic value to local communities.

The updated performance measures moves from tracking specific asset management to the management of the entire Heritage Program, providing seven new indicators to facilitate more precise tracking of all cultural assets managed by the program. As the implementation of these new standards is put into practice, we request the Forest Service develop an assessment of needs to bring each of these assets to standard. For the assets that are not being managed to standard, we need better clarity to understand the resources necessary to bring them to standard. Partnerships with non-profit and other partners who can help with the preservation of these assets are more important as federal budgets are stretched further each year. Without a baseline understanding of the shortfalls to bring the Forest System's Heritage Assets to standard, partnerships at the local and national level are difficult to evaluate. An important step towards understanding the need is accurate reporting of accomplishments and expenditures at the regional and National Forest levels. An annual reporting within 6 to 12 months of the end of the fiscal year of the allocations, expenditures, and accomplishments will help provide information about the need at the Regional and National Forest levels, where nonprofit and other partners might meaningfully engage to work with federal managers for the benefit of these irreplaceable resources. It would also accurately and fairly provide meaningful evaluation of the federal manager's ability to manage these resources.

Potential Budget/Sequestration Impacts:

- Additional reductions over the FY13 enacted budget would reduce the Heritage Program's ability to develop a new management plan for the recently established Chimney Rock National Monument, which will impact the ability of the public to visit the site and provide economic benefits to Southwestern Colorado.
- Fewer programs will be available to manage programs for volunteers who perform nearly 94,000 hours of volunteer service to help survey, monitor, and restore America's irreplaceable history and culture.
- Fewer law enforcement and cultural resource specialists would be available to protect, monitor, and in some cases investigate criminal activities like looting and vandalism at historic sites, such as a historic fort used in the removal of the Cherokee and Creek Tribes on the Trail of Tears and historic plane crash sites.

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Wildlife and Fisheries Habitat Management

National forests and grasslands play an essential role in the conservation of our nation's wildlife and habitat. More than 420 animals and plants listed under the Endangered Species Act and an additional 3,250 at-risk plants and animals are found on Forest Service lands. These lands encompass an amazing array of habitats, from alpine tundra to tropical rainforest, deciduous and evergreen forests, native grasslands, wetlands and various size streams, lakes, and marshes. National forests often contain significant headwaters and stream reaches important to freshwater creatures like fish, mussels, and crayfish, a higher percentage of which are considered at-risk than other species.

Fish and wildlife on our National Forests are important to people and economies all across the nation. A 2011 report developed for the National Fish and Wildlife Foundation estimates 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. The Forest Service Wildlife and Fisheries Habitat Management program works with partners to inventory and monitor, manage, and restore habitat on national forests and grasslands for wildlife and fish, including threatened and endangered species, and to provide wildlife viewing and educational opportunities.

Despite the broad array of fish and wildlife and habitat on Forest Service lands that require stewardship efforts and restoration, the budget for the Wildlife and Fisheries Habitat Management program has substantially eroded and currently is about 15% below the 2001 inflation-adjusted level with accompanying declines in botanists and fisheries and wildlife biologists. As biologists retire, erosion of funding results in regions not filling positions, consolidating them, or maintaining them only at the regional office rather than at the forest level, which significantly hinders active programs at the forest level. Further loss of funding would severely hinder fish and wildlife conservation work on these lands.

Potential Budget/Sequestration Impacts:

- Funding cuts would impact many of the larger 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 these lands form the backbone of many large-scale conservation plans.
- Cuts would severely diminish the Forest Service's ability to foster conservation partnerships. Partnerships enable the agency to leverage habitat improvements on an additional 200,000 acres of National Forest lands. The agency also partners in innovative efforts that help both communities and wildlife. In just one example, the agency is using the local Job Corps in Montana to install bear-safe garbage containers, keeping bears in forests and out of communities.
- Cuts also would impact numerous projects for an array of other forest wildlife species, such as work to cure a disease that is currently decimating prairie dog populations, crucial for their role as prey for the severely endangered black-footed ferret; installation of escape ramps in livestock water troughs to help lizards, snakes, birds, and bats avoid drowning and to maintain quality water for livestock operations; work on the Tongass National Forest in Alaska to restore old growth conditions at a faster pace, key for rare and unique species like the Alexander

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Potential Budget/Sequestration Impacts (cont.):

Archipelago wolf and the Queen Charlotte Goshawk; and restoration of habitat for the endangered Florida scrub jay in the Ocala National Forest in Florida.

- Significant decreases in funding would be devastating for fish and other freshwater species. For example, the South Fork Skokomish River on the Olympic National Forest in Washington is in a watershed that has been extensively logged. Restoration efforts have begun and in 2010 alone, the Forest Service was able to decommission almost 30 miles of road and restore 132 acres of the watershed. These efforts created approximately 60 jobs and resulted in better habitat for species like salmon and steelhead, bull trout, Hood Canal chum and the listed Puget Sound Chinook. Additional restoration work is needed and in jeopardy if the Forest Service receives significant funding cuts.
- Further cuts would also put at risk crucial nature education and recreation services to the public, such as providing hunting, fishing and viewing opportunities, interpretive information, and work to increase awareness of the importance of America's wildlife heritage. For example, every year, one of the most popular programs is participation in International Migratory Bird Day, hosted annually by over 38 National Forests. In 2011, National Forests hosted more than 520 presentations that were experienced by more than 20,000 people.

Collaborative Forest Landscape Restoration Program

The Collaborative Forest Landscape Restoration Program (CFLRP)⁶ encourages the collaborative and science-based ecosystem restoration of priority forest landscapes while benefiting local communities. CFLRP is unique among government programs in that it was established specifically to promote job stability, reliable wood supply, and forest health, and to reduce emergency wildfire costs and risks. The ultimate goal of CFLRP is to collaboratively achieve improved forest benefits for people, water, and wildlife in a way that can be shared across the Forest Service's 193 million acres, and beyond.

Cuts to this program will have drastic impacts to the 23 forest landscapes enrolled in the program, which have cumulatively⁷:

- Created and maintained an estimated 3,375 part and full time jobs during 2011 and 4,574 part- and full-time jobs during FY12
- Sold 94.1 million cubic feet of timber and produced 1,158,000 green tons of biomass.
- Provided an additional \$45.4 million of partner and Forest Service investment to leverage federal CFLR and matching dollars
- Generated nearly \$320 million of labor income
- Removed fuel for destructive wildland fires on 383,000 acres near communities
- Reduced destructive wildland fires on an additional 229,000 acres
- Improved 537,000 acres of wildlife habitat
- Restored 394 miles of fish habitat
- Enhanced clean water supplies by remediating and decommissioning 6,000 miles of eroding roads

These results could not have been achieved without the full funding of this program.

⁶ Established through the Forest Landscape Restoration Act or FLRA, title IV of Public Law 111-11

⁷ People Restoring America's Forests: 2012 Report on the Collaborative Forest Landscape Restoration Program, December 2012

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Potential Budget/Sequestration Impacts:

- Inadequate funding could result in fewer jobs created and maintained, less generated labor income, and fewer cubic feet of timber produced.
- This program leverages matching dollars for these landscapes as a requirement for enrollment. Less investment from the federal government has a greater than one-to-one impact on those matching funds.
- As destructive wildland fires increase in number and intensity, communities that would have benefited from the fuel reduction efforts of these projects will be placed at a higher risk from these fires and recovery will be more costly.

The Tongass National Forest: America's Salmon Forest

Alaska's Tongass National Forest contains a large portion of the world's last remaining old-growth temperate rainforest. With brown bear, wolves, mountain goats, Sitka black-tailed deer, Bald Eagle, and other wildlife, the Tongass is a major visitor destination. Tourism and recreation accounts for about 15% of regional employment. The salmon fisheries of southeast Alaska provide an economic cornerstone for the region, contributing nearly \$1 billion/year and accounting for approximately 11% of employment. Many residents of Southeast Alaska depend upon the fish and game provided by the Tongass to meet their annual subsistence harvest needs.

By contrast, old-growth logging in the Tongass has had significant adverse impacts on fish and wildlife habitat, damaged important salmon-producing watersheds, and cost taxpayers more than \$850 million dollars. The Tongass timber program continues to lose money, costing U.S. taxpayers approximately \$22 million/year while supporting only 107 jobs in the region. In 2010, the Obama Administration initiated the "Tongass Transition" to move rapidly away from unsustainable old-growth logging to sustainable second-growth harvest while protecting roadless areas and investing in watershed restoration to rehabilitate riparian areas damaged by past logging.

By reallocating funds within the Forest Service budget to invest in on-the-ground watershed restoration projects and putting in place new targets for the Tongass to promote restoration and sustainable young-growth management, the Forest Service can move past "boom-and-bust" old-growth dependent logging. The USFS-published *Tongass Investment Strategy* reports that more than \$100 million is needed for watershed restoration work to correct "major problems affecting wild salmon production on the Tongass"⁸ along with investments to support and expand the visitor services sector. Moving beyond Tongass old-growth logging will also help avoid conflicts with other vital parts of the southeast Alaska economy: fishing, tourism, recreation and, subsistence.

⁸ USDA Investment Strategy in Support of Rural Communities in Southeast Alaska 2011-2013 (November 2011). See: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5339075.pdf

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Recommendations for the Tongass National Forest Budget:

- Watershed Restoration and Visitor Services: Funds within the Tongass timber program should be reallocated to watershed restoration and visitor services. This will enable the Forest Service to invest in the important initiatives it has identified to create quality jobs and sustainable economic opportunity in Southeast Alaska.
- Maintain Conservation Funding: In addition to the reallocation of timber funds, the Forest Service should maintain or increase funding in the existing budget lines for restoration of forest lands, road removal, wildlife and fisheries habitat management, and vegetation and watershed management.
- Refocus Timber Budget to Support Young-growth Management: The budget should establish new timber targets and re-focus the remaining timber program budget to emphasize projects that support sustainable young-growth management and collaborative community forestry projects.

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CONSERVATION EDUCATION

Access to Local Foods and School Gardens

The Child Nutrition and WIC Reauthorization Act (PL 108-625, Title I, Section 122) authorizes a grant program for schools to receive grants of up to \$100,000 to cover start-up costs for a farm to cafeteria project. These competitive, one-time grants will allow schools to purchase adequate equipment to store and prepare fresh foods, develop vendor relationships with nearby farmers, plan seasonal menus and promotional materials, start a school garden, and develop hands-on nutrition education demonstrating the importance of nutrition and agriculture. Use of local produce in school meals and educational activities provides a new direct market for farmers in the area and mitigates environmental impacts of transporting food long distances. At the same time, the program helps children understand where their food comes from and how their food choices impact their bodies, the environment, and their communities at large.

Sustainable Agriculture Research and Education

The Sustainable Agriculture Research and Education (SARE) program (authorized in USC Title 7, Chapter 88, Subchapter I) is the flagship research and education program for sustainable agriculture administered by the U.S. Department of Agriculture's (USDA) Cooperative State Research, Education, and Extension Service. SARE is a competitive grant program providing grants to researchers, agricultural educators, farmers, ranchers, and students in the United States. Education grants range from \$30,000 to \$150,000 and fund projects that usually involve scientists, producers, and others in an interdisciplinary approach. SARE's strength is based on unique features of cost-effective and equitable regional administration, combined with strong farmer participation, practical, outcome-oriented research results, and top-rated public outreach.

SARE's Professional Development Program (PDP) grants provide information and training on sustainable systems to a wide array of USDA personnel, extension agents, and others who provide technical assistance to farmers and ranchers. PDP provides sustainable agriculture education and outreach strategies for Cooperative Extension agents, Natural Resources Conservation Service staff, and other agricultural educators who work directly with farmers and ranchers. PDP funds have been used for both state-specific planning and competitive grants for learning opportunities

Potential Budget/Sequestration Impacts:

- If sequestration occurs the SARE program which exists within the Research and Activities Education accounts could see a cut of \$58M. This cut would drastically affect SARE's ability to issue grants.
- The Access to Local Foods program which exists within WIC could be wiped out completely if WIC receives a potential cut \$543M under sequestration.

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CAPITAL IMPROVEMENT AND MAINTENANCE

The Forest Service manages approximately 375,000 miles of system roads and 47,000 miles of motorized trails, and it has an estimated 60,000 additional miles of illegally created unauthorized routes (often created by off-road vehicle use). The official road system alone has resulted in a maintenance backlog that the Forest Service estimates to be between \$4-8 billion, with annual costs exceeding budgets by about 400%, highlighting that the collective cost of this motorized network far outstrips the Forest Service's financial capacity.

Compounding this problem, roads are considered by ecologists to be one of the most significant stressors on watersheds and ecosystems. The Forest Service's oversized road system degrades water quality and delivers millions of tons of sediments into streams, degrading fisheries and clogging municipal water supplies. In addition, the vast network of forest roads fragments wildlife habitat and reduces the capacity for wildlife to migrate effectively, both on an annual basis and in the context of climate change.

After over a decade of delay, the Forest Service has begun to take the necessary steps to address the problem, beginning the process to "rightsize" the road system. The first step is to create a blueprint for a sustainable system, in compliance with the travel management regulations at 36 C.F.R. 212.5(b). These regulations require the Forest Service to identify the "minimum necessary" road system for each national forest, along with a list of roads that should be decommissioned or converted to trails to protect land and water resources and reduce the fiscal burden of road maintenance. The rightsizing analysis process is scheduled for completion by the end of FY15. The second step in rightsizing the road system is to carry out on-the-ground work to reclaim unneeded roads and repair needed roads. Implementation will continue for many years. While no specific funding sources have been allocated for this work, several existing budget line items can be used, including:

- Integrated Resource Restoration (IRR) – in Regions 1, 3 and 4
- Roads
- Deferred Maintenance & Infrastructure Improvement
- Legacy Roads and Trails Remediation
- Vegetation and Watershed Management
- Fish and Wildlife

Legacy Roads & Trails

In 2007, Congress created the Legacy Roads and Trails Remediation program to provide funding dedicated to decommissioning unneeded and environmentally problematic roads and trails and repairing important high priority roads and trails. Legacy Roads and Trails is a critical part of creating a responsible and sustainable Forest Service budget by reducing the untenable cost of the current road system.

In FY11, Legacy Roads and Trails, which is within the Capital Improvement and Maintenance section of the budget, took the biggest cut of any program in the Forest Service, dropping from \$90 million in FY10 to \$45 million in FY11—a 50% cut. Despite this, in FY12 the Forest Service

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used Legacy Roads and Trails funding to decommission 960 miles of roads, maintain or improve 2,113 miles of roads and trails, and perform aquatic organism passage restorations at 75 sites.

We further note that in FY12, \$13 million of the Legacy Roads and Trails funding was made available to be transferred into the Integrated Resources Restoration (IRR) account in the three test pilot regions (see above for more discussion in IRR). As one of the biggest threats to water quality and habitat connectivity on the forests, road decommissioning and repair should be a major part of any restoration effort. Accordingly, we highly recommend that any Legacy Roads funds transferred into the IRR pilot be separately tracked and accounted within IRR in order to ensure the critical roads work for which the fund was created is being carried out by the IRR program.

Potential Budget/Sequestration Impacts:

- Water quality degradation – Legacy Roads and Trails is the singular Forest Service program set up to specifically address water quality problems from roads and trails. If Legacy Roads and Trails is cut further, water pollution from sediment runoff will increase degrading our rivers and streams and destroying fish habitat on our National Forest.
- Road/trail closures and loss of access – Since its inception, Legacy Roads and Trails has upgraded or fixed 15,268 miles of road and trail helping to ensure consistent reliable access through our National Forest. This critical maintenance work will discontinue or dramatically diminish if Legacy Roads and Trails is cut further. Unmaintained roads and trails are unsafe and environmentally damaging. The Forest Service will have no other choice but to close roads that access popular recreational destinations if they pose safety risks.
- Loss of quality forest restoration jobs in rural America – Legacy Roads and Trails creates or retains between 810-1,296 high quality jobs in rural America each year. These restoration jobs improve water quality, fish habitat, and access to popular recreational destinations in our National Forests. For every \$1 million cut from this program, rural America will lose between 15-24 jobs.

Roads and Deferred Maintenance

The Roads and Deferred Maintenance budget line items within the Capital Improvement and Maintenance budget pays for annual roads maintenance, decommissioning, improvement (upgrading and construction of new roads), and backlogged maintenance.

We have noted above the tremendous fiscal strain the road system is placing on the Forest Service budget. In FY12, the roads maintenance budget (which is part of the larger “roads” budget line item and responsible for annual maintenance and upkeep) was cut by 7.4%, down to \$155.491 million. Even in FY11, which itself represented a significant cut from previous levels, funding levels were insufficient to meet even basic needs. For example, according to the Forest Service roads accomplishment reports, the agency maintained about 16% of their road system in FY11; this is on par with recent years, all of which have hovered near 20%. Fifty-seven percent of the passenger vehicle roads were maintained to standard, which, while better than the system-wide percentage, is still not sufficient.

While we believe the roads budget should be a priority for increase in the long-term, in the context of current budget constraints, it is critical the FY13 roads and deferred maintenance

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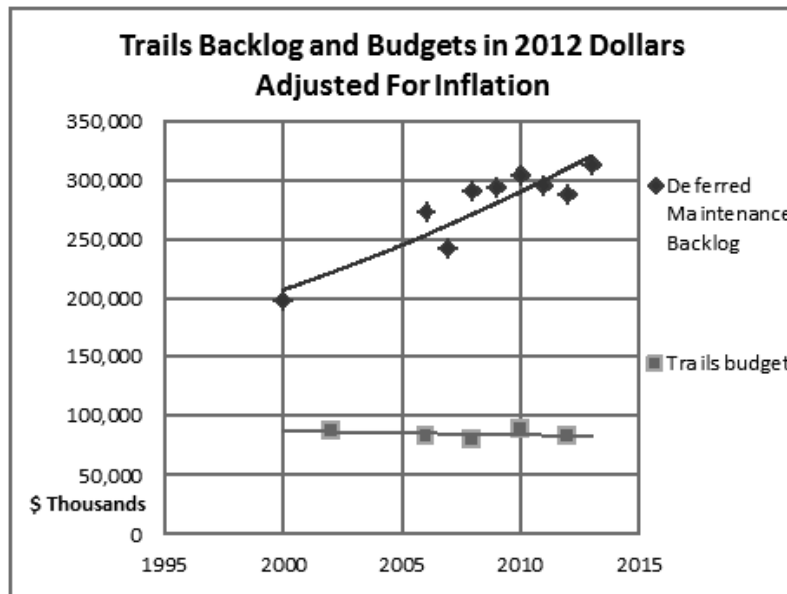
budgets remain level with FY12. Any additional cuts to this already drastically underfunded line item would jeopardize ongoing critical roads maintenance needs, as well as undercut the roads rightsizing process necessary to shrink long-term road maintenance costs.

Potential Budget/Sequestration Impacts:

- Loss of access - Passenger car access has already been reduced from 82,000 miles in 2002 to 65,000 miles in 2009 largely due to lack of maintenance. If budget cuts continue, visitors who drive standard passenger vehicles will continue to lose access to trailheads, campsites, and other popular recreation sites on our national forests.
- Ecological impacts – The failure to adequately maintain the road system leads to a cascade of ecological impacts which only increase over time. These impacts are expensive, typically funded with emergency appropriations to fix catastrophic problems. These problems, in many instances, can be avoided if the agency has the funds and capacity to adequately maintain its road system.

Trails

There are 155,600 miles of trails in the National Forest System. These trails provide 50 million visitor days of cross-country skiing, hiking, horseback riding, mountain biking, and off-road vehicle use each year. The total mileage of trails has grown 56.9% since 1977 to accommodate the 376% growth in annual visitor days on the trail system. However, the trails maintenance and reconstruction budget line item has remained flat since 1980, increasing only 1.75% after adjusting for inflation. As a result, by the beginning of FY13, the system had accumulated a backlog in trail maintenance of \$314 million, up from \$289 million the previous year. In FY11, the agency was only able to maintain a third of its trail miles to a minimum standard condition. Despite these tremendous and growing needs, in FY12 the trails budget was cut 4%, to \$81.982 million.



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Potential Budget/Sequestration Impacts:

- Unsafe trails – When there are insufficient funds to maintain trails, trail conditions steadily worsen and become hazardous for hiker, biker, and pack stock use.
- Ecological degradation – Poorly maintained trails erode more quickly, dumping sediment into nearby streams, reducing water quality and destroying habitat for fish. Sediment from unmaintained trails and roads is a leading threat to water quality on the National Forests.
- Trail closures and loss of access – When trail conditions worsen beyond a certain point, the trail becomes unusable and may be closed by the Forest Service. Trail closures mean fewer opportunities for Americans to get outside, be healthy and active, and contribute tourism dollars to local economies.

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WILDLAND FIRE MANAGEMENT

Federal Land Assistance Management and Enhancement Fund

The USDA Federal Land Assistance Management and Enhancement (FLAME) Act was anticipated to bring about an important change in the funding mechanism for wildland fire suppression. Congress' intent in passing the FLAME Act in October 2009 was to eliminate the need to transfer monies from other Department of Interior (DOI) and US Forest Service (USFS) programs to meet the escalating wildland fire suppression costs by creating a separate fund to be utilized when suppression costs were greater than the 10-year average. The practice of transferring funds from non-fire programs for suppression was especially undermining to the ability of the USFS to implement other essential programs, especially those performed directly by the Forest Service with its own workforce or through contracts and those programs that involved cooperation with third parties, including States, Tribes, and NGOs.⁹ Such impacted programs include the hazardous fuels reduction program to remove overgrown brush and trees that act as fuel for future fires. Congress committed monies for the FLAME funds that would not come at the expense of other agency programs. Congress should adequately fund emergency response and not foster a trade-off between emergency actions and the care and stewardship that reduces that risk and enhances the value of public lands.

However, in September of 2012, the USFS transferred \$440 million from non-fire sources to the fire suppression account, the very action FLAME was intended to halt. Thankfully, Congress acted to replenish \$400 million of this amount, but only after the work of the agency had been "put on hold" pending action by Congress. With the challenging budget outlook, Congress may not be able to take similar action in future years. Future fire forecasts suggest the continued need for large amounts of emergency fire suppression funding--the mere threat of repeated fire borrowing means that basic operations that care for and help restore forest conditions are put on hold long before the actual wildfire sieges later in the year. Congress needs to step up and provide FLAME account funding so we do not continue this situation of delaying or reducing the very programs that can reduce the risk of costly and damaging wildfires. Transfers of non-fire funds to cover emergency fire suppression will have real, negative impacts on a host of important forestry and related activities that are vital to care for our nation's forestlands. The transfers provide a short-term solution that will reduce the ability of the Forest Service and collaborators to treat forests and reduce wildfire dangers and risks in the future.

Potential Budget/Sequestration Impacts:

- FLAME and other programs of the USFS will be impacted, which can result in fewer acres treated for hazardous fuel reduction and delays for projects that help restore forests and watersheds, an important precautionary step in reducing the damage caused by extreme fires.
- With projections for continually increasing wildfire suppression in the coming years, in concert with budget proposals only totaling the 10 year average, the potential for future transfers is all but a guarantee.
- The numerous partners that perform work in cooperation with the Forest Service, including States, Tribes, Universities, and NGO's will have increased reasons to avoid entering cooperative agreements with the Agency due to the high probability that the agreed program of work will be curtailed on significantly delayed due to fire transfers.

⁹ GAO-04-612 Wildfire Suppression: Funding Transfers Cause Project Cancellations and Delays, Strained Relationships, and Management Disruptions, June 2004

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LAND WATER CONSERVATION FUND

The Land and Water Conservation Fund

In 1964, Congress established the Land and Water Conservation Fund (LWCF) to preserve natural areas and wildlife and ensure that all Americans have access to quality outdoor recreation. It is a simple idea and an elegant one: dedicate a small portion of revenues from offshore oil and gas drilling to support the conservation of America's lands and waters. LWCF demonstrates Congress' bipartisan recognition of the importance of safeguarding open spaces and natural areas and providing outdoor recreation opportunities for all Americans.

Despite inadequate funding, LWCF remains the premier federal program to conserve our nation's land, water, historic, and recreation heritage. It is a critical tool to acquire inholdings, expand public lands, and protect national parks, national wildlife refuges, national forests, wild and scenic river corridors, national scenic and historic trails, the Bureau of Land Management lands, and other federal areas. LWCF also funds two important state grant programs – the Forest Legacy Program and Cooperative Endangered Species (Section 6) programs – that ensure permanent conservation through fee and easement of important forest lands and threatened and endangered species' habitat.

These are difficult economic times, which is why investing in LWCF is so important as a driver for jobs and the revitalization of local communities. For instance:

- Hunting and fishing are economic building blocks in our national economy, generating more than 1.6 million jobs and more than \$2 billion annually in business earnings and wages
- Active outdoor recreation provides a powerful building block in our national economy that supports more than 6.1 million jobs (1 out of 20 jobs in the U.S.) and contributes more than \$646 billion annually, according to the Outdoor Industry Association
- The Trust for Public Land has found that every \$1 spent on LWCF returns \$4 in economic values, such as protecting water quality and supply
- LWCF helps generate \$88 billion in annual state and national tax revenue, along with generating \$289 billion annually in retail sales and services across the U.S.
- In 2008 alone, lands managed by the Department of the Interior hosted 448 million visitors. These visits greatly support the economy and jobs in nearby communities and across the tourism and outdoor recreation sectors. In addition, about 174 million recreation visits are annually made to national forests where tourists spend nearly \$13 billion each year and these forests sustain over 224,000 full and part time jobs. (statistics provided by DOI and USFS)

Funding for LWCF helps create this economic opportunity by increasing access to recreational opportunities and providing new areas for people of all ages to enjoy the outdoors.

The investments needed to achieve these diverse benefits simply cannot wait. Landowners who have made their properties available for public acquisition cannot in fairness be asked to defer their financial needs indefinitely. If public funding for key parcels is unavailable, private sale and

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LAND WATER CONSERVATION FUND

development of their lands-- which often are surrounded by heavily-used public lands -- can undermine longstanding investments in these areas. To meet the needs of local economies, landowners, and irreplaceable public resources, LWCF funds are needed now.

Potential Budget/Sequestration Impacts:

- Low LWCF funding levels for forests could cover only administrative costs and small inholdings, leaving little or no funding to meet priority projects with willing-seller contracts or to continue projects already underway.
- Many key inholdings are available on a now-or-never basis. A sequestration-driven program cut to LWCF would not just defer these projects, it would guarantee the permanent loss of recreation access along with resource-damaging development in forests and other public lands across the country.
- Further cuts to LWCF mean cuts to working forest grants to states, and cuts for acquisition of properties to allow both conservation and water quality protection.

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INTRODUCTION

The Department of Energy has a decades-long track record of research, development and demonstration of advanced clean energy technologies. The below are just a few of the many examples highlighted in DOE's recent Quadrennial Technology Review process¹:

- **Building and Appliance Energy Efficiency:** Equipment standards, the \$30M Golden Carrot Award from the Super Efficiency Refrigerator Program, and the ENERGY STAR® program together reduced energy consumption of residential refrigerators by 70% between 1974 and 2006, even as average retail price decreased 40% between 1980 and 2006 and average refrigerator size increased 15%. Meanwhile, legislation and Standard rulemakings completed between 1987 and 2010 reduced primary energy use by 3 Quads (about 3%) in 2010. It takes nearly 100 coal plants to produce 3 quads of energy.
- **Industrial Energy Efficiency:** Beyond R&D, DOE provides tools, training, assessments, and technical assistance to help industrial plants identify process improvement opportunities with near-term payback. Since their inception in 1976, the Industrial Assessment Centers have conducted over 15,000 assessments, resulting in over 100,000 recommendations with an average payback time of about 1 year and implementation rate of about 50%
- **Vehicle Efficiency:** DOE supported R&D that improved the original catalytic converters and provided tools and knowledge that helped engine manufacturers improve heavy-duty diesel efficiency by 4–5% since 2002 and helped enable heavy-duty engine manufacturers to meet 2007 regulations that required a 90% reduction in particulate matter emissions and a more than 50% reduction in NOx emissions.
- **Electric Vehicles:** Li-ion battery technology developed in part with DOE funding at Compact Power Inc. (now named LG Chem Power) is being used in GM's Chevrolet Volt and has also been selected for the upcoming Ford Focus AEV battery. A123 Systems, started with the help of a DOE Small Business Innovation Research (SBIR) grant, will supply Li-ion batteries for the Fisker Karma EV. DOE-sponsored R&D created the nickel/metal-hydride battery technology upon which the batteries used in the Toyota Prius and many other hybrid electric vehicles are in part based upon.
- **Wind Energy:** DOE developed and demonstrated some of the first multi-megawatt wind turbines in the 1980s and through technology development programs (e.g. WindPact, Low Wind Speed Turbine), aided industry's development and demonstration of larger commercial wind turbines that could reach higher wind regimes and achieve greater energy capture over the last two decades.
- **Solar Photovoltaics:** Since 1975, investments made by DOE, along with direct DOE-industry partnerships, have made significant contributions to the development of PV technology and markets. DOE investments of cost sharing, technical expertise, and technology infrastructure greatly contributed to declining production costs—without these investments, module cost per watt in 2008 (2008\$) would have been slightly over \$5 instead of the actual cost of nearly \$2. More than 160 different companies have participated in DOE PV partnerships.
- **Concentrating Solar Power:** R&D led by DOE from the late 1970's to the mid 1980's improved solar trough technology to the point where it could be commercialized in the 1980s, leading to nine different parabolic trough plants in southern California. Solar power tower development can also be traced to DOE-funded activities.

¹ Department of Energy Quadrennial Technology Review Technology Assessments, prepublication copy. <http://energy.gov/sites/prod/files/QTR%20Tech%20Assessments%20062912.pdf>

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- **Geothermal Energy:** DOE exploration efforts have helped the geothermal industry find new geothermal resources while DOE-funded research has improved exploration techniques that helped develop the best practices employed by industry today.

ENVIRONMENTAL MANAGEMENT

The Office of Environmental Management (EM) conducts the environmental remediation of legacy and current weapons development sites. These sites have millions of gallons of liquid radioactive waste, millions of cubic yards of spent nuclear fuel and other nuclear material, vast quantities of contaminated soil and water, and other severe environmental challenges. To date, EM has completed cleanup activities for 90 sites in 30 states, and continues work on a further 17 sites in 11 states. EM has successfully achieved a 66 percent reduction in the waste site footprint, surpassing its FY 2011 goal of 40 percent. It currently is working towards a reduction of 90 percent, to about 90 square miles, by 2015. Cleanup at the remaining sites is a multi-decade challenge. EM is developing and applying novel technologies and advanced modeling tools to accelerate the work as possible.

Potential Budget/Sequestration Impacts:

- Reduced funding would slow the essential work of restoration of 17 sites in 11 states

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ENERGY EFFICIENCY & RENEWABLE ENERGY

ENERGY EFFICIENCY AND RENEWABLE ENERGY

Energy efficiency is the largest, lowest cost, cleanest and shortest lead-time energy resource in America. Without the successful efficiency efforts of the last 40 years, we would need perhaps 80% more energy than we currently use to deliver the services we do today, at a great cost to the economy, security, and the environment. While that is a great achievement, a vast amount of efficiency available using existing and improving technology remains to be harnessed. Consumers, utilities, and state and local efforts are vital to capturing the efficiency opportunity, but the Federal government has an essential role to play, as well.

DOE's energy efficiency programs have proven themselves, and deliver value that far exceeds their cost. The efforts are wide-ranging, and focus on a range of sectors. The **Federal Energy Management Program (FEMP)** supports energy efficiency in federal facilities that to date has reduced energy use by over 25% and saved about \$1 billion annually. The **Building Technologies Program (BTP)** spurs new highly efficient, cost-effective technologies into the market through a combination of R&D, voluntary 'challenge' programs, ENERGY STAR information programs, appliance standards, and building codes. Successful technology introductions include LED lights, low-e windows, and high-efficiency refrigerators, water heaters and commercial building cooling that use a fraction of the energy of their predecessors. The **Advanced Manufacturing Office** focuses on commercializing new efficient techniques for energy-intensive manufacturing, including the use of combined heat and power systems, and the development of new materials and supply chain approaches for energy efficiency. The **Weatherization Assistance Program (WAP)** saves low-income families energy and reduces energy bills by an average of over \$400 per year, and does so cost-effectively. The **Vehicles Technologies Program (VTP)** supports advanced battery and other electric vehicle technologies, and novel technologies to increase the efficiency of conventional liquid-fueled vehicles such as advanced materials that are stronger and lighter, and has previously delivered successful heavy-duty diesel engine technology that has saved consumers a multiple of the program's total budget.

Potential Budget/Sequestration Impacts:

- Overall, reducing DOE's efficiency budget would be, as the saying goes, 'penny wise, pound foolish.' The EE programs return far more than they cost, in some cases by over 1000 times.
- Reduced FEMP funding would prolong costly energy waste in federal buildings, e.g., by slowing the use of private sector financing for federal efficiency projects, and slowing the adoption of new, improved operating, commissioning, design, and construction practices.
- Reduced BTP funding would slow the development of technologies that save far more than the program's budget. As examples, just three of technologies from the R&D program, electronic lamp ballasts, refrigerator compressors, and low-e glass for windows, have already delivered consumer savings of \$30 billion, or about 2500 times more than the \$0.012 billion federal cost, and appliance standards now in place will save consumers some \$350 billion through 2030, more than a thousand times the total BTP budget.
- Reduced WAP funding would reduce the number of low income households in which cost-effective energy efficiency savings are achieved, as well as reduce the number of skilled weatherization workers providing those services, in all fifty states.
- Reduced VTP funding would slow progress in reducing the nation's multi-hundred billion dollar annual dependence on imported oil.

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ENERGY EFFICIENCY & RENEWABLE ENERGY

The production of clean, renewable electricity continues to grow rapidly doubling over the last four years as a percent of US energy generation. Technology to reduce dependence on foreign oil using biofuels continues to emerge. Once-skeptical investors are increasingly finding renewable energy opportunities that appear attractive, both in deployment and in technology development. However, much, much more remains to be done before the full potential for renewable energy to deliver energy, economic and environmental security is achieved. Importantly, renewable energy technology is an intensely competitive international arena that the United States must be successful in, as other nations recognize the fundamental role and enormous markets that will continue to emerge for this industry over the coming decades.

DOE's renewable energy programs have been and continue to be essential in accelerating the development and adoption of economic, secure, and clean technology. The track record has been strong, for example in providing the foundation for much of the increase in renewable electricity generation, and in charting an increasingly firm course to advanced solar, biomass, geothermal, and hydro energy that is economically competitive with fossil fuels. DOE's renewable energy efforts are wide-ranging, and focus on high-risk, transformational technology innovations that would not otherwise be made, and are pursued in collaboration and consultation with industry, national labs, Advance Research Projects Agency – Energy (ARPA-E) and other stakeholders. The programs, all of which have carefully developed multi-year plans and continue to surpass their milestones, include the following: The **Solar Energy Technologies Program** (SETP) supports central and distributed solar electricity technology to make it cost competitive with fossil fuel before 2020. Notably, it has leveraged more than \$1.3 billion in private capital with a \$60 million investment in cutting-edge start-up companies. The **Wind Power Program** supports utility-scale off-shore wind technology, as well as small and midsize turbines. The program has catalyzed over 50 GW of wind capacity since 2002, with over 100 DOE-funded documents cited by leading wind energy companies in their patent applications. The **Water Energy Program** supports pilot and demonstration projects for marine and hydrokinetic. The **Geothermal Technology Program** concentrates on opportunities for base load electricity generation using enhanced systems and exploration technology. The **Biomass Energy Program** focuses on converting non-food cellulosic material and algae into petroleum substitutes at competitive prices.

Potential Budget/Sequestration Impacts:

- Overall, reduced funding would slow the rapid recent progress to developing abundant, clean, economic and secure renewable energy, and extend the nation's dependence on fossil fuels.
- Each of DOE's renewable energy programs has a carefully constructed plan developed in consultation with industry, ARPA-E, national labs and other stakeholders to deliver cost-competitiveness with fossil fuels within a specified horizon. That objective, and the steps toward it, would be delayed with reduced funding, extending the nation's dependence on imported energy dirty fuels.
- Reduced funding would mean a smaller pipeline of successful technologies ready for private sector investment and commercialization over the next few years, reducing the prospects for American technology and industry leadership.

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ELECTRICITY DELIVERY AND ENERGY RELIABILITY

ELECTRICITY DELIVERY AND ENERGY RELIABILITY

A reliable, economic, efficient, and secure electricity system is fundamental to society. Electricity systems are also essential to the ability to transition to a sustainable energy future, both through integration of renewable generation and grid-interactive appliances and consumer equipment and through the displacement of oil through electrification of transportation. The last few years have seen rapid advances in smart grid technology that promise to significantly improve the performance of electricity systems.

DOE's Office of Electricity Delivery and Energy Reliability (OE) supports technologies and policies that improve the reliability, energy efficiency, system efficiency, and security of the nation's electricity delivery system. It has performed a central role in accelerating the deployment of smart meters, advanced network monitoring and control and other smart grid technologies over the last few years, and continues to do so. It continues to support rapidly advancing technologies, and importantly, works with stakeholders to improve policy and regulatory structures to make best use of smart grid capabilities, allowing greater use of renewable generation and grid-interactive consumer equipment that will reduce the need for fossil generation. OE's ongoing work includes supporting advanced storage and transmission technologies, providing technical assistance to states and regional bodies to facilitate development of suitable infrastructure and regulatory policies, coordinating transmission permitting on Federal land, and authorizing cross-border transmission lines, and analyzing the electricity system and the its ability to utilize advancing technology economically and reliably.

Potential Budget/Sequestration Impacts:

- Overall, reduced funding would slow OE's well-thought out effort to continue the rapid recent progress in transforming the electricity network to deliver greater security, reliability, sustainability and economy using smart grid and other capabilities.
- Reduced funding would be a poor signal and a setback to advanced technology developers and to the state and regional bodies working to improve regulatory policies for the electricity grid, and reduce the prospects for American technology and industry leadership.
- Reduced funding would slow the rate at which the electricity grid can increasingly rely on grid-interactive consumer equipment and intermittent renewable electricity generation to displace reliance on fossil generation.

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OFFICE OF SCIENCE

OFFICE OF SCIENCE

DOE's Office of Science (OS) has a broad mission to advance scientific understanding and deliver scientific tools that transform our understanding of nature, with an aim of advancing the energy, economic and national security of the United States. While much of the work of OS is beyond the direct focus of the environmental community, a large amount does directly contribute to sound environmental understanding and outcomes. Notably, OS supports several cross-agency climate-change research initiatives, biological research that will ultimately benefit the affordable production of clean, renewable biofuels.

Beyond these direct benefits, much of the remainder of OS's work supports a broad, vital ecosystem of innovation and education upon which more applied science and emerging technologies draw. For example, OS provides 40 percent of the total funding for basic research in the physical sciences, oversees our national laboratories (which represent one of the largest scientific research systems in the world), and is widely involved in science education. This work can have direct, practical and unpredicted results. For example, basic research done at DOE's Advanced Photon Source helped lead to the breakthrough that enabled electric vehicle batteries being manufactured today.

Potential Budget/Sequestration Impacts:

- Reduced funding in general would slow the ability for some science researchers across the country in universities and national labs to apply their enormous technical expertise to a better understanding of an array of physical science, including those useful for addressing practical energy and the environmental issues.
- Reduced funding for the Biological and Environmental Research Program in particular would harm the rapidly increasing understanding of climate change and of biology useful for the future development of affordable, clean biofuels.
- Reduced funding of other OS programs would decrease the prospects for unanticipated technology benefits that sometimes emerge from improved scientific understanding.
- Reduced funding for advanced technical education across the country would result in a workforce of the future with less in-depth technical capability and expertise.

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ADVANCED RESEARCH PROJECTS AGENCY - ENERGY

ADVANCED RESEARCH PROJECTS AGENCY – ENERGY

The Advanced Research Projects Agency - Energy (ARPA-E) is enormously important cog in the U.S. energy innovation chain, supporting innovative, transformational energy technologies in their earliest stages of development. Success of ARPA-E's mission will enhance the United States' economic and energy security by helping bring to market new technologies that reduce our dependence on energy imports, reduce energy-related emissions, improve our energy efficiency, and ensure we maintain a lead in advanced technology. The agency also provides a model for innovative DOE operations and processes. It coordinates closely with other DOE programs, the private sector and academia to identify those well-suited technology opportunities where others are not making investments. ARPA-E uses a comprehensive merit review process to select projects based on their potential benefits and the strength of the technical approaches and project teams. While not all ARPA-E-supported technologies will successfully reach the marketplace, if even a fraction do as expected, they will transform the way that energy is generated, stored and used.

ARPA-E has been highly successful since its launch in 2009, supporting “electrofuels” (non-biomass based next generation transportation fuels), vehicle batteries, innovative thermodevices for building efficiency, alternatives to critical rare earth metals, advanced materials for carbon capture, grid-scale energy storage, and natural gas technologies for transportation systems. Several of the initial investments have already received large, private-sector follow-on funding, demonstrating that they are on a path towards commercialization.

Potential Budget/Sequestration Impacts:

- Reduced ARPA-E funding would reduce the depth and breadth of highly promising, transformational energy technology development that could greatly increase America's energy and economic security. ARPA-E has identified the need and opportunity to make additional investments in critical areas that would be foregone without adequate funding.
- Reduced funding would stop researchers across the country in universities, large and small businesses and national labs from bringing their promising early stage technologies towards market. Notably, the last round of ARPA-E funding was awarded to 66 projects in 24 states.
- Reduced funding would mean a smaller pipeline of successful ARPA-E projects ready for private sector investment and commercialization over the next few years, reducing the prospects for

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ENERGY INFORMATION ADMINISTRATION

ENERGY INFORMATION ADMINISTRATION

The Energy Information Administration (EIA) performs the vital role of providing impartial, independent energy information. Their Annual Energy Outlook, International Energy Outlook, monthly and annual electric power updates, wholesale power data, and power plant database, among many other data sources, help make our work far more effective than it would otherwise be. EIA's work is particularly crucial given the link between energy, the economic, the environment, and national security.

EIA's reports are widely used by Congress, federal and state government, the private sector, the media and other stakeholders in the policy-making process. Without the EIA's reports, our nation's energy data would be far more limited to confidential databases held by private companies. Transparent data inputs are a prerequisite for open, democratic processes and the public's ability to evaluate assumptions and claims.

In addition to informing the policymaking process, EIA's analyses support a wide range of investment and operating decisions. One example is the impact of EIA's weekly natural gas storage and petroleum product inventories reports on energy markets, with prices often moving as new, accurate information becomes available. Another example is the Commercial Building Energy Consumption Survey (CBECS), which is used to benchmark building energy use, facilitating efforts to increase energy efficiency in both the public and private sector.

Potential Budget/Sequestration Impacts:

- Reduced EIA funding would diminish the depth, breadth, timeliness of information that is vital for policy-making, energy industry investment and operations, from natural gas production to building energy management to development of electricity generation and transmission facilities.
- Importantly, EIA is continuing to enhance not only its data collection and analyses, but also the ease of access to that information by stakeholders. Reduced funding would impede these valuable efforts.
- Among the many examples of how reduced EIA funding would harm critical activities, the most recent CBECS data is badly out of date, from 2003. EIA is in the midst of a comprehensive program to update that data to 2012. Notably, CBECS data is the core of the ENERGY STAR building energy rating system, which is widely used across the country by managers of both private and public buildings as they identify and prioritize opportunities for improving the

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COUNCIL ON ENVIRONMENTAL QUALITY

The National Environmental Policy Act & The Council On Environmental Quality

The National Environmental Policy Act (NEPA) was enacted by overwhelming bi-partisan majorities and signed into law in 1970. NEPA requires federal agencies to fully assess the environmental effects of their proposed actions. This assessment ensures that major federal actions are grounded in rigorous scientific analysis and that our government’s decisions are made in a transparent manner, providing the public an opportunity to have a say in federal actions that impact their environment, their families’ health, and their quality of life.

NEPA originally applied to all major federal actions that may significantly affect the environment. Recent Congressional actions have limited NEPA’s reach, particularly for transportation projects. To comply with NEPA, federal agencies assess and disclose the potential environmental effects of their actions in an Environmental Assessment or Environmental Impact Statement. In preparing these documents, the agencies must summarize the environmental impacts of their proposed action and alternatives, as well as the interrelated economic, health, or social effects. This process provides citizens an opportunity to learn about the actions that federal agencies are proposing and offers agencies an opportunity to receive valuable input from the public, state and local governments, other agencies, and other stakeholders. NEPA does not require agencies to choose the most environmentally-friendly option, but it does require that agencies “look before they leap” and ensures that federal decisions are made in a transparent and responsible manner.

NEPA also created the Council on Environmental Quality (CEQ), which has the primary responsibility of ensuring that agencies meet their obligations under NEPA. CEQ was established to serve as the President’s principle environmental advisory body. One of CEQ’s primary responsibilities is to ensure that agencies meet their obligations under NEPA by providing oversight on NEPA through the issuance and interpretation of NEPA regulations, as well as reviewing and approving federal agency NEPA procedures.

Adequate funding and staff for CEQ and federal agencies to meet their NEPA obligations ensures that as we confront the challenges of harmonizing our economic, environmental, and social goals, we make transparent decisions based on the best available information.

Potential Budget/Sequestration Impacts:

- Sequestration-driven budget cuts risk the ability of all federal agencies to meet their NEPA obligations – obligations which are critical to ensuring federal projects and permitting proceed as cost-effectively, transparently, fully-informed, and expeditiously as possible. NEPA routinely results in better projects by identifying environmental costs, unnecessary expenses, and avoiding controversy by engaging all stakeholders – including local governments, businesses, and citizens – who will be affected.
- Budget cuts to the already underfunded CEQ would threaten the critical leadership and coordinating role CEQ plays in the development and execution of environmental policy within the federal Executive Branch. CEQ’s role is increasingly important, given the urgency and cross-cutting nature of global warming and other current environmental challenges. To enable CEQ to serve effectively in its role as environmental advisor, policy-maker, coordinator, and overseer of NEPA compliance, the staff and budget of CEQ should not be decreased.

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COUNCIL ON ENVIRONMENTAL QUALITY

Potential Budget/Sequestration Impacts (cont.):

- Further cuts to CEQ would jeopardize key initiatives including: the Interagency Rapid Response Team for Transmission which is working to build the needed transmission infrastructure for the energy sector, and the Plan for Retrospective Review of Existing Regulations aimed at reducing the cost and time of environmental reviews.

DEPARTMENT OF HOMELAND SECURITY

4

FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

INTRODUCTION

FEMA plays a critical role helping communities prepare for, respond to, and recover from disasters. Increasing community resilience is critical when adapting to increased threats from natural disasters. Communities that engage in mitigation before a storm, and have a plan ready and in place to guide recovery after a storm, recover faster and are more resilient in the long term. Proactive planning to engage in mitigation including the utilization of natural buffers like floodplains, wetlands, and dunes will make communities rebuild wiser and stronger in the long term.

The importance of increasing community resilience to climate change impacts has become more apparent to communities following catastrophic natural disasters in recent years. In 2012 Hurricane Sandy ravaged the east coast, causing billions of dollars in damage. The previous year catastrophic flooding events resulted in over \$10 billion dollars in damages, 78 deaths, and 58 federal disaster declarations covering 33 states. Climate change impacts are being felt in the form of more severe storms and sea level rise making FEMA's hazard mitigation and flood insurance programs more important than ever to help communities prepare for disasters in a way that reduces their risk, the burden on the federal taxpayer, and protects the environment by restoring floodplains to open space.

In 2012, Congress passed bipartisan reforms to the National Flood Insurance Program that will improve floodplain mapping and hazard mitigation programs, and will reduce subsidies that encourage development in the floodplain. Investing in implementation of these improvements now will save taxpayers by reducing disaster assistance costs in the long run.

The Stafford Act, Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program (HMGP) provides grants to state, Indian tribes, and local governments, or communities on behalf of individuals, after a presidential disaster declaration in the wake of a significant disaster to implement long-term hazard mitigation measures. The HMGP enables mitigation measures to reduce the loss of life and property due to natural disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster. Projects are required to provide long-term and cost-effective solutions to a problem. Funding is provided at a 75% federal cost share. Funds under this program are a primary source of financing for voluntary buy-outs of flood-prone properties—particularly repetitive loss properties—and relocations out of the floodplain to higher ground. To date, the program has provided more than \$1.1 billion in mitigation funding for projects including acquisition and relocation of structures from hazard-prone areas, drainage improvement projects, and elevation of flood-prone structures.

Pre-Disaster Mitigation Fund

Poorly planned floodplain development has put countless people in danger and eroded natural flood protections. The Pre-Disaster Mitigation Program (PDM), run by FEMA and administered by each state, helps communities dramatically reduce disruption and loss caused by floods and other natural disasters. The goal of the program is to reduce risks to people and structures, thereby minimizing reliance on federal relief in the event of a catastrophe. Under the program, priority should be given to those projects that provide funding for relocation and acquisition of flood-prone properties to move communities out of harm's way. Communities applying for PDM

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FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

funding for the purpose of flood damage mitigation must be participating members of the National Flood Insurance Program (NFIP).

The National Flood Insurance Act, National Flood Mitigation Program

The Biggert-Waters Flood Insurance Reform Act of 2012 made significant improvements to FEMA's mitigation programs funded through the National Flood Insurance Program. Three programs that undertake very similar activities- Flood Mitigation Assistance, Repetitive Flood Claims, and Severe Repetitive Loss Program- were simplified and combined into the National Flood Mitigation Program. This reform will reduce administration costs and get funding out the door to communities more efficiently. The new program will assist communities in the elevation, acquisition, and relocation of NFIP-insured structures. These mitigation activities save lives by moving people out of harm's way, save taxpayer money by eliminating the need to pay for flood insurance claims to properties that flood repeatedly, and will protect the environment by deed-restricting vacated floodplain land for open space uses in perpetuity.

National Flood Mapping Program

Flood Map Modernization (Map Mod), Risk Mapping, Assessment, and Planning (Risk MAP), Technical Mapping Advisory Council

Obsolete, almost antiquated maps pose one of the greatest challenges to safeguarding communities from repeated flooding, protecting floodplains, and maintaining solvency of the National Flood Insurance Program. In 2012, Congress authorized and improved FEMA's existing map improvement program as well as a Technical Mapping Advisory Council to recommend improvements to flood maps including future conditions and sea level rise impacts. Through the Map Modernization effort, FEMA is producing up-to-date and modernized flood maps in cooperation with local, regional, or state agencies for areas at high risk of flooding. Estimated to be used over 30 million times each year, these maps are critical as they are used to assign risk-based premiums for flood insurance rates, inform disaster response planning, and are widely recognized as an essential floodplain management tool for keeping people out of harm's way and protecting floodplains. Also a collaborative effort with states and communities, Risk MAP is improving the data and technology used in flood maps and increasing public awareness which leads to mitigation actions that reduce risk to life and property.

Dam Safety and Security Act, National Dam Safety Program

There are more than 79,000 dams in the United States, many of which were built more than 50 years ago and are reaching the end of their expected lifespan. The National Dam Safety Program was established to improve safety and security around dams. About 95% of the nation's dams are monitored and inspected by state dam safety officials, including more than 11,000 high hazard dams (meaning that failure will likely result in loss of life) and more than 4,000 dams that are considered "unsafe." The national program provides funding to states to run their regulatory program, research funding to enhance technical expertise, and training sessions for dam safety inspectors. Often the costs of maintaining safe dams outweigh the benefits the dams provide and communities will choose to remove their obsolete dams. Additionally, the National Dam Safety Program is charged with educating the public, including dam owners, about their responsibility to maintain safe dams and therefore keep their communities out of harm's way.

DEPARTMENT OF HOMELAND SECURITY

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FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA)

Potential Budget/Sequestration Impacts:

- Low funding could undermine Federal Emergency Management Agency's ability to respond to incidents of terrorism and other catastrophic events. Sequestration will have significant impacts on FEMA's Disaster Relief programs.
- Many of FEMA's programs, including flood mapping and mitigation grants, help to increase community resilience to natural disasters resulting in decreased costs to the federal taxpayer over the long term. Without accurate flood maps communities will allow development in flood-prone areas. Every dollar FEMA spends on mitigation saves four dollars in avoided future disaster costs, five dollars in the case of flooding. Without investment in these programs now, the federal taxpayers will spend more in disaster recovery in the long term.

DEPARTMENT OF STATE

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INTERNATIONAL ORGANIZATIONS AND PROGRAMS (IO&P)

International Conservation Programs

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). These contributions are especially important to curbing illegal wildlife trade, a major source of finance for international crime syndicates and networks that have been linked to terrorist organizations. Support from the U.S. to ASEAN countries in recent years has improved their interdiction of trafficked wildlife products and increased the number of arrests. Other programs have preserved globally significant wetlands, promoted conservation and sustainable management of forests worldwide, and provided a forum for international debate on key conservation topics.

For more information, go to: <http://www.state.gov>

Potential Budget/Sequestration Impacts:

- 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. Curtailing funding would undermine programs that are just underway and hurt efforts to dismantle criminal syndicates that have been linked to terrorist organizations.

Multilateral Funds to Combat Climate Change

In a world that is increasingly focused to adapt and mitigate the effects of climate change, investing in international efforts to deploy clean energy, protect forest and reduce emissions for deforestation and forest degradation (REDD), is a smart and strategic U.S. policy. International investments to deal with the challenges of climate change and extreme weather variability are essential to promote national security and minimize instability. Furthermore, it provides economic opportunities for U.S. businesses and workers, and can provide major cost savings through disaster prevention, protecting critical forest areas and biodiversity, and preserving decades of U.S. investments in global development.

The **Green Climate Fund (GFC)** established in 2010 by the United Nations Framework Convention on Climate Change (UNFCCC) is vital to addressing global climate change in the future. It is designed around building the capability of developing nations to increase resilience to climate change impacts and undertake low-carbon development actions. The GFC governing board became fully operational in August 2012 and is attempting to become the leading international climate fund by complementing, and possibly replacing, many existing multilateral climate change funds. By improving on problems identified by government and civil society in existing climate funds, many envision the GCF as the primary vehicle for delivering the \$100 billion per year that countries pledged to contribute by 2020 at the 2009 UNFCCC Conference of the Parties in Copenhagen.

For more information, go to: <http://gcfund.net/home.html>

DEPARTMENT OF STATE

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INTERNATIONAL ORGANIZATIONS AND PROGRAMS (IO&P)

Potential Budget/Sequestration Impacts:

- Lower funding would eliminate opportunities to spur clean energy, address deforestation, and adapt to climate change in developing countries. Specific projects in the pipeline would have to be cut or curtailed as a result of cuts. In addition, lower funding for multilateral funds to combat climate change could stall the transition of power to the Green Climate Fund and prevent the disbursement of funds that are necessary to halt climate change.

Forest Carbon Partnership Facility (FCPF)

Emissions from deforestation and land-use changes account for 14-17% of annual emissions, an amount equivalent to the annual emissions from the global transport sector. The REDD+ (reduce emissions from deforestation and forest degradation) programs in developing countries work to deliver emissions reductions while also protecting critical habitats, such as the rain forest. The State Department contributes to REDD+ efforts through the World Bank's **Forest Carbon Partnership Facility (FCPF)**.

The 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. It currently supports 37 partner countries in the early phases of REDD+ readiness. The Carbon Fund is currently piloting 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. Support from the U.S. will demonstrate the commitment this nation has towards the ideals of transparency, environmental integrity and the rights of indigenous peoples.

For more information, go to: <http://www.forestcarbonpartnership.org/>

Potential Budget/Sequestration Impacts:

- Cutting funding to the FCPF could have a direct impact on the amount of emissions released into the atmosphere. As an institution committed to REDD, the FCPF plays an essential role in stopping deforestation, the third leading cause in global emissions. Reducing these emissions is essential to slowing climate change.
- REDD+ goals advance the rights of indigenous and local communities by building capacity for community-based forest management. Budget cuts dictated by the sequester could impact programs that develop the tools that allow local communities to practice sustainable forestry instead of deforestation.

Adaptation Programs

Even with an increased effort to curb contributing sources of climate change, the effects of a changed environment are already here. Extreme weather events are more frequent and severe and further exacerbate issues of food security and water scarcity in regions that are already struggling to develop. By helping the most vulnerable nations and communities adapt to climate-inspired instability, the United States demonstrates its power as a global leader dedicated to helping those in need.

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INTERNATIONAL ORGANIZATIONS AND PROGRAMS (IO&P)

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. Thus far, the LDCF has supported the preparation of 49 NAPAs, 47 of which have already been implemented.

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.

Potential Budget/Sequestration Impacts:

- State Department funding for adaptation programs target countries that are most in need and prepare them to deal with a changing climate. The sequester threatens 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 \$1 spent. Furthermore, investing in community-based adaptation can result in an increase in per capita incomes of \$2.10 a day, while failure to invest can decrease incomes to below \$1/day. Funding these programs now could save a significant amount of money in disaster relief and development aid in the future.

International Agreements on Climate Change and Ozone Pollution

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 there is a need to set an overall framework for intergovernmental efforts to tackle the challenges created by climate change. The stated goal of the Convention is to stabilize the amount of greenhouse gases in the atmosphere at a level that will allow ecosystems to adapt naturally, not compromise food security, and avoid endangering sustainable social and economic development. The UNFCCC has played a role in establishing a number of other climate change institutions such as the Special Climate Change Fund, the Least Developed Countries Fund, and, more recently, the Green Climate Fund.

For more information, go to: <http://unfccc.int/2860.php>

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. Thousands of scientists from the IPCC's

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INTERNATIONAL ORGANIZATIONS AND PROGRAMS (IO&P)

194 member countries contribute to its work on a voluntary basis. The IPCC is currently preparing its 5th comprehensive assessment of the state of the science on global climate change, to be released in final form in 2014.

For more information, go to: <http://www.ipcc.ch/>

Potential Budget/Sequestration Impacts:

- 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.

The Montreal Protocol on Substances That Deplete the Ozone Layer

The Montreal Protocol on Substances That Deplete the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the production of numerous substances believed to be responsible for ozone depletion. President Reagan signed the treaty in 1987, and it was ratified by the U.S. Senate the following spring. All of the countries in the United Nations have ratified the treaty, which has been called the single most successful international agreement to date.

Potential Budget/Sequestration Impacts:

- Sequestration cuts to programs sponsored by the Montreal Protocol would stall steps to address ozone layer depletion and be a step backwards in the fight against climate change. It could also be counter-productive to the idea of the United States as a global leader.

BILATERAL INTERNATIONAL CLIMATE FUNDING

Biodiversity Conservation Program

Most U.S. foreign assistance for on-the-ground conservation is delivered through USAID and its robust portfolio of conservation and forestry programs. These help protect some of the largest, most at-risk natural landscapes and 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 U.S. foreign policy objectives.

For more information, go to: http://www.usaid.gov/our_work/environment/biodiversity/

Potential budget/Sequestration impacts:

- USAID biodiversity promote competitiveness of U.S. businesses by ensuring the sustainability of supply chains, strengthening trade relationships around the world and preventing illegal products from flooding legitimate markets and undercutting American products.
- Biodiversity programs through USAID promote partnerships between the private sector, foreign governments and local people. Through these programs, opportunities are created for American businesses and jobs are created for local communities.

Sustainable Landscapes Program (SLP)

Global deforestation accounts for up to 14-17% 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. Recognizing that forests, agricultural systems, wetlands and grasslands store a significant portion of global carbon stocks, USAID's Sustainable Landscapes (SLP) portfolio is guided in large part by the U.S. government's Reducing Emissions for Deforestation and Forest Degradation (REDD+) strategy, currently focused on ensuring readiness in developing countries to implement REDD+.

USAID's Sustainable Landscapes program has identified sixteen target countries and six regional platforms to implement projects that seek to strengthen country capacity to develop systems for forest carbon measurement and monitoring. In addition, these programs will conduct greenhouse gas inventories and support the application of science and technology for improving management and monitoring systems. These efforts look to integrate efficiency, transparency and coherence into the forest carbon monitoring, reporting, and verifying processes. By instituting these programs and targeting national frameworks as part of REDD+ readiness, SLP will promote integrated land management outcomes in agroforestry and restoration of degraded lands.

Potential budget/Sequestration impacts:

- According to the U.S. National Cancer Institute, 70 percent of plants identified as having anti-cancer characteristics are found only in tropical forests. Cuts to the Sustainable Landscapes program will hurt efforts to protect those forests that are most in danger of disappearing, forests that could help in the fight against cancer.
- Low funding for the SLP could affect programs that combat deforestation, the third largest source of carbon emissions after coal and oil. With less funding, many initiatives will be forced to scale-back efforts that prepare countries to adopt REDD+ strategies that are vital to slowing down forest degradation.

Potential Budget/Sequestration Impacts (cont.):

- Cuts to funding would come at a time when critical results are just beginning to be observed. In 2010, at least 930,000 people increased their incomes through sustainable natural resource management and conservation activities.

Adaptation Program

Targeted and well-planned U.S. 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, and shifting seasons and disease vectors. The consequences of a changing climate are already fast pushing communities, particularly the poorest and most marginalized around the world, beyond their capacity to respond. The USAID **Adaptation Program** uses science and analysis to support resilience efforts in partner countries that address the dangers prompted by climate change. The program supports efforts in the developing world to integrate climate resiliency strategies into development, national health, and disaster risk reduction plans in order to mitigate threats and promote international development and peace.

Potential Budget/Sequestration Impacts:

- Sequestration and a lowering of funds to the adaptation program will come at a time when the program is most needed. With the effects of climate change already manifesting in droughts, food shortages, and more extreme weather, support for adaptation programs that help vulnerable nations and communities should increase, rather than face budgetary cuts.
- USAID is currently working to develop resilience to climate change in areas that are most at risk of food-shortages. With estimates that climate change could decrease crop yields in the tropics and sub-tropics by 10-20%, now is the time to put measures in place to help communities survive these types of food shortages.
- Studies show that up-front investments in disaster risk reduction have cost savings of \$7 for every \$1 spent. Furthermore, investing in community-based adaptation can result in an increase in per capita incomes of \$2.10 a day, while failure to invest can decrease incomes to below \$1/day. Funding these programs now could save a significant amount of money in disaster relief and development aid in the future.

Clean Energy Program (CEP)

With energy demand and CO₂ emissions set to rise higher than previously expected according to the 2012 IEA World Energy Outlook, fossil fuels remain the principal source of energy worldwide, especially in the developing world. It is predicted that while the combined share of oil, gas and coal will decrease, its global share of energy in 2035 will still be 75% with usage in absolute terms expected to rise. Unless substantial changes are made to energy policy, fossil fuels will continue to be a major contributing factor to emissions and climate change. 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 are targeted to those countries and regions that fit specific criteria, including 1)

BILATERAL INTERNATIONAL CLIMATE FUNDING

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.

Potential Budget/Sequestration Impacts:

- 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.
- In India, a USAID investment of just \$9 million leveraged an additional \$200 million in private sector investments and saved 26 million tons of CO₂ emissions. Sequester-driven budgetary cuts could halt new investment and slow contributions from the private sector to co-finance new projects.

Population Assistance Program

Since 1965, the U.S. government has provided family planning and reproductive health services in the developing world as part of its foreign assistance program. There are an estimated 222 million women in the most impoverished parts of the world who want to delay or end childbearing but do not have access to modern contraceptives. The lack of access to modern contraception is a key driver of the 75 million annual unintended pregnancies worldwide and the resulting yearly net increase in global population of 84 million people. At the end of 2011, world population reached 7 billion, and the next billion people is expected to be added within 12 years. Population growth in the developing world remains a contributor to deforestation, desertification, the degradation of oceans and waterways, and loss of biodiversity and endangered species.

Moreover, family planning and reproductive health should be part of larger strategies for climate change mitigation and adaptation. Alongside other necessary efforts to reduce emissions, particularly in developed countries, slower population growth in developing countries will contribute to slower growth of global GHG emissions and make overall reductions easier to achieve while reducing the scale of human vulnerability to the effects of climate change. Further, USAID's successful experience in implementing integrated population, health and environment (PHE) activities, historically funded solely by family planning assistance, can be applied to climate change adaptation and offer lessons on how effective community engagement, country-level coordination and cross-sectoral project design can help increase resilience of local communities to climate change, while also promoting sustainable natural resource use.

Potential Budget/Sequestration Impacts:

The United States government spent \$610 million on overseas family planning and reproductive health programs in FY 2012. 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;
- 150,000 more unintended pregnancies, and 70,000 more unplanned births, would occur;
- 70,000 more abortions would take place;
- 400 more maternal deaths would occur;
- 2,000 more children would lose their mothers.

Family planning stands out as an opportunity to improve the health of women and children, while increasing people's resilience to environmental challenges—additional cuts would risk lives and undermine real progress towards a sustainable future.

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National Landscape Conservation System

The Bureau of Land Management's (BLM) National Landscape Conservation System (National Conservation Lands) comprises 27 million acres of congressionally and presidentially designated protected public lands and waters. The National Conservation Lands, which include National Monuments, National Conservation Areas, Wilderness, Wilderness Study Areas, National Scenic and Historic Trails, and Wild and Scenic Rivers and other designations, contain some of the last places where one can experience the rich cultural history and scenic beauty of the American West. The National Conservation Lands provide critical wildlife habitat, clean air and water, innumerable recreational opportunities and open space near fast-growing cities. Furthermore, they provide countless research opportunities due to their astounding cultural, historic, and paleontological resources.

The National Conservation Lands contribute significantly to local economies across the West. Though they represent only 1/10th of the lands administered by the BLM, the National Conservation Lands consistently draw one third of all visitors to BLM lands. Furthermore, the BLM states that recreation in the National Conservation Lands created approximately 20,000 jobs in 2010. The National Conservation Lands create jobs and drive economic development in the mostly rural areas near the units managed as part of this system. Although the National Conservation Lands provide significant economic and recreational benefits to the BLM and surrounding communities, insufficient funding continues to undermine the BLM's ability to steward these magnificent landscapes.

Potential Budget/Sequestration Impacts:

- Fewer resources for essential cultural and historic resource protection, including signing trails, closing illegal and unnecessary routes, and inventorying and protecting sites, could lead to vandalism, looting and destruction of our irreplaceable national heritage.
- Access to outdoor recreation opportunities such as hiking, camping, hunting, fishing, and self-directed wilderness adventure could be severely restricted.
- Law enforcement and interpretive staff may be stretched even thinner, which would make it more difficult to ensure visitor safety and provide visitor education.
- Fewer resources to monitor and inventory boundaries and roads could leave these lands vulnerable to degradation from reckless off-road vehicle use.

Cultural Resources

The Bureau of Land Management (BLM) manages 258 million acres of federal public lands, the most of any federal agency, including 21 National Historical Landmarks, 5 World Heritage Sites, and more than 263,000 documented cultural properties not included in the BLM's National Landscape Conservation System. BLM is responsible for diverse portfolio resources from iconic lighthouses to cultural landscapes containing prehistoric hunting sites, ancient villages, kivas, cliff dwellings, historic mining ghost towns, WWII Japanese Internment camps and lands of great spiritual significance to Pueblos and Tribes. Under the National Historic Preservation Act (NHPA) the BLM is directed to proactively identify, evaluate and nominate historic properties under its care to the National Register of Historic Places, as well as manage and maintain historic properties in a way that protects and preserves them.

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In order to protect your historic and cultural resources you must know what you own, but sadly in the 34 years since the enactment of the Federal Land Policy and Management Act (FLPMA) only 8.9% of the land managed by the BLM has been surveyed for cultural resources and the resources on 91% of those lands remain unknown. Surveys are important because they inform the agency of their resources and reduce conflicts between historic preservation and other land uses by creating certainty for projects developed on those lands. This is of particular importance when large areas of land are required for the development of industrial solar and wind projects. Funding for increased cultural resources inventories on lands in demand for energy development is an investment in the future of home-grown energy and American jobs.

Since 2003, the BLM Cultural Resources budget has not kept pace with inflation and lost ground with a 15% decrease in full time staff. If the budget remained level with inflation it would be funded at \$20 million instead of the FY 12 recommendation of \$16.8 million. The FY 12 budget provides only 7 cents per acre to protect, preserve, manage and restore the largest and most diverse collection of cultural resources managed by the federal government. Additionally, this sub activity pays for the curation of artifacts in BLM museums and facilities and funds activities related to the Native American Graves Protection and Repatriation Act (NAGPRA) which returns human remains to affiliated tribes.

Potential Budget/Sequestration Impacts:

- Reduced funding will result in fewer patrols to monitor, protect and interpret cultural resources potentially leading to increased theft or vandalism of these sites.
- Reductions to this bare bones budget will reduce the size of this withering staff creating additional delays for the review of energy and other development projects.
- Reductions in funding would result in fewer staff to take ethnographies from Tribes with cultural affiliations including sacred sites on BLM lands which would negatively impact the energy development and transmission.
- Less repatriation of human remains will be completed under NAGPRA resulting in tribal human remains sitting in repositories or museums indefinitely.
- Historic and prehistoric structures seeing increased visitation will not be adequately protected or interpreted for thousands of visitors potentially leading to the destruction of those resources.

BLM's Oil and Gas Program

The Administration has taken significant steps to reform the BLM's onshore oil and gas program, in particular by issuing a new policy in May of 2010 that acknowledges that, though oil and gas development is a legitimate use of the public lands, "in some cases, leasing of oil and gas resources may not be consistent with protection of other important resources and values. The new policy also clarifies that, "Under applicable laws and policies, there is no presumed preference for oil and gas development over other uses."

In carrying out further needed reforms in the BLM's oil and gas program, the Administration has asked Congress for additional authority to require the primary beneficiary of the program – the oil and gas industry – to assume a greater share of the administrative costs of the program from which they so richly benefit. For example, Congress authorized the BLM to charge oil and gas

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operators a \$6,500 fee to help defray the costs of processing applications for drilling permits. Congress should continue to authorize this fee.

Likewise, the BLM has asked Congress to provide it with the authority to charge operators an inspection and enforcement (I&E) fee of up to \$5,700 for each lease to defray the BLM's costs of assuring that operators comply with their conditions of approval. The BLM estimates a savings to taxpayers of \$37,950,000 with this reform. Requiring operators to cover these costs will put the BLM's I&E program on a solid financial foundation for future years, further assure that the beneficiaries of the program help defray its administrative costs, and avert the necessity of "raiding" other BLM programs of appropriations to assure an effective oil and gas inspection and enforcement program.

The Administration also has proposed the imposition of a \$4.00 per acre "non-producing lease fee". The fee would help curb the holding of federal leases for speculative purposes. The BLM estimates that the imposition of such a fee would raise \$330 million per year.

Finally, Congress should support the Administration's proposal to raise the onshore federal royalty rate to at least the same level as offshore royalties (16.67 percent). As the Government Accountability Office has established, "...the U.S. federal government receives one of the lowest government takes in the world. Collectively, the results of five studies presented in 2006 by various private sector entities show that the United States receives a lower government take from the production of oil in the Gulf of Mexico than do states—such as Colorado, Wyoming, Texas, Oklahoma, California, and Louisiana—and many foreign governments." (GAO-07-676R Oil and Gas Royalties, Summary, p. 2, May 1, 2007) The GAO estimated that such a royalty rate would increase revenue by \$4.5 billion over 20 years. (Ibid., p. 3)

Potential Budget/Sequestration Impacts:

- Failure of Congress to provide authority for the BLM to assess sufficient fees on oil and gas companies to cover administrative costs and to impose fees to cover I&E program costs, combined with budget cuts, will result in fewer oil and gas drilling permits being issued, and fewer inspections taking place to assure that operators are complying with the law.
- Failure to raise royalty rates and to impose "non-producing lease fees" will continue to deprive American taxpayers of the fair market value of oil and gas produced from federal public lands and an important opportunity for the oil and gas program to help close the federal government's budget gaps.

Wildlife and Fisheries and Threatened and Endangered Species Management

BLM manages 253 million acres, more land, and 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 plants and animals. The diverse habitat managed by BLM supports over 3,000 species of fish and wildlife, nearly 300 plants and animals listed under the Endangered Species Act or candidates for protection, and more than 800 rare plant species. BLM lands also play an important role in providing outdoor recreation opportunities and for the businesses that support those activities. Wildlife associated recreation is a significant factor in local economies, in 2010 generating \$574 million from fishing, \$800 million from hunting, and \$2.8 billion from wildlife viewing on BLM lands.

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The Wildlife and Fisheries Management and the Threatened and Endangered Species Management programs fund inventory and monitoring, habitat restoration, recovery, and other proactive conservation activities vital to maintaining healthy, functioning ecosystems and fish, wildlife, and plant populations. Despite its extensive wildlife and habitat management responsibilities, the total amount of funding received by the agency for these two programs amounts to only about 35 cents per acre. In addition, annual BLM funding for recovery of threatened and endangered species on BLM lands comes to only around ten percent of what is required of BLM in endangered species recovery plans. Any further cuts to these already meager programs would be devastating.

Potential Budget/Sequestration Impacts:

- A comprehensive effort to put in place protections for the greater sage-grouse. This majestic icon of the West, estimated to have once numbered from 1.6 million to 16 million, has been in decline for many decades, and the US FWS must decide if it needs protection under the Endangered Species Act by 2015. Almost half of all sagebrush habitat has been destroyed, a loss compounded by fragmentation of the remaining habitat. Between 1965 and 2007, population decline was estimated at 3.1 percent each year. Cuts will severely impact the agency's ability to establish the conservation measures needed, such as effective planning, habitat restoration and mapping, inventory, and assessment throughout ten western states.
- A greatly expanded effort to develop clean renewable energy on BLM lands while ensuring that such development protects fish and wildlife populations and habitat. Of particular concern are possible wind, and solar energy impacts on species such as golden eagles, desert tortoise, the declining sage grouse and a variety of bat species. Cuts will hinder or prevent the inventory, monitoring and mitigation efforts needed to avoid and minimize harmful impacts to these and other wildlife species from siting and operations of energy projects.
- The need to address the effect of white-nose syndrome on bats on BLM lands. This fungus has decimated up to 6.7 million bats in the U.S. and Canada in the last several years and continues to spread. Cuts will hinder or prevent needed cave surveys to track the disease and assisting with research to try and find a cure. The catastrophic losses of bat populations that will occur if a way is not found to control the disease will have far reaching consequences – bats play essential roles in insect control, plant pollination, seed dissemination, and the maintenance of healthy cave ecosystems. For example, a 2011 study found that bats provide more than \$3.7 billion in pest management services to the agriculture industry each year.
- Efforts to help listed species such as work to protect the highly endangered black-footed ferret and its prey, the prairie dog from sylvatic plague and continued recolonization of both species in the great plains; reintroduction and desert grassland habitat restoration to benefit the endangered northern aplomado falcon, native to the southwest; riparian habitat restoration to support the endangered southwestern willow flycatcher, that is found in six southwestern states; and captive breeding and reintroduction of the threatened Chiricahua leopard frog that lives in high elevations in the desert southwest.

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Plant Conservation

BLM lands are crucial to the conservation of more than 800 rare plant species. Providing native seeds and seedlings for restoration projects after wildfires and other disturbances is vital to preventing the colonization of invasive plant species that degrade habitat and ecosystem functioning and ultimately cost more to control than preventive measures. Unfortunately, many restoration projects currently use non-native seeds due to the unavailability of native seeds and a failure on the part of the agency to require that natives be used. Plant Conservation is working to resolve this by gathering information from the field regarding seed use and using that information to develop a strategy to support restoration using native seeds. This is vitally important work for species like sage grouse – restoration efforts in sage grouse habitat are only effective when sage brush seeds native to the ecoregion are used. Moreover, the ability to collect and store native seed stock in the face of the looming climate change threat is more important than ever before – Plant Conservation provides a fundamental component of the agency’s adaptation strategy. This program also does the basic work of identifying, evaluating, and protecting rare plants on public lands.

Potential Budget/Sequestration Impacts:

Cuts to this program will hinder or stop ongoing efforts such as:

- Seeds of Success, a unique partnership coordinated by BLM that includes the Royal Botanic Gardens in England, Chicago Botanic Garden, Lady Bird Johnson Wildflower Center and others to collect, conserve, and develop native plant materials for stabilizing, rehabilitating, and restoring lands in the U.S. Currently its National Collection has over 14,000 native seed collections.
- Work to restore one of the largest contiguous areas of shrub-steppe habitat on the Columbia Plateau of Washington State.
- Efforts to protect and manage plants on BLM lands necessary to the survival of pollinators such as bees, bats, birds, and butterflies.
- The Great Basin Restoration Initiative that spans parts of Nevada, Utah, Idaho, Oregon, and California that is working to stop the downward ecological spiral of Great Basin public lands that has been caused by introduction of exotic grasses and noxious weeds over 150 years of settlement and recent disastrous wildfires.

Resource Management Planning

Effective response to the land management challenges of the coming decades, including adapting to the risks of climate change, stepping up to the challenge of responsible energy production, and preventing further endangered species listings, hinges upon timely and informed BLM Resource Management Plans. Keeping BLM plans relevant and up to date is critical given the vast acreage managed by the agency and the many services provided by BLM lands, including the provision of recreation opportunities and the conservation of wildlife, wildlands, and water resources. Plans are the cornerstone of every on the ground action taken by BLM, yet dozens of BLM resource management plans are under revision while many more wait in line to be revised. This program already has been cut by nearly 25 percent since FY 10 and cannot sustain any further reductions without jeopardizing the health of BLM managed lands and services.

Of utmost importance is funding to support sage grouse conservation planning through RMP amendments and revisions. This planning effort, in which the costs of failure are so high, must

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be fully supported and funded, the revisions through this program and the amendments through the Fish and Wildlife Management activity.

We are concerned that the BLM is failing to coordinate Western Oregon plan revisions with other agencies and deviating from the framework of the Northwest Forest Plan. Indications are that BLM's Western Oregon plan revisions would adopt management standards currently prohibited by the Northwest Forest Plan and fail to adequately address impacts to at-risk species such as the Northern Spotted Owl and listed salmon stocks. Until the administration articulates a comprehensive strategy to maintain high conservation standards for these forests, we view the Western Oregon Plan Revision as premature and urge that it be delayed.

Potential Budget/Sequestration Impacts:

- A freeze in BLM's RMP revisions will force the agency to meet today's challenges with yesterday's tools and result in a failure to adequately address key challenges and risks to public values brought on by rapid and dramatic changes in land, habitat and watershed conditions. BLM has identified at least 25 plans across 15 states in need of revision.
- Failure to support effective sage grouse conservation planning on BLM lands could have disastrous consequences for both conservation and multiple-use management on Western lands.
- In many cases, outdated plans perpetuate rather than solve resource conflict problems particularly energy development and conservation clashes. New plans, based on current information and conditions, are better suited to deliver success across a range of goals and objectives.
- Cuts will inhibit the BLM from successfully implementing the Solar Energy Program for Six Western States. The BLM still must complete the rulemaking process for leasing; develop regional mitigation plans for Solar Energy Zones (including associated data collection/survey to support plan development); and engage in transmission planning efforts for the Solar Energy Zones.

Landscape-level Conservation

BLM is pursuing a number of program activities at the landscape level in order to effectively meet the complex land management challenges of the 21st century, including responding to fire and climate change and other ecological changes as well as conducting comprehensive energy and conservation planning. BLM's Climate Change Adaptation, Healthy Landscapes, and Assessment, Inventory and Monitoring (AIM) programs all contribute to landscape level management. Planning and managing at a landscape level leads to cost and program efficiencies within and across agency boundaries, and, to the degree possible, all federal land management agencies should be encouraged to conduct cross-agency landscape level planning and management in consultation with state and tribal land management agencies and other stakeholders.

Cooperative Landscape Conservation

The Cooperative Landscape Conservation program supports the development and implementation of strategies to conserve fish, wildlife, and habitat in the face of landscape-level disturbances including climate change, land use change, invasive species, and energy development. The BLM Cooperative Landscape Conservation program is closely linked to other DOI Cooperative Landscape Conservation programs, including the Climate Science Centers

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(CSCs) and the Landscape Conservation Cooperatives (LCCs). The funding in this program includes the development of ground-breaking rapid ecoregional assessments (REAs) to examine ecological conditions within large landscapes such as the Colorado Plateau or Mojave Basin. REAs synthesize existing information on the condition of the land, for example, by mapping important fish and wildlife habitat and integrate that information with four primary change agents – climate, wildfire, invasive species, and development, including large-scale energy development. Ultimately, the REAs will provide BLM and other land managers with the information they need to develop management strategies that respond to these landscape-level challenges and proactively plan for sustainable development at appropriately large scales. Continued funding of this program will ensure that initiated REAs are completed, new assessments are launched in priority landscapes, and that information contained in the assessments is transferred into useful management direction.

In addition, BLM is actively seeking collaboration with other federal, state, tribal, and private partners to address the management issues that require cross-jurisdictional cooperation. The funding in this program also includes on-the-ground management to implement the strategies being developed.

This type of proactive, strategic, and forward looking initiative will be crucial to support the agency in properly managing the unique sagebrush, grassland, and other ecosystems it administers; conserving wide ranging species such as the sage grouse and lesser prairie chicken; and preparing to meet the threat of global warming which already is a major cause in the spread of noxious exotic weeds, catastrophic wildfires, severe drought, and desertification on BLM lands.

Healthy Landscapes

As a result of drought, altered fire regimes, invasive plant and animal species, and changes in land use associated with energy development and urban growth, BLM lands are experiencing a period of unprecedented environmental change. The Healthy Landscapes program has become an innovative and praiseworthy effort to address these landscape level management challenges by targeting restoration and other conservation activities towards high priority projects at the landscape scale. Healthy Landscapes projects will increasingly be tiered towards areas identified in rapid ecological assessments as they are completed.

Assessments, Inventory and Monitoring

The Assessment, Inventory, and Monitoring (AIM) program, which integrates assessment and monitoring activities across BLM offices, for example between Resource Management Planning and the Wildlife and Fisheries programs, and among federal and non-federal partners, is critical for creating efficiencies in the collection, analysis, and reporting of resource conditions on BLM lands and beyond. Data sharing and integration lead to better, more efficient and effective management actions. If done right, and provided with sufficient direction and resources, the AIM program has the potential to ensure a “proactive and effective wildlife program” that, through efficient operation, can “preclude the need to list species under the Endangered Species Act.” The modest funding in this program is designed to leverage the data collection in other programs and will be tiered to the rapid ecological assessments as they are completed.

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BUREAU OF LAND MANAGEMENT

Potential Budget/Sequestration Impacts:

Cuts to this modestly funded program would:

- Prevent the BLM from completing a Rapid Ecological Assessment in the Arctic. The BLM intends to provide access to a pipeline across the NPR-A in Alaska to carry oil from offshore drilling. The Arctic REA is essential to properly plan for the best pipeline route to minimize impacts on sensitive ecological resources and reduce conflicts and delays.
- Prevent the BLM from initiating a Rapid Ecological Assessment in the Southern Plains ecoregion which includes parts of New Mexico, Colorado, Texas, Oklahoma, Kansas, and Nebraska. The BLM manages millions of acres of subsurface mineral rights in this sprawling area, which is home to the lesser prairie chicken, a species currently being considered for listing under the Endangered Species Act. The Southern Plains REA is critical to understanding the demands for future energy development and the needs of the lesser prairie chicken to develop a landscape approach to minimizing conflicts between the species, energy development and other users.
- Prevent BLM from initiating or completing several other REAs with similarly important consequences.
- Slash on the ground ecological restoration projects.
- Cripple BLM's Assessment, Inventory and Monitoring program, reducing BLM's ability to detect and avoid species declines and resource conflicts.

Challenge Cost Share

The BLM's Challenge Cost Share program allows it to partner with state and local governments, private individuals, companies and nongovernmental organizations to restore habitat, monitor fish and wildlife, maintain archeological sites, repair trails, among other activities. The program, which requires a dollar for dollar match, has been reported by the agency to average a two-to-one match, and for some projects a three to one match or more, providing tremendous leverage of federal funds. Crucial conservation work is being accomplished in field offices through Challenge Cost Share partnerships. The Challenge Cost share program is a significant effort that has provided important opportunities for tens of thousands of citizen volunteers to do thousands of stewardship projects on public lands and trails in a way that cannot be duplicated through other federal funding programs.

Potential Budget/Sequestration Impacts:

- Even at previously higher funding levels the agency was turning away an average of \$20 million in projects that could be leveraged into \$60 million or more for the total program. With further funding cuts, more matching funds will be lost and fewer critical conservation projects will be completed.

Energy and Minerals Management: Renewable Energy Subactivity

The Bureau of Land Management's (BLM) Renewable Energy Program is tasked with identifying and permitting renewable energy development on our public lands while complying with the agency's multiple-use mandates and protecting the nation's richest ecological and cultural areas. Achieving a clean energy future requires land managers to strike a balance between the near-term impact of renewable energy development and related transmission facilities with the long-term impacts of climate change on biological diversity and natural landscapes.

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BUREAU OF LAND MANAGEMENT

The BLM has worked to modernize generation and transmission permitting on public lands to better take into account the impacts of energy development early in the planning and permitting process. Since 2009, working through the Renewable Energy Coordination Offices (RECOs), the BLM has permitted 34 wind, solar and geothermal energy projects on public lands, with many proposed projects in the pipeline. BLM's renewable energy work was funded at \$19.7 million for FY12. In 2012, the Department of the Interior exceeded the goal set by the President of permitting 10,000 megawatts of renewable energy on public lands of which many of those projects are currently under construction. Recently, the BLM announced that it has focused its resources on permitting 23 renewable energy projects for 2013 and 2014 (14 solar, 6 wind, and 3 geothermal) representing about 5,300 megawatts of power. Five major transmission lines stretching across the western states are also pending review. Adequate funding for BLM's renewable energy program in FY14 is necessary to meet this demand and establish the U.S. as a leader in both wind and solar technologies.

The Renewable Energy Program, part of the Interior Department's New Energy Frontier initiative, will support necessary permitting activities including early outreach to tribes, counties and local governments. These funds also support required impact assessments for wildlife. Cuts to these programs will handcuff developers, investors, environmentalists, and others working to build projects in the right places, and put Americans to work on American lands.

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BUREAU OF RECLAMATION

Yakima River Basin Water Enhancement Project

The Yakima River Basin is home to Washington's largest Native American tribe and contains one of the largest Bureau of Reclamation projects in the West. The various Reclamation projects in the basin have depleted and polluted river flows, and water rights conflicts in this basin are legendary. Partly as a result, Yakima River bull trout and steelhead are now listed under the Endangered Species Act. Phase II of The Yakima River Basin Water Enhancement Project, authorized by Congress in 1994, was designed to ameliorate these conditions for both fish and farmers. It aims to restore the river and make better use of the existing water supplies. This legislation was a compromise agreed to by the basin's disparate stakeholders, and the program it created is a model for water conservation and water rights acquisition.

California-Federal Bay Delta Program

The California-Federal Bay Delta Program (CalFed) is a partnership between federal and California agencies to provide a balanced, collaborative approach to the water resource demands on the San Francisco Bay and San Pablo Bay watersheds. The Ecosystem Restoration and Watershed program within CalFed works to restore and improve wildlife habitat throughout the watershed, improve fish passage, integrate flood control and ecosystem restoration, and implement specific watershed restoration projects in conjunction with watershed plans. The Ecosystem Restoration program has funded more than 460 projects, restoring 100,000 acres of fish habitat, screening 68 water intake points, and initiating 23 comprehensive watershed programs. The Watersheds Program has awarded 116 grants totaling about \$50 million to community-based organizations for projects addressing watershed health, drinking water quality, non-point sources of pollution, and watershed protection. In order to protect the fragile ecosystem that an estimated 23 million Californians depend upon, CalFed must receive the resources necessary to carry out its mission.

Potential Budget/Sequestration Impacts:

- Failure to fund these and other regional water conservation and habitat restoration efforts could result in the Bureau being unable to adequately cope with the demands placed on its facilities and the ecosystems they impact in the face of a looming substantial drought in 2013. These impacts will be felt by farmers, other water users, recreational and commercial fishing interests, and the species that inhabit these areas.

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Cooperative Landscape Conservation and Adaptive Science

Threats to the conservation of wildlife and other natural resources are increasingly large-scale and complex. Combined with decreasing resources among federal, state, tribal, and private-sector conservation partners, there is a need to work more effectively and efficiently across jurisdictional boundaries. The Fish and Wildlife Service (FWS) and the Department of the Interior have established a nation-wide network of Landscape Conservation Cooperatives (LCCs) to improve landscape-level coordination of conservation efforts, and to provide science and technical capacity to tackle today's complex environmental problems.

Twenty two LCCs have been established covering every region of the country, including Alaska, Hawaii and the island territories. As a relatively new program, the agencies have been building the budgets of the LCCs and many lack funds to offer the science and technical capacity sorely needed by partner agencies. Cuts to the program will send it backwards and will hinder crucial projects such as the following:

Potential Budget/Sequestration Impacts:

- The North Pacific LCC, which includes parts of northern California, Oregon, Washington and southern Alaska, is working on a project to identify Tribal and Native Alaskan information needs related to conservation and management of natural and cultural resources potentially affected by climate change, including subsistence resources.
- The Great Northern LCC, which includes parts of Idaho, Wyoming, Montana, Oregon, and Washington, is working on a project to study the genetic connectivity (i.e. how much breeding exchange there is between populations) of greater sage grouse. This project will be informative to conservation managers by identifying areas of conservation importance across the range of greater sage grouse, and by establishing an understanding of range-wide population structure. This will provide more detailed spatial information for devising more focused and effective conservation strategies to protect sage grouse, a candidate for listing under the Endangered Species Act.

Endangered Species Program

The Endangered Species Act, one of the most visionary environmental laws ever passed, is celebrating its 40th anniversary in 2013. For those 40 years, the 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. More than 99 percent of all species protected under the Act have been rescued from extinction, an astonishing success rate. And the Act has restored more than twenty species to the point where they no longer require its protection, including the peregrine falcon, American alligator, and brown pelican. The Act also benefits people by maintaining healthy natural systems that provide clean air and water, food, medicines, and other products. For example, extracts from the Rosy Periwinkle plant are used daily to cure Hodgkins and lymphocytic leukemia, while skin secretions from the endangered Houston toad are being used to treat heart and nervous system disorders and provide pain relief.

Because of human caused changes – habitat destruction and fragmentation, climate change, air and water pollution and more – the Earth is suffering the worst period of species loss since the

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disappearance of dinosaurs 65 million years ago. Scientists estimate species are being lost at as much as 10,000 times the natural rate of extinction. Extinction is so tragic because it is a completely irreversible environmental calamity. With each plant and animal species that disappears, a part of our world is erased forever, and with it a part of our natural system that may have unknown benefits. We owe it to our children and grandchildren to be good stewards of the environment and leave behind a legacy of protecting endangered species and their homes.

The U.S. Fish and Wildlife Service (FWS) is one of two federal agencies with primary responsibility for implementing the Endangered Species Act, and it manages these operations through four accounts: Listing, Consultation, Recovery, and Candidate Conservation. The Act's outstanding successes have been achieved despite severe and chronic funding shortfalls. Further cuts will cripple its ability to save plants and animals from extinction.

Potential Budget/Sequestration Impacts:

- To gain protection, a species must be formally listed under the Act. Further cuts in the listing budget will hinder progress in listing approximately 180 candidates, many of which have awaited protection for years, including the red knot, Pacific fisher, Pacific walrus, Yosemite toad, New England cottontail rabbit, yellow-billed loon and other species desperately in need of protection.
- Each year, FWS evaluates tens of thousands of projects under the consultation program to ensure outside projects can move forward while not significantly harming listed species, a crushing workload for agency personnel. Cuts would hinder efforts such as working with the Bureau of Land Management, renewable energy companies and others so that wind turbines, solar arrays, and transmission lines can be sited and built while reducing harm to species like bats, golden eagles, whooping cranes and desert tortoise.
- Funding already is inadequate to address the recovery needs of the more than 1,400 listed U.S. species and cuts will further undermine crucial work such as restoring Florida panther habitat, inventorying and monitoring of Canada lynx, installing wildlife crossings for species such as ocelots, marking and maintaining boat speed zones for manatees, and captive breeding and reintroduction of black-footed ferrets.
- From 1996 to 2011, the Service has worked with stakeholders and other agencies through candidate conservation to avert the need to list 42 species such as the Sand Mountain blue butterfly in Nevada, the McCloud River redband trout in California, the Ramsey Canyon leopard frog in Arizona, and the swift fox that occurs in numerous states. Further decreases will seriously impact steps to avert listings of candidate species.

National Wildlife Refuge System

The National Wildlife Refuge System is the largest land and water system in the world dedicated to wildlife conservation. The Refuge System, with 560 refuges on approximately 150 million acres across the country and several U.S. territories, is the key to protecting America's wildlife and ensuring that there are lands where wildlife protection is a priority. Refuges are home to more than 700 bird species, 220 kinds of mammals, 250 reptiles and amphibians, 1,000 species of fish and nearly 300 threatened or endangered species. In addition, a number of refuges are located along our coasts where they serve valuable functions in protecting communities from floods and storm surges. There is a refuge in every state and within an hour's drive of most

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major American cities. Visited by about 45 million people each year, our national wildlife refuges are economic engines, generating more than \$4.2 billion and nearly 35,000 private sector jobs in regional economies according to a 2012 report, *The Department of the Interior's Economic Contributions*.

Despite its crucial role as an anchor for America's wildlife conservation, outdoor recreation opportunities and economic activity, the Refuge System has long been plagued by chronic and severe funding shortfalls and is currently operating at only half of its capacity. Further cuts will have devastating impacts on the System, its wildlife, and the communities it benefits. Even flat funding would impact the System. Indeed, to simply maintain the management capability to operate properly – keep fuel in trucks and pay for rising utilities, building rent, and other costs while *not* counting any cost of living increase for personnel – the Refuge System needs an annual increase of at least \$8 million.

Moreover, the challenges the Refuge System faces are only growing. Since FY05, devastating floods, tornadoes, an earthquake, a tsunami, tropical storms, and hurricanes, including most recently Superstorm Sandy, left refuges in the direct path of these catastrophes with \$761.3 million in estimated damages. While \$321.8 million in supplemental funding has been provided to respond to some of these damages, the Refuge System has absorbed \$439.5 million in uncompensated damages, nearly the amount of a full year's funding for the System, forcing it to divert resources from its operations and maintenance budget. This leaves even fewer dollars to carry out the most basic functions and forcing important project and staffing needs onto the System's existing operations and maintenance backlog of more than \$3.1 billion.

Potential Budget/Sequestration Impacts:

The Cooperative Alliance for Refuge Enhancement (CARE), a diverse coalition of 22 conservation, sporting, recreation, and scientific organizations representing a constituency of more than 15 million Americans have released a report describing the top 10 impacts sequestration or other deep cuts would have on the Refuge System.

- Visitor centers and even entire refuges will be forced to close.
- Opportunities for hunting and fishing will be lost.
- Without staff to coordinate them or resources to do the work, volunteers will be turned away.
- Local economies that rely on income from refuge visitors will lose revenue.

- Without enough people to enforce laws protecting refuges, their wildlife and their visitors, we will see an increase of poaching, vandalism and drug smuggling on refuges.
- People who enjoy birding and watching wildlife will lose the opportunity to do so.
- Without the staff or equipment needed to remove them, invasive species will spread.
- Habitat restoration and fire management will be halted.
- Responses to devastation caused by natural disasters will be delayed.
- The newly-initiated inventory and monitoring program, which tracks the size and health of wildlife populations and habitat, and can help alert refuge managers to potential problems, could be terminated.

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Migratory Bird Management

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*, conducted by the U.S. Fish and Wildlife Service (USFWS 2012), reports that nearly 47 million people observed birds, contributing much of the nearly \$55 billion in expenditures generated for the U.S. economy by wildlife-watching. In a particular example, nature-based tourism in the Lower Rio Grande Valley in Texas, much of which is focused on watching the nearly 500 bird species that have been recorded there, was found in a 2011 *study* to generate \$463 million per year in economic benefits for the four surrounding counties.

More than 1000 species of birds occupy an array of habitats across the U.S., with more than 250 listed under the Endangered Species Act or of conservation concern. The first *State of the Birds* report in 2009 documented broad declines in U.S. bird populations that include nearly all native Hawaiian birds which have plummeted to the verge of extinction, 39 percent of ocean birds, half of coastal shorebirds, 30 percent of arid land birds, and 40 percent of grassland birds. The *2010* report focused on impacts to birds from climate change and found that birds in every habitat will be affected by it, some to a greater degree than others. Ocean dependent and Hawaiian Island birds are the most vulnerable but coastal birds also will suffer from sea level rise and increased storms; alpine and arctic birds from increased temperatures; island birds from rising sea levels, disease and decreased rainfall; wetland birds from temperature changes; grassland and arid land birds from drought and high temperatures; and forest birds from precipitation changes, fire, disease and pests.

Potential Budget/Sequestration Impacts:

Further cuts would impact critical work such as the following:

- Survey and monitoring for bald and golden eagles to prevent harm from energy projects and other development and for seabirds which may be vulnerable to energy development.
- Strategic conservation efforts for 139 high-priority species such as the red knot (which has declined by 75 percent in the last 20 years), Laysan albatross (which has declined by 32 percent where most of its population is found), American woodcock, long-billed curlew, American and black oystercatcher, tri-colored blackbird, Sprague's pipit, cerulean warbler, painted bunting and black-footed albatross.
- Urban Treaties that assist cities in conserving birds in urban and suburban areas through means such as education, hazard reduction and habitat improvements in cities in Alabama, Arizona, California, Illinois, Indiana, Minnesota, Montana, Texas and Utah.
- Continued monitoring and response to avian diseases such as botulism, avian cholera and influenza and West Nile virus to prevent harm to both wild bird populations and transfer of disease to humans and livestock.
- Crucial collaborative work to conserve habitat by the 21 regional North American Waterfowl Management/Joint Ventures nationwide, especially new partnerships that have been established in Texas, West Virginia and Oklahoma.

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International Affairs

Conservation of the Earth's wildlife and habitat is a global priority of the highest urgency. Extinction is among the most irreversible and tragic of all environmental calamities, and is increasing at an unprecedented rate. An effective response to this challenge requires nations to work together cooperatively — wildlife recognizes no political borders. The relative wealth of our country in comparison to desperate situations around the globe means that modest investments of U.S. conservation 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.

The FWS is mandated to support U.S. environmental leadership around the globe through numerous statutes and international treaties such as the Ramsar Convention on Wetlands of International Importance and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). International Affairs works to meet its responsibilities through two programs: International Conservation, which supports the preservation of endangered and migratory species and habitat by providing capacity building, education, and training; and International Wildlife Trade which carries out the scientific and management requirements of laws and treaties for the conservation of species subject to trade, issuing 15,000-20,000 permits per year.

The International Wildlife Trade (IWT) program works to prevent illegal trade in wildlife and wildlife products and to ensure that legal trade promotes the long-term survival of species. INTERPOL estimates illegal wildlife trade to be worth \$10 – 20 billion dollars annually, rivaling the illegal trades in drugs and weapons. This trade is strongly linked to organized crime and drug trafficking, making it an issue of national security as well as conservation. Through the implementation of numerous domestic laws and international treaties, IWT ensures that trade in wildlife and wildlife products is legal and does not threaten the survival of species in the wild. Working with governments, industry, and experts around the world, IWT strives to establish conservation programs that include sustainable use, supporting industry while also conserving species. In International Conservation, the Wildlife Without Borders (WWB) programs recognize that most species are mobile. Many cross national boundaries, some even span continents. Yet regardless of where species reside, their survival hinges on how human beings value their worth. Since people are the primary threat facing wildlife, it is essential they be part of the solution. Consequently WWB focuses on people. It addresses grass-roots wildlife conservation problems from a broad, landscape perspective seeking to build expertise and strengthen institutions dedicated to conserving nature.

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Potential Budget/Sequestration Impacts:

Further cuts to International Affairs will undermine work such as:

- Since 1989, WWB has supported international conservation through its species, regional and global programs by developing locally-focused wildlife conservation programs. Partners include non-governmental organizations, governments, the private sector and community leaders. The WWB Regional and Global programs have supported more than 800 conservation projects, from 2007 to 2011, WWB Regional and Global programs awarded over \$16 million and leveraged an additional \$26 million in matching funds across the globe that provide education, training and outreach to conserve endangered wildlife and nature. WWB's Global program targets cross-cutting, global threats to wildlife; support signature initiatives to maximize long-term impact; and address declines of critically endangered species, such as amphibians 40 percent of which are threatened with extinction.
- Initiatives through Wildlife Without Borders Mexico to train natural resource managers, decision-makers and stakeholders that have resulted in successes such as the training of more than 2,000 farmers in the protection of monarch butterfly wintering habitat.
- Training multi-disciplinary teams of wildlife professionals through Wildlife Without Borders Africa to address threats such as the unsustainable bushmeat trade and timber harvest.
- Preventing unsustainable trade in native U.S. species such as freshwater turtles that are sought for food, medicinal purposes and trade; sturgeon and paddlefish that are sought as caviar substitutes; Hawaiian sandalwood that is used for oil; and agave cactus that is increasingly being used for landscaping in European resorts.
- Regulating the currently unregulated snake trade in SE Asia – not only is the U.S. a primary consumer but the removal of snakes removes a control on mice, potentially negatively impacting agriculture in that region and increasing import costs.
- Preventing poaching of endangered rhinoceros and illegal trade in their much sought-after horns.

Office of Law Enforcement

As our world grows increasingly complex, wildlife faces escalating criminal threats, including illicit trade, unlawful commercial exploitation, illegal destruction of habitat, and environmental hazards. Illegal wildlife trade is also related to our national security. The link between wildlife smuggling and both organized crime and drug trafficking is well documented. Wildlife trade ranks third in monetary importance, just after the drug and arms trade. The U.S. supports one of the largest markets after China for both legal and illegal wildlife and wildlife products. Intercepted contraband includes tigers, caviar, coral, snakes, timber, elephant ivory, sea turtles, live birds, and numerous species native to the U.S.

The Office of Law Enforcement (OLE) investigates wildlife crimes, enforces regulation of wildlife trade, helps citizens comply with the law, and works with other international and U.S. government entities to carry out its mission. The 143 wildlife inspectors are the front line of defense in nearly 40 designated and non-designated ports of entry around the country including in Alaska, California, Florida, Illinois, Kentucky, Louisiana, Maryland, Montana, Tennessee, Texas and Washington. In FY 11, they processed about 179,000 declared shipments of wildlife and wildlife products worth more than \$2.8 billion. The 219 special agents are expert investigators that break up smuggling rings, stop commercial exploitation of protected U.S. species, and work

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with states to protect U.S. game species from poaching that steals both state income and hunting and fishing opportunities. In FY 11, OLE special agents investigated more than 13,000 cases. And the Clark R. Bavin National Fish and Wildlife Forensics Laboratory in Ashland, Oregon is unique – it is the only one in the world dedicated to solving wildlife crimes, a real life “Wildlife CSI.” OLE is severely underfunded to meet the rapidly proliferating threats. Any further reductions will further hinder crucial law enforcement efforts.

Potential Budget/Sequestration Impacts:

Recent examples of the kinds of cases that could be impacted include:

- “Operation Crash,” a nationwide Fish and Wildlife Service crackdown on those involved in the black market trade of endangered rhino horns – more than 450 rhinos were killed in 2012 alone.
- Successful conviction with prison sentence of a defendant for both wildlife trafficking and possession of hard core child pornography – the pornography was found during execution of a search for illegal possession of eagle feathers which also found feathers of 15 different migratory birds.
- The largest deer poaching case in Kansas history in an operation that led up to 60 clients to illegally kill approximately 160 deer.
- Smuggling jaguar skins for sale in Florida, Texas, and elsewhere by e-commerce.
- Successful felony conviction of a man who collected and planned to sell more than 150 eggs of threatened loggerhead sea turtles – these eggs can sell for as much as \$15 each on the black market.
- Illegal trafficking of narwhal tusks and associated money laundering.

Environmental Contaminants

In our modern world, there are a myriad of harmful pollutants, many potentially lethal, that adversely affect fish, wildlife, habitat and people. These include pesticides, endocrine disruptors, heavy metals, prescription drugs, oil and other industrial chemicals, fertilizers, and numerous other products that are released to the environment through spills, disposal, ongoing use, or other means. For example, in recent studies of major rivers and streams, one or more pesticides have been found more than 90 percent of the time, and in more than 80 percent of fish sampled. This may be causing declines in pollinators such as bees and birds as well as declines and deformities in frogs and other amphibians.

The FWS, through its Environmental Contaminants program, is the primary federal agency responsible for protecting fish, wildlife, and habitat from damaging pollutants through identifying and assessing their effects, working to prevent exposure, and restoring resources damaged by them. One of the most important responsibilities of the program is its leadership in Natural Resource Damage Assessment and Restoration to recover fish, wildlife and habitat injured from oil spills or the release of other hazardous substances. The Contaminants program works to investigate the damage and determine responsibility if not known, negotiate with the responsible parties for restitution, and then, using the funds provided, work with other stakeholders to implement restoration projects for the affected resources. Since 1992, the program has negotiated more than \$785 million in settlements from responsible parties for restoration of natural resources that are held in trust for the American people. This was prior to the damage from the Deepwater Horizon oil disaster, for which damage assessments are

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currently underway, now widely recognized as the worst oil spill in American history with damage to natural resources likely to total in the billions.

Potential Budget/Sequestration Impacts:

The program already lacks the funding for current needs including the ability to maintain enough expert contaminant biologists, and any further cuts will further undermine needed work to prevent harm to vulnerable wildlife from dangerous pollutants, for example:

- New studies have shown that fish and wildlife populations are more seriously affected by mercury than previously known, especially birds such as the American kestrel, American white ibis, snowy egret and tri-colored heron, and other animals that consume fish and insects contaminated by mercury. Investigations are needed to determine the extent of these impacts.
- The number of inland and riverine oil spills is expected to increase in coming years due to the aging of the U.S. oil pipeline infrastructure, much of which is over 50 years old. As a result, there will be a growing number of damaging spills such as those in the Kalamzoo River in Michigan in 2010 that spilled over 800,000 gallons of oil and harmed wildlife including wood ducks, swans, great blue herons, muskrats, mink, turtles, snakes, frogs and toads and in the Yellowstone River in Montana that spilled about 50,000 gallons of oil and harmed wetlands and wildlife including the endangered pallid sturgeon, waterfowl, and wading birds, and a recent spill from a barge collision on the Mississippi River near Vicksburg Miss. Proactive outreach with other agencies before spills occur is absolutely crucial to ensure Contaminants will be called immediately both to protect wildlife in spill areas from harm and to ensure that damages to the public's wildlife are properly quantified for restitution before evidence of the loss dissipates or washes away.
- The program will be unable to develop criteria to describe safe and unsafe levels of contaminants for wildlife – criteria currently do not exist for many known contaminants.
- Pre-incident planning and training will become more difficult.

National Fish Passage Program

The National Fish Passage Program is a voluntary, non-regulatory program that supports local community efforts to conserve aquatic resources. The program is used to restore free flowing rivers by removing or bypassing barriers that prevent the natural movement of aquatic species. It is estimated that there are over six million barriers that impede aquatic species movement nationwide. A large number of these barriers are obsolete and can be removed with public support. The program aids stream connectivity, enhances water quality, improves public safety, increases fishing opportunities, boosts boating access and facilitates wildlife viewing. The program creates 20-54 jobs for each \$1 million spent and leverages about \$3 in partner funds for every \$1 in federal spending. To date, the program has improved connectivity on more than 11,000 miles of river and restored more than 80,000 acres of wetlands.

Potential Budget/Sequestration Impacts:

Cuts to the National Fish Passage Program will:

- Mean fewer shovel-ready projects done, resulting in fewer benefits to many imperiled fish, mussels, amphibians and other aquatic species.
- Reduce the number of general and construction contractors, engineers, heavy equipment operators, surveyors, laborers who would be employed in local communities.
- Prevent water quality and habitat improvements on rivers and streams where there is public support and state and private match funds to do so.

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Coastal Program

The FWS Coastal Program is an effective partnership that brings together FWS scientists, biologists, coastal communities, and other conservation partners to protect and restore habitat in coastal regions and coastal rivers. Since its creation, the Coastal Program has protected over 2 million acres of coastal habitat, and it has restored 293,000 wetland acres, 123,000 upland acres, and 1,850 stream miles. These efforts are critical to improving the health of the nation's coasts and estuaries, which has declined drastically due to increasing levels of stress from commercial and residential development, polluted runoff, shoreline modification, and over-harvesting of resources. Coastal Program efforts are helping to provide vital habitat for fish and wildlife, protect inland areas from erosion, and filter sediment and polluted runoff from watersheds, while serving as a catalyst for economic investment by leveraging an average of \$8 for every \$1 in federal funds. In addition, these activities are improving economies in coastal communities by supporting industries that contribute to restoration projects, as well as recreation, tourism, and fishing industries that benefit from healthy coasts.

The Coastal Program is designed to support habitat conservation for Federal Trust Species in coastal areas by forming diverse voluntary partnerships with Federal, state, regional, and local agencies; nongovernmental organizations; and private landowners. This collaboration is critical to recovering threatened and endangered species and preventing candidate species from becoming listed.

Potential Budget/Sequestration Impacts:

- Federal restoration funding is matched by state and private funding to jointly achieve restoration goals. Cuts would leave matching funds on the table, having an exponentially negative impact. At current leverage rates for every \$1 million cut to federal Coastal program funding, \$8 million in leverage would be lost.
- Restoration projects contribute to recovery of migratory birds, threatened and endangered species – cuts would delay restoration projects, demanding more costly reactive measures in future years to achieve recovery.
- Coastal Program projects engage diverse local stakeholders in voluntary partnerships for the benefit of threatened and endangered species. Cuts threaten to erode coastal stakeholder support and undermine voluntary recovery efforts.

State and Tribal Wildlife Grants Program

The State and Tribal Wildlife Grants Program (STWG) was created in 2001 to support proactive planning and conservation of at-risk fish and wildlife by states, tribes and their partners. This program complements the successful Sport Fish and Wildlife Restoration program that was started over 75 years ago and has successfully brought iconic game species back from the brink of extinction. The STWG program resulted in the historic development of State Wildlife Action Plans in every state and territory and is a principal source of funding for their implementation and revision. State Wildlife Action Plans are used by local, state and federal agencies and private conservation organizations to efficiently guide conservation work on over 12,000 species of at-risk fish and wildlife. Funding for tribal grants supports conservation of fish and wildlife on tribal lands.

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STWG is championed for its flexibility, allowing states, tribes and their partners to address local needs and priorities. The program supports thousands of jobs that range from private heavy equipment operators who restore wetlands to biologists who provide technical assistance to private citizens who voluntarily restore habitat. Each year, the program leverages tens of millions of dollars in state, tribal, local and private funds through partnerships with universities, private conservation organizations, businesses, farmers, ranchers and others. The program is popular and is supported by the 6,300 member [Teaming With Wildlife Coalition](#) representing tens of millions of birders, hunters, anglers, hikers and other outdoor enthusiasts.

Potential Budget/Sequestration Impacts:

Further cuts to the State and Tribal Wildlife Grants Program will:

- Reduce priority survey and monitoring work and state/federal collaborations that reduce the likelihood that federally petitioned and candidate species will be added to the endangered species list.
- Slow or impede progress to control invasive species like the zebra mussel and Asian carp which cause millions of dollars in economic impact each year.
- Reduce the ability of states to conduct timely environmental review of renewable energy and other development projects.
- Mean fewer competitive tribal grants will be awarded to do priority conservation on tribal lands.
- Reduce the capacity for states to conduct surveillance on diseases such as white-nosed syndrome in bats.
- Reduce the ability of states to raise imperiled fish and wildlife and reintroduce them back into their native habitat.
- Result in the loss or reduction of private investments that are used as matching funds for on-the-ground conservation work in every state, territory and the District of Columbia.
- Slow progress by states to revise State Wildlife Action Plans so that they continue to be the best source to guide proactive conservation of at-risk species.

Cooperative Endangered Species Fund

The Cooperative Endangered Species Fund provides grants to states for voluntary conservation measures on non-federal lands for species listed as federally endangered and threatened and for species that are candidates for listing. The program is authorized under Section 6 of the Endangered Species Act. Activities funded by these grants include species status surveys, research, habitat restoration, captive propagation, reintroduction, planning, and habitat acquisition. Much of the work conducted by states is guided by their State Wildlife Action Plans and species recovery plans. Requests for the Habitat Conservation Plan and Recovery Land Acquisition programs generally total two to three times the available funding.

Potential Budget/Sequestration Impacts:

Cuts to the Cooperative Endangered Species Program will:

- Reduce the ability of states to assist the US Fish and Wildlife Service in doing legally required assessments of candidate and petitioned species that could result in more animals and plants being added to the endangered species list.
- Reduce the number of well-designed on-the-ground conservation projects that are identified as priorities in State Wildlife Action Plans and endangered species recovery plans.

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Potential Budget/Sequestration Impacts (cont.):

- Reduce the number of projects with willing private landowners who want to be a partner in the recovery of threatened and endangered species and a solution to increased regulation.

Partners for Fish and Wildlife Program

The voluntary Partners for Fish and Wildlife program provides financial and technical assistance to landowners interested in restoring habitat on private property. Projects are implemented for a wide range of habitats with an emphasis on federal trust species, including those that are listed as federally threatened and endangered. To date the program has reached 44,000 landowners and has restored or enhanced 9,200 miles of streams, 1.2 million acres of wetlands and 3.2 million acres of wetlands. Projects funded through the program provide jobs to heavy equipment operators, contractors and others who support local economies. Project selection is guided by geographic and species priorities and uses a landowner friendly delivery process where most decision-making occurs at the field level. Since its inception, the program has worked with over 3,000 partnering organizations and leverages \$4 for every \$1 of federal funding.

Potential Budget/Sequestration Impacts:

- Result in fewer willing private landowners receiving technical and financial assistance to conserve federal trust species.
- Result in fewer state and private funds being leveraged and fewer opportunities to work with state and private partners to meet mutually agreed upon conservation goals.
- Reduce the number of private contractors such as heavy equipment operators who will be employed, impacting local businesses.

Multinational Species Conservation Funds (MSCF)

The Multinational Species Conservation Fund (MSCF) program exemplifies U.S. leadership on international wildlife conservation efforts, providing dedicated and effective resources for global conservation of iconic species: African and Asian elephants, rhinos, tigers, great apes and marine turtles. Since 1989, these programs have awarded over 2,200 grants, targeting key species and regions to ensure the protection of some of the world's most endangered and charismatic animals. The species-focused component of the Wildlife Without Borders (WWB) program, the MSCF protects and restores at-risk wildlife populations, provides local people the capacity to conserve wildlife and fosters on-the-ground partnerships in developing countries.

The five congressionally authorized Multinational Species Conservation Funds have consistently commanded broad, bipartisan support and are addressing critical needs. More than 500 tigers are killed each year, and experts estimate that as few as 3,200 tigers now remain in the wild. In 2012 alone more than 488 rhinos have been poached in South Africa, this slaughter is driven largely by black-market demand for rhino parts in Asia. Africa's great apes are victims of the growing bushmeat trade and face threats from diseases, such as Ebola, which have wiped out up to 90 percent of affected populations. MSCF programs protect these animals in their natural habitat through a wide array of efforts that include anti-poaching and law enforcement initiatives, habitat and conservation, mitigation of human-animal conflicts, wildlife based

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tourism, reducing consumer demand, and wildlife health programs. From 2007 to 2011, the MSCF programs provided more than \$68 million in conservation assistance and leveraged an additional \$101 million in partner contributions.

Potential Budget/Sequestration Impacts:

- The MSCF's ability to support sustainable development, local livelihoods, and US foreign policy goals through a project based approach. For example, small investments in the Great Apes Conservation Fund in one project has helped gorilla-based ecotourism as an economic engine in a number of African countries including providing jobs to over 100 field assistants, part-time porters, U.S. veterinarians and biologists, part-time Congolese biologists, and educator
- The MSCF significant contribution to advancing US national security goals by encouraging regional cooperation, promoting good environmental governance in conflict-prone regions, training former militia soldiers as eco-guards, and enhancing law enforcement. Illegal wildlife trade particularly of elephant ivory and rhino horn is worth billions of dollars annually. In Central Africa and elsewhere, it is tied to other criminal activities, such as the arms trade, and helps fuel armed conflicts and regional instability. Combating this global crisis is critical.
- The MSCF's continued ability to fight the transmission of infectious diseases, such as Ebola and Monkey Pox that threaten human lives as much as they can wipe out entire great ape populations
- Sustain and increase the MSCF's economic impact of \$22.6 million supporting 207 U.S. jobs such as reported by the Department of the Interior in FY 11.

<http://www.fws.gov/international/wildlife-without-borders/species-programs/>

North American Wetlands Conservation Fund

The North American Wetlands Conservation Act was passed in 1989 by President George H.W. Bush, and has had bipartisan support in Congress for the 24 years since. This competitive grant program awards anywhere from several thousand dollars to one million dollars for wetland restoration projects, and the 4,500 partners include landowners, non-profits, Boy Scouts, and businesses of all sizes. All grants are required to attract at least a 1:1 match, but because of its popularity, the average match over the life of the program is over 3:1, with an impact on over 26.5 million acres across the continent.

The NAWCA program is particularly important to hunters and anglers, who use these lands for outdoor recreation and which support wildlife populations. Hunters and anglers in the United States spent over \$90 billion in 2011 pursuing their passions. That's \$246 million per day continuing an outdoor tradition that has been passed down through generations of Americans since the founding of our country. Overall, hunting and fishing support more than 1.6 million jobs and generate more than \$25 billion a year in federal, state, and local taxes. For generations, hunters and anglers have placed high priority on taking care of the land and water so that in return they can support abundant fish and wildlife populations.

The United States has lost over half its wetlands, and some states, such as California, have lost over 90%. With fewer wetlands, millions have been spent on erosion control, water treatment, and flood protection that natural wetlands used to provide for free. Restoring and protecting

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wetlands is vital to conserving fish and wildlife species dependent upon such habitat and maintaining healthy watersheds. These areas protect our safety and welfare without having to invest in costly projects, and provide innumerable opportunities for outdoor recreation for people across the nation.

Potential Budget/Sequestration Impacts:

- Low NAWCA funding levels will mean fewer grants given in areas needing restoration work. For every federal dollar cut, the program will lose an additional \$3 million in private partner match, resulting in \$4 million in total cuts. Should the sequestration cuts be implemented, \$3 million in federal funding cuts will result in an additional loss of \$9 million in private partner match.
- The Fish & Wildlife Service has a backlog of landowners willing to do projects on their land. Without federal funding as an incentive, private match dollars will not be used for restoration purposes, and these lands will continue to be unavailable for quality habitat.

Neotropical Migratory Bird Conservation Fund (NMBCA)

Since 2002, the NMBCA has functioned as a matching grant program to fund projects that conserve neotropical migratory birds--those that breed in or migrate through the United States and Canada and spend the non-breeding season in Latin America and the Caribbean. Migratory birds make an important contribution to the US economy. Recreation associated with migratory birds is big business in this country. The *2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, conducted by the U.S. Fish and Wildlife Service reports that out of nearly 47 million birdwatchers in the United States, 41.3 million of those are around-the-home observers who spend over \$4 billion on bird feed and \$969 million on nest boxes, bird houses, bird feeders, and bird baths annually.

Funding for NMBCA includes partnership programs to conserve birds in Latin America and the Caribbean, where over 4 billion birds representing over 380 species spend their winters, including some of the most endangered birds in North America. Conservation of these migratory birds in Latin America and the Caribbean is critical to protect our investments and to ensure the birds return to the US. All NMBCA grant requests must be matched with non-federal funds at least 3 to 1.

Potential Budget/Sequestration Impacts:

- The program has already been cut by nearly 25% since Fiscal Year 2010. With these cuts, the program has reduced the number of projects. Additional reductions would be devastating to this modest program, currently funded at \$3.786M.
- Migratory birds are unique in that they migrate long distances and cross political boundaries. Many species of birds that we see in our back yards are significantly affected by the habitat conditions in their wintering grounds which are located outside of the U.S. Without the support NMBCA grants provide for conservation actions on these wintering grounds, there is an increased likelihood more migratory bird species will become endangered or threatened resulting in the need for even more resources to be allocated. The Golden-winged warbler, a species which the U.S. has invested significant funding into conserving, is an example of a targeted species that the NMBCA focuses on to protect the investment we make at home.

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Potential Budget/Sequestration Impacts (cont.):

- NMBCA also acts as mechanism for international cooperation and creates good will for the U.S. among our Latin American and Caribbean neighbors. Helping communities throughout the hemisphere sustainably use their natural resources and create new jobs and opportunities is one of the most important steps we can take to foster security and good international relations. Eliminating funding for NMBCA will significantly impact the relationships that have been created and the ability of conservation partners in these countries to take action to protect wintering habitat for U.S. migratory bird species.
- NMBCA has a proven track record of success over more than a decade. Since its inception, the program has received more than \$43 million to positively affect 3 million acres and partners have leveraged federal funds with more than \$166 million in non-federal contributions – a more than four-to-one match ratio.

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National Park Service Introduction

Areas of the National Park System are among the most beloved and visited public lands in the country with nearly 300 million people visiting the parks every year to learn, recreate and connect with the natural world and our historic and cultural heritage. Americans want to see parks protected even in tight times: recent polling indicated 9 in 10 likely American voters—Republican, Democrat, and Independent—do not want to see national park funding cut further. National parks create jobs and support local economies. Every \$10 invested in the park service returns \$10 to the economy. National parks support more than \$30 billion in spending annually and more than a quarter million jobs.

Because of these many uniquely American values that national parks protect, their vast popularity and many economic benefits, cutting their funding will have a highly detrimental effect on the communities surrounding our nearly 400 parks that rely on these assets that draw international visitors and ensure affordable vacations for American families.

Many parks continue to lack the resources necessary to adequately operate visitors' centers, guide visitors, inventory and protect historic artifacts, combat invasive weeds, prevent the deterioration of significant treasures and purchase inholdings to prevent incompatible development. The National Park Service (NPS) suffers from a \$500 to \$600 million annual operations shortfall, a deferred maintenance backlog in the billions, and a roughly \$2 billion backlog in land acquisition projects. In today's dollars, overall funding for the National Park Service is 15% less than a decade ago. After a 6% cut in FY11 and FY12, is the park service already struggling and cannot afford additional cuts.

Operation of the National Park System

The operations account (ONPS) occupies the vast majority of the annual funding for the National Park Service and provides for critical staff and maintenance needs. Park rangers are needed to protect resources and guide visitors, many of whom look to them to provide a quality parks experience that will ensure return visits. Interpreters foster tourism by bringing history alive at Civil War and other historic and natural sites, interpreting the many national significant resources that so many people value. An annual operations shortfall of more than \$500 million already means insufficient staff to adequately care for parks and serve visitors, and additional cuts would make matters even worse. Because of the many dedicated staff and facilities at national parks, the vast majority of NPS superintendent's budgets are subject to substantial fixed costs including staff cost-of-living adjustments and increases in rent and utilities costs. Therefore, even a flat budget forces absorption of these costs, and thus cuts in some visitor services and resource protection efforts. It's critical that at a bare minimum, park operations keep up with fixed costs to prevent the erosion of visitor services and resource protection.

Nine in ten likely American voters—Republican, Democrat and Independent—agree that national parks funding should not be cut further. Maintaining funding for park operations can ensure stewardship of these iconic American places, allow for affordable and inspiring family vacations, and support local economies that rely on parks being open and funded to serve visitors.

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Potential Budget/Sequestration Impacts:

As highlighted in a recent park service memo, impacts would include:

- Sharp reductions in ranger levels, impacting visitors and resource protection;
- Shortened seasons when parks are open, closed parks for some days of the week, closed areas of parks, or even closed parks themselves;
- Reduced visitor services

Operation of the National Park System: Cultural Resource Stewardship

Nearly three quarters of areas in the National Park System were created to protect historic and cultural resources but staff reductions are having a damaging impact on cultural resource protection. Funding for cultural resource staff (in cultural resources, applied research and cultural resources management accounts) declined by 27% between FY 1995 and FY 2008. Funding for the cultural resources stewardship operations subaccount has remained stagnant for over a decade, forcing additional reductions in cultural resources staff essential to the preservation, museum curation and interpretation of our irreplaceable historic and cultural resources like Ellis Island, Chaco Canyon and Gettysburg. Additional decreases would severely limit both interpretation and the skilled staff required for the preservation of America's most precious historic resources at a time when visitation to our National Battlefields and Historic Sites are seeing increased visitation with the 100th Anniversary of the Civil War.

Potential Budget/Sequestration Impacts:

- Sites would be closed or have limited days or hours of operation;
- Fewer visitor contacts and educational programs from rangers;
- Less essential maintenance like restroom cleaning and trash maintenance;
- Loss of revenue to the communities around these sites.

Deferred Maintenance Backlog

The deferred maintenance backlog is now more than \$11 billion and growing, with more than a \$3 billion backlog for projects most critical to resource protection and the safety of staff and visitors. Annual funding for maintenance and construction is about half of what is needed, which left unchanged, will inevitably result in irreversible damage to historic buildings.

Of the more than \$11 billion deferred maintenance needs, roughly \$3 billion is for the 27,000 structures in National Parks listed on the National Register of Historic Places. According to the FY2013 budget justification, less than 60% of NPS historic buildings and structures are in good condition. From a 2012 GAO Report, park officials report that limited funding is the greatest challenge in maintaining its historic buildings.

Every million dollars invested in park service construction ensures 14 to 16 jobs, yet the park service Construction account has declined by more than 60% over the past decade. This has meant the degradation of park resources, reduced maintenance that impacts the visiting experience, and loss of local contracting jobs, as well as the secondary economic benefits in local communities where workers spend their paychecks.

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Additionally, more than half of the maintenance backlog is related to roads. Critical to ensuring funds to meet the maintenance and repair needs of NPS roads is reauthorization of a transportation bill with continuing investments in the Park Roads and Parkways (PRP) and Paul. S. Sarbanes Transit-in Parks programs.

Potential Budget/Sequestration Impacts:

- Further increase in the deferred maintenance backlog, degrading the resources parks were designated to protect and challenging maintenance important to the visitor experience;
- The loss of staff responsible for maintaining historic structures, similar to the five staff cut at Fort McHenry National Monument and Hampton National Historic Site in Maryland, which has over 30 buildings and additional structures;
- Irreplaceable loss of historic buildings and structures set aside to interpret our shared American heritage at a time when we should be celebrating the 100th Anniversary of a System with a mission to preserve these resources;
- Closure or inaccessibility to the sites and buildings, preventing the public from experiencing our shared history in its historic context.

* Park operations funding also affects the deferred maintenance backlog.

Within the Cultural Programs activity, NPS manages the National Register of Historic Places; reviews applications and certifies applications for Federal Tax Credits for Historic Preservation; conducts cultural resources management planning through the National Historic Landmarks program, the Historic American Buildings Survey, the Historic American Engineering Record, and the Historic American Landscapes Survey programs; coordinates the Federal archeology programs, the American Battlefield Protection Program, the Japanese American Confinement Site Grants program, and the Native American Graves Protection and Repatriation Grants program. The Cultural Programs activity of the National Recreation and Preservation (NR&P) account supports the NPS mission by contributing to the goal of ensuring that natural and cultural resources are conserved through formal partnership programs.

NRPP: National Register Programs

The National Register Programs encompass all of the nation's historic places worthy of preservation including all historic areas of the National Park System, National Historic Landmarks, and properties nominated by States, Federal agencies, and Tribes. It recognizes buildings, structures, sites, objects, and districts that are significant in American history, architecture, archeology, engineering, and culture at the national, state, and local levels. The National Register has over 88,000 properties representing over 1.4 million individual resources, and it grows in size as properties are inventoried and evaluated as eligible. The program encourages citizens, public agencies, and private organizations to recognize, use, and learn from historic places. National Register properties are eligible for NPS-administered federal preservation tax credits that have leveraged more than \$45 million in private investments to create livable and viable communities.

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Potential Budget/Sequestration Impacts:

- Cuts to this program would result in the loss of tax credit projects, reducing the ability of developers to restore and reuse America's most significant historic properties;
- Less funding would also diminish the ability of the NPS to provide a wide range of technical assistance for the documentation and protection of historic and archeological properties waiting to be added to the National Register.

NRPP: Heritage Partnership Programs (National Heritage Areas)

National Heritage Areas (NHAs) are designated by Congress as places where natural, cultural, historic, and scenic resources combine to form a cohesive, nationally-important landscape. They encompass 49 areas, ranging from factory towns and city neighborhoods to farmlands and battlefields. Though only established in 1984, the NHA approach has already been incredibly successful in supporting heritage tourism and creating thousands of new conservation, preservation, and historian jobs in communities across the country. Each year, more and more regions seek recognition under this innovative public/private partnership—a testament to the need of such a program. Funding for NHAs not only facilitates community participation in preservation of rural areas, boosts tourism, and requires local participation and leadership, but is a smart economic investment as well.

The National Heritage Area Program is an effective, high yield investment of federal funds. National Heritage Areas on average leverage every federal dollar into \$5.50 of additional public and private investment. They also create jobs: it is estimated that NHAs have created 16,520 jobs in 32 states through the \$171,163,484 in federal investment.

Potential Budget/Sequestration Impacts:

- Twelve NHAs sunsetted in 2012 and are in need of reauthorization, and six more will sunset by the end of 2015. Without sustained federal financial support and assistance, this good work will not continue.
- A recent series of evaluations conducted by the National Park Service concluded that continued NPS funding was essential seed money to make projects and programs happen. These evaluations starkly document the significant drop in state funding commitments starting with the recession in 2008.
- These evaluations also found that replacement of federal funds with private sector dollars or other government funds is not a likely outcome. Without federal funds, the NHAs will either go out of business or their work will grind to a slow halt.

NRPP: National Center for Preservation Technology and Training

The National Center for Preservation Technology and Training (NCPTT) is a research division of the National Park Service (NPS), and plays an essential role in sustaining America's cultural heritage through research and technology. It is the only NPS program to offer applied research and professional training, technology transfers, and grants in the fields of archeology, architecture, landscape architecture and materials conservation. It is one of very few preservation research entities in the United States. In recent years, NCPTT has been a leader within the preservation community in taking a special interest in climate change mitigation and

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adaptation, for example funding research projects to test the energy impacts of new versus existing windows, and providing affordable LEED training to preservation practitioners.

Potential Budget/Sequestration Impacts:

- Reductions in funding for this program would decrease research and training that are necessary to prepare our historic coastal cities like New York, Charleston and Annapolis to mitigate and adapt some of America's most important historic properties--like Ellis Island and Statue of Liberty National Monument--to withstand the impacts of climate change and sea level rise.
- Reductions in funding would lead to less training for professionals who can help transition America's historic treasures into more energy efficient and sustainable buildings.
- Continued reductions to the NHA budget would adversely affect the 37 other NHAs, severely undercutting their entrepreneurial effectiveness and jeopardizing the overall NHA program.

NRPP: Japanese American Confinement Site Grants

In FY 2009, Congress appropriated funds for the first time to support a new grant program to preserve Japanese American World War II confinement sites through partnerships with local preservation groups. The preservation, restoration and interpretation of these camps promote the healing process for the many internees forced to relocate to these camps. As many of the internees are advancing in age, the long-term preservation of these sites will provide valuable information for thousands of annual visitors and ensure that the public and future generations will better understand this terrible chapter in our nation's history. In FY 11, NPS was able to award 24 competitive matching grants from the \$3 million appropriated for the program, and has awarded 66 grants since the inception of the program.

Potential Budget/Sequestration Impacts:

- Cuts to this highly successful and popular program would limit the ability of local preservationists to leverage their matching funding to preserve, restore and interpret places like Minidoka National Historic Site in ID; Heart Mountain in WY; Rohwer in AR; Tule Lake in CA; Amache in CO; and Poston in AZ.
- Former internment sites in need of interpretation, preservation and restoration would deteriorate or not be restorable, denying the public the chance to experience this sad chapter of our history in its authentic context.

NRPP: American Battlefield Protection Program Assistance Grants

There are two components to this program, consisting of a grant program for lands outside of the National Park System for battlefield planning and Civil War battlefield land acquisition grants through the Land and Water Conservation Fund.

The American Battlefield Protection Program encourages and assists states and local communities in preserving, protecting, managing and interpreting America's battlefields and sites associated with armed conflict. This is done through site identification, documentation, planning, interpretation and education. Lands managed by the NPS are not eligible for these funds. Funds in FY12 were targeted for the Civil War 100th Anniversary. In FY11, \$1.3 million was distributed to 80 battlefields in 24 states and territories. ABPP Grants can help bring together

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local and state governments from multiple jurisdictions, multijurisdictional interests from states and counties, developers and preservationists to identify and plan to save irreplaceable resources while continuing with economic development and growth.

Potential Budget/Sequestration Impacts:

- Decreased funding for this valuable and unique grant program would limit the ability of communities that want to work together to protect their historic battlefield resources, putting these resources at risk as commercial, road and residential development moves forward.
- As our economy rebounds, increased development--especially east of the Mississippi--would put pressure on these resources that may be destroyed before well-intentioned parties can identify, plan and preserve our shared history.

Battlefield Land Acquisition Grants

The battlefield land acquisition grants were authorized as the American Battlefield Protection Program in 2009, providing Land and Water Conservation Fund monies to help States and local communities acquire and preserve threatened Civil War battlefield lands. These lands are outside of established National Park-identified boundaries and were identified in a thorough Report on the Nation's Civil War Battlefields, prepared in 1993 by the Civil War Sites Advisory Commission. All grants require a 50 percent non-federal match. According to the FY2013 budget justifications, over \$4 million is left in the grants that total up to \$10 million a year and are authorized through 2014.

Potential Budget/Sequestration Impacts:

- This is the last year of acquisition grants, so anything less than full authorized funding is a wasted opportunity to protect and preserve our Nation's heritage during the 150th Anniversary of the bloodiest wars on American soil.
- Opportunities for non-federal matching grants would be lost without matching federal funds, a lost opportunity to preserve hallowed ground critical to American history.

The 150th anniversary of the U.S. Civil War presents a unique opportunity to increase protection for the more than 110 national park sites associated with the Civil War, about one-third of which are battlefields. During the war's 150th anniversary (2011 – 2015), the National Park Service is working to broaden interpretation of the war. This important anniversary is the best time to ensure that these programs meet their objectives.

In addition to these two programs, the Land and Water Conservation Fund should otherwise ensure the National Park Service can protect thousands of acres within its boundaries vulnerable to development. For example, Gettysburg National Military Park has almost 700 acres of private land among the 6,000 acres inside its congressionally-established boundary, development of which would undermine the integrity of the historic landscape. Many Civil War sites are threatened with development due to the lack of funding to protect inholdings. Antietam, Cedar Creek and Belle Grove, Fredericksburg and Spotsylvania, Gettysburg, Harpers Ferry, Petersburg, Richmond and Vicksburg all have urgent needs, many of which are multi-year projects.

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Historic Preservation Fund

The Historic Preservation Fund (HPF) is the principal source of funding to implement the nation's historic preservation programs and is carried out through a matching grant program. The HPF is authorized at \$150 million annually, but subject to appropriations. Like the Land and Water Conservation Fund, its revenues are generated by oil and gas development on the Outer Continental Shelf. We were grateful for the increase in funding for Tribal Historic Preservation Officers (THPOs) and State Historic Preservation Officers (SHPOs) with the enacted FY12 funding of \$56 million; however, we were disappointed with the loss of Save America's Treasures program, the only "bricks and mortar" funding for preservation.

The National Park Service distributes HPF grants to SHPOs and THPOs that administer our nation's historic preservation system. Inadequate funding for HPF limits support for preservation activities such as planning, survey, inventory, public education, and project review for the federal Historic Rehabilitation Tax Credit (HTC), State and Tribal Historic Preservation Plans, and the National Register of Historic Places. Notably, insufficient funding for project reviews limits the capacity of the HTC, which is a job-creating and community revitalizing tax credit. For example, in FY10 and FY11, the HTC created over 97,100 jobs and leveraged more than \$7.44 billion in private investment. A lack of HPF funds to SHPOs and THPOs limits or halts job-producing activities like permitting power lines and energy development on public lands, when increased funding for this work could allow increased staff dedicated to reviewing these proposed projects.

Potential Budget/Sequestration Impacts:

- Continuing reductions in funding would cause a loss of SHPO and THPO staff, resulting in a reduction of support available to private sector developers who invest in historic rehabilitation tax credit projects. It would also result in delays in reviewing very large projects such as those associated with energy development.
- SHPOs would be unable to provide updated access to GIS systems and data needed for federal, state, and local agency staff, consultants, and project developers. These government and private sector individuals rely heavily on having quick access to this information to effectively and efficiently complete project reviews.
- There would be a reduction of preservation technical assistance and/or counsel provided to federal agencies such as the Department of Energy, Department of Defense, Army Corps of Engineers, Bureau of Land Management, and Bureau of Indian Affairs.
- Certified Local Governments (CLGs) would receive less funding. Currently 10% of a State's HPF funding must go to CLGs.
- The amount of HPF funds appropriated to the THPOs is not keeping pace with the increased numbers of tribes operating THPO programs, with the result that more tribes are being asked to do more with less and more tribal historic properties are lost forever.

THE LAND AND WATER CONSERVATION FUND**The Land and Water Conservation Fund**

In 1964, Congress established the Land and Water Conservation Fund (LWCF) to preserve natural areas and wildlife and ensure that all Americans have access to quality outdoor recreation. It is a simple idea and an elegant one: dedicate a small portion of revenues from offshore oil and gas drilling to support the conservation of America's lands and waters. LWCF demonstrates Congress' bipartisan recognition of the importance of safeguarding open spaces and natural areas and providing outdoor recreation opportunities for all Americans.

Despite inadequate funding, LWCF remains the premier federal program to conserve our nation's land, water, historic, and recreation heritage. It is a critical tool to acquire inholdings, expand public lands, and protect national parks, national wildlife refuges, national forests, wild and scenic river corridors, national scenic and historic trails, the Bureau of Land Management lands, and other federal areas. The companion LWCF state grants program provides crucial support for state and local park acquisitions, recreational facilities, and trail corridors. The Stateside program is the government's primary investment tool for ensuring that children and families have access to close-to-home recreation. The LWCF stateside program has funded over 41,000 projects including sports fields, outdoor recreation facilities, and trails touching all fifty states. LWCF also funds two other important state grant programs – the Forest Legacy Program and Cooperative Endangered Species (Section 6) programs – that ensure permanent conservation through fee and easement of important forest lands and threatened and endangered species' habitat.

These are difficult economic times, which is why investing in LWCF is so important as a driver for jobs and the revitalization of local communities. For instance:

- Hunting and fishing are economic building blocks in our national economy, generating more than 1.6 million jobs and more than \$2 billion annually in business earnings and wages
- America's state park system contributes \$20 billion to local and state economies, and for every \$1 million invested in parks and recreation infrastructure, at least 20 jobs are created
- Active outdoor recreation provides a powerful building block in our national economy that supports more than 6.1 million jobs (1 out of 20 jobs in the U.S.) and contributes more than \$646 billion annually, according to the Outdoor Industry Association
- The Trust for Public Land has found that every \$1 spent on LWCF returns \$4 in economic values, such as protecting water quality and supply
- LWCF helps generate \$88 billion in annual state and national tax revenue, along with generating \$289 billion annually in retail sales and services across the U.S.
- In 2008 alone, lands managed by the Department of the Interior hosted 448 million visitors. These visits greatly support the economy and jobs in nearby communities and across the tourism and outdoor recreation sectors. In addition, about 174 million recreation visits are annually made to national forests where tourists spend nearly \$13

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THE LAND AND WATER CONSERVATION FUND

billion each year and these forests sustain over 224,000 full and part time jobs.
(statistics provided by DOI and USFS)

Funding for LWCF helps create this economic opportunity by increasing access to recreational opportunities and providing new areas for people of all ages to enjoy the outdoors.

The investments needed to achieve these diverse benefits simply cannot wait. Landowners who have made their properties available for public acquisition cannot in fairness be asked to defer their financial needs indefinitely. If public funding for key parcels is unavailable, private sale and development of their lands-- which often are surrounded by heavily-used public lands -- can undermine longstanding investments in these areas. To meet the needs of local economies, landowners, and irreplaceable public resources, LWCF funds are needed now.

Potential Budget/Sequestration Impacts:

- Low LWCF funding levels for our national parks, forests, wildlife refuges, and BLM areas could cover only administrative costs and small inholdings, leaving little or no funding to meet priority projects with willing-seller contracts or to continue projects already underway.
- Many key inholdings are available on a now-or-never basis. A sequestration-driven program cut to LWCF would not just defer these projects, it would guarantee the permanent loss of recreation access along with resource-damaging development in parks and other public lands across the country.
- Further cuts to LWCF mean cuts to Civil War battlefields, state and local outdoor recreation grants, working forest grants to states, and cuts to state grants for acquisition of properties to allow both conservation and economic development in areas with threatened and endangered species.

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U.S. GEOLOGICAL SURVEY

National Climate Change and Wildlife Science Center

Established in FY 08, 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 are partnership driven, leverage resources, and avoid duplication of government programs by housing applied natural resources and climate-related research into one place. The eight regional Climate Science Centers are housed in partnerships with universities which allow the centers to draw on the expertise and resources of the academic community. As an example of the leveraging power of these partnerships, the \$2 million invested from this program into the Southeast regional climate science center is leveraging \$130 million in climate-related research being performed by the university partners.

The National Climate Change and Wildlife Science Center and the regional Department of the Interior Climate Science Centers have only recently been established, and do not currently have enough funding to meet the demand for the information and science capacity they provide to resource managers. Cuts in funding would curtail critical science endeavors.

Potential Budget/Sequestration Impacts:

Budget cuts would prevent completion of crucial scientific work similar to these recently completed projects:

- Researching the effects of climate change, drought and land use changes on breeding bird populations in the northern Great Plains and prairie pothole region of the upper mid-West. This region is critical to maintaining waterfowl populations and is experiencing the drying of the wetlands birds use during breeding season.
- Studying the effects of warming water temperatures, increased flooding, and increased wildfire risk on Western trout populations. In Idaho alone, fishing generates almost \$300 million in economic activity, and the single most important game fish is trout. The research and management tools developed through this project will be essential to fisheries managers in conserving trout and providing recreational opportunities

Ecosystems

The Ecosystems activity includes research, development of analytical tools, and sharing of information for a number of priority areas including fish and other aquatic organisms and their habitat; terrestrial wildlife and plants including endangered species; factors that determine the function, structure and condition of marine, terrestrial and freshwater communities; and detection and methods to deal with invasive species. Demands to address declining or stressed biological resources have increased dramatically over the last decade and the work done by Research Grade Scientists is more critical than ever, yet the agency's ability to maintain an adequate workforce of these scientists has eroded.

DEPARTMENT OF THE INTERIOR

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U.S. GEOLOGICAL SURVEY

The 40 Cooperative Research Units are included under the Ecosystems activity. Located at land grant colleges and universities in 38 states including AK, CA, ID, MD, ME, MT, NY, and TN, they are crucial to successfully addressing the natural resource management challenges posed by global warming, energy development needs, imperiled species conservation, invasive species, infectious diseases, wildfire, and increased demand for limited water resources. Cooperative Units also will play a critical role in meeting the challenge natural resources management agencies face in replacing the unprecedented number of scientists and other professionals who will be retiring over the next 10 years. The program has established a record of educating new natural resource professionals who are management-oriented, well-versed in science, grounded in state and federal agency experience, and able to assist private landowners and other members of the public. Because each of the Units is a true federal-state-university-private partnership, this program is able to build on its partner contributions to leverage more than three dollars for every dollar appropriated to the program by Congress.

Potential Budget/Sequestration Impacts:

Examples of the kinds of work that could be stopped or hindered by further cuts include:

- Work to assess impacts to wildlife from the development and placement of wind energy projects and transmission from direct strikes, habitat fragmentation, and construction and maintenance of infrastructure, such as tools to estimate fatalities of bats from wind turbines to better evaluate local and cumulative effects of wind developments on bats, scientific modeling to predict golden eagle occurrence to determine the best areas to locate projects to minimize harm, and analyses of California condor use in areas being considered for wind facilities;
- Research into wildlife diseases such as global declines in amphibians from the chytrid fungus, avian influenza in ducks and other birds, and chronic wasting disease in deer; and
- Tools to manage and restore functioning sagebrush ecosystems about which much still is not known.

Contaminant Biology

In our modern world, there are a myriad of harmful pollutants, many potentially lethal, that adversely affect fish, wildlife, habitat and people. These include pesticides, endocrine disruptors, heavy metals, prescription drugs, oil and other industrial chemicals, fertilizers, and numerous other products that are released to the environment through spills, disposal, ongoing use, or other means. The Contaminant Biology program is in the Environmental Health activity. This program is crucial in conducting research and providing information to stakeholders on the effects of these pollutants on natural systems, human health, and especially the trust resources of the Department of the Interior.

Potential Budget/Sequestration Impacts:

Examples of the kinds of work that could be impacted by cuts include:

- Investigations into the effects of reproduction altering endocrine disruptors around the country on species such as the pallid sturgeon in the Missouri River and bass in the Potomac River;
- Research into the toxic effects of mercury on species such as ospreys along the Columbia River and migratory birds in the San Francisco Bay Ecosystem;
- Research into impacts of contaminants on fish in the Lake Mead Recreation area; and
- A comprehensive survey of mercury and selenium contamination in waterbirds breeding at Bear River National Wildlife Refuge and other wetland sites in the Great Salt Lake.

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BUREAU OF INDIAN AFFAIRS

INTRODUCTION

Natural resource conservation is integral to American Indian and Alaska Native peoples, communities, cultures, and economies. As the owners and managers of 95 million acres of land, tribes can positively influence environmental and wildlife conservation efforts across a vast array of natural resources as well as strengthen environmental protection on contiguous lands and resources managed by other governments. Federal investments in tribal natural resources management provide benefits that reach far beyond tribal lands and communities. Federal investment supports tribal job creation, tribal community cohesion, resilient tribal and non-tribal community relations, improved health, and the nourishment of the next generation of tribal natural resource management professionals.

Funding for Bureau of Indian Affairs (BIA) Trust Natural Resources programs has declined incrementally over decades more precipitously than other Department of the Interior (DOI) natural resource programs. BIA programs are often the only source of funding to protect tribal lands. Most BIA Trust Natural Resources programs discussed below experienced significant cuts over the past decade. Further reductions through sequestration pursuant to the Budget Control Act of 2011 in FY 2014 would not only threaten the conservation of wildlife and natural resources on tribal lands, but also cut jobs amongst a tribal population that already suffers from unemployment rates as high as 50%, hamper direct and indirect economic activity, restrict collaboration with other partners at a time when climate change and environmental threats demands coordination and leveraging of resources, and limit the benefits that tribal conservation efforts contribute to the national economy. Initial estimates suggest that BIA Trust Natural Resources could experience cuts exceeding 20%.

BIA Water Management, Planning and Pre-Development Program

The BIA Water Management, Planning and Pre-Development program (Water Resources) assists tribes in protecting and managing their water resources. From FY2003 to FY2012, funding for Water Resources declined 30 percent.

Potential Budget/Sequestration Impacts:

- Funding at existing or reduced levels will inhibit tribes' ability to protect and manage their water resources, thereby diminishing the federal trust obligation and the honoring of treaty rights.

BIA Water Rights Negotiation/Litigation Program

The Water Rights Negotiation/Litigation program (Water Rights) funds the defense and assertion of Indian water rights. From FY2003 to FY2012, funding for Water Rights declined 21 percent. The need to resolve water rights claims is particularly important for tribes, states, and other stakeholders as population growth and climate change affect water resources supply and demand.

Potential Budget/Sequestration Impacts:

- Funding at existing or reduced levels will inhibit, and even prevent, water rights settlements, a particularly important need given the threats of climate change to water quality and quantity.

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BUREAU OF INDIAN AFFAIRS

BIA Endangered Species Program

The BIA's Endangered Species Program is the only program that provides tribes with technical and financial assistance to protect endangered species on Indian trust lands. From FY2002 to FY2012, funding for this critical program declined 58 percent.

Potential Budget/Sequestration Impacts:

- Funding at existing or reduced levels will inhibit, and even prevent, tribes' ability to protect habitat and endangered species.

BIA Fish and Wildlife Programs

Three key programs that empower tribes to manage reservation fish and wildlife resources across the nation are Tribal Management/Development (TMD), Fish, Wildlife and Parks, and Natural Resources. These programs help meet the growing national demand for outdoor recreation and tourism, and provide aid to protect millions of acres of habitat necessary for the conservation of fish, wildlife, and plant resources.

BIA Tribal Management and Development (TMD) Programs

From FY2002 to FY2010, funding for TMD programs declined 40 percent. Investments in TMD substantially increase tribal conservation successes and meet the federal government's trust responsibility. The TMD also supports tribal conservation law enforcement officers, recognizing the critical need that tribes have to enforce fish and game laws on their lands.

BIA Fish, Wildlife and Parks Tribal Priority Allocations

The base Tribal Priority Allocations (TPA) that funds tribes' fish and wildlife protection activities has remained flat for years. Cuts to TPA will inhibit the ability of tribal fish and wildlife management departments to protect fish and wildlife, meet the needs of their communities, and work with federal, state, and local partners.

The 88 tribal fish hatcheries across Indian Country provide essential jobs, food, and revenue for tribes, as well as opportunities for tribal youth to pursue environmental careers. Tribes set high standards for fisheries management because they are highly dependent upon these operations for job creation, advancing economic self-sufficiency and economic growth, and fostering partnerships with non-tribal fish and wildlife managers.

BIA Natural Resources Tribal Priority Allocations

The Natural Resources Tribal Priority Allocations program fulfills the federal trust obligation through the strategy of improved management, protection, and development of Indian land and natural resource assets. Funding for this TPA has remained flat for years, and any decline in funding will significantly inhibit tribes' land and resource management capabilities.

Potential Budget/Sequestration Impacts:

- Projected reduced funding levels due to sequestration or other budget cuts would result in at least a 10% reduction in critical management jobs, as well as a loss of hundreds of resource-harvesting jobs and millions of dollars in economic in tourism and outdoor recreation benefits.

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BUREAU OF INDIAN AFFAIRS

BIA Rights Protection Implementation

The BIA Rights Protection Implementation program supports the exercise of off-reservation hunting, fishing, and gathering rights for 49 tribes located in the Pacific Northwest and Great Lakes regions and their five umbrella intertribal fish and wildlife organizations. These rights are secured by treaties and specific legal adjudications. Rights Protection Implementation has been historically underfunded compared to actual needs. Rights Protection Implementation helps to fulfill the federal trust obligation to protect and ensure continued access to natural resources that have economic, subsistence, cultural, and medicinal values for tribes.

Potential Budget/Sequestration Impacts:

- Reduced funding levels will not only threaten federal trust obligations but impact tribes' ability to protect resources from the impacts of climate change (e.g., loss of fisheries habitat, invasive species, etc.) and impede intertribal and intergovernmental coordination necessary to plan and implement multi-jurisdictional natural resource adaptation strategies in respond to climate change.

BIA Invasive Species Program

The Invasive Species Program provides critical funds to tribes to control noxious and invasive species. Invasive species are particularly harmful to tribes because they affect plants, animals, and other wildlife that are essential to tribal members for sustenance, medicines, ceremonies, cultures, and economic health. On average, the Interior Department spends five times more on non-Indian land than on Indian land for invasive species.

This is the only funding stream that provides invasive species protection to Indian trust land. It is a critical element of the Interior Department's Invasive Species Crosscut Initiative, particularly as tribal trust land is often contiguous to other federal lands. There has been a persistent inequity in funding for tribal lands compared to non-Indian federal lands and, as a result, disproportionate impacts from invasive species on Indian trust land and resources.

Potential Budget/Sequestration Impacts:

- Given that the Interior Department spends four hundred times more to address invasive species on non-Indian lands than on the BIA Invasive Species Program, any funding cuts will significantly impede tribal efforts to reduce the \$3 billion in damage invasive species cause on tribal trust land.

BIA Forestry

Of the 56 million acres of federal Indian trust land, 18 million acres are forest lands, and of which 5.7 million acres are designated for commercial forestry. Over the last two decades, independent reports prepared for Congress on BIA Forestry found that tribal forests received about one-third of the funding provided to forests managed by the U.S. Forest Service (USFS) on a per-acre basis. A 2003 report found that BIA Forestry needed an additional \$120 million a year, for a total of \$170 million annually, to achieve per-acre funding parity with USFS lands. Since then, the funding disparities have widened.

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BUREAU OF INDIAN AFFAIRS

Between FY2004 and FY2009, comparing programs with roughly equivalent functions, the USFS National Forest System Forest Products Program and the BLM Public Domain Forest Management Program budgets increased more than 25 percent, while the funding for the BIA Tribal Priority Allocations for Forestry and BIA Forestry Projects experienced a 3.8 percent increase and 0.7 percent decrease respectively, adjusted for inflation. Yet tribal forests are significantly more productive than USFS forests, generating on a per-acre basis about 250 percent of the harvest on USFS lands. These disparities must be addressed, particularly in light of the federal government's trust responsibility for tribal natural resources, the 2,100 miles of common boundary that USFS and tribal forests share, and the fact that climate change affects all lands—it does not heed political/jurisdictional boundaries. Any cuts to tribal forestry will only increase the historical funding inequities, and inhibit collaboration among federal and tribal forest managers for co-management of forests.

Potential Budget/Sequestration Impacts:

- Any reduction in funding levels to tribal forestry will only exacerbate the historical funding inequities and inhibit collaboration among federal and tribal forest managers for the co-management of forests.

Department of Interior Cooperative Landscape Conservation

Tribal members, natural resources, and infrastructure are disproportionately impacted by climate change. Tribal governments experience unique challenges relative to other governments in their access to federal resources to plan for and address climate impacts. Disparities in funding and capacity complicate and extend existing tribal needs in relation to climate change. While other DOI bureaus focus primarily upon lands and natural resources and have existing personnel to implement climate programs, the BIA has a responsibility to include a focus on people, tribal governments, and the necessary services to uphold the quality of life, including health, tribal infrastructure, and economic development as part of any climate change initiative.

Though disproportionately impacted by climate change, many tribes do not have sufficient personnel to effectively respond to the impacts. Since the inception of the Cooperative Landscape Conservation initiative in 2009, the BIA, and thus tribes, has only received less than ½ of 1 percent of funding from the initiative and in some years received no funding. Tribes are already significantly behind the state and federal governments in climate planning, with only a handful of the nation's 566 tribes having developed climate adaptation plans. Any cuts to the initiative will only increase that gap. The BIA must have the resources to build tribal capacity to plan and implement programs to address climate change.

Potential Budget/Sequestration Impacts:

- Funding at existing or reduced levels will inhibit, and even prevent, tribes from developing and implementing climate change adaptation plans.
- Without sufficient funding, it will be extremely difficult, if not impossible, for tribes to work across jurisdictions with other governments to adapt to climate change at a landscape level.

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BUREAU OF INDIAN AFFAIRS

COOPERATIVE LANDSCAPE CONSERVATION

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BUREAU OF OCEAN ENERGY MANAGEMENT

Bureau of Ocean Energy Management

The Bureau of Ocean Energy Management (BOEM) manages the nation's offshore energy resources including wind, hydrokinetic as well as oil and natural gas development. Since 2010, BOEM has acted to responsibly and rapidly lease offshore areas for offshore wind energy development. Through the "Smart from the Start" initiative BOEM has proactively engaged the private offshore wind industry, as well as the numerous federal, state and local stakeholders involved in permitting offshore wind development.

As such, BOEM is actively achieving its goal of reducing duplicative and time-consuming regulatory requirements while at the same time remaining protective of the marine environment. Just this last year, BOEM began the initial leasing process for offshore wind energy development through proposed sale notices, calls for information from private industry, preparatory work for compliance with the National Environmental Policy Act, and hosted numerous in-state Renewable Energy Task Force meetings in Maine, Massachusetts, Rhode Island, New York, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Hawaii and Oregon.¹

BOEM is also actively working on an environmental assessment and leasing requirements for a marine hydrokinetic (ocean current) project off the coast of Florida. Proposed Wind Energy Areas (areas that have been pre-selected through a rigorous spatial analysis for rapid deployment with input from a large variety of stakeholders) identified by BOEM's Smart from the Start initiative could theoretically support well over 40,000 megawatts of offshore wind energy capacity. Even if just a fraction of this offshore area is developable, offshore wind energy represents a multi-billion dollar opportunity for our coasts. With the offshore wind industry, BOEM is actively laying the foundation for a new source of sustainable and considerable federal revenue.

Potential Budget/Sequestration Impacts:

- Any budgetary reduction to the BOEM renewable energy program is likely to delay offshore wind permitting, licensing, leasing and ultimately revenue-generating private development.

¹ Bureau of Ocean Energy Management. "State Activities." <http://boem.gov/Renewable-Energy-Program/State-Activities/Index.aspx>

DEPARTMENT OF TRANSPORTATION
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OFFICE OF THE SECRETARY

Transportation Investments Generating Economic Recovery (TIGER)

The American Recovery and Reinvestment Act of 2009 (ARRA) set aside \$1.5 billion in discretionary grants for transportation projects. These grants to states, local governments, and transit agencies were awarded competitively for capital investments in transportation that will have a significant impact on the nation, a metropolitan area, or a region. The program has been wildly successful for four fiscal years, with applications far exceeding the total funding available. This kind of merit-based, performance-driven program which relies on virtuous competition is laudable and sadly unusual for a national transportation program that relies far too much on simple formulas for distributing federal taxpayer dollars.

In addition to preserving and creating jobs and promoting economic recovery, these grants are to be awarded based on criteria that include quality of life and sustainability improvements, such as improving energy efficiency, reducing dependence on oil, reducing greenhouse gas emissions, and benefitting the environment. The most recent round of applications for federal investment – the \$500 million TIGER IV program – attracted an overwhelming number of applications, for which DOT awarded grants for 47 projects in 34 states and the District of Columbia.

Potential Budget/Sequestration Impacts:

- Congress has not yet renewed the TIGER program. Cuts in such merit-based, competitive programs stifle innovation and encourage waste. Congress should be encouraging performance-driven programs not weakening our transportation infrastructure with unjustified cuts.

Interagency Partnership for Sustainable Communities

This is a joint effort between the U.S. Department of Transportation (DOT), Department of Housing and Urban Development (HUD), and Environmental Protection Agency (EPA) to promote affordable, environmentally sustainable communities with a high quality of life across the nation. This means helping American families of all income levels gain access to better housing options, more transportation choices, and lower transportation costs. High-level interagency efforts to better coordinate federal transportation and housing investments and to enhance transportation planning and investment strategies also help the three participating agencies to operate more efficiently, making the best use of taxpayer dollars.

- Congress reduced the effectiveness of the Partnership by zeroing out funding for HUD's Sustainable Communities Initiative, including grants for innovative and environmentally beneficial projects and initiatives across the country. This program was funded for \$100 million in FY 2011 and \$150 million in FY 2012, and should be reinstated at a similar level since it leverages federal taxpayer dollars, generating economic, social, and environmental benefits and supporting good models for communities across America. For example, the "Aerotropolis Initiative" in Memphis is stimulating investment around the city's International Airport in coordination with FedEx, Elvis Presley's Graceland and other employers which will create an estimated 3,000 jobs.
- Zeroing out programs intended to help local communities make transportation more efficient and less harmful to the environment should be encouraged, not cut.

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OFFICE OF THE SECRETARY

Federal Aviation Administration

The Continuous Lower Emissions, Energy, and Noise (CLEEN) Program helps aircraft manufacturers accelerate the introduction of cleaner aviation technologies. This public private partnership focuses on technologies that address 3 key aviation issues: noise, air quality, and fuel burn. Between 2015 and 2018, projects should produce measures that capable of reducing fuel burn by 33%, landing-takeoff NOx by 60% and noise by 32 decibels.

Potential Budget/Sequestration Impacts:

- Cutting the CLEEN Program makes little sense amid growing travel demand and high fuel prices. Cuts could delay or even derail the introduction of technologies that improve local air quality, lower noise pollution, reduced carbon pollution and minimize petroleum demand.

DEPARTMENT OF THE TRANSPORTATION

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NATIONAL HIGHWAY TRAFFIC AND SAFETY ADMINISTRATION

National Highway Traffic and Safety Administration (NHTSA)

This Administration is responsible for developing and implementing, along with the Environmental Protection Agency, the landmark national program of fuel efficiency and greenhouse gas reduction standards for cars and trucks. Thanks in part to NHTSA, the standard for new cars and trucks will reach 54.5 miles-per-gallon by 2025, savings 12 billion barrels of oil and \$1.7 trillion for consumers. This is the single biggest step yet by the federal government to reduce our dangerous dependence on oil and tackle global warming. It is also tasked with establishing other historic performance standards for heavy-duty vehicles, as well as tire and fuel efficiency. And it must continue balancing this robust and environmentally important workload with important vehicle and traffic safety mandates

Potential Budget/Sequestration Impacts:

- Sequester cuts in this program would create significant shortfalls in the Agency's ability to assist companies in complying with the standards

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL HIGHWAY ADMINISTRATION (FHWA)

Congestion Mitigation and Air Quality (CMAQ)

The highly successful CMAQ program provides flexible funding to state and local governments for transportation projects and programs that help them to meet the requirements of the Clean Air

Act. Funding is available for areas that are out of compliance with National Ambient Air Quality Standards, as well as areas that have recently re-attained compliance. The funding allocated through this program is a potent complement to public-health-based Clean Air Act requirements for transportation plans and projects and helps to ensure that millions of Americans enjoy cleaner air and reduced risk of both respiratory and heart disease.

Potential Budget/Sequestration Impacts:

- Moving Ahead for Progress in the 21st Century or MAP-21 (P.L. 112-141, the 2012 reauthorization of the nation's surface transportation law, reduced the effectiveness of the program by eliminating the 100 percent match enacted by ARRA in 2009 and allowing as much as half of the funding to be siphoned off for projects that could exacerbate air quality. Congress should exercise oversight over CMAQ implementation to ensure that all of the funding goes to clean up the air and reduce congestion.
- The changes in MAP-21 have decreased the likelihood that good projects that clean our air would be funded. We are concerned that such changes will lead to abuse and an excuse to underfund this important program

Transportation Alternatives (TA)

Transportation Alternatives is a critical green program; however, it is not subject to budget or appropriation variability. This tiny sliver of federal transportation funds has created jobs and economic development, saved lives (47,000 Americans died while walking or bicycling in the last decade), and spurred a renaissance of active transportation and healthy recreation. In MAP-21, Congress wrongheadedly reduced the nation's commitment to pedestrians and bicyclists by cutting initial funding by 30 percent, shoehorning compliance activities into TA that detract from its focus on improving the transportation system and allowing as much as half the funding to go to unrelated projects.

The Recreational Trails Program (RTP), which was created in 1991 as part of the Intermodal Surface Transportation Efficiency Act, plays an essential role in funding state trail programs and projects all across the country and pursuant to MAP-21 is now included in the TA program. RTP-funded projects represent investments in vital infrastructure that promote healthy communities and more importantly, healthy people. In addition, the economic impact of these projects is magnified because they improve access to public lands and waters and support both local tourism and recreation businesses, as well as healthy lifestyles.

Potential Budget/Sequestration Impacts:

- Congress should authorize funding for an independent clearinghouse to monitor TA implementation and ensure public accountability and transparency regarding where TA funding goes.

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL HIGHWAY ADMINISTRATION (FHWA)

Safe Routes to School

In 2005, Congress established the Safe Routes to School program to make it safer for children to walk and bicycle to and from school. The vast majority of funding is spent on infrastructure improvements, such as sidewalks, bike paths and crosswalks, near schools. This program has galvanized a new focus on prioritizing safety around schools, and is helping schools and communities reduce safety risks to children, decrease traffic congestion, lower busing costs, and increase physical activity. Despite demand for funding that far outstrips available dollars, thus far, an estimated 11,000 schools and 4.8 million children have benefited from these funds.

In 2012, through the MAP-21 transportation reauthorization law, Congress combined Safe Routes to School with other programs into the Transportation Alternatives program. Safe Routes to School infrastructure and non-infrastructure projects are eligible to compete for funding, along with other types of bicycling and walking projects.

Recreational Trails Program

The Recreational Trails Program (RTP), which was created in 1991 as part of the Intermodal Surface Transportation Efficiency Act, plays an essential role in funding state trail programs and projects all across the country. Funding for the RTP comes from the federal taxes paid on gasoline used in non-highway recreation and is distributed to the states based on a formula that recognizes the program's user-pay/user-benefit character. RTP funds trail projects for all trail activities – in fact, equal shares are earmarked for trails used by motorized trail enthusiasts (who pay the taxes) and non-motorized trail activities. Trail projects are selected at the state level with active participation by required state trail advisory committees, and the funds are leveraged dramatically by volunteerism and use of youth conservation corps. RTP-funded projects represent investments in vital infrastructure that promote healthy communities and more importantly, healthy people. In addition, the economic impact of these projects is magnified because they improve access to public lands and waters and support both local tourism and recreation businesses, as well as healthy lifestyles

Potential Budget/Sequestration Impacts:

- The Transportation Alternatives program is funded through the Highway Trust Fund. While the bulk of Highway Trust Fund dollars are exempted from the sequestration, funds added to it through general fund transfers are not.
- The Transportation Alternatives program has already been cut below the FY2012 level for the consolidated programs. Further cuts will be detrimental to efforts to improve safety for children on their trip to and from school. Many communities have had to cut school busing routes, and are in desperate need of funds to put in basic infrastructure such as sidewalks and crosswalks to protect children on their trip to school.

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL TRANSIT ADMINISTRATION (FTA)

State of Good Repair Grant Program

This program is intended to offer public transit agencies and governments that run public transportation grants to help modernize or improve existing transit lines, both fixed guideway such as commuter or light rail and high-intensity bus lines such as bus rapid transit or express bus service. As amended in MAP-21, the program allocates resources more effectively than the previous rail-only modernization program by establishing “state of good repair goals” and focusing resources based on the ages of systems, revenue vehicle miles and directional route miles. The systems that this program helps fund are both some of the most used and oldest transit systems in the country. Ensuring that they are both maintained and systematically modernized is essential to keeping the metropolitan engines of our economy running.

Potential Budget/Sequestration Impacts:

- Reductions in funding through the sequester would likely lead to deferral of critical maintenance that could create safety hazards, as well as service cuts and fare increases that could increase Americans’ transportation costs or even leave them without a transportation option.

New Starts and Small Starts Programs

The Federal New Starts program is the federal government’s primary financial resource for supporting capital investments in new local, fixed guideway transit systems, or substantial expansion of existing systems. Eligible projects include heavy, light rail, commuter rail, and bus rapid transit. The New Starts program has helped to make possible hundreds of new or extended transit systems across the country. These rail and bus investments, in turn, have improved the mobility of millions of Americans; have reduced greenhouse gas emissions and oil consumption; have reduced transportation costs for working families; have helped to reduce congestion and improve air quality in the areas they serve; and have fostered the development of safer, more livable communities. New Starts is widely recognized as one of the few federal transportation programs with both performance measurement and cost-benefit analysis, making it one of the most cost-effective. Thankfully MAP-21 improved this program further by eliminating duplicative steps in project development and simplifying evaluation criteria which put transit on a more competitive footing with highway projects.

Small Starts projects require less capital investment (below \$250 million total investment with a \$75 million federal share, anything above that is a New Start) and is a program that also benefits from expedited project delivery procedures in MAP-21. Many Small Starts are bus rapid transit lines, a cost-effective option that can reduce pollution and maximize use of existing highway capacity. These popular, performance-driven programs should receive at least as much funding as in FY 2013.

Potential Budget/Sequestration Impacts:

- Cutting these programs would stall the development of many important public transportation projects nationwide, ones which have been screened for high-performance and cost-effectiveness. In the past, these programs have played an invaluable role in the creation or expansion of new transit lines in cities such as Charlotte, Dallas and Los Angeles. With soaring ridership and demand for more service, including bus rapid transit lines, and unrelenting concern over America’s oil addiction, cuts in these programs would be devastating to communities nationwide.

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL TRANSIT ADMINISTRATION (FTA)

Potential Budget/Sequestration Impacts (cont.):

- By 2050, the U.S. Census Bureau projects that an additional 100 million people will reside in the United States. Highway and aviation congestion continues to rise, with an estimated economic loss of \$125 billion in 2010 in lost time, productivity and fuel. In many places with the worst congestion, expanding airports and highways is difficult as land is limited and environmental community impacts are significant. In addition, America's travel habits are changing. Between 2001 and 2009, Americans ages 16 to 34 decreased their average number of vehicle-miles traveled by 23 percent and increased their passenger miles traveled on trains and buses by 40 percent. Finally, 32 percent of all greenhouse gas emissions are now from the transportation sector. Rail plays a critical role in meeting these challenges. Therefore the United States must continue to advance the role of rail in the nation's intermodal transportation network through both Amtrak and High Speed Rail.

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL RAILWAY ADMINISTRATION (FRA)

Amtrak

Amtrak provides intercity passenger train service in the United States. Amtrak operates service in forty-six states, and offers one of the most energy efficient forms of intercity travel. According to the Oak Ridge National Laboratory, Amtrak is almost 20 percent more efficient than domestic airline travel and 28 percent more efficient than auto travel on a per-passenger-mile basis. Despite a serious lack of investment, Amtrak carried a record 31.2-million passengers from October 2011 to October 2012, with ridership up 3.5 percent and on-time performance up to its highest level in 12 years (83 percent). As new trains come on line trip times and delays will continue to decline and the system will attract even higher levels of ridership.

Potential Budget/Sequestration Impacts:

- Congress currently Amtrak's fiscal year budget is \$1.4 billion, or 36 percent less than its requested funding.. The National Surface Transportation Policy and Revenue Commission, created by the 2005 transportation law, estimated annual investment needs for passenger rail of \$7.4-9.4 billion. Cuts have already jeopardized the need to address backlogs in safety and infrastructure improvements. Additional cuts will weaken our transportation, increase riders dissatisfaction and unnecessary increase intercity automobile gridlock.
- Under the Passenger Rail Investment and Improvement Act of 2008, beginning in October 2012, states will no longer receive federal support for the long haul passenger trains that serves all regions of the country. To avoid losing intercity passenger rail service and augment operating and investment costs, stable federal funding is necessary.

Federal Matching Grants for State Rail Corridor Investments and High Speed Rail

This program, created in the 2008 Amtrak reauthorization, was intended to encourage and assist states seeking to develop passenger rail infrastructure by providing federal matching funds for eligible capital investments. Responding to President Obama's focus on developing a high speed intercity passenger rail network in the U.S. through ARRA and other policies, Congress has expanded this program to support state implementation of high speed rail networks. President Obama has set a national goal of providing high speed rail service to 80 percent of the American population in 25 years. As a down-payment toward that goal, between August 2009 and April 2011, the Federal Railroad Administration evaluated nearly 500 applications submitted by 39 states, the District of Columbia and Amtrak, requesting more than \$75 billion. The almost \$10 billion in project funding that has been awarded will be used to lay thousands of miles of track and ties, build new stations and make existing facility more functional and accessible for all passengers, install advanced signaling and communications systems and procure hundreds of modern and more efficient locomotive and passenger cars.

Potential Budget/Sequestration Impacts:

- America is one of the only developed nations in the world without a modern high speed rail network, and the budget hamstrings the nation further by zeroing out funding for it entirely, in the face of the President's request for an \$8.046 billion commitment. We cannot continue to delay needed infrastructure for any of our modes of transportation nor waste the already \$10 billion invested already.

DEPARTMENT OF THE TRANSPORTATION

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FEDERAL RAILWAY ADMINISTRATION (FRA)

Potential Budget/Sequestration Impacts (cont.):

- In 17 states, approximately \$1.7 billion in High Speed Intercity Passenger Rail (HSIPR) construction projects are either underway or complete, and an additional \$1.5 billion in construction projects in two states and the District of Columbia will commence in the next six months, creating jobs and supporting local economics and construction businesses, as well as domestic rail manufacturers. Without additional funding the High Speed Rail corridors will not be completed and these investments will be wasted.
- Across the United States there are nearly 2,700 rail supply facilities that employ 94,000 people. Dozens of manufacturers and suppliers are receiving orders from the High Speed Rail projects even those without projects in their states.
- An American Public Transportation Association (APTA) report from July 2012 shows that continuing HSIPR investment will generate \$26.4 billion in net economic benefits over the next forty years.
- The public supports using federal funds to develop high-speed rail. A 2011 Harris Survey revealed that nearly two-thirds of Americans (62 percent) support investing in High Speed Rail

DEPARTMENT OF THE TREASURY

6

Global Environment Facility (GEF)

The Global Environment Facility (GEF) is an independently operated, international financial facility that unites 182 countries with international institutions, civil society, and the private sector to address global environmental issues including biodiversity, land degradation, and climate change. 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. GEF support has been critical to reaching the global goal of securing 10 percent of the world's terrestrial areas under protection.

To date, the GEF has invested approximately \$10.5 billion directly, attracting \$51 billion in co-financing, in over 2,700 projects in 165 countries. The United States has a strong influence on GEF strategies and programming, which supports many U.S. priorities, and receives a very high rate of return. Historically, for every U.S. dollar invested, about \$36 has been leveraged in additional co-financing from public and private partners, recently, that number has increased in some projects to as much as \$52 for every dollar contributed by the United States.

For more information, go to: <http://www.thegef.org/gef/>

Potential Budget/Sequestration Impacts:

- 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.
- Through the GEF, the U.S. is working towards President Obama's pledge to make America a leader on issues of conservation and climate change. Reducing funding to the GEF will damage conservation efforts worldwide and delegitimize the claim that the U.S. is seeking a leadership role on environmental issues.

Tropical Forest Conservation Act (TFCA)

Enacted in 1998, the **Tropical Forest Conservation Act (TFCA)** gives developing eligible 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 NGO's and local communities and offers a unique opportunity for public-private partnerships.

The TFCA has completed 18 debt-for-nature agreements in 14 countries, with around \$300 million raised in long term commitments for conservation in tropical forests around the world. A reauthorization of the TFCA has been proposed and introduced in previous Congresses 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. Should a Reauthorization Act be reintroduced, we urge congress to approve it.

Potential Budget/Sequestration Impacts:

- 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.
- By facilitating grassroots capacity building and providing jobs to local communities through public-private partnerships, the TFCA is not only driving local efforts towards conservation, but also creating opportunities for American companies. Sequestration-driven cuts will damage programs that develop tools to empower local people, promote sustainable future, and create business ventures that could benefit the American economy.

Climate Investment Funds (CIFs) at the World Bank

The Climate Investment Funds (CIFs) are a collective of multi-donor trust funds run through the World Bank and designed to support the actions of developing countries to mitigate and adapt to climate change. Established in 2008 by the Multilateral Development Banks (MDBs) with the support of the Bush administration and G8 partners, the CIFs are divided into two multi-donor Trust Funds

Focusing on mitigation in middle income countries, the **Clean Technology Fund (CTF)**, promotes scaled-up financing for demonstration, deployment, and transfer of low-carbon technologies that have significant potential for long-term greenhouse gas emission reductions. The CTF currently finances programs in 15 countries and one region with country-specific CTF Investment Plans (IPs) to develop large-scale renewable energy, energy efficiency, and transport projects, centered on integration into existing national development project objectives.

The **Strategic Climate Fund (SCF)** is comprised of three distinct funds. The **Forest Investment Program (FIP)**, started in 2009, supports transformational changes in forest-related policies and practices in eight pilot countries to target the underlying causes of deforestation in developing countries. The FIP provides scaled-up finance to help forest countries advance institutional capacity, forest governance and high leverage mitigation efforts. The **Pilot Program for Climate Resilience (PPCR)** provides incentives to developing countries for scaled-up action to integrate climate resilience into national development planning. The PPCR is the only adaptation-focused fund housed at the World Bank, and provides investment funding for a wide range of activities including improving food security, monitoring and analyzing weather data and conducting studies on climate-resilient housing in coastal areas. The third fund comprising the SCF is the **Scaling-Up Renewable Energy Program in Low Income Countries (SREP)**. This initiative was created to demonstrate the economic, social, and environmental visibility of low carbon energy pathways for low-income countries. By partnering with the private sector, the SREP offers developing countries the chance to free themselves from fossil fuel dependence while creating jobs and stimulating economic growth.

Collectively, the CIFs are a strong component of the existing U.S. commitment to help developing countries adapt to climate change and mitigate their future emissions.

For more information, go to: <https://climateinvestmentfunds.org/cif/>

Potential Budget/Sequestration Impacts:

- A decrease in US funding levels will prevent the implementation of programs and projects developed through the CIF process. Examples of projects include:
 - An SREP in Nepal that works to transform the country's energy grid to low carbon solutions and supply almost one million houses with electricity.
 - A project by the Mexican government facilitated by the CTF to transform the Mexican urban transport to a lower carbon growth path by improving its quality and sustainability.
 - A recently approved PPCR initiative in 12 rural coastal districts of Bangladesh that focuses on improving the lives of woman and the poor by building capacity and infrastructure for 274 rural markets and 25 cyclone shelters.

TAX INCENTIVES FOR PRIVATE LAND CONSERVATION

Making the Enhanced Tax Deduction for Conservation Easement Donations Permanent

Due to expire December, 31, 2013, this tax incentive supports conservation of private forest, farm and grasslands by encouraging farmers, ranchers and other modest income landowners to retire the development rights on their land. By allowing conservation easement donors to deduct a larger portion of their income over a longer period of time the enhanced incentive has helped America's land trusts increase the pace of conservation by a third, to over a million acres a year. Preserving viable farms and forests protects important wildlife habitats, provides local access to diverse food products, reduces transportation costs and pollution, and provides a natural buffer against sprawling development. A bill to make the incentive permanent in the 112th Congress (H.R. 1964) had 311 co-sponsors, including majorities of both parties..

Providing Incentives for Private Land Conservation in Reforms of the Estate Tax

More than 70 percent of America's wildlife gets food and shelter from our working farm, ranch and forest lands, but we're losing these habitats to development at an alarming rate. The estate tax contributes to this trend by forcing farmers and ranchers to sell parts of their property to pay the tax, dividing up large properties that are so important to watershed health and wildlife conservation. Even where the land remains intact, estate tax bills can force fire sales of timber, defeating recent gains we've made in encouraging sustainable forestry practices. The American Family Farm and Ranchland Protection Act would increase the estate tax exemption for lands protected by a conservation easement up to \$5 million, ensuring that landowners who generously commit their land to conservation will not be forced to sell.

Another proposal, the Family Farm Preservation and Conservation Estate Tax Act, provides an indefinite deferral of estate taxes on family farm, ranch and forest land, with a recapture provision if the land is sold. This deferral means that no one is forced to sell intact habitat for development just to pay estate taxes.

Historic Rehabilitation Tax Credit

Since 1978, the Historic Tax Credit has played a pivotal role revitalizing communities and spurring both short and long term job growth. Over the last three decades, this successful program has created 2.2 million jobs, leveraged nearly \$100 billion in private investment, and rehabilitated more than 38,000 historic buildings of all shapes and sizes. These projects have revived the main streets in communities and promoted the sustainable reuse of our existing historic structures. Preservation of our historic resources, including the re-use of historic and older buildings, greening of existing building stock, and reinvestment in older and historic communities has proven time and again to be a fundamental tool to preserve open space and prevent sprawl. Recycling old buildings reduces landfill waste and saves energy by reusing existing materials rather than manufacturing new building components. Encouraging historic preservation through the use of the credit not only fosters a unique connection to our past, but also provides an invaluable opportunity to more wisely use existing resources and promote sustainable communities.

DEPARTMENT OF THE TREASURY

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Potential Budget/Sequestration Impacts:

- Eliminating the Historic Tax Credit would not serve to balance the budget. The cumulative \$19.2 billion cost of the Historic Tax Credit is more than offset by the \$24.4 billion in federal taxes that are collected before, during, and after an historic building is rehabilitated and put back into service.
- Without the Historic Tax Credit, high-quality local jobs will be lost. Over three-quarters of the economic benefits generated by rehabilitation remains in the local communities and states where projects are located. This reflects the fact that labor and materials for historic rehabilitation projects tend to be hired and purchased locally.
- As the House and Senate contemplate comprehensive reform of our nation's tax code, Members of Congress will have an opportunity not just to continue the Historic Tax Credit, but to modernize it. Legislation is pending in both chambers that would make sensible improvements to the Historic Tax Credit by incentivizing energy efficiency and generating more jobs and investment on Main Street.

ENVIRONMENTAL PROTECTION AGENCY

ENVIRONMENTAL PROTECTION AGENCY

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INTRODUCTION

The Environmental Protection Agency's awesome responsibility is to establish standards that will protect Americans from harmful pollution in the air we breathe, the water we drink and the food we eat. In addition, it has a major role in protecting our land and water resources for multiple recreational uses. In many industrialized countries, environmental regulations are based on the "precautionary principle." This principle states if an action or policy has a suspected risk of causing harm to the public or to the environment, in the absence of scientific consensus that the action or policy is harmful, the burden of proof that it is *not* harmful falls on those taking an act. In most of our laws, however, the burden is often on the Agency, through expensive and robust research to prove some action is harmful, even though others, such as the manufacturer of the product, have much more information on the risks their processes or products pose on human health and environmental protection. In addition, the political climate has given the regulated industries carte blanche to try to re-argue standards for air, water and toxic pollution standards, not in a robust scientific forum, but through slanted arguments given to legislators. In 2011 and 2012, the House of Representatives voted over 317 times to rollback EPA standards or gut environmental statutes to help one or another industry group. Virtually all of these passed in the House but failed in the Senate.

Another way to hamstring the Agency is to gut the budget so EPA cannot do the science to back up its standards, cannot enforce existing standards or support the states in their key environmental role.

Americans expect an "America the Beautiful" that is as bountiful for our children as it was for our forefathers. We do not have the right to exploit our resources or our environment to the everlasting detriment of future generations, to subject our citizens to harmful poisons that are bi-products of modern society or ignore the risks of climate change. Further cuts at EPA will slow down standard setting; bring to a crawl the clean-up of hazardous waste sites; hamstring local communities in providing clean water and adequate sewer systems and give recalcitrant companies a leg-up on responsible competitors.

ENVIRONMENTAL PROTECTION AGENCY

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KEY FUNDING PROGRAMS

State Revolving Funds

With the passage of the CWA 40 years ago, Congress made a financial commitment to protect and improve water quality across the country—initially through a grant program and later, in 1987, through the establishment of the “state revolving loan fund” (SRF), offering grants and low-interest revolving loans to municipalities to for wastewater treatment, stormwater control, non-point source pollution control, and watershed and estuary management. In 1996, the Safe Drinking Water Act created another state revolving fund for drinking water treatment and protection of surface water and groundwater supply areas. In addition, two percent of each SRF is set aside for Indian tribes to conduct the same types of activities accorded to states.

Local needs for municipal water infrastructure investment, to protect the health and wellbeing of families and communities nationwide, far outstrip the recent levels of funding for the SRFs. Recent studies have shown that communities will need an estimated \$300 billion to \$1 trillion over the next 20 years just to repair, replace, or upgrade aging drinking water and wastewater facilities to modern standards. Meanwhile, EPA projects that there will be a \$535 billion shortfall in financing these projects over that period which will lead to increased sewer failures, interruptions in dependable water supply and increased health risks. Further, a study by the National Association of Clean Water Agencies and the Association of Metropolitan Water Agencies estimates that water and wastewater utilities will need an additional \$448-944 billion to adapt to the impacts of climate change.

Recently, a critical component of both the Clean Water SRF and Drinking Water SRF programs has been the Green Project Reserve (GPR), which puts a dedicated percentage of funding towards green infrastructure, water efficiency, and environmentally innovative water infrastructure projects. These green solutions to water pollution and water scarcity reduce non-point source pollution, protect estuaries, prevent contamination of drinking source waters, reduce polluted runoff by protecting natural areas, and are often more cost-effective than traditional pipe and cement options. These efficiencies mean lower long-term costs and other economic advantages to water utilities and their customers. In a challenging fiscal climate, the Green Project Reserve provides critical resources for communities to invest in cost-effective and sustainable approaches to meet their water infrastructure needs.

Potential Budget/Sequestration Impacts:

- Cuts to the SRFs mean cuts to vital drinking water, wastewater, and stormwater infrastructure projects in local communities across all 50 states, the District of Columbia, U.S. Territories, and Tribes.
- A 5.1% reduction would cut \$119 million from water infrastructure projects nationwide, including, for example, \$9.4 million in California, \$1.7 million in Louisiana, and nearly \$1 million each in Rhode Island and Alaska.
- Every \$1 billion in water infrastructure spending has been estimated to create 20,000 to 26,700 jobs, or at least one full-time job per \$50,000 in spending. A 5.1% cut to the SRFs would mean a lost opportunity to support 2,380 full-time jobs.

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KEY FUNDING PROGRAMS

Categorical Grants to Operate State Environmental Programs

Our nation's federal environmental laws are mainly enforced by the states, not federal employees. State environmental agencies are responsible for implementing nearly all of the core environmental laws that protect public health and our environment. According to the Environmental Council of the States (ECOS), by 1992, EPA had delegated 40% of the federal programs to the States, but by 2007, 96% of these programs had been delegated to the States. Categorical grants to the states are important in making this delegation possible. A State match is usually required under these statutes, and States provide between a half to two-thirds of the funds needed to operate Federal programs. States also operate their own programs that address State-specific needs, and that can be stronger than federal requirements. For instance, South Carolina requires reporting on twice as many toxic air pollutants than the federal government. Implementing environmental law includes permitting, inspections, enforcement, monitoring, standard setting, site cleanup and more. ECOS data show that States conduct 97% of the inspections at regulated facilities; provide 94% of the data in EPA's six major databases; conduct over 90% of all enforcement actions; and are first responders at spills, cleanups, and natural disasters.

Potential Budget/Sequestration Impacts:

- Many changes at industrial facilities need environmental permits from the State. Permit reviews will be delayed even longer with additional budget cuts hurting economic growth
- Without funds for adequate state enforcement of our environmental laws, laws can be ignored and businesses that flout those laws will have a competitive advantage over those who are responsible.
- Communities are threatened and health compromised if states are unable to adequately inspect pollution sources.

Regulatory Programs

Congress intended for EPA to be primarily a regulatory agency to establish the standards critical to implementing the laws that Congress enacts. The scientific, economic, and engineering analyses needed for many of these standard-setting process, requires a team of science and technical experts who can make judgments free from political interference, but under a system of checks and balances including a robust public notice and comment period. Although Congress requires regulations to be published or updated regularly, Executive Orders have added non-statutory requirements that further delay rules and add substantial costs to the process.

EPA currently has a backlog of regulations requiring implementation. The Office of Solid Waste and Emergency Response (OSWER) has been unable to set standards for coal ash, now 4 years after catastrophe in Kingston, Tennessee. The Office of Air and Radiation (OAR) needs to prepare for implementing the endangerment finding that carbon dioxide is a pollutant under the Clean Air Act.

Potential Budget/Sequestration Impacts:

- Further cuts will delay life-saving standards and make our communities more at risk of climate-related impacts.
- Congress has demanded more robust cost-benefit analyses of rules. With cuts in the budget these costly reviews cannot be completed in a time necessary for life saving regulations.

ENVIRONMENTAL PROTECTION AGENCY

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KEY FUNDING PROGRAMS

Potential Budget/Sequestration Impacts (cont.):

- EPA must confirm that automobile manufacturers are complying with all vehicle emission standards in a timely manner or those makes cannot be sold. Cuts in EPA staff could therefore affect vehicle sales and jobs.

Enforcement Program

The Environmental Protection Agency's ability to enforce environmental laws is critical to protecting and enhancing the nation's public health and natural resources. Lack of enforcement cripples the nation's ability to meet its environmental goals and gives unfair advantages in the marketplace to companies that cut corners and put our health and environment at risk. For instance, the Clean Air Act's New Source Review Program requires installation of modern pollution control technology when industrial facilities undergo changes that increase air pollution by significant amounts. The EPA has uncovered widespread violations of this requirement that has resulted in illegal air pollution releases totaling millions of tons of conventional pollutants from coal-fired power plants, oil refineries and other industrial sectors.

Potential Budget/Sequestration Impacts:

- Additional cuts in enforcement will hamper the ability of EPA to assist the states who carry out much of the on-the-ground environmental enforcement activities.
- With states having their own budget problems, additional cuts in enforcement will make it almost impossible for EPA to step in if a state decides not to assume delegated authority.
- For state enforcement to be effective, EPA's oversight federal backstop needs to be authentic to assist the states in carrying out their duties at the levels required by federal law. More cuts in federal enforcement will jeopardize this critical piece of environmental federalism.
- Further cuts would eliminate or significantly reduce essential air quality data systems. Americans with respiratory and cardiac health issues rely on this information to determine when to take action to avoid health impacts from air pollution.

Superfund

The Superfund program was created in 1980 to locate, investigate, and clean up the worst hazardous and toxic sites nationwide. As a mature program, most remaining sites are now in the construction phase of cleanup where steady and adequate funding is necessary. The EPA Inspector General (IG) and others have documented a significant and growing funding shortfall over the past several years. This shortfall is exacerbated by the bankruptcy of the Superfund Trust Fund. In 2003, the Superfund Trust ran out of polluter-contributed funds because Congress had refused to renew the polluter pays tax on the oil and chemical industries that formerly funded cleanups. American taxpayers should not shoulder the costs of all Superfund-led cleanup.

Potential Budget/Sequestration Impacts:

- It can take 4-7 years for a site to be evaluated and ready for construction. In 2012, 22 sites were ready to start, but funding limitations made it impossible to start those sites. Additional cuts will do something Superfund never had to do before – stop work on projects already where there are “shovels on the ground.” This will disrupt communities and possibly upset contractual agreements that may cost more to cancel than continue.

ENVIRONMENTAL PROTECTION AGENCY

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KEY FUNDING PROGRAMS

Potential Budget/Sequestration Impacts (cont.):

- Stop and go funding and a possible sequester, has already slowed down clean up at communities throughout the country who reasonably expected their site to already be completed.

Non-Point Source Management Program, Clean Water Act (CWA) Section 319

Non-point source pollution – which reaches waterways without passing through “point sources” such as sewer systems, industrial plants, or other conveyances -- is the leading cause of water quality impairment in the United States, causing degradation of wildlife habitat and aquatic life, contamination of drinking water, lost recreational opportunities, and many other environmental, economical, and human health problems. The 1987 amendments to the Clean Water Act established the Section 319 Nonpoint Source Management Program to help states, territories, and tribes combat the effects of non-point source pollution. From the Anacostia River, which received \$200,000 for wetland restoration, to Missouri’s Vandalia Lake, which received \$187,000 to reduce atrazine levels, 427 water bodies have been partially or fully restored since 1998.

Potential Budget/Sequestration Impacts:

- Section 319 grants are instrumental in restoring impaired waters by supporting a wide variety of activities including technical assistance, financial assistance, education, training, technology transfer, demonstration projects and monitoring at the state and local level.
- From FY1999 through FY2010, Congress annually appropriated at least \$200 million in section 319 funding, divided between a “base” set of required non-point source programs and focused watershed-based restoration efforts. In recent years, this funding has been cut significantly (FY2012 was \$36.4 million lower than FY2010); meaning that fewer water bodies could be targeted for restoration. Further cuts would mean even fewer restored streams and lakes.
- According to EPA’s *Clean Watersheds Needs Survey 2008 Report to Congress*, non-point source funding needs a total of \$22.8 billion over 20 years or \$1.14 billion annually on average. Thus, even current levels of section 319 funding are inadequate for remediating polluted water bodies and for protecting clean water from future impairment. Additional cuts would worsen this funding gap.
- Non-point source pollution is the primary cause of poor water quality in two of our nation’s most significantly impaired water bodies—the Gulf of Mexico and Chesapeake Bay. If funding for projects to reduce excess nitrogen and phosphorus is cut, this pollution will threaten local communities, economies, and natural habitats even more.

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SCIENCE AND TECHNOLOGY

Human Health and Ecosystem Research

Healthy Communities and Ecosystems is the key research arm necessary for EPA's regulatory activities. The Science Advisory Board recently said that this area is critical because it "...provide[s] the scientific foundation for the Agency's actions to protect America's public health and the environment." Scientists and medical experts from Mt Sinai School of Medicine published a series of studies that calculated the annual cost of preventable environmental disease in US children to be approximately \$76.6 billion per year, making up 3.5% of total health care costs. This includes: lead poisoning (\$50.9 billion), autism (\$7.9 billion), intellectual disability (\$5.4 billion), exposure to mercury pollution (\$5.1 billion), ADHD (\$5 billion), asthma (\$2.2 billion), and childhood cancer (\$95 million).

<http://www.sciencedaily.com/releases/2011/05/110504183411.htm>

This scientific research for standard setting purposes is largely funded by government and not private entities or scientific institutions which preference funding for either basic or disease-targeted research, rather than research for risk assessments or policy. However, risk and policy research is critical for regulatory decision makers to assure that standards proposed are appropriate and not unnecessarily burdensome.

- The cuts in funding since 2010 has handicapped critical needs for advance research to provide the data necessary for risk assessment and risk management. There is a need for research to understand key issues, identify knowledge gaps, and answer complex technical questions in order to develop an appropriate regulatory framework that is fully protective of human health and the environment. The cuts would be tripled under the sequester.

EPA Office of Chemical Safety and Pollution Prevention (OCSP)

The OCSP supports intramural (within EPA) and external research through innovative partnerships and collaborations to regulate pesticides, conduct risk assessment for industrial chemicals to reduce pollution, and coordinate science and science policy including new and emerging technologies. Without the important work of this Office, there would be critical gaps in policy-relevant research needs that will not be filled by other agencies, industry, or academia. For example:

- The Children's Environmental Health and Disease Prevention Research Centers ("Children's Centers"), is a key government partnership between the EPA and NIEHS that helps experts to understand and reduce the severity and/or incidence of diseases and disabilities. Research projects include studying the environmental contributions to childhood obesity, asthma, and autism. The success of this program requires sustained public investment in research on childhood exposures to environmental toxicants.
- The Design for the Environment (DfE) program is a popular EPA partnership program to inform small businesses, industries, and consumers about selecting ingredients and products that are cost-effective and less harmful to the environment.
- EPA must address dozens of new nanotechnologies used in consumer products, pesticides, and industrial processes. The research coordinated and conducted by OCSP to develop a framework for conducting safety assessments and regulating these new

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SCIENCE AND TECHNOLOGY

chemicals is essential to ensuring that EPA's laws and statutes are relevant to new technologies.

Potential Budget/Sequestration Impacts:

- With this important research EPA can support regulatory and policy decisions to inform and protect the public, and support its programs when they are reviewed by the Office of Management and Budget (OMB) Program Assessment Rating Tool (PART), which favors measurable program impacts and demonstrable efficiency and efficacy.
- Without the DfE program EPA would not be able to provide an accredited scientific assessment of the potential health harms associated with the use of Bisphenol A, a potent hormone-disrupting chemical, in thermal paper and 19 chemical alternatives that may substitute for BPA.. Cashiers – often women of reproductive age- and other workers that handle receipts routinely may be at increased risk of BPA exposure from this application. Without this report, consumers, manufacturers, retails, and regulators may unwittingly replace one toxic chemical with another possibly even more deadly one.
- Without EPA research programs EPA and other federal agencies could not assess new emerging technologies including nanomaterials for their potential impacts on human health and the environment. EPA's draft public report on the use of carbon nanotubes – shown to be highly toxic in animal studies - as a flame-retardant coating for upholstery textiles provides critical information to the public, manufacturers, and retailers about the ecological and human impacts from this use. This information is being used to identify and prioritize research gaps and inform risk management decisions. Without this report, consumers, manufacturers, retailers, and regulators may unwittingly replace one toxic chemical with another possibly even more deadly

Integrated Risk Information System (IRIS)

The Integrated Risk Information System (IRIS) is an essential component of EPA's regulatory system. IRIS chemical assessments are intended to provide the scientific foundation for state, regional, and national standards for hundreds of toxic pollutants. The human toll of illnesses, birth defects, and deaths that result from the lack of health-protective regulations and pollution prevention strategies are too often preventable. The comprehensive scientific, peer-reviewed IRIS assessments provide credible public information for federal, state, and local regulators to set effective health-protective exposure and clean-up standards.

Potential Budget/Sequestration Impacts:

- Without this important program, would be further limited in its ability to provide timely and scientifically defensible estimate of risk from common chemical pollutants and industrial chemicals, to support health-protective exposure limits. The recent IRIS assessment of trichloroethylene (TCE) – a widespread cancer-causing water contaminant - has already lead to more health-protective exposure limits in many states, ultimately preventing deadly cancers.

National Toxicology Program (NTP), NIEHS

The National Institute of Environmental Health Science (NIEHS) is the only institute of 27 NIH Institutes and Centers whose mission focuses on primary prevention of diseases linked to environmental and/or occupational exposures, rather than post-illness detection and treatment. The NIEHS and its National Toxicology Program (NTP) support sound and reliable research

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SCIENCE AND TECHNOLOGY

programs that provide scientific data needed to support disease prevention strategies implemented by regulatory agencies including EPA, OSHA, and FDA. Critical research areas supported by this program include the potential health and environmental risks associated with synthetic industrial chemicals, pesticides, various pharmaceuticals, metals, and food additives. NIEHS and NTP supported research advances our understanding of the cellular and molecular bases of disease induction and progression, supports hazard identification and characterization assessments, and underpins primary prevention strategies such as reduced exposure standards.

Potential Budget/Sequestration Impacts:

- Without these critical research programs, the NIEHS will be significantly hampered in its ability to provide credible scientific information regarding the potential hazards for human health and wildlife from common chemical pollutants and industrial chemicals. The NIEHS has launched an ambitious research program coordinating 39 projects to develop a comprehensive disease-specific assessment of possible human health effects associated with Bisphenol A (BPA). This NIEHS-coordinated research program is the largest of its kind and will provide definite scientific information on BPA, a potent hormone-disrupting chemical found in the bodies of over 95% of Americans, including infants. BPA is linked in animal studies to infertility, weight gain, diabetes, and prostate and mammary gland cancer. This research will provide critical information to inform regulators, manufacturers, and retailers about how to prevent unsafe exposures to BPA, thereby preventing human diseases.

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SPECIAL PROGRAMS

WaterSense

In 2006 the Bush Administration launched a voluntary water efficient product certification and labeling program called "WaterSense." It is modeled after the widely recognized and highly successful Energy Star program. Through 2011, WaterSense has helped consumers save a cumulative 287 billion gallons of water and over \$4.7 billion in water and energy bills. But as the drought of 2012 demonstrated once again, maintaining our water supply infrastructure is a major cost across the United States, and improving our water efficiency can lessen the stress and extend the lifespan of both drinking water treatment and wastewater treatment systems. Water efficiency is the most cost-effective way for communities to manage existing water supplies and prepare for future needs.

The EPA has only a handful of staff to support the WaterSense program; they are working with local water utilities, product manufacturers, and retailers to encourage the use of water-efficient products and practices by individuals, professional installers, homebuilders, and commercial developers.

Potential Budget/Sequestration Impacts:

- Additional cuts through sequestration will inhibit development of new specifications that will limit the additional categories of products to qualify for the WaterSense label, costing consumers water and Cuts will hurt manufacturers, distributors, retailers and local utilities all who have benefited from the use of WaterSense products and materials in their marketing and incentive programs.

BEACH Act Grant Program

Our nation's public beaches are popular destination spots for recreation. The local economies of many coastal communities depend largely on clean and healthy beaches for use by residents and tourists alike. Unfortunately, many of our nation's public beach waters are polluted with bacteria and viruses that can make swimmers ill. Polluted urban stormwater, sewage spills, and combined sewer overflows are the major sources of beach water pollution. The number of beach closing and advisory days in 2011 totaled 23,481 day.

The Beaches Environmental Assessment and Coastal Health (BEACH) Act established a grant program for beach water testing and public notification programs. States use these funds to help pay to monitor water quality – specifically, whether there are bacteria in the water indicating the presence of pathogens that can make people sick – and to make decisions and notify the public about closing beaches or warning people about the dangers of swimming. Regular information about beach water quality protects the health of beach-goers and, consequently, the vitality of coastal, tourism-based economies.

Unfortunately, perennial underfunding has prevented full state and tribal implementation and has left public health vulnerable. Even worse, President Obama's budget proposal for FY13 sought to eliminate this funding altogether.

Historically, Congress has appropriated a small sum, between \$9.75 and \$10 million to fund beach programs, and it should at least continue this level of funding to support our valuable

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coastal tourism-based economies and to protect beachgoers from getting sick from exposure to polluted water.

Potential Budget/Sequestration Impacts:

- Reducing – or, worse, eliminating – BEACH Act support to states will harm beach programs nationwide. Without key funds, it is likely that states will reduce the number of monitoring locations or the frequency of monitoring and eliminate off-season water testing programs.
- Reduced monitoring could compromise not only public health protection but also the ability to track chronically polluted beaches

Great Lakes Restoration Initiative

The Great Lakes supply drinking water to more than 30 million people in the eight-state region of Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York. And millions more in the United States and Canada depend on the lakes for their jobs, health, and way of life. Yet despite their size and significance, the Great Lakes suffer from sewage overflows, a legacy of toxic pollution, the introduction and spread of invasive species, and the loss and degradation of habitat. These factors, among others, are placing tremendous stress on the Great Lakes and are threatening the economy, livelihoods, environment, and outdoor heritage for millions of people who depend on them.

The economic benefits of the Great Lakes are well documented. The Brookings Institution reported that Great Lakes restoration creates jobs in the short-term while laying the foundation for long-term prosperity—providing \$2 in economic benefit for every \$1 investment in restoration. More than 1.5 million U.S. jobs are directly connected to the Great Lakes, generating \$62 billion in wages annually, according to an analysis by Michigan Sea Grant at the University of Michigan.

In 2009, President Obama announced his Great Lakes Restoration Initiative (GLRI), which seeks to 1) implement the recommendations of the GLRC and restore and protect the Great Lakes, 2) coordinate actions among federal agencies, or federal agencies and nonfederal partners, and 3) ensure accountability that ensures results. The Great Lakes Restoration Initiative is producing results by supporting more than 900 local projects in the eight Great Lakes states.

Both the President and Congress have demonstrated ongoing, bi-partisan support for the GLRI and other Great Lakes restoration programs. In Fiscal Year 2012, Congress appropriated \$300 million to the U.S. Environmental Protection Agency for the GLRI, part of which the EPA passed through to other federal agencies in order to attack the most urgent threats facing the lakes according to the Great Lakes restoration plan: invasive species like Asian carp; toxic pollution contaminating rivers and bays; habitat and wetland loss; and urban and farm runoff that leads to algal blooms and degraded water quality.

Potential Budget/Sequestration Impacts:

- Low GLRI funding levels would stall continued efforts to **clean up toxic pollution, restore wildlife habitat, stop invasive species and reduce polluted run-off from farms and cities, imperiling the drinking water and livelihoods for millions of Americans.**
- Local governments would suffer from an inability to leverage matching federal funding dollars.

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National Environmental Education Act Programs

The Environmental Protection Agency's (EPA) Office of Environmental Education implements highly-leveraged, successful nationwide environmental education programs authorized by the National Environmental Education Act (NEEA - PL 101-619), the nation's first environmental education legislation that is still the only federal law devoted solely to environmental education. Environmental education is increasingly critical as our nation moves towards a clean energy economy and addresses the challenges of global climate change.

NEEA supports life-long education and environmental stewardship, helping to ensure that our citizens are environmentally literate and competitive in increasingly important environmental fields. The EPA's Office of Environmental Education supports several highly-leveraged, but under-resourced programs including the Environmental Education and Training Partnership, the National Environmental Education Foundation, an environmental education grant program, the Weather and the Environment program, the Health and the Environment program, National Public Lands Day, the Business and Environment program, Project Learning Tree, the National Audubon Society's education initiatives, and other efforts. These programs and environmental education more broadly has overwhelming public support. Fully 95 percent of American adults and 96 percent of parents support environmental education being taught in the schools according to an environment survey conducted by Roper Starch Worldwide. EPA's environmental education programs meet the highest standards for educational rigor and scientific accuracy.

Potential Budget/Sequestration Impacts:

- In FY12 the EPA's office of Environmental Education was all but eliminated from the budget. Further cuts to the EPA would result in the systematic shutdown of the only federally mandated Office of Environmental Education.

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Tribal Air Quality Management

Section 301(d) of the 1990 Amendments to the Clean Air Act (CAA) authorized EPA to treat Indian tribes “as States.” EPA subsequently increased its tribal air grant funding at a time when few Indian tribes were engaged in air-related activities. In 1998, EPA finalized the Tribal Authority Rule (TAR) which provides that tribes may be treated in a manner similar to states for virtually all provisions of the CAA. Tribes are not only eligible for section 103 grant funding to conduct air quality monitoring, emissions inventories, and other studies and assessments, but they may also obtain section 105 grant funding to implement CAA regulatory programs.

After implementation of the TAR, EPA tribal air funding ranged between \$10.7 million and \$12.1 million annually. During this same time, the number of tribes seeking 103 and 105 grant funding grew substantially to the point that any former funding carryovers from previous years were now being exhausted. Further, EPA regional offices were being forced to turn away a number of tribes for funding requests. However, tribes were being forced to address the same air-related issues that neighboring state and local jurisdictions were facing in an environment of increasing regulations. While the Obama Administration increased tribal air funding in FY2009 to \$13.3 million, where it has remained annually since, tribes continue to be underfunded in addressing their respective air issues.

Potential Budget/Sequestration Impacts:

- Funding at existing or reduced levels will inhibit, and even prevent, Indian tribes from complying with a number of federal regulatory requirements such as the Tribal Minor New Source Review Rule.
- Without sufficient funding, Indian tribes will be unable to engage in core air quality management program development and operations important to them (*e.g.*, national ambient air quality standards, toxics and indoor air quality) and the implementation of EPA’s newest initiatives related to climate change, renewable energy, energy efficiency, diesel retrofits, woodstove changeouts, carbon sequestration, human and ecosystem health-based research, and monitoring for critical loads.

Tribal General Assistance Program

Federal support for tribal environmental protection began over twenty years after the commencement of federal and state environmental protection programs that were initiated by the enactment of the Clean Water Act and Clean Air Act in the early 1970s. Tribes are still trying to catch up, and a significant gap remains.

The Indian General Assistance Program (IGAP) authorizes the U.S. Environmental Protection Agency (EPA) to provide grants to Indian tribes to assist them in planning, developing and establishing environmental protection programs. These grants are especially critical to Alaska Native villages which often lack access to other sources of funding to address their basic environmental needs.

While IGAP has helped Indian tribes establish an environmental “presence,” many of those involved with tribal programs have expressed a desire to be able to implement programs. The

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goal of IGAP (*e.g.*, build tribal capacity, define a tribe's needs and move onto other programs to create overall sustainable environmental programs) has not been met, either due to limited funding or other institutional barriers. As IGAP is the only environmental funding available to many tribes, it is time to allow them to use the funding to engage in program implementation.

Mindful of the cost of running tribal environmental programs, particularly based on the national economic situation and the desire of Indian tribes to utilize IGAP funds for purposes beyond capacity building that include program implementation, and cuts to IGAP would significantly hamper tribes' environmental protection efforts.

Potential Budget/Sequestration Impacts:

- Existing or reduced funding levels will further prevent Indian tribes from being able to implement environmental programs that involve building tribal capacity and defining a tribe's needs to move onto other programs to create overall sustainable environmental programs.

Multimedia Tribal Implementation Grants Program

The Obama Administration's FY2012 budget request for the EPA included a new Multimedia Tribal Implementation Grants program to support on-the-ground implementation of environmental protection on tribal lands and to adequately address their most pressing environmental needs. Despite the potential of cuts to federal non-defense discretionary spending, because this program has not been funded, tribes already face huge obstacles for on-the-ground implementation of environmental protection.

Direct Implementation Tribal Cooperative Agreements

A means to help offset the limited dollars available to Indian tribes under the IGAP is the use of Direct Implementation Tribal Cooperative Agreements (DITCAs). DITCAs allow tribes and intertribal consortia to help EPA implement federal environmental programs for tribes. DITCAs were initially authorized in the FY 2001 Appropriations Act and must be approved annually by Congress. Because they are under federal authority, DITCAs do not trigger jurisdictional entanglements between tribes and other governmental bodies that might otherwise occur if tribes attempted to assert regulatory jurisdiction for their own programs. Further, DITCAs provide environmental results and meet strategic targets valued by both tribes and EPA.

Thus far, EPA has awarded more than 20 DITCAs to Indian tribes to undertake such activities as CAA Title V permitting, development of smoke management plans, National Pollution Discharge Elimination System stormwater permitting compliance, water quality monitoring, public water system supervision, and the hiring of a tribal pesticide circuit rider. While there is a strong interest among tribes to enter into more DITCAs, EPA is constrained by the availability of resources to do so. Discretionary monies from the Environmental Program and Management account, and STAG have been the primary vehicle for DITCAs which must also compete with a myriad of other EPA priorities.

Potential Budget/Sequestration Impacts:

- Reduced funding will prevent EPA from providing Indian tribes with the resources necessary to help EPA implement federal environmental programs for tribes.
- A separate budget set-aside should be established within EPA in order to avoid having to obtain appropriations annually from Congress in order to fund DITCAs.

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INTRODUCTION

Our nation's oceans, coasts, and Great Lakes provide immense economic, environmental, and recreational benefits. The *National Ocean Economics Program* has estimated that the U.S. ocean and coastal economy contributes more than \$258 billion annually to the nation's GDP through fisheries and seafood production, tourism, recreation, transportation, and construction. Additionally, over 2.7 million jobs in the U.S. depend on the oceans and coasts, 1.9 million of which come from tourism and recreation. The National Oceanic and Atmospheric Administration (NOAA) is responsible for managing our nation's living marine resources, protecting marine and coastal habitats, and monitoring and forecasting climate and weather. Adequately funding NOAA is critically important to the health of our nation's oceans and coasts, including the economies and communities that depend on them.

Two NOAA priority areas demonstrate best how cuts to the agency's programs would harm our oceans and our coastal communities: restoring fisheries to sustainable levels and protecting and restoring the resilience of our coasts.

Managing fisheries in a sustainable manner is vital to ensure the health of our coastal economies and ecosystems. NOAA's National Marine Fisheries Service (NMFS) has made great strides toward ending overfishing as mandated by the *Magnuson-Stevens Fishery Conservation and Management Act*. This is in large part due to the new requirements to end overfishing by establishing annual catch limits (ACLs) and accountability measures in all US fisheries that are aimed at ending overfishing. Information provided by core data collection, catch monitoring and stock assessment programs within the NMFS is critical to the success of this endeavor.

Maintaining adequate investments in these interrelated activities is not only essential for informed decision-making and stewardship of the nation's fisheries resources, but for realizing the full potential of our nation's fisheries in order to sustain businesses and communities. Cuts to programs that focus on fisheries restoration and sustainability will harm an industry that employs nearly 60,000 Americans in coastal counties and contributes \$6 billion to the GDP.

We learned from Superstorm Sandy how important the resilience of our coastal ecosystems is to the safety and prosperity of our coastal communities. Areas exposed to the storm's winds and surge took the hardest hits, but others, protected by natural or enhanced buffers of sandy beach, dunes, beach grasses, or coastal wetlands, emerged from the storm with less damage and lower disaster recovery costs. Ocean, coastal, and Great Lakes ecosystems continue to face significant challenges, including development, resource exploitation, and habitat destruction. These threats are being exacerbated by impacts of increased ocean acidity, warmer temperatures, and sea level rise. NOAA is the lead agency in addressing these problems and management challenges. Additional funding cuts to the programs that carry out this important work would directly harm our nation's estuaries, wetlands, coral reefs, and ocean ecosystems, including in regions like the Gulf of Mexico, the Chesapeake Bay, and the Arctic.

In the wake of disasters like the *Deepwater Horizon* oil spill and Superstorm Sandy, new and improved tools and protocols are necessary to improve our response, recovery and restoration

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efforts. NOAA's programs to protect and restore ocean and coastal ecosystems and enhance our coastal resilience are critical to this important mission.

In addition to these two priority areas, NOAA's satellite and weather programs are vital to alerting citizens to oncoming tornadoes, hurricanes, floods, and other weather events. These programs also face dire consequences if funding cuts are made, however, these programs should not be funded at the expense of NOAA's ocean and coastal activities. Adequately funding both of NOAA's important functions is critical to the safety of our citizens, the health of our oceans, and the viability of our economy. All of these programs deserve robust funding.

Finally, it is critical that misplaced attacks on the National Ocean Policy come to an end. The National Ocean Policy improves the way we manage our oceans, reducing duplicative efforts and conflicting government actions, and focusing attention on the most serious issues jeopardizing ocean health. The National Ocean Policy does not replace or override existing statutes, or alter the jurisdiction of any agency. Rather, with oversight and coordination from the National Ocean Council, the policy brings order to the chaos that has resulted from ocean, coastal, and Great Lakes resources being governed by more than 140 laws and 20 different agencies. As the agency principally responsible for the stewardship of the nation's coastal and marine environment, NOAA is a key player in the execution of this policy. Attempts to defund the National Ocean Policy will only jeopardize NOAA's ability to perform other critical activities.

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The Integrated Ocean Observing System (IOOS)

In 2009, Congress established the Integrated Ocean Observing System (IOOS) as the ocean analog of the National Weather Service to enhance the nation's ability to observe our oceans, coasts and Great Lakes. Routine observations of ocean currents, waves, water temperatures, salinity, nutrients, phytoplankton and much more are made available in real-time and used in models to develop forecasts and predictions. Search and rescue personnel, emergency managers, fishermen and fisheries managers, shellfish growers, maritime shippers, public health officials and the general public have come to rely on these observations. IOOS enhances NOAA's core mission by providing baseline data on critical ocean parameters that are not being made by other programs. As an example, over 50% of the data coming to NOAA's National Buoy Data Center is now from non-federal partners through the IOOS system.

With only small amounts of funding, IOOS has maintained critical infrastructure, providing information both above and below the water. A hallmark of IOOS is the national network of 11 regional systems. This network ensures IOOS is responsive to regional user needs, provides products that are tailored to diverse regional conditions, and builds on the expertise and knowledge of regional researchers, governmental experts, non-profits, industry and users. An example is the National Surface Current Monitoring Network, created by IOOS and administered through the regional network, which provides real-time information on the strength and direction of surface currents. With this information, the US Coast Guard can reduce their search area by more than 60%, saving lives, property and millions of dollars. IOOS is the only operational program that routinely provides subsurface monitoring either through oceanographic buoys or gliders. These are used to inform shellfish growers of harmful upwellings of acidic waters, track the transmission of harmful algae blooms along ocean currents, monitor changes in bottom temperatures and its effect on fisheries and provide notice to public health officials of potential pollution events along the nation's beaches.

Potential Budget/Sequestration Impacts:

- Reduced IOOS funding levels would impact the National Surface Current Monitoring program. Radar units would come offline, putting mariners at risks should an accident occur, and reducing the nation's ability to respond to oil spills and other pollution events.
- Subsurface monitoring capabilities would be lost due to the decommissioning of buoys and gliders, rendering us blind underwater. These assets were critical both during Hurricane Sandy and in *Deepwater Horizon*. With reduced IOOS funding, the Northeast would lose over 75 percent of its subsurface monitoring capabilities.
- Regional systems that are highly leveraged would lose capacity to make regional data accessible on a routine basis, including during extreme weather events when such information is most critical. The loss of capacity at the regional level would impact the program's ability to link and leverage with other programs to make observations in the most cost-effective manner.

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Coastal Services Center

The Coastal Services Center supports projects in states and territories to address specific and national coastal management issues, including initiatives such as coastal hazard and climate resilient communities, regional governance efforts, coastal storms, and the Digital Coast. Through the Digital Coast, the Coastal Services Center provides a simplified way to access data relevant to the coast as well as tools and training to turn this data into useful information, increasing user efficiency and effectiveness. The translation of data and information collected by federal agencies into useable tools, as well as training opportunities for these tools is critical to integrating data into resource management, supporting better decision-making and leading to better economic and environmental outcomes for sustainable communities and economies. Those whose analyses and decisions will shape the future state of our coasts are also able to do their jobs at a lower cost because of the data, tools, training, case studies, and other products and services provided by the Coastal Services Center. Additionally, as NOAA consolidates the Coastal Services Center and the Office of Ocean and Coastal Resource Management, funding for both offices is critical to ensure a thoughtful and smooth transition while addressing coastal management support.

Potential Budget/Sequestration Impacts:

- The Coastal Services Center – through programs like the Digital Coast – improves the effectiveness of those managing the resources of the coasts, oceans, and Great Lakes (resulting in better future conditions of coastal ecosystems). Budget cuts would result in the reduction of training opportunities and the availability of the data and tools critical to sustaining vibrant and coastal economies and communities.
- The Coastal Services Center was able to respond quickly to provide geospatial resources to aid in the response to Superstorm Sandy. Budget reductions would limit the Coastal Services Center’s ability to quickly respond to on-the-ground needs and provide critical information resources post extreme weather events.
- Budget cuts would negatively impact the collection of needed coastal data, including coastal lidar, emergency response imagery, and bathymetric data. Accurate and up-to-date data is critical for the effective management of coastal areas against present and future hazards.

Coral Reef Conservation Program

Tropical coral reefs are often called the “rainforests of the sea” given that they possess 25% of the biodiversity found in the oceans. Coral reefs are among Earth’s oldest communities and take thousands of years to grow into magnificent habitats. Coral reefs provide essential habitat for other marine animals, providing food and shelter and allowing the spawning and development of many marine species. This function of coral reef ecosystems is critical for many reef fish fisheries. Coral reefs also play important roles in the protection of coastlines from storms as well as supporting coastal economies through recreation and tourism. Coral reefs are estimated to provide \$375 billion in environmental and economic services.¹ As corals continue to face a multitude of threats including climate change impacts, destructive fishing practices, and land-based pollution (key threats prioritized by the program), it becomes even more critical to adequately fund this conservation program.

¹ Costanza, R., et al. The value of the world’s ecosystem services and natural capital. *Nature* **387**, 253-260 (1997).

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NOAA's Coral Reef Conservation Program (CRCP), with the U.S. Coral Reef Task Force, focuses on improving the understanding of tropical coral reef ecosystems and minimizing the threats to their health and viability. The CRCP program works to conserve coral reef ecosystems, among the most important and most threatened on the planet—vulnerable to overexploitation, ocean acidification and climate change. The U.S. National Action Plan to Conserve Coral Reefs calls for federal collaboration to protect international coral reefs and human communities that depend on them. In support, NOAA provides training, technical support, small grants and large-scale cooperative agreements in four regions with strong interconnections to U.S. reefs and interests: the Caribbean, Micronesia, Southwest Pacific/Samoa and the Coral Triangle.

Non budget cost opportunities for the program include establishing a Cooperative Institute (with no administrative allocation) which is a competitive award for a group of institutions who work with NOAA. The existing Coral Reef Institutes (CRIs), individually and collectively, yield a proven and respectable track record for bridging outstanding science, research with practical management of coral reefs, and leveraged funding within U.S. waters. The CRIs have yet to be recognized through a Cooperative Institute agreement. The applied research conducted by the four CRIs (the National Coral Reef Institute, the Caribbean Coral Reef Institute, the Western Pacific Coral Reef Institute, and the Hawaii Coral Reef Initiative) is essential to local management needs, and shared for application in the tropical/subtropical environment.

Potential Budget/Sequestration Impacts:

- With reduced funding, specific impacts to the program would likely include a loss of key efforts and opportunities, including coral research and monitoring in low-income areas (an effort by the program to encourage local tourism and livelihoods); short-term project contractors; efforts to bridge western science with traditional management in our nation's territories; collaboration opportunities at the jurisdiction level through the Coral Reef Institutes; and fellowship opportunities across the seven coral reef jurisdictions.
- NOAA's ability to continue providing technical support and training as part of USAID's partnership in the Coral Triangle Initiative, which has included supporting climate adaptation strategies for the millions of vulnerable inhabitants of the region, particularly those living on low-lying islands and relying on fisheries and coral reefs for livelihoods and subsistence.

Response and Restoration

NOAA's Office of Response and Restoration (OR&R) is a critical component of our ability to respond to oil spills and releases of other hazardous substances. OR&R not only provides scientific and technical expertise guidance during an oil spill response effort, they are also a lead trustee in assessing and recovering natural resources damages, as well as designing and implementing restoration efforts. Funding for OR&R provides support for the up-front environmental assessment process and short-term restoration needs while NOAA works to settle each case. The BP *Deepwater Horizon* disaster highlighted the important services NOAA provides and the potential impact of oil spills on coastal fisheries, economies, and communities. Without robust funding for these activities, our coastal communities will have less means to respond to and recover from hazardous spills and releases.

Potential Budget/Sequestration Impacts:

- Cuts to Response and Restoration funding would severely threaten the ability of our coastal communities to adequately respond to hazardous spills and releases, recover natural resource damages, and restore affected areas.
- Funding cuts would jeopardize the ability of these already-vulnerable communities to better prepare for future disasters.
- Response and Restoration funding cuts would hinder the government's ability to quickly assess and recover natural resource damages from a hazardous spill or release, postponing relief for those affected.

Estuary Restoration Program

Authorized through the Water Resources Development Act of 2000 and reauthorized by Congress in 2007, the Estuary Restoration Act (ERA) established a comprehensive interagency program for the restoration of the nation's estuaries. The ERA's Estuary Habitat Restoration Council, comprised of the five primary federal restoration agencies (USACE, NOAA, EPA, USFWS, and USDA-NRCS) is leading a coordinated approach to maximize benefits from restoration and address the pressures facing our nation's estuaries. With declining federal resources, this level of coordination has never been more important. As current Council Chair, NOAA is leading efforts through the Estuary Restoration Program, while also maintaining an interagency ERA project database that serves as a useful and cost-effective clearinghouse for all agency restoration information.

In November 2012, the Estuary Habitat Restoration Council approved the 2012 Estuary Habitat Restoration Strategy and five-year action plan. The action plan identifies outcomes and milestones to ensure that restoration efforts are coordinated, evaluated, and tracked across agencies with the goal of ensuring efforts are effective and efficient.

Potential Budget/Sequestration Impacts:

- Further cuts to the Estuary Restoration Program will continue to jeopardize collaboration among agencies and will risk increasing costs to every agency responsible for restoration efforts. This program helps limit duplication of efforts across agencies and cuts threaten these savings, leading to inefficiency and greater long-term costs.
- Restoration projects contribute to recovery of migratory birds, threatened and endangered species, cuts would delay restoration projects, demanding more costly reactive measures in future years.
- Federal investments in restoration create between 17 and 33 jobs per \$1 million invested. These investments not only generate immediate economic and job benefits, but also promote long-term ecologic and economic benefits.

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Marine Debris

Marine debris has become one of the most pervasive pollution problems facing the world's oceans, coasts and waterways. In its various forms marine debris includes derelict fishing gear, plastics and trash. Marine debris causes wildlife entanglement, ghost fishing, destruction of habitat, navigational hazards, vessel damage and pollutes coastal areas. Research has demonstrated that persistent debris has serious effects on the marine environment, wildlife and the economy. The problem of marine debris has been growing over the past several decades and natural disasters such as the March 2011 Japanese tsunami tragedy exacerbated an already challenging issue. Trash travels and tsunami debris is impacting the West Coast now. Boats, a dock and various other forms of debris have washed onshore creating removal challenges and concerns over invasive species. The Marine Debris line funds NOAA's Marine Debris Program, which was established and mandated by the Marine Debris Research, Prevention and Reduction Act of 2006 and reauthorized in 2012. NOAA's Marine Debris Program works to map, identify, assess, remove and prohibit marine debris.

While the quantity of marine debris in our ocean has greatly increased, funding for NOAA's Marine Debris Program has remained well below the authorized level of \$10 million. Additional resources are needed to ensure that NOAA has the capacity to monitor and respond to the impacts of debris from the tsunami and other sources.

Potential Budget/Sequestration Impacts:

- Funding cuts to this program would likely include a reduction of marine debris removal in the Northwestern Hawaiian Islands where marine debris poses a significant threat to marine wildlife and coral reefs.
- Recent natural disasters such as the 2011 Tsunami and the more recent Superstorm Sandy have shown how marine debris impacts coastal communities and environments. Without sufficient funding NOAA may lack the ability to conduct basic research efforts to understand what types of marine debris are causing the greatest damage both to the ocean and human health.

Coastal Zone Management Grants

For forty years, the Coastal Zone Management Program has helped states to manage the nation's coasts, islands, and Great Lakes. This innovative partnership enables federal and state managers to address important national coastal objectives. It has resulted in the establishment of state and territorial coastal management programs, which have reduced environmental impacts of coastal developments, resolved significant conflicts between competing coastal uses, and provided critical assistance to local governments in coastal planning. States are empowered by the Coastal Zone Management Act (CZMA) to implement their federally approved coastal programs and manage all federal activities impacting a state's coastal zone such that they comply with the state plan. The CZMA is a true financial partnership between federal and state governments, with each federal dollar matched by a state dollar and often leveraged for additional funds from local and private investment. The success of the Coastal Zone Management Program is a direct result of the ability of states to work with communities to design coastal management programs that address specific issues and priorities affecting local areas.

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Projects and activities include: reducing underground pollution leaking into coastal waters by improving septic tank maintenance; providing hands-on training to a local community to safely evacuate citizens prior to a coastal storm; monitoring and increasing the distance homes are built from the shoreline to enhance the protection of person and property; dunes and seagrass and the preservation of beaches; investing in computer models to help local communities plan for future storm events, shoreline change, and identifying and conserving waterfront property for storm protection, water-filtering benefits, fish nurseries, or recreation; assisting local governments to address salt water intrusion that threatens drinking water supplies; participating in research to understand recreational uses and trends; reviewing a company's application for an offshore energy facility to be consistent with state policy; assisting in the removal and relocation of homes on retreating beaches due to sand erosion or sea-level rise; and working with local citizens and community leaders to preserve waterfront property for businesses—seafood harvesters and processors, freight and fuel companies, boat builders, ferries, cruise boats, kayak outfitters, and marinas—dependent upon access to the water to flourish.

CZMA serves as a proactive tool to link land-based activities with coastal and ocean planning efforts and to coordinate with existing state policies and activities. The state coastal programs are also at the forefront of interpreting data and forecasts from federal agencies and implementing them into decision-making tools and policies effecting coastal ecosystems, communities and economies. For the past decade, funding for state CZMA grants has been funded at the mid-\$60 million level and was funded at \$67.5 million in FY10. This stagnant funding is already limiting the states' ability to maximize this legislative mandate, and further cuts will endanger the programs' ability to continue, which in turn threatens coastal economies and communities. Maintaining capacity for coastal management is critically important to maintaining coastal communities and economies and cannot be done with funding cuts. While more than \$91 million is needed to return the program to 2001 level funding (accounting for inflation), sustaining the \$66-68 million funding will see these programs through difficult fiscal times without endangering current and future sustainable, coastal economic development.

Potential Budget/Sequestration Impacts:

- Decreased funding to our coastal zone programs inhibits the ability to plan for resilient recoveries in the face of increasing extreme weather events, potentially crippling the coastal economic engine.
- States' ability to thoughtfully plan for increased populations and resource users in coastal areas is threatened by insufficient funds to state coastal zone program grants.
- Further cuts to coastal zone management grants reduce opportunities for states to maintain and increase public access points to our nation's coasts.

Coastal Zone Management and Stewardship

The CZM and Stewardship funds allow for the administration of national programs that manage and conserve ocean and coastal resources, including the Coastal Zone Management Program. These funds allow NOAA's Office of Ocean and Coastal Resource Management to provide the necessary and invaluable administrative, planning and technical support to the states and territories. Historically funded between \$6.7 and \$8.5 million, the CZM and Stewardship Fund is a critical component of NOAA's "boots-on-the-ground" activities and ensuring consistency

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through state and federal activities. Maintaining current funding levels will ensure the federal-state partnership programs continue successful efforts to ensure safe and sustainable coastal communities and economies.

Potential Budget/Sequestration Impacts:

- Reductions to the CZM and Stewardship account will limit the federal interaction in the federal-state partnership that is the basis for the National Coastal Zone Management Program, which seeks to ensure the long-term sustainability of our coastal areas.

Regional Ocean Partnership Grants

The Regional Ocean Partnership grants program provides competitively awarded funds to projects that support regional action on national priorities for ocean and coastal management and science. As identified by the U.S. Commission on Ocean Policy, regional approaches continue to be the most effective and efficient way to address our nation’s ocean management challenges. States have voluntarily established Regional Ocean Partnerships (ROPs), which use a place-based focus and serve as regional forums to develop shared priorities. ROPs also work to enhance the ecological and economic health of the regions, and ultimately the nation, on the belief that multi-sector, multistate management decisions will result in an improved ocean environment and ocean-related economy. While each partnership is unique and tailored to the needs and concerns of one region, priorities are similar across regions, including habitat conservation and restoration, planning and recovery from dangerous storms, climate change adaptation, water quality improvement, support of critical research and monitoring programs, environmental education and planning for new ocean uses and conservation.

Through these partnerships, states link their activities with federal programs to meet not only regional, but also national goals. In some regions the focus will be developing baseline science and ocean assessments, while in others it may be looking at planning scenarios for renewable energy development. Cuts in ROP funding will lead to some regions and regional entities receiving either no grant funding or only very limited grant funding. As stated in the Joint Ocean Commission Initiative’s 2012 U.S. Ocean Policy Report Card, “The leadership and innovation of these multi-state regional ocean partnerships is invaluable.”

Potential Budget/Sequestration Impacts:

- States’ and regions’ ability to move forward addressing pressing issues that are real and relevant to those regions will be significantly diminished.
- Regions will lose significant capacity to foster robust participation and buy-in from state and regional partners.
- Each ROP’s ability to improve the effectiveness and efficiency of facilitating ocean uses, from recreation to renewable energy, while maintaining ocean health will suffer.
- States and regions will lose the ability to perform critical work to enhance coastal resilience and better prepare communities for disasters like Superstorm Sandy.

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National Estuarine Research Reserve System

The National Estuarine Research Reserve System (NERRS) is comprised of 28 places of land and water where long term research, education, training, and stewardship occur. Through an effective partnership between NOAA and coastal states, the NERRS plays a critical role in sustaining resilient coasts and coastal communities. The program grew in 2010 to 28 reserves, many of which are in small towns along the coasts of 22 states and Puerto Rico. The 28 reserves and the public's use of these places have significant local, regional, and national economic and societal benefits because the lands are publicly owned and function as living laboratories and classrooms that are used by scientists, decision makers, educators, and people of all ages. A 29th Hawaii Reserve is working to be designated and receiving funding; thus, level funding necessary for the program to support the addition of a new reserve, as well as respond to the steep rising state costs associated with maintaining these coastal areas for hazard protection, clean water, and practical help to the public and coastal communities. The reserves are critical front line defenders of extreme weather impacts, like those of Superstorm Sandy, and of catastrophic events like the *Deepwater Horizon* oil spill. In addition, funding NERRS Procurement, Acquisition, and Construction (PAC) activities is critical to further coastal community protection because the funds are used with other monies to acquire critical lands for conservation and to construct and upgrade site facilities. NERRS was created by Congress, and is a NOAA program in the communities that delivers services locally.

Potential Budget/Sequestration Impacts:

- Program cuts put at risk the over \$26 billion of economic output contributed by NERRS coastal counties in 2010, as well as the more than more than 468,000 jobs in ocean-dependent industries supported in these communities.
- Insufficient funding places over 1.3 million acres of protected coastal and estuarine land worth more than \$6.5 billion at risk, including estuaries that serve as nurseries for more than 75% of the commercial seafood catch and provide numerous benefits to communities such as improved water quality, increased flood control and buffers from storms.
- State and local economies would be impacted by more than \$20 million in direct benefit from reduced operations of visitor centers, trails, and recreational amenities that bring tourists to reserve areas; tourism economies would be further impacted by the reduced water quality data available from NERRS to inform beach users of water safety; and local response to disasters would be at risk due to a reduced ability to provide timely local and regional data.
- The 28 coastal communities surrounding reserves would suffer dramatic reductions to the over 2,000 K-12 education programs that offset more than \$4.9 million in education programs that introduce more than 83,000 students to estuaries.
- States and local communities will lose the direct benefit of a coastal training program that offsets more than \$13.4 million in training for more than 66,000 people.
- Funding cuts to the NERRS will reduce leveraged science opportunities and reduce the amount of information provided to coastal communities and the public.
- Elimination of NERRS program for Graduate Research Fellowships, providing advance degree educational opportunities for up to 56 university marine science related students per year.
- Elimination of NERRS PAC funds will result in the loss of hundreds of local jobs.

NATIONAL OCEAN SERVICE

National Marine Sanctuary Program

National marine sanctuaries embody our nation's commitment to preserve the best of our ocean for future generations. Managed by NOAA's Office of National Marine Sanctuaries (ONMS), sanctuaries support economic vitality and thousands of coastal businesses in sanctuary communities, preserve vibrant underwater and maritime treasures for our children and grandchildren to enjoy, and provide critical public access for ocean recreation, research, and education. Through stakeholder-driven planning processes designed to accommodate multiple uses of the ocean and validated repeatedly over the 40-year history of the sanctuary program, ONMS successfully manages 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument – places that define the American ocean.

Sanctuaries are a unique and successful ocean conservation tool. Numerous external reviews have concluded that sanctuaries are fundamentally well-conceived, cover gaps in other federal laws, and are making progress towards long-term protection of marine ecosystems. Unlike most other ocean resource laws, which focus on controlling specific activities or managing specific species, the National Marine Sanctuaries Act protects nationally significant places, along with the natural, historical, and cultural riches that make them worth preserving for future generations. Experience shows that this approach is vital to maintaining the healthy seascapes that underpin our incredibly productive coastal economies – and that the return on our investment in sanctuaries is simply too valuable to ignore. Consider that ONMS cares for sanctuaries at less than \$500 per square mile, while management of National Park Service properties costs over \$16,000 per square mile.

Potential Budget/Sequestration Impacts:

- Continued underfunding will result in reduced visitor center operations, inactive vessels, and layoffs. In addition, lack of funds will force ONMS to cut treasured public access and recreation opportunities, cancel collaborative efforts with museums and universities that leverage private funds for taxpayer benefits, and dismantle successful education initiatives that save taxpayers money by focusing on low-cost prevention instead of expensive restoration or remediation.
- Without sufficient funding, our National Marine Sanctuary System cannot successfully safeguard the best of the American ocean for ourselves and future generations. Closing visitor centers, eliminating research programs, diminishing enforcement capacities, and dismantling education initiatives will prevent ONMS from implementing sanctuary management plans – authored and supported by local communities and constituents – for yet another year.

Pacific Marine National Monuments (Pacific Remote Islands Marine National Monument, Rose Atoll Marine National Monument, and Marianas Trench Marine National Monument)

Three marine national monuments (Pacific Remote Islands Marine National Monument, Rose Atoll Marine National Monument, and Marianas Trench Marine National Monument) were established in 2009 by President George W. Bush. Together with Papahānaumokuākea Marine National Monument (established in 2006), they protect approximately 331,797 square miles of marine habitat. Compared to other marine ecosystems, the marine monuments ecosystems are relatively intact and rich in biodiversity. These areas include some of the most pristine tropical islands and coral reef ecosystems in the world and contain vast amounts of shallow-water reef-building coral species, hundreds of fish species, and dozens of species of seabirds. Migrating

fish, turtles, birds and marine mammals frequent the islands, including endangered and threatened green and hawksbill sea turtles and whales. Mostly uninhabited, the marine monuments waters are relatively free from problems of most other marine ecosystems: over-exploitation, disturbance, and pollution. From these remarkably intact tropical ecosystems we can develop historical baselines of healthy and productive ecosystems which aid in understanding negative impacts to other marine ecosystems. Many of these monuments' islands are also important to Polynesian and Micronesian, military and aviation history.

With the establishment of the monuments came the responsibility of developing and implementing appropriate management measures to adequately protect these biologically and historically significant areas. Papahānaumokuākea Marine National Monument is managed collectively by NOAA, the US Fish and Wildlife Service, and the State of Hawaii. The Secretary of Commerce, through NOAA, has primary management responsibility for fishery-related activities found within the newest monuments.

Without adequate and sustained resources for NOAA, the primary objective of protecting these areas will not be fulfilled. Funding for Papahānaumokuākea Marine National Monument is directed to the National Marine Sanctuaries Program, while the funds for the central Pacific monuments are allocated to NOAA's National Marine Fisheries Service.

Potential Budget/Sequestration Impacts:

- Reduce critical research and outreach grants to university scientists and non-government organizations.
- Reduce opportunities for Pacific Island students to enroll for a term in ocean science or conservation courses with renowned marine institutions (e.g. Scripps Institute of Oceanography) with the goal of recruiting and fostering careers in conservation in island communities.
- Lessen ability for the U.S. to share information and ideas with other Pacific island nations about monitoring climate change, conserving endangered and threatened species, and developing remote surveillance capabilities.

NATIONAL MARINE FISHERIES SERVICE

Hawaiian Monk Seal

Hawaiian monk seals are one of the most endangered marine mammals and the only truly tropical seal in the world. Additionally, the Hawaiian monk seal is the only marine mammal whose entire distribution range lies within the jurisdiction of the United States. Over the last 50 years, the Hawaiian monk seal population has declined by more than 60 percent and is now at its lowest level in recorded history, with around 1,100 individuals remaining. While most of the population suffers from steep declines in the Northwestern Hawaiian Islands, a small population of seals in the main Hawaiian Islands is increasing, which is promising for the future of the species.

Human and environmental factors contributing to the overall decline include habitat loss, shark predation, entanglement in marine debris, and human disturbance. Adequate and sustained management is needed to mitigate these threats as outlined in NOAA's Hawaiian Monk Seal Recovery Plan (2007). Increased funding to the program in FY09 and FY10 to levels more closely in line with the Recovery Plan's recommendation allowed the program to execute necessary recovery activities, including annual Northwestern Hawaiian Islands field camps essential for population assessments and seal protection, research on monk seal foraging behavior and nutritional needs, and translocation of seal pups within the Northwestern Hawaiian Islands from a high mortality area to low mortality areas. In previous years, additional funding also allowed the program to hire a Hawaiian monk seal recovery coordinator, hire a cultural liaison to explore and explain the importance of the monk seal in Native Hawaiian culture, deploy specialists to the Northwestern Hawaiian Islands to remove predatory sharks, and conduct necessary research on fisheries and other human-seal interactions. A recent report by NOAA indicates that 30 percent of the seals alive today are due to NOAA and partner recovery interventions.

Unfortunately, the program took severe cuts in FY11 and FY12, undercutting all progress made in FY09 and FY10. Minimally, reinstating funding at the FY10 level is needed for NOAA to continue the progress they have made to increase the seals' chances for survival.

Potential Budget/Sequestration Impacts:

- Continued reduction or elimination of field camps essential for population monitoring and seal protection (disentanglement, shark predation mitigation, and translocation within Northwestern Hawaiian Islands).
- Continued decrease in essential research programs to develop mitigation measures for fisheries interactions and other human-seal interactions.
- Continued reduction or elimination of outreach with local fishers and community members about the importance of the Hawaiian monk seal to the Hawaiian ecosystem and to cease additional intentional killings of Hawaiian monk seals.
- Reduce public education and community engagement projects in response to the naturally growing population of seals on the main Hawaiian Islands.

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Expand Annual Stock Assessments

Funding for Expand Annual Stock Assessments provides critically needed resources to assess priority fish stocks as fishery managers implement the requirement for annual catch limits (ACLs). The survey and monitoring and stock assessment activities funded under stock assessments give fishery managers greater confidence that their catch limits will avoid overfishing while providing optimal fishing opportunities. In 2012, NOAA turned the corner on ending overfishing and achieved a landmark for federal fisheries management in the U.S. through the implementation of ACLs for all federally managed fish stocks. In addition, better catch data contribute to more robust stock assessments, increasing the accuracy of fish population size estimates and allowing for better identification of catch targets and thresholds that prevent overfishing. However, while science based ACLs are a critical tool to end overfishing and ensure sustainable fishing on our nation's fish stocks; there have been legislative attempts to roll back the key provision in MSA. Congress has cited the lack of adequate stock assessments as the rationale to exempt some stocks from the requirement altogether. We need to ensure that NOAA has the resources to fully implement MSA. Because the information provided by stock assessments is so vital to the MSA's implementation of ACLs and long-term goals for sustainable management of U.S. fisheries, increased funding for stock assessments should remain among the highest priorities in FY 14 and beyond.

Potential Budget/Sequestration Impacts:

- A decrease in funding for stock assessments could limit fishery managers' ability to maximize catch levels and economic benefits in U.S. fisheries. Without current stock assessments, managers must increase uncertainty buffers, which can result in a decrease in catch levels.
- Stock assessments enable fishery managers to monitor Annual Catch Limits with a greater degree of precision and accuracy to ensure overfishing is ended and management goals are met. A decrease in stock assessment funding could threaten the progress that has been made to end overfishing and start rebuilding U.S. fisheries.

Pacific Coastal Salmon Recovery Fund

Congress established the Pacific Coast Salmon Recovery Fund (PCSRF) in 2000 to protect and restore habitat for the West Coast's imperiled – and invaluable – salmon and steelhead populations. This program provides much-needed assistance to state, local, and Tribal governments working to recover 28 threatened and endangered salmon species in Washington, Alaska, Oregon, California, Idaho and Nevada. PCSRF funds are matched dollar-for-dollar at the state and local level, and are used for habitat restoration, preservation, and acquisition, as well as for monitoring the health of salmon populations and watersheds.

Over the past 12 years, PCSRF-funded projects have restored, protected, or reconnected salmon to nearly 880,000 acres of habitat. Further, more than 5,300 miles of stream have been opened up to fish passage by PCSRF projects, and 240 million salmon and steelhead have been tagged or marked to help gather data for improved stock identification, more accurate abundance estimates, and better management of selective fisheries. To date, PCSRF has funded more than 10,000 projects that help prevent extinction and improve the status of threatened and endangered salmon; many of these projects also support and protect healthy salmon populations – an investment that keeps currently-robust stocks from becoming imperiled.

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Citizens, watershed groups, Native American tribes, and federal and state agencies from across the Pacific salmon states rely on and leverage PCSRF support to bring salmon back from the brink of extinction and set them on the road to recovery. Despite sharp declines in funding over the past decade (cuts that have been further magnified by the addition of two eligible states and a significant increase in need), PCSRF continues to play a crucial role in ensuring the protection of the West Coast's irreplaceable salmon resources, while also having positive impacts on local economies and job-creation.

Potential Budget/Sequestration Impacts:

- Low PCSRF funding levels could jeopardize existing restoration efforts while leaving dozens of new and pending salmon recovery plans in a state of full or partial limbo, thereby adding to already-considerable recovery planning backlogs and further harming Endangered Species Act-listed species as well as local communities.
- Many PCSRF projects are multi-year efforts that are designed to reverse decades of damage to both watersheds and salmon; further cuts to the program would undermine existing progress and the proven success of work done to date on these longer-term projects, while also risking the investment in restoration shared by federal, state, local, and Tribal partners.
- Not only do PCSRF funds help restore salmon and their habitat, but they also help state and local municipalities to cost-effectively meet their obligations to protect endangered species; sequestration-driven reductions to the program will constrain the ability of strapped local and Tribal governments to make real progress toward the shared goal of restoring healthy, abundant salmon populations to the Pacific salmon states. And because PCSRF-funded restoration is a proven job-creator, further cuts to the program could also harm local economies that have successfully leveraged PCSRF dollars to protect watersheds while also generating good jobs.

Fisheries Statistics: Marine Recreational Fisheries Monitoring

Despite their often sizeable economic and biological impacts, much less data are collected from recreational saltwater fisheries than commercial fisheries due to the sheer number of participants and limited sampling of anglers' catches. The low level of data collection and lack of timely reporting of data in these fisheries is a large source of uncertainty and has become a flashpoint for controversy in regions where catch restrictions have been adopted to rebuild overfished stocks, particularly in the Southeast. By all accounts, improved sampling and timelier reporting of catch data are needed for successful management of marine recreational fisheries. Significant additional funding is needed to provide more frequent and timely data for effective in season management of recreational fishery annual catch limits.

Potential Budget/Sequestration Impacts:

- The current method for collecting recreational fisheries data oftentimes results in massive overages, which in turn lead to more restrictive recreational fishing opportunities in the future and compromise the ability to achieve management goals. A decrease in funding for fishery statistics could limit managers' ability to fully implement the new recreational fishery monitoring system. The most effective way to avoid this spiral of further restrictions is to implement a data collection system that makes the timely collection and analysis of recreational catch data a priority so that managers are able to take action before quotas are exceeded.

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Survey and Monitoring Projects

The Survey and Monitoring budget supports the collection of vital fishery-independent survey information required for the development and updating of stock assessments in some of the nation's most important fisheries, including red snapper, bluefin tuna, bluefish, striped bass, and Alaska pollock. These resource monitoring programs are designed to provide estimates of population size for a variety of species over a geographic range. Over time they provide the most reliable index of stock abundance trends and other critical data for stock assessments and the catch-setting process. Assessments utilizing survey data in addition to fishery-dependent data generally yield more robust results with lower uncertainty, giving scientists more confidence to reduce uncertainty buffers when making catch limit recommendations for the catch-setting process. In FY08 and FY09, cuts in funding to several components of the Survey and Monitoring budget line forced NMFS to use increases in funding from the stock assessment budget to cover the shortfall in order to maintain critical data streams for use in assessments. Maintaining adequate funding for this critical component of data collection is essential to the goal of expanding stock assessment capabilities.

Potential Budget/Sequestration Impacts:

- Regional scientific advisors have recommended for years that the quality of assessments can be greatly improved by collecting fisheries “independent” information, information that comes from survey and monitoring. Decreases in funding for surveys and monitoring will limit NOAA’s ability to accurately assess stock abundance, and could limit fishery managers’ ability to set catch limits that maximize fishing opportunities while protecting the resource for future generations.
- Funding for fishery-independent surveys, monitoring, and research will improve estimates of ecosystem change, a critical need as we see increasing changes in the marine environment in from habitat loss and other ecosystem factors. Recent fishery disasters declared in New England and Alaska demonstrate the need to improve understanding of the relationships between healthy and resilient ecosystems and healthy and sustainable fisheries.

Essential Fish Habitat

The Magnuson-Stevens Act of 1996 gave fishery managers a clear mandate to identify and protect Essential Fish Habitat (EFH). Fish require healthy surroundings to survive and reproduce. This program allows NOAA Fisheries to work with the regional fishery management councils to identify the essential habitat for every life stage of each federally managed species using the best available scientific information. Essential fish habitat has been described for approximately 1,000 managed species to date. Funding is needed to identify and conserve vulnerable EFH. Habitat improvements are an underutilized, non-regulatory tool for fisheries management. Habitat improvements must be made in concert with actions to end overfishing because we cannot fully recover and sustain fish populations by ending overfishing alone.

For instance, a recently published Habitat Assessment Improvement Plan (HAIP) concludes that full implementation of the plan will require a 250 percent increase in staff and substantial increases in funding for program operations, tools, technology, and infrastructure.² Healthy fish

² NMFS, Marine Fisheries Habitat Assessment Improvement Plan, A Report of the National Marine Fisheries Service Habitat Assessment Improvement Plan Team, U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-108, May 2010. 115 pp.

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habitat is an essential precondition for rebuilding overfished stocks and sustaining fisheries over the long-term, and, therefore, program funding should reflect that importance. Congress should work towards implementing the HAIP and achieve the MSA's mandate for protection of EFH.

Councils need basic information to understand the usage of various habitats by each managed species and reduced funding will stop the identification of the habitat types essential to each life stage of the managed species.

Potential Budget/Sequestration Impacts:

- Reducing funding to identify and conserve Essential Fish Habitat will slow habitat improvements for managed species and potentially require greater regulatory action through reduced catch-shares.
- Delaying restoration will slow or limit the recovery of threatened and endangered species and the longer we wait, the more costly it will be to achieve fish recovery.

Reducing Bycatch

Bycatch, the incidental catch of non-target fish and other marine life, is a continuing problem that threatens marine ecosystems and jeopardizes the future sustainability of our fisheries. Destructive fishing practices like the use of driftnets, longlines, and bottom trawls ruin ocean ecosystems by indiscriminately killing fish and other wildlife, including seabirds, sea turtles, and marine mammals. Each year, more than 16 billion pounds of bycatch are thrown overboard due to wasteful fishing techniques. This wasteful fishing not only harms our oceans, but it puts fishermen and fishing communities at risk when bycatch limits are reached and fisheries are forced to close. Finding ways to fish more discriminately and minimize the impact on our oceans is in everyone's interest.

Reducing Bycatch funds help develop and test important bycatch reduction technologies, support cooperative research activities with fishermen, and collect and process reliable bycatch information for use in stock assessments and management decisionmaking. Under the MSA, fishery managers are required to work toward reducing bycatch. The Bycatch Reduction Initiative, and other activities addressing fisheries bycatch, needs robust funding to protect our oceans and ensure the future sustainability of our nation's fisheries.

Potential Budget/Sequestration Impacts:

- Cuts to bycatch reduction funding would mean less reliable scientific information about the health and composition of our nation's fisheries—information that is essential for setting and enforcing annual catch limits.
- Bycatch Reduction funds have helped develop new technologies that enable fisheries managers to better monitor fishing mortality and set scientifically-robust catch limits, understand and minimize interactions with protected species, and avoid economically-damaging closures.
- Cuts to bycatch reduction funding would reduce cooperative research, a critical tool for building partnerships with stakeholders in fisheries management. Cooperative research has been tremendously successful at sharing best practices, developing innovations, and working toward the shared goal of healthy, sustainable fisheries.

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Fisheries Enforcement

Adequate fisheries enforcement is essential to meeting the requirements under the 2006 reauthorization of the MSA to combat illegal fishing on the high seas and end overfishing in U.S. waters, as well as to protect vulnerable species under the Marine Mammal Protection Act and the Endangered Species Act. Punishing those who break the law protects our oceans and benefits honest fishermen by ensuring a level playing field. U.S. fishermen already have to abide by strict regulations about what they can catch, where and when they can catch it, and what kind of gear they can use. As many fishing communities struggle to survive and with stiff competition from cheaper seafood imports, U.S. fishermen deserve to know that those who break the rules will not go unpunished.

Despite the clear legal and policy objectives of the MSA, fisheries enforcement has been consistently underfunded in recent years. Since 2010, the program has been funded at \$65.6 million. In 2011, the Administration achieved its goal of implementing annual catch limits in all federally-managed fisheries. Yet in the wake of this significant achievement, there has been no increase in funding to enforce compliance with those catch limits. Nor has the funding level reflected the need to expand more cost-effective technologies such as vessel monitoring systems (VMS) or other electronic means of enforcing catch limits and other management regulations. These types of technologies will be critical in the long run as we seek ways to minimize costs while still enforcing the law.

Having sustained years of underfunding, this critical program cannot endure additional cuts. We must be able to maintain our current level of compliance with fisheries laws in order to address the growing problem of illegal fishing on the high seas and to ensure compliance with our own management objectives in U.S. waters.

Potential Budget/Sequestration Impacts:

- Low enforcement funding means less capacity to combat illegal fishing on the high seas—a problem that the Administration has said is “a growing threat” to honest U.S. fishermen and the health of our oceans.
- Further cuts to fisheries enforcement funding means less capacity for government enforcers (NOAA, Coast Guard) to ensure compliance with annual catch limits and other management regulations (e.g., time/area closures) that are required under the MSA. Without adequate enforcement of domestic management measures, the sustainability of already vulnerable marine species could be jeopardized.

Fishery Observers and Training

Fishery observers are critical tools that are helping to end overfishing in U.S. waters. Catch monitoring is essential to provide managers and scientists with reliable estimates of fishing mortality as well as basic information on composition of the catch and biological data used in stock assessments. The MSA’s mandates for annual catch limits and bycatch minimization, as well as the growing use of quota-based “catch share” programs, place a premium on reliable catch accounting and monitoring information. Trained at-sea observers provide the most reliable means of quantifying bycatch and at-sea discards (including endangered, threatened, and protected species) and verifying self-reported logbook data. Additionally, innovative electronic and video camera technologies under development by the NMFS may be cost-

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effective alternatives (sometimes the only options) in some fisheries. Expanding at-sea monitoring of fishing trips is of among the highest priorities for reducing scientific and management uncertainty in many U.S. fisheries.

Recent NMFS fishery observer program funding has supported at-sea observer programs in more than 40 broadly defined fisheries nationwide,³ but as many as half of the nation's ocean fisheries have negligible levels of observer coverage or none at all.⁴ One notable exception is the Hawaii-based shallow-set pelagic longline fishery, which has a hard annual cap on the number of sea turtle interactions. Because the fishery requires 100 percent observer coverage, they are able to closely and accurately monitor their turtle interactions and have been able to avoid closing the fishery every year since 2006.⁵ Sea turtles in this fishery are not only threatened or endangered; they are also of great importance to the Hawaii tourism industry. Observer coverage helps both the fishery avoid closures and the tourism industry retain an important source of income, all while protecting a vulnerable species. These kinds of successes must be duplicated elsewhere.

At the very least, it is critical that we maintain current funding for this important program. Further cuts will threaten the scientific integrity of our fisheries management regime that the MSA requires and that fisheries managers have worked hard to uphold.

Potential Budget/Sequestration Impacts:

- Cuts to observer and monitoring funding would mean less reliable scientific information about the health and composition of our nation's fisheries—information that is essential for setting and enforcing annual catch limits.
- Observer coverage varies widely from fishery to fishery, and additional funding cuts would mean even less coverage in some already under-covered fisheries. Fisheries that have strong observer coverage are better able to monitor their catch and set scientifically robust catch limits, understand interactions with protected species and minimize bycatch, and avoid economically-damaging closures.

Deep Sea Coral Research and Technology Program

Corals are usually associated with shallow tropical waters, however coral ecosystems are also found on the deep sea floor. Unfortunately, these ecosystems are only beginning to be understood and are vulnerable to many threats, including destructive fishing practices such as bottom trawling. Deep sea corals provide havens for economically and ecologically important fish species as well as a wide variety of other marine life. Additionally, scientists have begun to discover that deep water coral communities may contain valuable components, from which medicines treating cancers and HIV may be developed.

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (MSA) directed NOAA to establish a Deep Sea Coral Research and Technology Program. This program was established to locate and map deep sea coral habitats, help scientists understand

³ NOAA/NMFS, National Observer Program FY 2008 Annual Report (2009). 30 pp.

⁴ Marine Fish Conservation Network (MFCN), *Meeting the Information Demands of 21st Century Fisheries: A Needs Assessment for Fisheries Observer Programs* (MFCN 2010).

⁵ NOAA/NMFS, Pacific Islands Regional Office, *Sea Turtle Interactions in the Hawaii-based Shallow-set Longline Fishery* (2012): http://www.fpir.noaa.gov/SFD/SFD_turtleint.html.

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deep sea coral biology and ecology, and inform managers of habitats worthy of protection. The Deep Sea Coral Research and Technology Program works in collaboration with other NOAA programs and centers (National Marine Sanctuaries Program, Ocean Exploration and Research Program, Fisheries Science Centers, and Fishery Management Councils), other federal agencies, international partners, academic scientists, and non-government organizations.

As demonstrated by the BP *Deepwater Horizon* disaster, baseline information of our ocean's resources, such as deep sea corals, is needed to understand the impacts of activities and disasters on our nation's ecosystems. Currently, deep sea coral regional mapping and research cruises funded by the program occur over three consecutive years per region. The Deep Sea Coral Research and Technology Program has completed research and mapping cruises in the SE Atlantic and along the West Coast, nearly completed cruises in Alaskan waters, and plans to expand efforts into the Northeast Atlantic region and Pacific Islands. The Program also provides managers with scientific analyses to inform conservation activities. For instance, information gathered during mapping and research cruises are advising the Pacific Fishery Management Council as they review the designation of groundfish essential fish habitats and the South Atlantic Fishery Management Council as they consider setting aside conservation areas for deep sea coral habitat. Additionally, the Deep Sea Coral Research and Technology Program provides critical program support in achieving NOAA's goal of ecosystem-based management as regions develop regional marine spatial plans.

Potential Budget/Sequestration Impacts:

- Delay essential MSA-mandated deep sea coral research and mapping cruises that locate important deep sea coral habitats.
- Reduce opportunities for scientific analyses on coral habitats for Regional Fishery Management Councils determining areas worthy of protection for the sustainability of essential fish communities.

Fisheries Habitat Restoration (Community-based Restoration Program)

NOAA's Fisheries Habitat Restoration, largely comprised of the Community-based Restoration Program (CBRP), accomplishes on-the-ground projects to restore the nation's coastal, marine, and migratory fish habitat. Restoration projects improve the nation's degraded coastal and riverine habitats while creating jobs and benefiting local economies. NOAA data shows that restoration projects create between 17-33 jobs per \$1 million invested. And, unlike other sectors, restoration jobs can't be outsourced. First there are the immediate local jobs, followed by the significant long-term ecologic and economic benefits. Habitat restoration is critical to sustaining and rebuilding the fish populations needed to support sport fishing opportunities and the commercial fishing industry in the coming years. The resulting healthier habitats strengthen and revitalize America's communities by buffering against storms, preventing erosion, protecting vital infrastructure, eliminating public safety hazards, and providing new recreational opportunities.

The Community-based Restoration Program provides scientific expertise, funding, and technical support to national and regional partners and local conservation organizations in order to restore coastal and marine habitat. This non-regulatory tool has helped build collaborations with more than 1,500 organizations, from industry to nonprofits and local government, and

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helped to fund more than 2,000 projects to restore over 69,000 coastal acres. The program has involved more than 180,000 project volunteers and generated nearly \$150 million in cash and in-kind contributions by using only \$65 million in NOAA funds.

Potential Budget/Sequestration Impacts:

- Low fisheries habitat restoration funding levels will severely limit the availability of funding for on-the-ground restoration projects. NOAA would likely retain federal staff while providing little to no project funding.
- Federal restoration funding is matched by state and private funding to jointly achieve restoration goals. Cuts would leave matching funds on the table, having an exponentially negative impact.
- Restoration projects contribute to recovery of threatened and endangered species, delaying restoration means more costly reactive measures, later to achieve fish recovery.
- Community-based projects educate and engage diverse local stakeholders in the restoration process. Cuts threaten to erode coastal stakeholder support and undermine education efforts.

Cooperative Research

Cooperative research creates regionally-based competitive grants program that funds partnerships between fishermen and scientists in order to advance the science and management of the nation's fisheries. Grants awarded to qualifying projects leverage the expertise of fishermen to support the acquisition of fishery data, improve our understanding of fish populations, and test innovative fishing gear designs and other technologies which can increase fishery performance, reduce operational costs, enhance safety at sea, and save fishing jobs in coastal communities.⁶ Cooperative research partnerships can increase the confidence of fishermen in data used in decision-making and create employment opportunities in fishing communities.

Potential Budget/Sequestration Impacts:

- Decrease in cooperative research funding could lead to reduction in data collected and to further declines in relationships between fishermen and NOAA. Cooperative research provides much needed data and increases fishing industry confidence in the science being used to make management decisions. Lack of buy-in from the fishermen on fishery science creates additional challenges in implementing fishery conservation and improving economic opportunities.

⁶ For program details, go to: <http://www.st.nmfs.noaa.gov/st4/NationalCooperativeResearchCoordination.html>.

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OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH

National Sea Grant College Program

Coastal and Great Lakes communities in the United States are home to more than 50 percent of the U.S. population and source of more than 50 percent to the nation's GDP, but also face truly daunting environmental challenges. These include anticipated and unprecedented climate-related environmental changes such as sea level rise, continuing degradation of shoreline and fishery resources, stresses on shoreline area infrastructure, and emerging coastal energy opportunities and concerns. Sea Grant is poised to continue and enhance the role it has long played in meeting national challenges such as these through university-based research and outreach programs. Through Sea Grant'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.

According to the National Sea Grant College Program Office within NOAA, in 2012, the National Sea Grant program delivered nearly \$170 million in economic benefits to the nation, which represents better than a 2.5 to 1 return on the federal investment; 630 new businesses were created or retained, and over 3,800 jobs were created or retained due to Sea Grant efforts; over 900 communities across the nation have adopted more sustainable economic or environmental development practices and policies; over 150 communities adopted hazard resiliency practices with Sea Grant assistance to be better prepared to cope with or respond to hazardous coastal events; over 1,500 individuals or businesses received new certifications in hazard analysis and critical control point (HACCP) handling of seafood products, improving the safety of seafood consumption by Americans across the country; over 670,000 acres of degraded ecosystems were restored as a result of Sea Grant activities; and almost 1,000 undergraduate and over 950 graduate students were supported.

The National Sea Grant College Program joins with the community in urging strong Congressional support of ocean and coastal communities by adequately funding NOAA as a whole and the programs within, like Sea Grant.

Potential Budget/Sequestration Impacts:

- Reduction in funding for aquaculture research.
- Reduction in funding for climate adaptation and invasive species activities.
- Decline in ability to conduct regional collaborations and partnerships with respect to common ocean and coastal resource challenges.

Integrated Ocean Acidification (OA) Program

About a quarter of all carbon dioxide emissions are absorbed by the earth's oceans, and the impact of this is just beginning to be understood. Over the last decade, scientists have discovered that this excess carbon dioxide is actually changing the chemistry of the sea and proving harmful to many forms of marine life. This process is known as ocean acidification. A more acidic ocean could wipe out species, disrupt the food web, and impact fishing, tourism and other human activities that depend on the oceans.

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The change is happening fast. Over the last 250 years, oceans have absorbed 530 billion tons of carbon dioxide, triggering a 30 percent increase in ocean acidity. This rapid rate of change is triggering profound changes within our oceans, but the science on ocean acidification is still in its infancy. The Federal Ocean Acidification Research and Monitoring (FOARAM) Act, passed in early 2009, demonstrated Congress' intent to address this economic and environmental threat, and to accelerate the study and understanding of the effects of ocean acidification. Under FOARAM, Congress instructed NOAA to establish an ocean acidification program to coordinate research, establish a monitoring program, identify and develop adaptation strategies and techniques, improve public education outreach, and provide critical research project grants to improve the understanding of ocean acidification's ecological and socioeconomic impacts.

Potential Budget/Sequestration Impacts:

- NOAA may not be able to meet its obligations under the Federal Ocean Acidification Research and Monitoring (FOARAM) Act, passed in early 2009, requiring NOAA to establish a coordinated OA monitoring program, identify and develop adaptation strategies for industries impacted by OA, and develop research projects to improve the ecological and socioeconomic impacts of OA.
- There will be an immediate halt to establishing monitoring systems along the east coast such as the Chesapeake Bay (next in line).
- Scoping efforts directed at the U.S. shellfish industry to provide data products to protect their resources and to increase food productivity will cease.
- Current mooring sites will not be equipped with additional pH instruments needed in estuaries, areas that are not currently being monitored for OA but are vital to shellfish industries. This monitoring helps support industries such as Pacific Northwest oyster hatcheries, an \$84 million, and over 3,000 job industry, which depends on acidification forecasting in order to avoid collapse.
- NOAA will be unable to develop response research and monitoring efforts for an early warning system for vulnerable fisheries, or fund assessments of the impacts of acidification on commercial and recreational fish stock.

Forecasting the Impacts of Climate Change

The ocean is influential in the climate system as it absorbs, retains, and transports vast amounts of the Earth's heat, water, and carbon dioxide across the globe. In fact, just the top ten feet of the ocean holds as much heat as the entire atmosphere. Beyond driving the climate system, the ocean itself is being affected by a rapidly changing environment. Ocean waters are warming and becoming more acidic, ocean currents are shifting, and sea levels are rising, all of which have significant implications for our economy, the health of our oceans, and human society. While we know the climate and our oceans are changing, we have very limited capacity to accurately forecast the size, scope, and time scales for these alterations. It is critical to both reduce greenhouse gas emissions and assist with coastal adaptation as long-term solutions.

Increased research is needed to better understand climate impacts and to more accurately forecast and model the climate system. Furthermore, the nation needs climate services and products to help prepare for the effects of climate change. This includes coastal adaptation work being spearheaded by the National Ocean Services where communities are given technical

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assistance to deal with the changing coasts. Climate programs in NOAA are vital to these efforts. Since ocean and climate systems are interlinked, NOAA is tackling the issue of a changing climate all across the agency. Most line offices have incorporated climate initiatives to understand the impacts on its current programs and regulatory processes.

Potential Budget/Sequestration Impacts:

- Low Climate program funding for NOAA will mean reduced funding for key climate programs and research needs, including:
 - Regional Climate Assessments
 - NOAA Climate Service Initiative
 - Global Ocean Observing System
 - Integrated Ocean Observing System
 - NOS Coastal Adaptation
 - Climate Research, including Arctic Watch, Earth System Modeling, and Carbon Observing and Analysis System

NATIONAL OCEANIC AND ATMOSPHERIC

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ADMINISTRATION

NOAA Education Program

The National Oceanic and Atmospheric Administration's (NOAA) Office of Education oversees several Environmental Education Initiatives, the largest being the Environmental Literacy Grants (ELG) program which helps to establish new partnerships that deliver educational materials to thousands of teachers and students. The ELG program enables NOAA to partner with the top science centers, aquaria, and educators in the country to educate the public about vital issues related to our changing planet. The program also allows NOAA to leverage a vast array of climate science findings to improve the quality of education in critical areas and raise public awareness. These funds are awarded on a competitive basis and are increasingly used to build educational capacity at the national and regional levels.

Administered by NOAA since 2003, the Bay Watershed Education and Training (B-WET) program offers competitive grants to leverage existing environmental education programs, fosters the growth of new programs, and encourages development of partnerships amongst environmental education programs within watershed systems. In April 2010, this country witnessed the worse environmental disaster in history with the massive oil spill in the Gulf of Mexico that spewed millions of gallons of oil for more than 4 months into our waters. This spill highlighted the fragility of our food web and the importance of the fishing industry to the stability of our economy. The Gulf Coast B-WET program responded to this "teachable moment" by issuing a request for FY 2011 proposals related to the *Deepwater Horizon* oil spill. The B-WET program is vital to our understanding of watersheds and our ability to manage our watershed resources sustainably. The *Deepwater Horizon* oil spill illustrated the need for increased environmental education and training to ensure the stability of our natural resource based economy.

NOAA implements B-WET by region, allowing the unique environmental and social characteristics of the region to drive the design of targeted activities to improve community understanding, promote teacher competency, and enhance student interest and achievement in science. A fundamental goal of the program is to demonstrate how the quality of the watershed affects the lives and welfare of the people who live in it. B-WET supports programs for students and professional development for teachers, while sustaining regional education and environmental priorities. B-WET awards have provided environmental education opportunities to more than 100,000 students and 10,000 teachers. Through an increase in funding in FY08, B-WET expanded from the Chesapeake Bay, California, and Hawaii to also include the Pacific Northwest, the northern Gulf of Mexico, and New England.

Funding for these two programs has been cut almost in half since FY10. In light of the low priority placed by the Administration on NOAA education, sequestration may mean that these two important programs – two of the only three federal grant-making programs for environmental education and the only remaining grant program that includes climate education – are zeroed out.

Potential Budget/Sequestration Impacts:

- 1,125 K-12 teachers each year who receive professional development in STEM concepts related to environmental literacy.
- 360,000 students who benefit from more highly qualified teachers in STEM fields as a result of ELG-funded education programs.
- 533 jobs at 41 institutions that are fully or partially supported by these grants.
- BWET cuts would mean the loss of similar services to 45,000 students and 1,500 teachers.

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PROCUREMENT, ACQUISITION & CONSTRUCTION

Coastal and Estuarine Land Conservation Program

Nowhere in the nation is the threat of sprawl, habitat loss, and the disconnected lands and water more significant than along our nation's coasts. They are under enormous pressures from unplanned and unmitigated development. From Maine to Alaska, increasing numbers of people are flocking to the coast to build first and second homes, to play, and to work. An estimated 59,000 acres of coastal wetlands in the eastern U.S. alone are being converted to developed areas every year. Our attraction to these areas is warranted, but this affinity is consuming coastal land at a rapid rate, before we can plan for or understand the long-term consequences.

According to NOAA, coastal counties constitute only 17 percent of the nation's land area, but account for 53 percent of its population. This longstanding trend has led to intense development pressure along our once-pristine coastlines. In response, Congress created the Coastal and Estuarine Land Conservation Program (CELCP) in 2002 to provide state and local governments with matching funds to protect significant coastal and estuarine areas. Since the program's inception, CELCP has proven to be an integral coastal conservation tool. To date, Congress has appropriated over \$255 million for CELCP. This funding has allowed for the completion of more than 150 conservation projects in 28 of the nation's 35 coastal states and territories and has preserved upwards of 50,000 acres of threatened coastal habitat. The CELCP program is leveraged by at least an equal amount of non-federal funds, which demonstrates the program's broad appeal and effective application by state and local governments. For the FY12 competitive, the CELCP program received 36 project proposals totaling more than \$58 million.

Potential Budget/Sequestration Impacts:

- Many important coastal land parcels are available only within a small window of opportunity. Reductions to or removal of this program from the federal government's acquisition toolbox wouldn't just prolong or delay the projects, but would also guarantee the loss of natural barrier protection from coastal hazards, recreation access, and critical habitat for sensitive species.
- With at least a 1 to 1 non-federal funding match and multiple economic, public safety and environmental benefits for coastal communities and ecosystems, CELCP helps federal conservation dollars go further. By reducing to or removing this program, the federal government would lose a cost-effective and successful acquisition program that has multiple proven benefits for coastal communities. Successful past CELCP projects often accomplish multiple goals including protecting wetlands and other significant coastal habitats, reducing coastal water pollution, and providing the public access to the coast.

Marine Sanctuaries Construction Base

NOAA's Office of National Marine Sanctuaries' (ONMS) Procurement, Acquisition and Construction (PAC) account funds the purchase, overhaul, and restoration of assets, including facilities and vessels, at 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. These outlays sustain local economies and help create jobs directly through the construction and operation of vessels and visitor centers. Sanctuary facilities anchor local tourism and recreation economies, serve as the public face of the government's ocean

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management enterprise, and are a vital link between sanctuaries and the millions of Americans who visit the coast each year.

Appropriate funding for sanctuaries construction will enable ONMS to complete current projects, including optimizing the use of underutilized federal properties and deploying green technologies. In addition, procurement funding supports the ongoing use of the ONMS fleet of small boats, which provides an inexpensive and accessible alternative to the use of NOAA ships and enables sanctuaries to meet their enforcement, research, and public education mandates.

Potential Budget/Sequestration Impacts:

- Recent proposals to terminate sanctuary PAC funding would jeopardize job creation and economic growth in coastal communities by eliminating funding for vessel acquisition and visitor center construction. A lack of funds will likely result in multiple, unfinished construction projects and prevent ONMS from acquiring the vessels necessary to complete core research, education, and law enforcement missions that cannot be accomplished from land alone. Simply put, just as authorities on land need cars or trucks, managers at sea need boats.
- Without construction and acquisition funding, our National Marine Sanctuary System cannot successfully safeguard the best of the American ocean for ourselves and future generations. Cancelling the construction of visitor centers and interpretive signage, eliminating collaborative partnerships that provide cost-effective means of reaching the American public, and diminishing on-water enforcement capacities that protect legal fishermen by guarding against illegal fishing will prevent ONMS from implementing sanctuary management plans – authored and supported by local communities and constituents – for yet another year.

OMAO Operations and Maintenance

NOAA's Office of Marine and Aviation Operations (OMAO) supports a fleet of 10 Fishery Research Vessels (FSVs) whose primary mission is to provide critical baseline information on the health of US fishery populations that is critical to the development and regular updating of fishery stock assessments for the catch-setting process. More than 80 percent of stock assessments rely on data from fishery-independent surveys. In recent years, however, rising operating costs (largely attributable to rising fuel costs) and budget constraints have sharply reduced the base-funded days at sea (DAS) for NOAA's fleet of survey vessels. The number of OMAO funded DAS for NOAA vessels declined by 40 percent between 2006 and 2011 forcing other offices in NOAA to spend funds to ensure OMAO could maintain its regularly scheduled surveys.⁷

⁷ NMFS unpublished data. The difference between OMAO's base-funded days at sea for FSVs and the actual number required to conduct fishery-independent surveys has amounted to as much as \$5 million/year in Program Funded Days (PFDs) that NMFS has been forced to expend to cover OMAO's budget shortfalls in recent years.

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Potential Budget/Sequestration Impacts:

- Comprehensive and effective fisheries research and management requires coordination and sufficient funding across several line items. Cuts in one line item can have rippling effects across line items. The services provided by the OMAO supports almost all other aspects of fishery research needs. Without the independent surveys conducted by these vessels managers must increase the uncertainty when setting catch limits which can decrease fishing opportunities.
- NOAA Ship time and the fishery independent surveys that are conducted from their decks are a critical part of Stock Assessments. A decrease in ship time could lead to a decrease in the number of stock assessment NOAA can conduct in a year. This decrease has both economic and ecological impacts. Decrease in ship time could limit manager's ability to increase fishing opportunities in response to new information that the stock is doing well. It also threatens the ability to detect when stocks are not rebuilding and that could lead to more drastic cuts in quota

DEPARTMENT OF LABOR
CORPORATION FOR NATIONAL AND
COMMUNITY SERVICE

DEPARTMENT OF LABOR

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Green Jobs Innovation Fund (formerly the Energy Efficiency and Renewable Energy Worker Training Program)

The Green Jobs Act (GJA), Title X of the Energy Independence and Security Act, authorizes \$125.0 million per year in grants for an Energy Efficiency and Renewable Energy Worker Training Program. This program was renamed the Green Jobs Innovation Fund in FY 11. The GJIF identifies needed skills, develops training programs, and trains workers for jobs in a range of green industries, but has a special focus on creating “green pathways out of poverty.” The Green Jobs Innovation Fund is administered by the Department of Labor in consultation with the Department of Energy. The program responds to already existing skill shortages. The National Renewable Energy Lab has identified a shortage of skills and training as a leading barrier to renewable energy and energy efficiency growth. This labor shortage is only likely to get more severe as baby-boomers skilled in current energy technologies retire; in the power sector, for example, nearly one-quarter of the current workforce will be eligible for retirement in the next five to seven years.

The program received \$500.0 million for FY 09 and FY 10 through the American Recovery and Reinvestment Act, a critical, first-time investment to help prepare worker for jobs in the clean energy economy targeted towards the industries as defined in the Green Jobs Act.

Potential Budget/Sequestration Impacts:

- If the sequester occurs, the Department of Labor will have to choose where to make cuts to their budget, and innovative programs like the Green Jobs Innovation Fund maybe first on the list. Congress has continually underfunded this vital and innovative workforce development program; this program may not survive any more cuts.

CORPORATION FOR NATIONAL AND COMMUNITY SERVICE

Clean Energy Service Corps

As directed by the Serve America Act (Public Law 111-13), the Corporation for National and Community Service has designated Environmental Stewardship as one of five "focus areas" for national service programming in its Five Year Strategic Plan. To fulfill the environmental stewardship goals associated with the plan, the Corporation should fund Clean Energy Service Corps - built on the legacy of the depression-era Civilian Conservation Corps and modeled after today's Service and Conservation Corps - to address the nation's energy and infrastructure needs while providing work and service opportunities for disadvantaged youth. In a manner similar to the Civilian Conservation Corps of the 1930s, disconnected young people can be mobilized to protect, improve, and conserve our nation's natural resources.

Public Lands Corps Program

Since its authorization in 1993, the Public Lands Corps program has enabled thousands of youth to work and do environmental service on Department of the Interior and USDA Forest Service lands. While making important improvements to our nation's public lands, such as trail and campground building and maintenance, habitat and watershed restoration, invasive species removal, tree and native species planting, hazardous fuel removal, and wildfire mitigation, Public Lands Corps members receive an education, acquire job and life skills, and gain an appreciation for our nation's natural resources. Many of these young people go on to pursue further education and careers in land and resource management. An increased investment in this important program would allow agency partners, including youth programs like Service and Conservation Corps, to engage more young people, complete many more backlog maintenance projects, and develop the next generation of land managers and public lands stewards.

The Administration's report, "America's Great Outdoors," calls for the creation of a 21st Century Conservation Service Corps to engage young Americans in public lands and water and a Federal Advisory Committee has just been named to provide recommendations to the Administration regarding the establishment of the 21st CCSC. In addition, legislation has been introduced in both the House and Senate to improve and expand the Public Lands Corps Program. Finally, a recent study by the National Park Service indicates that work done with Service and Conservation Corps costs 44 percent less than work done in-house or by contract, enabling NPS to accomplish more work at a fraction of the cost

Potential Budget/Sequestration Impacts:

- Through the America's Great Outdoors initiative the Administration signaled the importance of service to our public lands. Sequestration would force these programs to cut capacity and outreach to young people and in an extreme cases close the programs altogether.
- Work done by service corps members has reduced costs by substantial amounts sequestration would essentially hinder these cost effective programs during tough fiscal times.

ARMY CORPS OF ENGINEERS

INTRODUCTION

Hurricane Sandy elevated awareness of the need to invest in community resilience to climate change impacts, with the U.S. Army Corps of Engineers playing a lead role. This need to invest in resilient infrastructure occurs at a time when Congress and the Administration are identifying areas of potential financial savings and offsets. There is much potential within the Army Corps to reduce current spending and to identify areas where utilizing modern approaches to building resiliency could produce increased benefits while costing far less. For decades the nation has suffered ever-upwardly spiraling costs of damages and federal disaster assistance due to flooding. Much of this damage, however, is the result of development and redevelopment in high risk floodplains and despite the government's having spent hundreds of billions on "flood control" projects (which then lure even more "at-risk" development into floodplains). Numerous new approaches to water resource management are aimed at improving "floodplain management" to both reduce flood losses and improve environmental quality. These projects often cost far less than traditional, structural Corps flood control projects. Greater investments should be made in such approaches, which will save lives and federal tax dollars both now and in the future.

Corps of Engineers' programs have recently been identified by the National Commission on Fiscal Responsibility and Reform and the Bipartisan Policy Center Debt Reduction Task Force as having substantial potential for such savings. Reductions are easily identified by eliminating spending for many environmentally destructive, low value projects and for projects that are outside the basic Corps' mission areas, such as rejecting massive projects for irrigating already wet areas in the Eastern U.S. for agriculture, building wastewater and drinking water treatment systems that directly compete with loan programs for the same purposes run by the U.S. Environmental Protection Agency, and building beach sand-pumping projects for mostly local recreational and minimal flood control benefits, which should generally be treated as non-federal responsibilities.

Additional substantial savings could be obtained by shifting an appropriate percentage of costs for operating and maintaining federal inland waterway system to inland waterway users. These costs are now borne entirely by U.S. taxpayers. The total current taxpayer subsidy level for inland waterway barge transportation (including new construction and rehabilitation) is now annually averaging approximately 90 percent, a far greater percentage than any other form of transportation, including airways, rail or roadways.

Project Modification for Improvement of the Environment

The Project Modification for Improvement of the Environment program (Section 1135) allows The Corps to restore the health and productivity of river systems degraded by existing Corps projects. Under Section 1135, the Corps can modify and improve existing dams and flood control projects to increase habitat for fish and wildlife and restore areas and natural functions, increasing the overall benefits of projects to the public. Non-federal interests must provide for 25 percent of project costs, and modifications must not interfere with a project's original purpose. The need for funding of such modifications through the Corps' Continuing Authorities program has escalated in recent years with many new projects being identified and authorized without commensurate funding for implementation. WRDA 2007 authorized the program at \$40

million, due to the significant increase in both subscriptions to this Continuing Authorities Program (CAP) as well as projects that have received specific authorization.

Aquatic Ecosystem Restoration

Established in 1996, Section 206, the Aquatic Ecosystem Restoration program, allows the Corps to undertake small-scale projects to restore aquatic habitat, even in areas not directly harmed by past Corps projects. Projects carried out under this program must improve the quality of the environment, be in the public interest, and be cost-effective. Individual projects may not exceed \$5 million, and non-federal interests must contribute 35 percent of project costs. Many of these projects contribute to key strategies for improving water quality and managing stormwater runoff, reducing risk of flooding, restoring critical natural functions of floodplains and watersheds, and enhancing fish and wildlife, often reducing the need for costly structural flood control projects. Many such projects are already planned and awaiting funding allocations to help the communities. WRDA 2007 authorized an additional 43 projects above the already backlogged account and increased the annual programmatic ceiling to \$50 million.

Estuary Restoration Program

The Army Corps of Engineers' Estuary Restoration Program is a comprehensive program for the restoration of our nation's estuaries, authorized through the Estuary Restoration Act. Among the most productive ecosystems on earth, estuaries provide vital habitat to fish and wildlife species, and important environmental, cultural, and recreational benefits to human populations. The Act encourages coordination among all levels of government, and engages the unique strengths of the public, non-profit, and private sectors. The Act ensures a strong federal commitment and resources to restore estuary habitat by authorizing \$25 million for the Army Corps to implement on-the-ground restoration projects.

Floodplain Management Services and Planning Assistance to States

Two increasingly important Corps of Engineers continuing authorities programs, Flood Plain Management Services (FPMS) and Planning Assistance to State (PAS), have been especially valuable in helping to reduce the nation's flood risk through nonstructural flood damage reduction solutions, while at the same time often promoting protection and restoration of the environment. Both these programs have been underfunded and highly subscribed, but can provide critically needed assistance sought by communities and states to address flood-related problems through floodplain management and land use planning, development of open space and greenways, building elevations, and flood proofing. This can often be accomplished at far less cost than traditional and environmentally-damaging structural methods such as dams, levees, stream channelization, jetties and sea-walls. These programs can significantly stretch and substantially leverage limited federal dollars for a wide range of flood damage reduction and environmental benefits as well as reduced future federal disaster relief and assistance costs.

Flood Hazard Mitigation and Riverine Restoration

Escalating flood losses are and continue to be a growing national concern. Over the past 25 years, the federal government has spent more than \$140 billion for traditional structural flood control projects and flood damage recovery. Flooded communities are increasingly seeking and implementing nonstructural solutions to reduce these increasing costs and to help meet many other goals, including improving water quality, expanding opportunities for recreation, and

improving and restoring wildlife habitat. This flood damage reduction program was authorized in WRDA 1999 and reauthorized in WRDA 2007. It was designed to allow the Corps of Engineers to carry out non-structural flood control approaches, restore floodplain wetlands, increase opportunities for riverside recreation, and improve quality of life in riverside communities. It authorizes the Corps to work with other federal agencies to help local governments reduce flood damages and conserve, restore, and manage riverine and floodplain resources, with local communities providing 35 percent of project costs. The program is authorized to receive up to \$20 million.

Upper Mississippi Environmental Management Program: IL, IA, MN, MO & WI (Upper Mississippi River Restoration)

More than half of the fish and wildlife habitat created by the Mississippi River's backwaters and side-channels could be lost by 2035 if the management of the river does not improve. This would lead to a catastrophic collapse of the nation's most productive and diverse inland fishery. Loss of river habitat also threatens a \$1.2 billion river-recreation industry, which supports 18,000 jobs. Since 1986, the Upper Mississippi River Environmental Management Program (EMP) has been the primary habitat restoration and monitoring program on the Upper Mississippi river and among the nation's first major habitat restoration efforts. Habitat of the Upper Mississippi River is critical for major migratory waterfowl populations that utilize and depend on the Mississippi River flyway. Support for this program is essential to continue progress to stem and reverse decline of this vital U.S. natural system. Failure to fund the program at its authorized level will significantly inhibit the Corps' ability to perform this necessary restoration work.

Missouri River Fish and Wildlife Recovery Project: IA, NE, KS & MO and MRAPS

The Missouri River Fish and Wildlife Recovery Project is the primary habitat restoration program for the lower Missouri River between Sioux City and St. Louis. Congress established the program primarily to help reverse the long-term impacts and deterioration of fish and wildlife habitat due to the federally sponsored channelization and stabilization projects of the Pick-Sloan era. Supporting the Missouri River Fish and Wildlife Recovery Project at \$73 million will continue to implement river management plans and help to reverse the decline of river wildlife by restoring historic chutes, side channels, wetlands, backwaters, and other habitat that Missouri River fish and wildlife require for survival.

Congress should also provide funding to allow the Missouri River Authorized Purposes Study (MRAPS) to move forward. MRAPS is a study authorized in WRDA 2007 but subsequently halted by Congress that would comprehensively study the river's nine often conflicting authorized purposes, last updated in the 1940's, with a goal of improving flood control and ecosystems.

Lower Columbia River Ecosystem Restoration OR & WA

Coastal estuaries in the Pacific Northwest play a vital role in supporting healthy stocks of wild salmon and steelhead trout and other species while improving the quality of life of countless communities. They provide critical habitat for other fish and wildlife, offer abundant recreational opportunities, support the cultural and subsistence practices of the region's Indian tribes, and improve water quality by filtering out toxic contaminants, sediments, and other pollutants. The Northwest Coastal Estuary Program, run by the Corps, is a stakeholder driven

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program that offers a great opportunity to enhance fish and wildlife habitat on the Lower Columbia River and Tillamook Bay. The program is designed to restore more than 16,000 acres of critical fish and wildlife habitat, augment existing monitoring efforts, and help citizens protect and manage resources by bringing together local governments, states, Indian tribes and federal agencies, environmental groups, ports, and citizens.

Potential Budget/Sequestration Impacts:

- Low Corps funding could affect the Corps' ability to move forward with critically important ecosystem restoration projects and important flood damage reduction projects. Limited funding should be prioritized to the most ecologically and scientifically sound Corps projects, but there is no guarantee that it will be.
- For many years communities have put their faith in concrete structures like levees and dams to protect them from flood damages. There is now a clear recognition that utilizing natural systems and buffers can often provide more effective and safer protections while providing a host of additional environmental benefits. Low Corps funding would likely prevent the Corps from planning projects that utilize such natural approaches, and could prevent or delay repair of critical, but aging, structural projects.
- The significant engineering of the nation's waterways has had a major impact on our natural resources. Ecosystem restoration is now a priority for the Corps in order to repair the damage of the past. Inadequate funding will impact the Corps' ability to fulfill its obligations to protect and restore the environment through the programs listed above.
- The Corps of Engineers plays an important role in helping communities study and plan projects that can increase their resilience to the impacts of climate change. Without adequate funding to gather the necessary information, communities will be less equipped to adapt to future floods and droughts.

CROSS-CUTTING PROGRAMS

CROSS-CUTTING PROGRAMS

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BORDERLANDS ENVIRONMENT PROTECTION

Borderlands Environment Protection

America's nearly 2,000 mile long border with Mexico includes many national parks, forests, wildlife refuges, wilderness areas, tribal reservations, and other environmentally important areas of federal, state, tribal, and private lands and waters. Several nationally significant federal protected areas are found here, including Big Bend National Park, Organ Pipe Cactus National Monument, and Santa Ana and Buenos Aires National Wildlife Refuges (NWR). These lands provide essential habitat for hundreds of imperiled species. Much of this country's most spectacular wildlife, including jaguar, ocelot, pronghorn, and hundreds of bird and butterfly species, and the substantial economic benefit these species provide to local communities, depend upon maintaining connected and intact habitat on borderlands - public and private.

Illegal border crossings and enforcement activities - both infrastructure, such as barriers and roads, and ongoing operations - place a tremendous burden on federal land management agencies and cause serious long-term damage to natural and cultural resources. In addition, natural and cultural resources on private property, and tribal and state lands have all been adversely impacted by large-scale construction projects, including more than 650 miles of border barriers and roads. Barriers have been constructed on protected federal lands, including at Buenos Aires NWR and San Pedro Riparian National Conservation Area in Arizona, and on the Lower Rio Grande Valley NWR in Texas. The effects of large-scale border security infrastructure across sensitive areas have adverse effects on people and wildlife, such as erosion and sedimentation that impairs water quality and stream habitat, elevated risk to wildlife and human safety from increased floods, untamed wildfires, and the many devastating effects of fragmenting wildlife populations in previously unbroken and vast habitat, and redirecting disturbance caused by illegal traffic and law enforcement interdiction into more remote and ecologically sensitive areas.

These construction projects and operations were conducted under a waiver authority granted to the DHS under the REAL ID Act with no environmental analysis that would have, at the very least, included careful steps to avoid, minimize, or mitigate for any adverse impacts on sensitive natural and cultural resources. Instead, attempts must be made after the fact to minimize or offset the impacts from infrastructure and security operations previously taken or ongoing in these sensitive borderland areas, such as: damage from barrier and road construction in the Otay Mountain Wilderness in California; fragmentation of habitat for jaguars, black bear, desert tortoise and many other species and blockage of desert washes from infrastructure construction resulting in exacerbated seasonal flooding and natural resource damage in protected areas of southern Arizona; construction of barriers across the Nature Conservancy's Southmost Preserve in Texas that divide ocelot and jaguarundi habitat; and construction-induced siltation in the Tijuana River Estuary in California.

Potential Budget/Sequestration Impacts:

Further cuts will prevent or hinder needed environmental mitigation efforts. In addition cuts will prevent numerous additional needed efforts such as:

- Adding staff for law enforcement, environmental review of border-related projects, and interagency coordination to facilitate the dual missions of border protection and the conservation of sensitive resources on public lands along the border.

CROSS-CUTTING PROGRAMS

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BORDERLANDS ENVIRONMENT PROTECTION

Potential Budget/Sequestration Impacts (cont.):

- Appropriate infrastructure improvements for resource agencies such as security improvements to buildings; environmental and cultural sensitivity training for Border Patrol and other non-land management agency law enforcement agents; needed facilities and vehicles; and improving visitor services.
- Biological research, habitat restoration, and monitoring programs, including funding for understanding and mitigating impacts on endangered species, other wildlife and habitat; and restoration of degraded habitats.
- Resource protection, including cleaning and protecting fouled water sources; blocking thousands of unauthorized roads; the removal of trash and abandoned vehicles; using surveillance and deterrence technology; fighting fires associated with border crossers; monitoring hydrological impacts (e.g. erosion, sedimentation, debris and water conveyance) and restoring impaired hydrological function across the border; and protection and restoration of important historic, cultural, and anthropological structures and artifacts.

CROSS-CUTTING PROGRAMS

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CLEAN ENERGY AND CONSERVATION

Clean Energy and Conservation

Since 2009, the Department of the Interior has approved a total of 31 new utility-scale renewable energy projects –more than in the past two decades combined. These projects alone are expected to generate enough renewable energy to power 2.3 million American homes. In addition, DOI approved Wind Energy Areas (WEAs) off of 6 states – lower conflict, high interest areas on the Atlantic Outer Continental Shelf for offshore wind energy development – while issuing our nation’s first two offshore wind leases. Harnessing the offshore wind resource identified in the Department of Energy’s wind energy goal for 2030 could power about 14 million U.S. homes. These projects, when responsibly sited, benefit local economies, support energy independence, reduce the impacts of climate change and respect our natural heritage. To successfully develop and implement a strategy for renewable energy project siting and permitting that is truly “smart from the start” requires the coordinated and collaborative efforts of a number of federal departments and agencies, along with the assistance of the Council on Environmental Quality and full cooperation with a number of state agencies, private sector developers, investors, conservation organizations, and other interested parties.

This also means that federal agencies must have the resources to undertake their responsibilities in a timely and effective manner. These activities include permitting, leasing, planning activities, as well as environmental studies and consultations to help ensure projects avoid and minimize conflicts with other important uses, including recreation and conservation.

Potential Budget/Sequestration Impacts:

- **Delay in construction and operations of renewable energy resources:** For example, BLM is responsible for over 253 million surface acres of land, of which approximately 285,000 acres have been identified as priority areas for commercial-scale solar development and another 19 million acres identified as potentially available for solar projects. BLM also BLM has identified another 20 million acres available for wind development. BLM has made significant progress in the number of renewable energy projects approved on public lands in the past four years, totally more than 10,400 megawatts of energy permitted. In addition, BLM leases public lands, including National Forest lands, for geothermal energy development that amounts to over one-third of the Nation’s geothermal energy capacity. 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:** Reduced funding or sequestration puts at risk important Fish and Wildlife Service initiatives attempting to address energy and wildlife issues. For example, efforts to evaluate and protect the sage grouse, lesser prairie chickens, whooping cranes and Indiana bats would all be at risk. These efforts cover thousands of square miles and are important efforts to assess impacts and efforts to develop wildlife friendly energy resources. There are approximately fifteen offshore wind projects at various stages of development in Federal and state waters in the U.S. and sequestration will delay the launch of the U.S. offshore wind industry and efforts to protect important marine resources and wildlife. The Bureau of Ocean Energy Management’s (BOEM) ‘Smart from the Start’ initiative has led to the formal identification of 2,000 square miles of WEAs already with 3 more likely to be formally established by the end of the year. Reduced funding levels equate to delays in ocean-user conflict resolution and identification of best practices for conservation of sensitive species like the North Atlantic Right Whale, and ultimately could delay offshore wind energy leasing and necessary permits.

CROSS-CUTTING PROGRAMS

11

CHALLENGE COST SHARE

Challenge Cost Share Crosscutting Account

The Challenge Cost Share (CCS) funding program provides funding to the Bureau of Land Management, Fish and Wildlife Service and National Park Service to leverage private funding and program support from groups that share the agencies' missions to preserve natural and cultural resources. Under the CCS Program, the bureaus select projects for funding from project proposals submitted by the various field offices and park units.

CCS grants allow citizen volunteers, universities and researchers to do thousands of stewardship projects on public lands and national trails. For example, CCS funds have enabled volunteers to help rehabilitate historic ranch buildings for educational and recreational use and they have allowed visually impaired youth to experience history by walking portions of the Lewis & Clark National Historic Trail.

The CCS has provided important opportunities for tens of thousands of citizen volunteers to do thousands of stewardship projects on public lands and trails by leveraging these federal funds in a way that cannot be duplicated through other federal funding programs. CCS is a value to the taxpayer and leverages taxpayer dollars by at least doubling the value in these investments. The CCS would be impossible to duplicate through existing programs because the program leverages labor costs donated by the tens of thousands of volunteers that document a rock art site, restore habitat, interpret an historic trail, or remove fence from a new wilderness area.

Potential Budget/Sequestration Impacts:

- If funding is cut to this tremendously valuable program, partners and agencies will not attempt or complete many projects at parks, conservation areas, historic sites and trails across the country nor completed because volunteer labor and sweat equity that are matched in these projects cannot be duplicated.
- Trail stabilization, maintenance and clearing will not happen on hundreds of miles of trails every year.
- Many universities won't have the equipment necessary for their students to conduct archaeological excavations or stabilization of ancient structures.
- Volunteer projects that are the backbone of progress for our sites, already stressed due to reduced funding, will have a diminished ability to manage or provide support for volunteers assisting with on-going maintenance needs and one-time projects, which is a loss to the taxpayer, the site and the resources cherished by Americans.

CROSS-CUTTING PROGRAMS

11

AMERICA'S GREAT WATERS

America's Great Waters

The health and resiliency of America's great waters and watersheds depend on consistent support and resources provided through myriad federal environmental and conservation programs. Some waters, like the Chesapeake Bay or Everglades, have Congressionally authorized programs through which critical funding is provided annually. Others, like the Ohio River Basin or the New York-New Jersey Harbor rely solely on a suite of programs to provide the resources necessary to achieve meaningful watershed restoration. This section will explore in detail those watersheds with dedicated funding—but will also highlight the needs of those that assemble a conglomeration of programs in an effort to reach the same goal.

Those waters without a federal program to call their own find themselves particularly vulnerable to continued funding cuts. The programs they utilize are often national in scale, very competitive and struggle even to meet current demands. State and local governments, NGOs, farmers, landowners and other conservationists are finding an increasing backlog of restoration work and fewer resources to meet their many needs. Cutting all these programs simultaneously limits positive and consistent impact on the ground and hamstring comprehensive restoration progress—both within individual watersheds and across the country.

For example, the waters of the Ohio River Basin are grappling with nutrient and sediment impairment, frequent municipal sewage overflows and habitat loss. The Basin does not have an authorized federal program, and depends on funding provided through EPA grant programs, Clean Water State Revolving Fund and farm bill conservation programs (namely EQIP) to advance restoration throughout the multi-state watershed. Similarly, the St. John's River in Florida faces impairments from agriculture, urban and suburban and development and invasive species—however, it has been unable to compete for and secure consistent federal support, hindering much-needed progress.

Despite a steady decline in available funding tools, rules and regulations requiring cleanup of watersheds continue to be enforced and require measurable progress. Perhaps the most common theme among watersheds with respect to funding cuts is the concern that states and municipalities face legal or regulatory requirements to restore their waters, but are left with increasingly fewer options for funding or financing that work. This challenge is often at the center of what budget cuts will mean for America's great waters.

CROSS-CUTTING PROGRAMS

11

EVERGLADES ECOSYSTEM RESTORATION

Everglades Ecosystem Restoration

Recognized as a World Heritage Site, an International Biosphere Reserve, and a Wetland of International Importance, America's Everglades is one of the world's most diverse and productive wetlands and is a tremendous economic generator for Florida. A recent report by Mather Economics found that every \$1 investment in Everglades restoration generates \$4 in return in ecosystem benefits such as drinking water supply, tourism, park visitation, recreation, and wildlife habitat. The Mather study estimates that more than 442,000 jobs will be created by Everglades restoration over the next 50 years. Over the last three years, Everglades restoration projects have generated 10,500 jobs. According to the National Park Service, in 2010 alone, Everglades National Park created more than 2,000 jobs and generated more than \$136 million in visitor spending. Sustained funding to keep these projects on schedule is critical to avoiding collapse of the ecosystem, economy, and drinking water supply for 7.5 million South Floridians.

While the Everglades are an ecological treasure and economic engine, it is one of the most imperiled natural wetland ecosystems. The "River of Grass" has been drained and diverted through canals and no longer supports the web of life that depends upon it. Development, agriculture, and a massive water engineering and drainage project reduced this irreplaceable subtropical wilderness to half its former size. Wading bird populations in Everglades National Park have declined by over 90 percent and 68 species of Everglades plants and animals are threatened or endangered. In 2010, the United Nations put Everglades National Park back on its List of the World Heritage in Danger.

The Comprehensive Everglades Restoration Plan (CERP) is an unprecedented undertaking aimed at protecting and preserving the water resources of central and southern Florida and bringing the Everglades back to life. CERP is a federal-state partnership designed to improve natural water flow and water quality by removing levees, filling in canals, and reducing agricultural and urban runoff. The Mather report found that CERP is projected to produce more than \$46 billion in benefits to South Florida over 50 years.

Restoration of the Everglades is at a critical juncture with major restoration projects under construction, such as the Picayune Strand, Indian River Lagoon-South C-44 Intake Canal, and the one-mile bridge on Tamiami Trail. Keeping Everglades restoration on schedule requires significant federal investment. Without sustained funding, delays will occur and problems will get worse, making restoration more expensive in the future. Looming budget and sequestration impacts may hinder the Army Corps of Engineers and the Department of the Interior from constructing shovel-ready projects and ultimately fulfilling their federal commitment to restoring America's Everglades.

CROSS-CUTTING PROGRAMS

11

EVERGLADES ECOSYSTEM RESTORATION

Potential Budget/Sequestration Impacts:

- Restoration projects that are currently under construction may be affected by budget/sequestration impacts, which included, but are not limited to, the Picayune Strand projects and the Indian River Lagoon-South C-44 Intake Canal.
- Future, shovel-ready restoration projects could be hampered by budget/sequestration cuts. These include:
 - Additional bridging of Tamiami Trail, which is vital for moving water south to Everglades National Park and Florida Bay and reestablishing seasonal water depths and flooding durations critical to the survival of numerous species.
 - Next set of CERP projects, which will improve the quality, quantity, timing, and distribution of water delivered to the Everglades ecosystem. They include the C-43 Reservoir, C-111 Spreader Canal, Biscayne Bay Coastal Wetlands, and Broward County Water Preserve Area.
 - Central Everglades Planning Process, which utilizes innovative Army Corps of Engineers reform by bundling interdependent CERP projects to combat delay and deliver new sources of clean water to the central Everglades in a timely manner.

CROSS-CUTTING PROGRAMS

11

GREAT LAKES RESTORATION

Great Lakes Restoration

The Great Lakes, one of America's Great Waters, are a wonder of the world. They hold one fifth of the world's fresh surface-water supply. More than 30 million people rely on the lakes for their drinking water and millions more from the commerce and businesses they support in agriculture, industrial manufacturing, steel production, commercial and sport fisheries, recreation and tourism. Great Lakes restoration efforts are improving the lives of millions of people and work is underway on nearly 1,000 restoration projects throughout the region in Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York that will measurably restore the Great Lakes and address the most urgent problems facing them. The projects, funded through the innovative Great Lakes Restoration Initiative, are cleaning up drinking water flowing to millions of homes and thousands of industries and improving infrastructure important for future economic growth in the eight-state region. These investments in restoration are creating short-term jobs and leading to long-term economic benefits for the Great Lakes states and the country. A Brookings Institution report shows that every \$1 invested in Great Lakes restoration generates \$2 in return, making Great Lakes restoration one of the best investments with the federal dollar in the budget. Other research from Grand Valley State University suggests that the return for certain projects may be closer to 6-to-1. The University of Michigan has also demonstrated that over 1.5 million jobs are dependent on clean and healthy Great Lakes, accounting for more than \$60 billion in wages annually.

Yet, even with this progress, there is still much work that needs to be done. Aging sewers dump billions of gallons of sewage into the lakes, closing beaches and threatening our health. Invasive species such as zebra mussels and sea lamprey are harming the food web and commercial and sport fisheries, while new threats like the Asian carp continue to appear. There is a backlog of projects that are shovel-ready. If we wait and allow Great Lakes restoration funding to be cut, projects will only become more difficult and more expensive.

Polls find that voters want to see a continued federal investment to restore the lakes. Support for Great Lakes restoration funding remains strong even when voters are asked if it should take a budget cut like everything else to reduce the deficit. More voters reject such an idea than support it. In 2011, Belden, Russonello & Stewart surveyed more than 1,500 residents in all eight Great Lakes states on public attitudes towards Great Lakes restoration. The poll found that 75 percent of the public supports continued funding for Great Lakes restoration efforts, without cuts, even at a time of budget deficits, to improve the condition of the Great Lakes by cleaning up toxic waste and bacteria, protecting and rebuilding wetlands, and preventing and managing invasive species such as Asian carp. This support cuts across political lines.

CROSS-CUTTING PROGRAMS

11

GREAT LAKES RESTORATION

Potential Budget/Sequestration Impacts:

People across the Great Lakes region are working to heal the lakes. Through federal efforts like the GLRI, nonprofit organizations, government agencies, private businesses, and property owners are working together in public-private partnerships to clean up toxic hot spots, restore fish and wildlife habitat, and protect against invasive species. The results of working together like those below will end without sustained investment:

- At the **Ashtabula River** in Ohio, a sediment cleanup and habitat restoration project have restored the lower two miles of the river and advanced efforts to get it de-listed as a Great Lakes Area of Concern. The cleanup removed 630,000 cubic yards of contaminated sediment that contained more than 25,000 pounds of hazardous polychlorinated biphenyls (PCBs) and other toxic compounds. The project improved water quality and deepened the river channel, making the lower Ashtabula suitable again for maritime commerce, fishing, and recreational boating.
- **Muskegon Lake** in Michigan is closer to being removed from a bi-national list of Areas of Concern with the completion of a project that removed 43,000 cubic yards of sediment contaminated with mercury and polycyclic aromatic hydrocarbons (PAHs) at the Division Street Outfall to Muskegon Lake. The contamination contributed to limits on eating fish caught in the lake and posed public health risks, which may contribute to cancer; liver, nerve, and skin damage; cognitive impairment; and kidney and respiratory failure.
- At Milwaukee's **Lincoln Creek** and the **Milwaukee River** channel, the dredging of 140,000 cubic yards of contaminated sediment removed the largest source of toxic PCBs in the river, which will reduce contaminant concentrations in fish. The first phase of the cleanup, completed in January 2012, removed nearly 10,000 dump trucks of contaminated material that contained 5,000 pounds of PCBs and 4,000 pounds of PAHs. Crews also restored native fish and wildlife habitat where the cleanup took place, stabilized stream banks and re-shaped the bottom of the river channels. More dredging could take place after scientists complete a study characterizing the extent of contaminated sediments remaining in the river and creek.
- The **Grand Calumet River**, which flows through a heavily industrialized area south of Chicago, was for years considered America's most polluted river. Thanks to a major cleanup, a large wetland was restored and more than 575,000 cubic yards of toxic mud were removed from the Lake Michigan tributary. This restoration project removed contaminated sediments in and around the Roxana Marsh that led to fish consumption advisories, destroyed wildlife habitat, and caused an array of other environmental problems.

CROSS-CUTTING PROGRAMS

11

CHESAPEAKE BAY RESTORATION

Chesapeake Bay Restoration

CBP. The Chesapeake Bay Program is authorized under Section 117 of the Clean Water Act. Funding for the Bay Program provides the base budget to coordinate all watershed restoration and protection efforts across the 64,000 square mile basin. Much of the funding is passed through to states and local communities for on-the-ground restoration work through programs such as the Small Watershed Grants (SWG), State Implementation Grants, Innovative Nutrient and Sediment Reduction Grants (INSR) and the Chesapeake Bay Regulatory and Accountability Program grants. These funds are used to help implement programs and projects critical to meeting the pollution limits contained in the Chesapeake Bay TMDL and the blueprints outlined in the states' Watershed Implementation Plans. The Bay Program also provides critical scientific and technical support to the states with their computer models, monitoring and data management programs.

EQIP. The Environmental Quality Incentives Program (EQIP) provides a formula-based allocation to farmers by state and is used for various conservation practices, such as nutrient management, cover crops, conservation tillage, exclusion fencing and restoring vegetative buffers along streams that are critical to protecting and restoring water quality throughout the Chesapeake Bay region. EQIP, along with the more targeted Chesapeake Bay Watershed Initiative (CBWI) has assisted the region's agricultural producers in meeting pollution limits and water quality goals.

CBWI. Created in the 2008 Farm Bill, the Chesapeake Bay Watershed Initiative (PL 110-234 sect. 2605) supplements existing conservation programs by providing assistance to agricultural producers to address substantial nutrient and sediment reduction for water quality in the Bay region. Currently in its fifth year, the CBWI is has been an unqualified success in enhancing existing, cost-effective conservation programs in all six Chesapeake Bay watershed states—as agriculture is, by far, the largest source of nutrient and sediment pollution in the region. This program reduces the backlog of applications for conservation programs in an area where both need and demand are high.

SRF. The Clean Water State Revolving Fund is the primary federal funding source to help local governments implement clean up actions required by the Clean Water Act. Despite rhetoric to the contrary, this is one of the primary federal funding mechanisms to help the 1,779 local governments to upgrade their outdated water infrastructure in order to meet pollution limits required under the Chesapeake Bay TMDL and the state blueprints.

Potential Budget/Sequestration Impacts:

- Without consistent funding pass-throughs and grant programs provided by EPA, as well as the technical assistance provided to the states, it will be difficult to keep Chesapeake watershed restoration on track to meet the nutrient and sediment pollution reductions necessary for clean water under the Bay TMDL.
- Continued funding through EQIP and CBWI is critical for the region's agricultural producers to be able to adopt conservation practices critical to meeting state and federal pollution limits for local water quality. Since the CBWI was created, the Chesapeake Bay TMDL has been established and states are asking producers to do much more to meet their nutrient and sediment targets. Simultaneously, the pool of existing federal assistance for agricultural producers has shrunk.

CROSS-CUTTING PROGRAMS

11

CHESAPEAKE BAY RESTORATION

Potential Budget/Sequestration Impacts (cont.):

- CBWI provides financial assistance to many small and economically tenuous agricultural producers and its elimination will likely mean the loss of small family farms throughout the Chesapeake region.
- Severe reductions to the CWSRF create a self-fulfilling prophesy for those who charge the Chesapeake Bay TMDL is “an unfunded federal mandate.” The CWSRF provides critical funding assistance to municipalities under increasing pressure to meet pollution limits in the Bay watershed. Reductions to CW SRF will mean a direct shift of the financial burden in the Chesapeake Bay watershed to local ratepayers and taxpayers.

CROSS-CUTTING PROGRAMS

11

LONG ISLAND SOUND RESTORATION

Long Island Sound Restoration

Long Island Sound is a globally significant ecosystem providing critical habitat for an extraordinary array of birds, fish and other wildlife, while also contributing annually more than \$8.9 billion per year to the regional economy from commercial and recreational fishing, ecotourism and other water dependent businesses. Its water quality and marine environment impact more Americans than any other estuary in the United States, as more than 28 million people, a full 10 percent of the U.S. population, live within 50 miles of its shores. However, the Sound has undergone unprecedented pollution, habitat loss and ecosystem disruption. Nitrogen loading from runoff and aging and failing sewage treatment plants combined with a 90% loss of coastal habitat from development threaten important fisheries, jeopardize recreational opportunities and undermine the economic vitality of the region.

Due to its significant and unique ecological and economic value, Long Island Sound was one of the first three estuaries recognized in 1985 under the National Estuary Program. This designation led to the creation of the Comprehensive Conservation and Management Plan (CCMP), developed by the Long Island Sound Study, to guide restoration and management efforts. Congress has also recognized the importance of the Sound with two important authorizations. The Long Island Sound Restoration Act, created as part of the Estuaries and Clean Waters Act of 2000 and reauthorized in 2005, authorizes up to \$40 million per year to improve water quality to meet the nitrogen reduction goals of the CCMP. The Long Island Sound Stewardship Act enacted in 2006 authorizes up to \$25 million per year to establish a public/private effort to identify, protect, and enhance the habitats throughout the Sound with significant biological, scientific, or recreational value, with a major goal of increasing public access to this amazing estuary.

With federal leadership from the Environmental Protection Agency, a strong partnership has been forged among federal, state, and local agencies as well as regional and local stakeholders to coordinate the natural resource and watershed management activities around Long Island Sound. However, these restoration and improvement efforts have been chronically underfunded by the Federal Government, while the states of Connecticut and New York have invested hundreds of millions of dollars to restore the Sound's water quality and protect its coastal resources. Sustained federal support for the Sound is important to ensure that this partnership continues its successful efforts to improve the health of the estuary and sustain the economy and jobs that depends upon it.

Potential Budget/Sequestration Impacts:

- Funding requests for restoration projects already outpace available funding by more than 2-1 and any further reduction in funding puts at risk the viability of this program. In the last two years, funding for the Long Island Sound Stewardship and Restoration Acts has been cut by nearly 60%, and an additional sequestration cut would handicap the regions ability to keep the sound on the road to recovery, and would eliminate funding for new, innovative water quality improvement projects, delay needed habitat restoration projects made even more necessary in the wake of Superstorm Sandy, and delay reaching the nitrogen reduction goals of the CCMP.

CROSS-CUTTING PROGRAMS

11

WHITE-NOSE SYNDROME

National Strategy to Address White-Nose Syndrome

White-nose Syndrome (WNS) poses the gravest threat ever faced by North American bats. Biologists describe the WNS die-off as North America's most precipitous wildlife decline of the past century. Since its discovery in 2006, this disease has killed at least 5.7 million bats in the United States and Canada. More than half of the nation's 47 bat species could be at risk. The disease or the fungus that causes it currently affects nine species, including the endangered Indiana and gray bats. Losses are so drastic that researchers are predicting regional extinctions of the little brown bat, once among North America's most common mammals, in the northeastern United States within 14 years. In response to these declines, the Fish and Wildlife Service is conducting a status review of the little brown bat, as well as listing reviews for two other bat species.

The loss of bats would have serious ecological and economic consequences. As primary predators of night-flying insects, bats are critical to maintaining the balance of nature. They eat vast numbers of insects, including expensive pests that damage such crops as corn, cotton, and potatoes. A study published in *Science* estimates that bats save U.S. farmers at least \$3.7 billion per year by preventing crop damage and limiting the need for pesticides. Without bats, farmers would face new financial strains, consumers would likely see higher food prices, and more chemicals would be released into our environment.

Potential Budget/Sequestration Impacts:

- Lower funding levels would reduce grants FWS awards scientists to conduct WNS research. As a result, more time will elapse before we find solutions to this devastating disease.
- State wildlife agencies carry out on-the-ground monitoring and surveillance to track WNS status and spread. FWS grants to states largely support these activities, and in many cases are their sole source of funding. Cuts would preclude states from collecting data necessary for management decisions, and deprive the WNS community of essential knowledge on how this newly discovered disease operates.
- In response to directive language in the FY2012 budget, FS scientists have developed a WNS science strategy focused on bat conservation and recovery. Decreased funding would impair the FS's ability to implement the research, thereby setting back efforts to protect bat populations.
- Further cuts would impair the NPS's ability to screen visitors to western National Parks for exposure to the WNS-causing fungus, increasing the possibility of WNS spread to the western half of the country.

CROSS-CUTTING PROGRAMS

11

LACEY ACT AMENDMENT

Lacey Act Amendment

Illegal logging plays a central role in driving tropical deforestation and degradation in the developing world. It also undermines businesses in the U.S. by approximately \$1 billion annually due to underselling by cheaper, illegal timber supplies. In recognition of these threats, Congress amended the Lacey Act in 2008 to expand its protections to a broader range of plants and plant products. In September 2011, this amendment was recognized internationally, receiving the World Future Council's silver medal as one of the three most inspiring and innovative pieces of national legislation to protect the world's forests. The European Union, Australia, and other countries are closely following the U.S. lead.

In order for the law to continue delivering, it is essential that \$13.5 million be dedicated to support Lacey Act implementation in FY14, channeled through several agencies. This includes \$5.5 million for the U.S. Department of Agriculture's Animal and Plant Health Inspection Services (APHIS), \$4 for USAID and State, and \$4 for the USFWS' Office of Law Enforcement.

Potential Budget/Sequestration Impacts:

- Early indicators have shown a 25% decline in global illegal logging as a result of unprecedented policies like the Lacey Act, yet recent evidence from Interpol and the United Nations Environment Program reminds us of the need to remain vigilant as illegal logging involves ever more sophisticated international criminal networks. A recent World Bank study revealed that criminal syndicates continue to reap massive profits from illegal logging, estimated at between \$10 and \$15 billion a year. Any cuts to Lacey implementation would undermine current momentum in combating illegal logging, ultimately benefiting criminal syndicates that profit from illegal logging activities.
- Sequestration would prevent progress by the U.S. Department of Agriculture's Animal and Plant Health Inspection Services (APHIS) to build an electronic declarations database and to add internal capacity to perform data analysis for monitoring and enforcement.
- USAID and the State Department are undertaking international outreach to explain the implications of the expanded Lacey Act to producer countries. Declines in funding for these efforts would undermine these educational efforts, inhibiting the
- positive changes currently underway to industry practices around the world.

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