
AN INTRODUCTION TO FEDERAL ENVIRONMENTAL POLICY

About NRDC

NRDC is the nation's most effective environmental action organization. We use law, science and the support of 1.4 million members and online activists to protect the planet's wildlife and wild places and to ensure a safe and healthy environment for all living things.

Founded in 1970 by a group of law students and attorneys at the forefront of the environmental movement, NRDC lawyers helped write some of America's bedrock environmental laws.

Today, our dedicated staff of more than 350 lawyers, scientists and policy experts work with businesses, elected leaders, and community groups to solve the most pressing environmental issues we face today. We have offices in New York, Washington, Chicago, Los Angeles, San Francisco and Beijing.

With the support of our members and online activists, NRDC works on a broad range of issues as we pursue our mission to safeguard the Earth: its people, its plants and animals, and the natural systems on which all life depends.

AS AN INSTITUTION, WE HAVE SEVEN MAIN PRIORITIES:



Curbing Global Warming

Climate change is the single biggest environmental and humanitarian crisis of our time. We must act now to spur the adoption of cleaner energy sources at home and abroad.



Protecting Our Health By Preventing Pollution

We must reduce or eliminate the dangerous chemicals in the products we buy, the food we eat and the air we breathe.



Creating the Clean Energy Future

America's dependence on fossil fuels threatens our national security and is a major contributor to global warming and toxic air pollution. By investing in renewable energy sources such as the sun, wind and biomass, we can help solve the energy and climate crises.



Ensuring Safe and Sufficient Water

As we enter the 21st century, swelling demand and changing climate patterns are draining rivers and aquifers as pollution threatens the quality of what remains.



Reviving the World's Oceans

The world's oceans are on the brink of ecological collapse. We can restore marine vitality by ending overfishing, creating marine protected areas and improving the way we govern our oceans.



Fostering Sustainable Communities

The choices we make for where and how we live have enormous impacts on our well-being, economy, and natural environment. NRDC develops and advocates sustainable solutions for our communities.



Defending Endangered Wildlife and Wild Places

The destruction of our last remaining wildlands means the loss of vast troves of biological diversity, critical regulators of global climate, and irreplaceable sanctuaries.

In Washington, D.C., these priorities are heavily influenced by federal laws and regulations. That is why we work with Congress, the White House, federal agencies, and the courts to defend and expand the existing framework of U.S. environmental policies in order to safeguard the health of our communities and our environment.

Our current work on federal policy stretches across a large variety of issues. This document provides an overview of those issues with an examination of how federal policies have succeeded or failed at protecting public health and the environment and what issues are likely to see upcoming action.

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CLEAN WATER



Americans want clean water—surface waters safe for swimming and fishing and supplying our drinking water. Water quality has improved markedly since infamous events such as the Cuyahoga River catching on fire repeatedly prior to the 1972 adoption of the Clean Water Act. But serious threats remain: many waters today are not fit for all of the uses that states have identified for them; every summer brings thousands of beach closings and swimming advisories; and wetlands, streams and other vulnerable waters are destroyed, leaving more areas vulnerable to pollution, flooding and degradation.

I. PRIMARY STATUTES

■ CLEAN WATER ACT

Formally titled the Federal Water Pollution Control Act, the Clean Water Act is the result of a complete overhaul of federal water pollution regulation in 1972. It has had two major amendments—in 1977 and 1987—which primarily adjusted the requirements pertaining to permitting for dredged and fill material (1977) and to sources of polluted runoff (1987), but which kept intact the basic requirements of the law.

At its core, the Act prohibits sending pollutants into waters by requiring specific sites that discharge materials into waters to get a permit to do so. These sites include industrial operations and municipal storm water and sewage systems. In issuing permits, state and federal agencies are supposed to ensure that the best techniques are applied to minimize pollution and that any discharge is consistent with state water quality goals.

The federal government and states work together to enforce the Act. It is primarily implemented by the Environmental Protection Agency (EPA) at the federal level, although the Army Corps of Engineers issues so-called “dredge and fill” permits. EPA has delegated permitting, standard-setting, and enforcement authority to 46 states, which work subject to EPA oversight and are assisted by federal grants.

In addition, EPA provides annual grants to states to help fund local water and sewer projects. The money from EPA is put into “state revolving funds,” from which states loan money to their municipalities.

II. MAJOR POSITIVE EFFECTS

In the 40 years since its passage, the Act has played an important role in cleaning up our nation’s waterways:

- The percentage of waters not meeting state standards has dropped markedly, despite a significant increase in U.S. population. In 2004 (the most recent comprehensive survey), EPA found that “states reported that about 44% of assessed stream miles, 64% of assessed lake acres, and 30% of assessed bay and estuarine square miles were not clean enough to support uses such as fishing and swimming” compared to more than two-thirds of waters not meeting standards before the law. Some of the remaining pollution is caused by air pollutants that end up getting deposited into the water rather than from discharges into the waters directly.
- The rate of wetlands loss shrank dramatically, by roughly three-fourths.
- Sewage treatment plants have been required to upgrade their pollution control equipment, substantially decreasing their impact on waters.
- Pollution standards for more than 50 industries have prevented the discharge of over 700 billion pounds of pollutants per year into our nation’s waters, according to EPA.

III. MAJOR CONCERNS

Despite the Act's success, many challenges remain, particularly with regard to unaddressed sources of pollution or water bodies where legal protection is unclear:

- Headwater streams and wetlands currently lack clear protection under the Clean Water Act, despite the fact that they absorb flood waters, filter pollutants from contaminated water, contribute to the drinking water supply of 117 million Americans, support fish and waterfowl, and feed our rivers and lakes.
- Nationwide, EPA estimates that urban stormwater runoff is the primary source of water quality impairment for 13% of all rivers and streams, 18% of all lakes, and 32% of all estuaries. At ocean and Great Lakes beaches in 2011, polluted runoff and stormwater caused or contributed to 10,954 beach closing or swimming advisory days. The Act has not yet been successful at controlling pollution from systems composed of numerous discharge locations.
- Nitrogen and phosphorus pollution from livestock operations, sewage discharges, and other pollution sources bring about harmful algae blooms, nasty slime that can produce harmful toxins and that can rob water bodies of the oxygen that fish and other animals need to live. These pollutants are also causing significant harm in the Chesapeake Bay, Florida, the Great Lakes, the Gulf of Mexico, and in waterways around the nation.
- Mountaintop removal coal mining practices have enormous pollution impacts, burying miles of streams under mining waste and contaminating downstream waterways.
- Waste from large factory farms—also known as concentrated animal feeding operations (“CAFOs”)—fouls water bodies across the U.S. with bacteria, nitrogen and phosphorus, and other harmful pollutants. As a government analysis noted, these facilities generate as much or more waste as whole cities.

PUBLIC OPINION

- In polls over more than two decades, water issues consistently dominate the list of Americans' top environmental concerns; in April 2012, Gallup noted: “the three water concerns in this year's poll have ranked as the top three concerns over any other environmental problems nearly every time they have been asked since 1989. Pollution of drinking water has most often been the top concern.”
- More specifically, polls conducted in several key Congressional states and districts to gauge support for efforts to restore Clean Water Act protections to small/ headwater streams and wetlands show strong support for such efforts. For instance, in Ohio and Colorado, 70 percent and 69 percent respectively favored restoring these legal protections, even after hearing arguments for and against the initiative.

- Industrial cooling water intake structures cause adverse environmental impact by pulling large numbers of fish and shellfish or their eggs into a power plant's or factory's cooling system.
- NRDC's annual analysis of beach water quality found that the number of beach closing and advisory days in 2011 reached the third-highest level in the 22-year history of our report, totaling 23,481 days. More than two-thirds of closings and advisories were issued because bacteria levels in beach water were worse than applicable public health standards, potentially indicating that there's human or animal waste in the water.

IV. UPCOMING ISSUES

EPA has many decisions pending to enhance clean water protections. In the last Congress, the House voted repeatedly on “riders” (policy provisions attached to spending bills) designed to block EPA from moving forward in establishing clean water protections. Matters EPA may address soon include:

- **Protecting Headwater Streams and Wetlands:** EPA and the Army Corps of Engineers proposed a set of guidelines in April 2011 to clarify which waters are protected by the Clean Water Act, and a final version as well as additional proposed protections may be issued soon.
- **Controlling Urban and Suburban Runoff Pollution:** EPA is currently developing standards to require runoff controls for certain commercial and residential properties.
- **Restoring Treasured Waters:** EPA has begun implementing an ambitious cleanup blueprint for nitrogen and phosphorus pollution in the Chesapeake Bay, but has failed to do so elsewhere—denying requests to step in where states have failed, and even backtracking on steps it had taken in Florida to establish standards there.
- **Reining In Pollution from Waste Dumping in America's Waterways:** The Obama administration has taken some steps to protect Appalachian communities from the impacts of mountaintop removal coal mining. Even these steps have been mired in litigation and the administration has failed to pursue more comprehensive solutions to this problem.
- **Curbing Pollution from Livestock Factories:** EPA recently backed off from a modest proposal to simply collect information from these operations.
- **Preventing Power Plants from Killing Fish:** EPA has proposed regulations for cooling water intake structures, but the rule is far too weak to protect the aquatic environment and businesses that depend on healthy fisheries.

CLEAN AIR

Air quality in the U.S. has improved markedly since the 1960s when, for example, smog in Los Angeles could be seen from space. But much remains to be done, as air pollution continues to cause illness and death. Air pollution aggravates heart and respiratory conditions, such as asthma, and leads to millions of missed days of school and work. Still, the Clean Air Act has saved hundreds of thousands of lives since its enactment in 1970, and recent EPA analyses of the benefits of the Act estimate that they outweigh costs by at least a factor of more than 30 to 1. The Clean Air Act has achieved all these benefits over the last 40 years while Gross Domestic Product has increased by 207 percent.

I. PRIMARY STATUTES

■ CLEAN AIR ACT

Passed by overwhelming bipartisan majorities in 1970 and when amended in 1977 and 1990 (the last significant amendments), the Act requires EPA to limit emissions of air pollution that “endanger public health and welfare.”

II. MAJOR ACCOMPLISHMENTS

■ ILLNESSES AVOIDED

The first 20 years of the Clean Air Act, from 1970 to 1990, resulted in the prevention of more than 205,000 premature deaths in the year 1990 alone. The 1990 amendments to the Act have provided significant additional benefits—nearly 2 million lives have been cumulatively saved from 1990 to 2010, according to NRDC’s analysis of data from EPA’s recent report, “Benefits and Costs of the Clean Air Act from 1990 to 2020.”

■ AIR POLLUTION REDUCTIONS

Since 1970, the Act has significantly reduced air pollution. From 1990 to 2008, emissions of the six most common pollutants dropped by over 40%.

■ DOLLAR SAVINGS

Net direct monetized benefits of the Clean Air Act from 1970 to 1990 total about \$21.7 trillion from lower mortality, fewer cases of chronic and acute illness, less frequent trips to the hospital, and fewer lost work days. The 1990 amendments have secured even more benefits—\$1.24 trillion in net direct monetized benefits in 2010 alone and \$12 trillion in monetized benefits from 1990 to 2020.

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III. UPCOMING ISSUES

■ SOOT STANDARDS

In December 2012, EPA finalized new limits on emissions of soot. (Technically, these are National Ambient Air Quality Standards (NAAQS) for particulate matter of 2.5 micrometers in diameter or smaller, “PM2.5” or fine particle pollution.) PM2.5 particles are so small that they can penetrate deep into the lungs and blood stream and cause a variety of serious health impacts including heart attacks, asthma attacks and premature death.

The Clean Air Act requires NAAQS to be set every five years at a level sufficient to protect human health and welfare. Scientists and an independent body of scientific advisors recommended that EPA set a standard at 12 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), down from the previous standard, set in 1997, of $15 \mu\text{g}/\text{m}^3$. EPA estimates that meeting this standard will provide health benefits worth up to \$9.1 billion per year in 2020—a return of \$12 to \$171 for every dollar spent on pollution reductions. In 2009, a federal court struck down

EPA’s 2006 decision to maintain the standard at $15 \mu\text{g}/\text{m}^3$, contrary to its science advisors’ recommendations, and sent it back to EPA because the agency had failed to explain its reasoning.

This standard could be subject to a resolution of disapproval under the Congressional Review Act (CRA) this spring. NRDC supports the new standards and opposes overturning them. Protective clean air standards are the law’s bedrock and let the public know if the air is safe to breathe.

■ INDUSTRIAL BOILERS

EPA also finalized revised toxic air pollution standards cutting mercury, acid gasses, and toxic metals from industrial boilers and incinerators in December 2012. Mercury is a neurotoxin that affects brain development of children and the unborn. EPA’s standards will avoid up to 8,100 premature deaths, 5,100 heart attacks, and 52,000 asthma attacks each year in 2015. EPA estimates that meeting this standard will provide health benefits worth up to \$67 billion in 2015—a return of \$13 to \$29 for every dollar spent on pollution reductions. Facilities are not required to comply with the standards until 2016 at the earliest. (These are separate from mercury limits on power plants, which have already survived Congressional challenges.)

EPA initially adopted these standards in March 2011, but agreed to reconsider the standards in response to industry concerns. The revised standards require only the largest and most polluting facilities to limit their pollution, and require natural gas boilers to meet modest maintenance and recordkeeping conditions. These standards are more than a decade overdue, and previous weaker versions have been struck down in court for violating the Clean Air Act. Like EPA’s soot standards, these standards could be the subject of a resolution of disapproval under the CRA this spring. These standards will save thousands of lives by for the first time requiring industrial boilers and incinerators to limit their toxic air pollution under the Clean Air Act. NRDC’s view is that Congress should support EPA’s revised health standards.

PUBLIC OPINION

The American public overwhelmingly supports the Clean Air Act. Recent polls indicate that Americans support updating Clean Air Act standards and strongly oppose congressional efforts to block EPA. Three out of four voters support EPA setting tougher standards on specific air pollutants, including mercury, smog and carbon dioxide, as well as setting higher fuel efficiency standards for heavy duty trucks.¹ Two out of three voters believe that strengthening safeguards against pollution will create, rather than destroy, jobs by encouraging innovation.²

1 American Lung Association poll, February 16, 2011 (press release available here: <http://www.lung.org/press-room/press-releases/bipartisan-clean-air-poll.html>) (last visited January 4, 2013).

2 American Lung Association poll, March 21, 2012 (press release available here: <http://www.lung.org/about-us/our-impact/top-stories/new-poll-epa-air-pollution.html>) (last visited January 4, 2013).

CLIMATE CHANGE



Heat-trapping air pollutants, most notably carbon dioxide, are changing the Earth's climate. The amount of carbon dioxide in the Earth's atmosphere has increased by 40 percent since the start of the industrial era, primarily due to emissions from burning coal, oil, and natural gas. Temperatures have risen around the world as a result: The 1980s were the hottest decade on record globally until surpassed by the 1990s, and then by the 2000s. Last year was the hottest on record in the United States.

Climate change threatens the health of our families, our communities, and our planet. According to the just-issued draft 2013 National Climate Assessment,¹ the consequences already include more severe storms, floods, and droughts, and increased illness and death from more severe heat waves and worsened pollution. Climate change is predicted to change where crops can grow and cause the spread of insect-borne diseases. Weather disasters such as Hurricane Sandy and the severe drought of 2012, which many scientists believe were worsened by climate change, will exact a continuing toll on federal, state, and local budgets. The Pentagon views climate change as a major national security threat because of the many ways it can increase global geopolitical instability.

I. PRIMARY STATUTES

■ CLEAN AIR ACT

The Supreme Court ruled in 2007 that the Environmental Protection Agency (EPA) is required to limit carbon pollution under the Clean Air Act if the agency concludes that heat-trapping gases endanger public health and welfare. EPA issued such an "endangerment finding" in 2009. Under the Clean Air Act, that means EPA must limit carbon pollution from motor vehicles and major industrial sources.

II. MAJOR POSITIVE POLICIES

■ CLEAN CAR STANDARDS

Carbon pollution from cars and light trucks is being cut by technology that also increases mileage, saving consumers billions of dollars at the gas pump. In 2010 and 2012, the Obama administration issued standards under both the Clean Air Act and fuel economy laws that will cut new vehicles' carbon pollution in half and double their average fuel economy (to 54.5 miles per gallon) between 2012 and 2025.

■ POWER PLANT STANDARDS

In 2012 EPA proposed the first carbon pollution standards for new power plants. These standards can be met by burning natural gas or by capturing the carbon emissions from burning coal.

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III. MAJOR CONCERNS

Scientists agree that unless we act soon to cut carbon pollution, we will face increasingly calamitous threats to Americans' health and well-being. Temperatures will continue to rise, weather will get more extreme, and other impacts will worsen throughout our lifetimes. Children, the elderly, and communities living in poverty are among the most vulnerable. Because the United States is one of the world's largest carbon-emitting nations, actions we take are critical to slowing climate change around the world. U.S. leadership is also essential to catalyze parallel action by the world's other large emitting nations.

IV. UPCOMING ISSUES

■ NEW POWER PLANTS

EPA proposed carbon pollution limits on new power plants in 2012, and the Clean Air Act requires EPA to issue final limits by this spring. The emission rate that each new plant will need to meet is technically feasible and economically reasonable, as required by law. EPA, the Department of Energy, utility executives, and industry analysts all forecast that the nation's needs for new electricity supplies over the next two decades will be met by a combination of natural gas plants, renewables such as wind and solar, and possibly nuclear energy—all of which can meet the proposed standard. Power companies also can meet this standard with new coal-fired plants that use carbon capture and storage (CCS) technology.

■ EXISTING POWER PLANTS

The Clean Air Act also requires EPA to limit carbon pollution from the nation's fleet of existing power plants, which release more than 2 billion tons of CO₂ each year, 40 percent of total U.S. emissions. Standards under the Clean Air Act can achieve huge health and climate benefits at surprisingly low cost. NRDC has developed a flexible proposal under which EPA would set standards for each state reflecting its current mix of coal and gas generation. Power plant owners would have a broad array of flexible and cost-effective compliance options: cleaning up existing units, shifting generation towards cleaner plants (including gas, renewables, and nuclear), and investing in customer energy efficiency. This plan would achieve climate protection and public health benefits worth 6-15 times their cost while holding power bills down and triggering huge job-creating clean energy investments. EPA may issue its proposed standards in the next few months; they would be subject to public comment.

PUBLIC OPINION

Recent public polling shows that most Americans understand climate change is happening and support action to curb carbon pollution. Seven in ten Americans believe that global warming is happening. Nearly three-quarters agree that global warming is affecting weather in the U.S.² Eighty-eight percent of Americans believe that the U.S. should address climate change even if there are economic costs.³ Public support for action on climate as indicated by each of these measures has risen in recent years as Americans experience more extreme weather, and especially after Hurricane Sandy.

1 U.S. Global Change Research Program, National Climate Assessment, Public Review Draft Jan. 11, 2013, <http://ncadac.globalchange.gov/>.

2 Yale Project on Climate Change Communication, Extreme Weather and Climate Change in the American Mind, <http://environment.yale.edu/climate/publications/extreme-weather-public-opinion-September-2012/>.

3 Yale Project on Climate Change Communication, Public Support for Climate and Energy Policies in September 2012, <http://environment.yale.edu/climate/publications/Policy-Support-September-2012/>.



CLEAN ENERGY

Clean, renewable energy and energy efficiency support domestic jobs and stable growth while reducing the nation's dependence on fossil fuels that produce dangerous pollution.

Energy efficiency—accomplishing the same tasks with less energy—is the cheapest, easiest way to reduce U.S. use of polluting fossil fuels, and efficiency also frees up money for other, more productive investments. The U.S. can also reduce the health and environmental impacts of its energy use and create jobs by increasing the use of renewable sources of energy, such as solar and wind energy. A variety of federal policies have long been used to promote energy efficiency and clean energy because market barriers can slow the adoption of new processes and technologies—even those that save consumers or companies money. Federal policies have significantly helped to increase efficiency in homes, offices and industrial plants and to increase the use of clean energy while reducing its cost, but much more needs to be done to take full advantage of the potential market for clean energy at home and abroad.

I. PRIMARY FEDERAL STATUTES AND PROGRAMS

The most recent energy laws include the Energy Policy Act of 2005 (EPACT 2005), the Energy Independence and Security Act of 2007 (EISA), and the 2008 Energy Improvement and Extension Act (EIEA). Also, the 2009 economic stimulus package (the American Reinvestment and Recovery Act, or ARRA) and the 2012 fiscal cliff package (the American Taxpayer Relief Act) contained major energy provisions.

In addition to authorizing programs that fund energy research at federal labs, companies and universities, those statutes and earlier measures have put in place these key programs:

■ EFFICIENCY STANDARDS AND LABELING

Under the authority originally granted by the Energy Policy and Conservation Act in 1975, the Department of Energy (DOE) sets energy efficiency standards for a wide variety of appliances and equipment and updates them periodically. This same law led to the establishment of the ENERGY STAR program in 1992, which through product labeling and other means educates consumers about the energy efficiency of products, helping to push efficiency beyond the levels required by the standards.

■ ENERGY EFFICIENCY TAX INCENTIVES

Beginning with EPACT 2005, tax incentives have been available for meeting certain efficiency standards in the construction or renovation of commercial and residential buildings, for appliances and for industrial processes.

■ CLEAN ENERGY TAX INCENTIVES

Federal tax policy continues to play a critical role in developing technologies like wind, solar, geothermal and tidal power. Tax incentives reduce the costs of adopting new technologies, leveraging private investment. Clean energy tax credits include the Production Tax Credit, the Investment Tax Credit and Modified Accelerated Cost Recovery System (Accelerated Depreciation), all of which provide tax benefits for producing clean energy.

■ LOAN GUARANTEES

DOE has authority to provide loan guarantees to help new technologies get private financial backing. Loan guarantees have helped support a variety of projects, including advanced vehicle manufacturing, renewables manufacturing, and renewable power installation.

■ PROCUREMENT

The Department of Defense has been particularly interested in promoting the use of clean energy in its facilities to reduce the military exposure from fossil fuel use. Various executive orders are designed to reduce the use of fossil fuels in offices the federal government either owns or rents.

II. MAJOR POSITIVE EFFECTS

■ POLLUTION SAVINGS

Renewable energy and energy efficiency reduce dangerous pollution by displacing dirtier fuels. For example, wind energy alone prevents the release of 65 million tons of carbon dioxide, 75,000 metric tons of sulfur dioxide emissions and 50,000 metric tons of nitrogen oxide emissions annually.

Existing and potential appliance efficiency standards will reduce CO₂ emissions in 2035 by close to 670 million metric tons, equivalent to the emissions of 167 coal-fired power plants.

■ RENEWABLE INSTALLATION GROWTH

- We've seen a doubling of wind power in three years and quintupling of solar power in the last four years, and the weatherization of over 1 million homes.
- The U.S. wind industry employs 75,000 Americans, while the solar industry creates jobs for over 110,000 workers.
- 29 states have Renewable Portfolio Standards that require at least a set amount of energy in the state to be generated from renewable sources.

■ LOWER PRICES

- The typical solar system has dropped 30% in cost since 2010, while wind power installation costs have fallen between 20%-33% since 2008.

■ INCREASED EFFICIENCY

- Existing federal efficiency standards have reduced electricity use in the US significantly with use 7 percent lower due to existing standards and this number should grow to 14 percent by 2035, largely due to standards set in the past 3 years.
- Annual natural gas savings from existing standards will be 950 TBtu in 2035, roughly enough to heat a third of all gas heated homes in the US.
- Existing standards will have saved consumers a net \$1.1 trillion cumulatively by 2035.

PUBLIC OPINION

In a 2011 poll conducted by Harris Interactive:

- 92 percent of Americans say the president and Congress should make developing sources of clean energy a priority (Yale Project on Climate Change).¹
- 73 percent say they support funding more research into renewable energy sources.²
- Across party lines, Democrats (83%), Independents (85%), and Republicans (71%) say the U.S. should use more renewable energy sources (solar, wind, and geothermal) than we do today.³
- More than 75 percent of Americans say that the benefits outweigh the risks for wind and solar energy; only 36 percent said they believe the benefits of coal outweigh the risks.⁴

1 Sept 2012: <http://environment.yale.edu/climate/publications/Policy-Support-September-2012/>.

2 Yale Project on Climate Change, Sept 2012: <http://environment.yale.edu/climate/publications/Policy-Support-September-2012/>.

3 Yale/George Mason polling (Sept. 2012): <http://climatechangecommunication.org/sites/default/files/reports/Policy-Support-September-2012.pdf>.

4 Harris Poll, March 2011: <http://www.harrisinteractive.com/NewsRoom/HarrisPolls/tabid/447/mid/1508/articleId/727/ctl/ReadCustom%20Default/Default.aspx>.

III. MAJOR CONCERNS

■ Despite the growth of renewables, as of 2011, 87% of U.S. electricity was still produced from fossil fuels and nuclear energy. Pollution from fossil sources is linked to an array of health issues including cancer, heart attacks, asthma, developmental disorders, and even death. Burning fossil fuels is also the main driver of climate change. In the United States alone, the public health cost of fossil fuels exceeds \$120 billion a year, according to the National Academy of Sciences. And the effects of climate change, including extreme weather, declining food production, rising sea levels, and diseases, cost hundreds of billions of dollars annually.

■ INCONSISTENT POLICY SUPPORT

- Congress has repeatedly renewed tax credits for renewable energy on only a temporary basis. As a result, periodically, the lapsing of the credits, or the threat of them lapsing, reduces investment. Large-scale renewables projects require significant lead time to develop and are capital intensive. Uncertainty regarding the stability of Federal funding and tax policy creates an uncertain investment atmosphere.

■ FOSSIL FUEL SUBSIDIES

- Continuing federal subsidies for coal, oil and gas make it even harder for newer, cleaner sources of energy to compete with entrenched, incumbent fuel suppliers. These subsidies waste money and harm public health by prioritizing dirty energy sources.

IV. UPCOMING ISSUES

■ LIGHT BULB RIDER

The 2012 Continuing Resolution contained a legislative rider that blocks funding to implement energy efficiency standards for light bulbs. The standards were signed into law by President George W. Bush after passing Congress with bipartisan support. The standards do not ban incandescent bulbs and would save each American household \$100 to \$200 plus per year in the form of lower electric bills, reduce U.S. energy bills overall by more than \$10 billion per year, and avoid approximately the equivalent carbon pollution of more than 17 million cars.

■ TAX INCENTIVES

At the end of 2012, Congress extended the tax credits for renewable energy and efficiency but only until the end of 2013. Congress will need to reconsider the issue this year. In addition to extending and/or reforming existing incentives, Congress should create new ways to promote renewable energy and efficiency, such as allowing renewable projects to take advantage of Master Limited Partnerships and Real Estate Investment Trusts and establishing a Federal Infrastructure Bank.

■ DOE APPLIANCE STANDARDS

The White House has said it will accelerate work on delayed appliance standards that are required by statute, while some in Congress have tried to block new standards.

NUCLEAR ENERGY

A photograph of a nuclear power plant with two large cooling towers emitting white steam, set against a backdrop of green trees and a field of tall grass in the foreground.

The U.S. generates about 19 percent of its electricity from nuclear power. Following a 30-year period in which few new reactors were completed, it is expected that four new units—subsidized by federal loan guarantees, an eight-year production tax credit, and early cost recovery from ratepayers—may come on-line in Georgia and South Carolina by 2020. In total, 16 license applications have been made since mid-2007 to build 24 new nuclear reactors. The “nuclear renaissance” forecast in the middle of the last decade has not materialized due to the high capital cost of new plants; the severe 2008-2009 recession followed by sluggish electricity demand growth; low natural gas prices and the prospect of abundant future supplies; the failure to pass climate legislation that would have penalized fossil sources in the energy marketplace; and the increasing availability of cheaper, cleaner renewable energy alternatives.

I. SELECTED STATUTES

■ ATOMIC ENERGY ACT (AEA)

Originally enacted in 1954, and periodically amended, the AEA is the fundamental law governing both civilian and military uses of nuclear materials. On the civilian side, the Act requires that civilian uses of nuclear materials and facilities be licensed, and it empowers the Nuclear Regulatory Commission (NRC) to establish and enforce standards to govern these uses in order to protect health and safety and minimize danger to life or property. Additionally, the law requires hearings be held to address the concerns of parties affected by nuclear licensing. However, NRC hearing rules are substantially more restrictive and complex than necessary and are perceived by state and local governments and ordinary citizens to be barriers to participation and not protective of public safety.

■ PRICE-ANDERSON ACT

First passed in 1957, the Price-Anderson Nuclear Industries Indemnity Act provides for additional taxpayer-funded liability coverage for the nuclear industry above that available in the commercial marketplace to each individual reactor operator (this sum is \$375 million in 2011). Under the Act, operators of nuclear reactors jointly commit in the event of a severe accident to contribute to a pool of self-insurance funds (currently set at \$12.6 billion) to provide compensation to the public. If damages exceed the amount in the pool, liability for industry is capped and taxpayers bear the rest of the burden, without limit. Damages from the Fukushima accident, for example, are expected to total at least \$137 billion. The Act was last renewed in 2005 for a 20-year period, and has long been considered critical to the continued functioning of the nuclear power industry, which at its inception involved indeterminate risks for which adequate liability insurance could not be purchased in the commercial

■ NRDC is not opposed in principle to nuclear power, and acknowledges its beneficial low-carbon attributes in a warming world but we take seriously the significant safety, global security, environmental, and economic risks that use of this technology imposes on society. This demands stringent regulation of the complete nuclear fuel cycle, beginning with the mining and milling of uranium and ending with the final disposal of radioactive wastes. Until these risks are properly mitigated, expanding nuclear power should not be a leading strategy for diversifying America’s energy portfolio and reducing carbon pollution. NRDC favors more practical, economical, and environmentally sustainable approaches to reducing both U.S. and global carbon emissions, focusing on the widest possible implementation of end-use energy-efficiency improvements, and on policies to accelerate the commercialization of clean, flexible, renewable energy technologies.

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market. Today this is probably no longer true, but the cost of such massive private nuclear accident liability coverage would be substantial, particularly for older designs that continue to operate with outdated safety systems. The Act thus functions as yet another form of federal subsidy to the nuclear industry.

■ **NUCLEAR WASTE POLICY ACT**

Under the AEA, the federal government, not the nuclear industry, assumes responsibility for the disposal of nuclear waste. Originally passed in 1982, the Waste Act creates a process for establishing a permanent, deep geologic repository for high-level waste and spent nuclear fuel. In 1987 Congress narrowed DOE's repository program to the investigation of one site, the proposed Yucca Mountain site in Nevada. Yucca has been a subject of controversy ever since. In his first term, President Obama elected not to pursue licensing of the site. Instead, the President appointed a bipartisan Blue Ribbon Commission to present findings and recommendations for a consensus path forward to revise the Act. In the meantime, spent nuclear fuel is being held in cooling pools, after which, at some reactor sites, it is transferred to heavy steel and cement "dry casks," and placed in the open on a concrete pad awaiting future shipment to an interim or permanent waste storage facility.

II. MAJOR CONCERNS

- Electricity from newly-built US nuclear power plants is forecast to be costly: 11–18 cents/kWh at the point it enters the transmission grid. This may be compared to 2–3 cents/kWh for end-use efficiency improvements; 8–12 cents/kWh for wind (before subsidies); 11.5–15 cents/kWh for distributed solar power; 5.7–7.6 cents/kWh for combined cycle natural gas, and 2.6–4 cents/kWh for recovered heat co-generation.
- Nuclear waste disposal remains a hurdle with no licensed path to opening the first long-term geologic repository for safely isolating spent fuel, and major nuclear growth would require either additional expensive and hard-to-establish geologic repositories, or even more expensive and hazardous spent-fuel reprocessing.
- Acute nuclear weapons proliferation concerns arise if plutonium fuel cycles are used, or if uranium enrichment capability spreads under weak international safeguards to additional countries (e.g. Iran) that are not already nuclear weapon states.
- All stages of the nuclear fuel cycle involve potentially harmful, or in some cases disastrous environmental impacts (e.g., Chernobyl, Fukushima). This requires vigorous regulation and significant financial penalties for poor environmental and safety performance to ensure compliance. The NRC is pursuing regulatory initiatives to strengthen reactor safety after the Fukushima accident but implementation has been slow. Current regulation of uranium mining and milling does not provide adequate protections against radioactive and heavy metals contamination nor ensure containment and clean-up of prior contamination.

- The large freshwater water withdrawals required for cooling and massive discharge of heated water damages the already overburdened lakes, rivers, and marine estuaries nuclear plants depend on.
- Climate change in the direction of hotter, drier summers and prolonged droughts spells trouble for reactors that rely primarily on cheaper once-through condensers or evaporative water-cooling.
- Nuclear power offers little prospect of increasing "energy independence." The bulk of world uranium resources are located outside the United States, and the market for nuclear fuel cycle services is global. While domestically mined and milled uranium would not necessarily find its way into US reactors, the harmful environmental impacts of these activities would be felt here.

III. UPCOMING ISSUES

■ **NUCLEAR WASTE**

The Secretary of Energy's Blue Ribbon Commission (BRC) issued its report last year and called for a phased, negotiated federal-state process predicated on achieving informed local consent to the siting, construction and operation of interim and then permanent storage facilities, based on scientifically valid and enforceable environment, safety and health standards. Congress must write new legislation to address nuclear waste disposal. In the last Congress, S.3469, *The Nuclear Waste Administration Act of 2012*, introduced by Senator Bingaman, takes both the BRC's recommendations as well as sound scientific findings into account as it attempts to address the need for a permanent geologic repository. Among other objectives, the bill establishes an independent agency, the Nuclear Waste Administration, to provide for the permanent disposal of nuclear waste, prescribes guidelines for nuclear waste facilities and candidate repository sites, directs the EPA to adopt generally applicable standards to protect the environment from offsite releases from radioactive material in geological repositories and directs the NRC to amend its regulations governing the licensing of geological repositories to make them consistent with comparable EPA standards.

■ **NUCLEAR SAFETY**

The continuing safety of the aging and technologically obsolescent nuclear fleet, which is now beginning to exceed its originally licensed term of 40 years via 20-year "license extensions," is of the utmost concern, particularly as these aging nuclear units, in need of modernization, seek to remain economically competitive with natural gas, wind, and other low-carbon energy resources, setting up a potentially dangerous tension between public safety and continuing commercial viability. A top responsibility for Congress is ensuring that the NRC adequately fulfills its statutory mandate to protect the public from the risks of a severe nuclear accident, which mandate includes allowing state and local governments and affected citizens to pursue their safety concerns in adjudicatory public hearings as mandated by the Atomic Energy Act.

TAR SANDS

The U.S. has been increasing its imports of tar sands from Canada as a source of petroleum. Tar sands bitumen, which is strip-mined and heated out from under Canada's boreal (*i.e.*, Northern) forest, has more destructive environmental impacts than other forms of oil because of where and how it is produced; the magnitude of the pollution, especially carbon pollution from processing and burning it; and the higher risk of pipeline leaks and damage from those leaks compared to other forms of oil.

While Canada currently produces approximately 2 million barrels of tar sands per day, Canada would like to triple production over the next two decades. Such an expansion of the landlocked Alberta tar sands would require new tar sands pipelines like Keystone XL to the U.S. Gulf Coast and other proposed pipelines to the west and east.

I. PRIMARY STATUTES

- Under Executive Order 13337, the State Department must approve or reject pipelines that cross the U.S. border after determining whether they would be in the national interest. As part of making that determination, the State Department prepares an Environmental Impact Statement, which is subject to public comment.

II. MAJOR CONCERNS

■ MINING AND DRILLING IMPACTS

Large swaths of Alberta's Boreal forest are being destroyed, and a massive amount of energy and water are used to produce the tar sands. Tar sands mining operations require between two to four barrels of fresh water for every barrel of oil produced. In addition, toxic tar sands tailings ponds now cover 65 square miles of Alberta, an area the size of Washington, D.C. The other extraction method involves pumping steam underground to melt the tar sands and is very energy intensive with even higher greenhouse gas emissions and massive fragmentation of Boreal forests and wetlands.

■ NEW PIPELINES WOULD ALLOW THE EXPANSION OF TAR SANDS PRODUCTION AND USE, AND INCREASE CARBON POLLUTION

The Canadian pipeline company TransCanada has proposed building a new pipeline, the Keystone XL, to carry tar sands oil from Alberta to Texas. The pipeline would carry 830,000 barrels of tar sands oil a day through the U.S. to be processed along the Gulf and most of it shipped overseas. According to the Congressional Research Service, burning 830,000 barrels per day of tar sands oil instead of conventional oil would create the same carbon pollution as adding over 4 million cars on the road. Moreover, this oil would not even be used in the U.S. TransCanada has confirmed that the purpose of Keystone XL is to enable tar sands to be exported as diesel from the Gulf to take advantage of higher international market prices. Canadians have not yet been willing to have major new tar sands pipelines cross to their coasts and put their lands and waters at risk, so the oil industry is targeting the U.S. instead.



- **NEW TAR SANDS PIPELINES WOULD POSE INCREASED SAFETY RISKS.**

Tar sands bitumen is a heavy, viscous oil and its pipelines seem to have more spills than conventional oil pipelines. Between 2007 and 2010, pipelines in North Dakota, Minnesota, Wisconsin, and Michigan—the main states with a history of pipelines carrying diluted bitumen—spilled almost three times as much crude oil per mile of pipeline when compared to the U.S. national average. And tar sands oil is more harmful and more difficult to clean up than conventional oil. In the summer of 2010, more than one million gallons of tar sands oil gushed from an Enbridge pipeline in Michigan. After over two years and roughly a billion dollars spent on cleanup, nearly 40 miles of the Kalamazoo River are still contaminated.

III. UPCOMING ISSUES

- **KEYSTONE XL TAR SANDS PIPELINE**

In late 2011, Congress passed legislation setting a deadline for President Obama to make a decision on the then-pending Keystone XL pipeline proposal. In January 2012, President Obama rejected the Keystone XL tar sands pipeline, citing concerns about the route through Nebraska and saying that Congress had short-circuited the review process, preventing an adequate evaluation. In response, TransCanada split the pipeline into two segments. It has begun work on a southern portion (from existing oil terminals in Oklahoma to refineries in Texas), which did not require State Department approval because it did not cross international borders. TransCanada also reapplied to the State Department to build a northern transboundary segment. The proposed route for Nebraska will still cross sensitive groundwater areas and the pipeline will lead to the expansion of tar sands development and increased greenhouse gas emissions. Early this year, the State Department is due to release its draft environmental review of the project on the latest TransCanada proposal. A decision is expected late spring or summer 2013. NRDC is urging the State Department to reject the Keystone XL tar sands pipeline.

- **OTHER PIPELINES**

There are proposals at varying stages to build new tar sands pipelines or to use existing oil pipelines to transport tar sands oil in Vermont, Maine, New Hampshire, Michigan, Illinois, Missouri, Kansas, Oklahoma and Texas.

FRACKING

Oil and gas production are expanding across the nation, largely because advanced hydraulic fracturing (also known as “fracking”) has made it easier to extract oil and gas from previously inaccessible sites. Fracking involves injecting water and chemicals deep into the earth at extremely high pressure to break up layers of rock that harbor deposits of natural gas and/or oil. Hundreds of thousands of new oil and gas wells have been drilled in the past decade, and oil and gas development is now occurring in about thirty states. While fracking has increased domestic fuel supplies and has made it easier for natural gas to displace dirtier coal in electricity generation, fracking has also raised concerns about contaminated drinking water supplies, increased air pollution, toxic waste disposal, impairment of rivers and streams, and destruction of landscapes and wildlife habitat. NRDC opposes expanded fracking until effective safeguards are in place.



I. PRIMARY STATUTES EXEMPTIONS

Federal safeguards for oil and gas production are missing. Many of the fundamental environmental statutes have exemptions for oil and gas production, leaving aspects of those activities largely ungoverned at the federal level.

■ SAFE DRINKING WATER ACT

Fracking is exempted from the Safe Drinking Water Act pollution control measures unless diesel is used in the fracking process.

■ CLEAN WATER ACT

Oil and gas operations are exempt from important permitting and pollution control requirements of the Clean Water Act, including the stormwater runoff permit requirement. In addition, there is a loophole that allows certain wastewater produced by oil and gas wells to be discharged into surface waters in the western United States.

■ CLEAN AIR ACT

The oil and gas industry is exempt from critical requirements to assess, monitor, and control hazardous air pollutants.

■ RESOURCE CONSERVATION AND RECOVERY ACT

Oil and gas waste is exempt from the testing, treatment and disposal provisions that govern the assessment control and clean-up of hazardous waste under this law, and, by extension, from the Comprehensive Environmental Response, Compensation and Liability Act (aka “Superfund”), which adopts the same definition of hazardous waste.

■ NATIONAL ENVIRONMENTAL POLICY ACT

When oil and gas companies lease federal lands, they are exempted from some requirements for environmental impact reviews.

GOVERNANCE

■ CLEAN AIR ACT

EPA does have authority to limit emissions of some pollutants released during the fracking process and issued new rules in 2012 to limit emissions of some air pollutants from fracking.

■ MINERAL POLICY ACT AND FEDERAL LAND POLICY AND MANAGEMENT ACT

Leasing of federal lands for oil and gas production is controlled by these statutes, which govern all uses of federal lands.



II. MAJOR CONCERNS

- Fracking is being regulated largely at the state level, and states vary widely in their ability and commitment to governing the practice. Moreover, state law sometimes prevents localities from banning fracking in a specific area. NRDC believes there needs to be strong federal governance of fracking to protect drinking water, air quality and human health.
- Companies are not required by any federal law to identify the chemicals they are injecting into the ground as part of fracking, and state disclosure requirements vary widely.
- Fracking releases methane, a gas that contributes to climate change, into the atmosphere. Companies could be required to capture such “fugitive methane,” since they can then sell it. Scientists have not yet concluded exactly how much is escaping from fracked wells.
- Water pollution is a threat from fracking, poor well construction, leaks and spills, and runoff. Drilling and fracking produce large amounts of toxic wastes (including wastewater that is returned and collected back at the surface) that need to be transported and disposed of.
- Oil and gas development destroys wildlife habitat and sensitive lands.
- Oil and gas development and related industrial activities add to local, regional and global air pollution problems from drilling, fracking, processing, trucking and other activities.
- In many states, oil and gas rights take precedence over surface ownership, so oil and gas wells and the associated industrial activity—including chemicals and waste—can be located in residential or agricultural areas regardless of zoning.

III. UPCOMING ISSUES

- Legislation is needed to close these loopholes and may be introduced in the new Congress.
- EPA is expected to issue standards to govern the discharge of oil and gas wastewater under the Clean Water Act.
- EPA will be issuing guidance for states on how to issue permits for fracking when diesel is used in fracking fluid.
- Last year, the Bureau of Land Management (BLM) proposed rules for issuing permits for fracking on public land. It is receiving comments and is expected to issue final rules this spring.
- EPA is conducting a comprehensive scientific study into the risks of fracking on drinking water. While the final report is scheduled for 2014, EPA may issue interim reports before then. EPA was directed by Congress to conduct this study because of the lack of research into the risks to drinking water posed by fracking. This will be the first independent study of its kind.
- EPA intends to initiate a stakeholder process to provide input on the design and scope of possible reporting of fracking chemicals under the Toxic Substances Control Act (TSCA).

PUBLIC OPINION

- A December, 2012 Bloomberg National Poll found that 66 percent of Americans want more government oversight over fracking, an increase from 56 percent in a September poll.

BIOFUELS

The transportation sector accounts for 71 percent of U.S. oil use and is 93 percent dependent on petroleum. This creates overdependence on a single volatile energy source as well as pollution—for example, the transportation sector is responsible for about one-third of U.S. carbon emissions. Emerging forms of biofuel could become low-pollution, domestic sources of transportation energy. But to deliver those benefits, they must avoid competing with food-producing land or degrading the environment or they will cause more harm than good.

I. PRIMARY STATUTES AND EXECUTIVE ORDERS

■ RENEWABLE FUEL STANDARD

Enacted in 2005 as part of the Energy Policy Act, the Renewable Fuel Standard (RFS) is the nation's primary renewable fuel policy. It requires conventional fuel refiners to meet annual targets for renewable fuels. The RFS was amended in 2007 to require 36 billion gallons of biofuel to be used throughout the nation's transportation fuel supply by 2022. The RFS sets different volume requirements for different classes of biofuel: conventional, advanced, and cellulosic. Each type of biofuel must also achieve specific greenhouse gas reductions relative to conventional fuels. Conventional ethanol (such as corn ethanol) from new facilities must be 20 percent better than conventional petroleum fuel on a greenhouse gas basis, although much ethanol was grandfathered from meeting this requirement. Advanced biofuel must achieve a 50 percent reduction relative to petroleum while cellulosic biofuel must achieve a 60 percent greenhouse gas reduction. Finally, the program contains critical land protections that are intended to prevent sensitive habitats from being converted to feedstock production.

■ THE CELLULOSIC BIOFUEL PRODUCER TAX CREDIT

Created in 2009, the Cellulosic Biofuel Producer Tax Credit provides producers with a \$1.01 tax credit per gallon of cellulosic biofuel. The statute defines "cellulosic biofuel" as a liquid fuel that is produced from specific types of cellulose like those from grasses, woods and crop residues. In early 2013, the credit was amended to include algal fuels as well. This incentive encourages investment in potentially low carbon alternatives to oil. The tax credit's value is determined by a company's production volume.

■ RESEARCH AND DEVELOPMENT

The Department of Energy funds research into the development of sustainable biofuels.

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II. POSITIVE EFFECTS OF EXISTING LAW

Together, this legislative framework has driven significant interest in alternative fuels.

- Despite the deep global recession, there are now cellulosic biofuel facilities and projects under development in over 20 states, representing billions in investment.
- A recent report by Environmental Entrepreneurs predicts that the market will achieve between 1.6 billion and 2.6 billion gallons of advanced biofuels by 2015.
- The RFS is widely credited within the biofuel industry as being the primary driver of these investments, which lower global warming pollution, create jobs and improve the trade balance by bringing to market domestic alternatives to oil.

III. MAJOR CONCERNS

■ RISKS OF POORLY SOURCED BIOFUEL

Feedstocks such as invasive species or those grown in sensitive habitats will have unacceptable ecological and climate impacts.

■ IMPACTS OF CONVENTIONAL ETHANOL

There has been a significant shift in farm acres to continuous corn production with impacts on habitat, water quality and soil erosion. Diverting grains or food producing lands from food markets to fuel production could also raise food and feed prices in the United States and elsewhere.

IV. UPCOMING ISSUES

■ LEGISLATIVE THREATS

There is mounting pressure to repeal the Renewable Fuel Standard or to weaken its environmental requirements. NRDC opposes these changes, which would slow the development and use of biofuels and introduce substantial environmental risk. However, the specifics of the RFS should be reviewed periodically as advanced and cellulosic biofuels develop and as the extent of detrimental impacts of conventional corn ethanol become increasingly understood.

■ THE NATIONAL DEFENSE AUTHORIZATION ACT

The Defense Department is one of the nation's largest fuel users. The Pentagon has been trying to encourage the development of biofuels so that the military can have more options for fueling its operations. In the last Congress, the Senate defeated efforts to block the military from purchasing biofuels or helping to fund biorefineries. The issue could arise again in this Congress.

■ TAX REFORM

The Cellulosic Biofuel Producer Tax Credit could be reconsidered as part of an overall tax reform effort. NRDC believes that, ideally, this incentive would be amended so that it calibrates incentive payments to environmental performance. If that is not possible, however, it should continue.

RENEWABLE ENERGY ON THE NATION'S PUBLIC LANDS



In the last four years, America has seen a dramatic increase in the adoption of renewable energy from such sources as wind, solar, and geothermal. Some of the richest renewable resources are found on the nation's federal lands. With that in mind, the Interior Department (DOI) has committed to new initiatives and policies to develop these abundant resources. Since 2009, DOI has been able to permit 34 new renewable energy projects. DOI also has committed to new programs and protocols to govern the permitting of these projects. Most notably, in 2012, the agency formalized a Solar Energy Zone Program that will facilitate deployment in 17 discrete energy zones on approximately 280,000 acres—a process that will greatly help address the environmental challenges associated with such large scale development.

I. PRIMARY STATUTES

■ ENERGY POLICY ACT OF 2005

Section 211 of the Act required the federal government to permit 10,000 megawatts of non-hydro renewable energy by 2015. At the end of 2012, DOI had exceeded that target.

■ THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976

Guides how energy is permitted on Bureau of Land Management (BLM) lands.

■ ENDANGERED SPECIES ACT

II. MAJOR POSITIVE EFFECTS

- Since 2009, DOI has permitted 34 renewable energy projects that have the potential to power over three million homes while creating an additional 13,000 construction jobs.
- The Southwest U.S. has the richest solar resources in the world. By tapping into this key resource via BLM's Solar Energy Zone Program, the nation stands to greatly benefit from the production of carbon- and pollution-free energy. The program makes clear which areas of federal lands are the most and least appropriate for siting solar projects.
- In addition, the same holds true for wind and geothermal resources, and the federal government is working to develop permitting programs that will tap fully into these abundant and clean resources.

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III. MAJOR CONCERNS

- Renewable energy development on public land always has the potential to disturb or destroy wildlife. A number of endangered and threatened species are particularly vulnerable to such development, including the desert tortoise (from solar), golden eagles, sage-grouse, whooping cranes, and bats (from wind).
- Poorly sited projects, along with the affiliated electrical transmission that accompanies them, has the potential to harm sensitive lands. “Smart from the Start” siting is essential to address these concerns and to point developers toward appropriate places for these types of projects. Renewable development can progress without touching areas that are inappropriate for such activity.

IV. UPCOMING ISSUES

- Additional authority is needed to provide a share of the royalties collected from renewable electrical generation with the localities that are hosting these projects. This can even be the playing field between renewable energy and other uses of the land that currently provide royalties, and takes account of the burdens development can impose on localities. Bipartisan legislation in the 112th Congress was introduced to remedy this situation and would allow for such a revenue sharing arrangement—an arrangement that already exists for other federal energy processes such as oil and gas drilling.
- Given the scale of these projects, even the best-sited projects displace wildlife. Legislation is needed to clarify that federal land management agencies can and should use a small percentage of the gross receipts collected from these projects to limit impacts on wildlife. Bipartisan legislation introduced in the 112th Congress would have accomplished this.

WILDLIFE

Our country has been blessed with a rich array of plant and animal life. This biodiversity underpins our economy both indirectly and directly, through expenditures on recreational activities. But in the early 1970's, the future was not looking so bright for many of these species. The bald eagle—our nation's symbol—was on the verge of disappearing, several whale species were perilously close to extinction, and only a few hundred grizzly bears could still be found in the contiguous states. Since then, the enactment and implementation of the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) have saved hundreds of our nation's species. But many species are still threatened or endangered and broad problems including climate change and habitat destruction are worsening the situation.



I. PRIMARY STATUTES

■ ENDANGERED SPECIES ACT

First passed in 1973, last significantly amended in 1969. Administered by the Department of Interior's Fish and Wildlife Service (FWS) for terrestrial and freshwater species and the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Services (NMFS, pron. "nymphs") for marine species. The ESA prohibits the "taking" (i.e., destruction or harming) of threatened and endangered species and provides measurements for the recovery of such species, including habitat conservation.

■ MARINE MAMMAL PROTECTION ACT

First passed in 1972. Administered by NOAA. The MMPA prohibits, with certain exceptions, the "taking" of marine mammals in U.S. waters and by U.S. citizens on the high seas, and the importation of marine mammals and marine mammal products into the U.S.

II. MAJOR POSITIVE EFFECTS

- The ESA has proved instrumental in saving hundreds of species from extinction, including the grizzly bear, the gray wolf and the whooping crane.
- Only 10 out of nearly 2,000 imperiled plants and animals protected under the Act have gone extinct since its enactment—a success rate of more than 99%.
- 90% of species currently listed under the ESA that have been evaluated are recovering at the rate specified by their federal recovery plan.
- The MMPA has proved instrumental in helping marine mammal populations throughout the U.S. recover after centuries of whaling.
- Marine mammal bycatch from U.S. fishing activities has declined sharply through the successful implementation of "take reduction plans," saving hundreds of thousands of marine mammals.

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III. MAJOR CONCERNS

■ HABITAT LOSS

The primary threat to imperiled species is habitat loss. Over-exploitation of wildlife populations, the introduction of non-native species (including disease), and environmental pollution also pose threats to our wildlife heritage.

■ OCEAN NOISE

For offshore exploration, the oil and gas industry typically relies on arrays of airguns, which are towed behind ships and release intense impulses of compressed air into the water. These sounds have been shown to disrupt essential behavior in endangered whales and cause catch rates of some commercial fish to plummet. To mitigate these impacts, NRDC recommends that airguns be kept out of sensitive areas and that greener alternatives be promoted, some of which could be made commercially available within a few years.

■ NAVY SONAR

For Navy training and testing activities in Hawaii, Southern California, and along the East Coast, including the Gulf of Mexico, the Navy estimates over 33 million instances of harm to whales and dolphins over a five-year period starting in January 2014. To lessen these impacts, NRDC recommends that Navy training and testing activities be kept out of areas with high marine mammal densities.

IV. UPCOMING ISSUES

■ ENDANGERED SPECIES ACT

Last Congress saw an unprecedented number of attacks on the ESA in the House, including attempts to exempt certain species from the Act's protections and to modify the Act to make it less protective.

■ ADEQUATE FUNDING FOR ESA IMPLEMENTATION

Due to funding shortfalls, FWS and NMFS have been unable to list some species as endangered and threatened even though they clearly meet the criteria. These "candidate species" must wait for protection, often for years, while becoming increasingly threatened with extinction.

■ SEISMIC TESTING ON THE EAST COAST

The Administration has announced that it will open up the Atlantic to oil and gas exploration, meaning future seismic testing in this area that will harm both whales and fisheries.

■ NAVY SONAR


The Navy has announced plans to increase training and testing activities and has acknowledged that advances in science show greater harm to whales and dolphins than previously expected. Nonetheless, the Navy is moving ahead and plans few, if any, mitigation measures. The Navy estimates it will harm marine mammals over 33 million times in the next five years.

PUBLIC OPINION

In a 2011 poll conducted by Harris Interactive:

- 90% of respondents agreed that the ESA has helped hundreds of species recover from the brink of extinction.
- 92% of respondents agreed that decisions about wildlife management and which animals need protection should be made by scientists, not politicians.
- 87% of respondents agreed that the ESA is a successful safety net for protecting wildlife, plants, and fish from extinction.

CONSERVING AMERICA'S NATURAL TREASURES



The U.S. has set aside lands for protection at least since the creation of Yellowstone National Park in 1872. With the establishment of the National Park System and the National Wilderness Preservation System, some of America's most precious landscapes enjoy an incomparable level of permanent protection. In addition, millions of additional acres are also conserved through a number of administrative processes overseen primarily by the U.S. Forest Service, the Bureau of Land Management, and the National Wildlife Refuge System. But many worthy and sensitive wildlands remain unprotected.

I. PRIMARY STATUTES

A number of statutes lay out the procedures for setting aside lands and for governing activities on federal lands, including those that are open to multiple uses:

- Forest Service Organic Administration Act of 1897
- The National Park Service Act of 1916
- The Wilderness Preservation Act of 1964
- The Land and Water Conservation Act of 1965
- National Wildlife Refuge System Administration Act of 1966 and the National Wildlife Refuge System Improvement Act of 1997
- Federal Land Policy and Management Act of 1976
- The National Forest Management Act of 1976

II. BENEFITS & MAJOR CONCERNS

- Our nation's public lands are home to countless wildlife species and provide recreation for enthusiasts from all over the world. A recently released study by the Outdoor Industry Association noted that outdoor recreation supported 6.1 million jobs and generated \$646 billion in sales and services in 2011.
- Despite millions of acres of protected lands, many of the most important public lands in the nation remain under threat due to emerging issues associated with unchecked energy development, climate change, mining, and logging. To compound matters, the 112th Congress was the first Congress since 1966 to not designate any acres for protection under the Wilderness Act even though a number of proposed wilderness packages enjoyed broad bipartisan support.

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III. UPCOMING ISSUES

NRDC supports protection of sensitive and iconic landscapes. The following are a few of the special places where additional protections are needed:

■ THE BRISTOL BAY REGION OF ALASKA

The waters of Bristol Bay in southwestern Alaska provide ideal conditions for the world's largest sockeye salmon run, along with Alaska's largest Chinook salmon run. These salmon runs are the linchpin of this wilderness, supporting a \$480-million annual commercial fishery that employs 14,000 full and part-time workers. The salmon also sustain native communities that have relied on subsistence fishing for thousands of years and are food for a vast array of wildlife including bears, eagles, seals, and whales. The Obama administration recognized the area's importance when it barred offshore oil and gas exploration and development activities in Bristol Bay, committing to "protecting ocean areas that are simply too special to drill, such as Alaska's Bristol Bay." But foreign mining companies want to build a colossal gold and copper mine at the headwaters of Bristol Bay's famed salmon runs. Over its life, the Pebble Mine would produce an estimated 10 billion tons of contaminated waste—3,000 pounds for every man, woman and child on Earth. Immense earthen dams, some taller than the Three Gorges Dam in China, would be constructed to attempt to hold back that waste forever—in an active earthquake zone. A giant pit two miles wide by 2,000 feet deep and an underground mine a mile deep would be gouged from the earth. It's no wonder the Pebble Mine is opposed by eighty percent of Bristol Bay residents.

Last May, the U.S. Environmental Protection Agency (EPA) released in draft form an extensive scientific assessment of the Bristol Bay watershed, undertaken to determine the potential impacts of large-scale mining on salmon and other fish populations, wildlife, development, and Alaska Native communities in the region. The draft Watershed Assessment concludes that Pebble Mine would have "significant impacts" on fish populations and streams surrounding the mine site. EPA is now deciding whether to use its authority under the Clean Water Act to rule out industrial development of this area before there is further investment by the Pebble Mine companies.

■ UTAH'S RED ROCK WILDERNESS

Utah's Red Rock region is an exceptional ecological, archeological and recreational treasure defined by its unique geological features including natural stone arches and vast canyonlands. The region is also a recreational magnet for millions of Americans who travel there for its world class mountain biking, rock climbing, hiking, bird watching, and river rafting. Despite the fact that millions of acres of the Red Rock qualify for wilderness designation under the Wilderness Act, the region's wild character is jeopardized by a host of issues that are unresolved due to the lack of legislative protection. Oil and gas drilling has boomed in the region, and such operations are encroaching into wild areas that are inappropriate for development. Air quality in the region experiences some of the nation's worst wintertime ozone levels—rivaling cities like Los Angeles and Houston, primarily attributable to oil and gas operations.

A bill to protect the area, America's Red Rock Wilderness Act, has been introduced in the House of Representatives in every Congress since 1989. The bill would protect the most valuable wilderness lands in the region, and has had as many as 170 cosponsors in the House and 23 in the Senate. It is expected that a version of the Red Rock Wilderness Act will be introduced this year as well.

■ ALASKA'S TONGASS NATIONAL FOREST

The Tongass National Forest in southeast Alaska lies at the heart of the world's largest remaining temperate rainforest, home to towering groves of ancient trees and vibrant populations of eagles, grizzlies, wolves and salmon. But the history of the Tongass is a checkered one. Until recently, indiscriminate logging operations in the Tongass scarred the landscape. In addition, the logging was heavily subsidized by the Forest Service, costing the U.S. taxpayer a billion dollars since 1982. Finally, much of that unsustainable logging was suspended under the Forest Service Roadless Rule on the Tongass, adding protections to nine million acres of its unroaded wildlands.

Today, America's Rainforest is on the doorstep of an economically and environmentally sustainable future. The Forest Service has announced an intended transition out of its remaining old growth logging program there. That would take the major, long-standing conflict over Tongass timber sales off the table, and set the region on a path to a more stable and diversified economy. To facilitate that, the Obama administration needs help reprogramming federal investment in the region into new business activity that is compatible with conserving the ancient groves.

AMERICA'S ARCTIC



The U.S. Arctic is our country's most remote, pristine, and threatened region. It includes three enormous federal domains: the Alaska National Wildlife Refuge, the National Petroleum Reserve–Alaska, and the Arctic Ocean. In the state's northeast corner, the 19-million acre Refuge runs from the rugged Brooks Range down to the Coastal Plain. First set aside under President Dwight Eisenhower, it provides vital calving ground for caribou. To the west, the 23.5-million acre Petroleum Reserve has a dual mandate that includes protection of fish and wildlife. On state lands between these two preserves stands the highly developed "oil patch" of Prudhoe Bay. Offshore lie the Chukchi and Beaufort Seas, among the world's most biologically productive marine environments.

I. PRIMARY STATUTES

■ STATEHOOD

The 1958 Alaska Statehood Act made Alaska the 49th state, giving it the right to acquire 104 million acres of federal land, and granting it a perpetual right to 90% of the royalties from most oil, gas, and other mineral leases on federal lands within its borders. Receipts from these provisions help assure that Alaska residents receive an annual dividend of up to \$2,000 a piece, rather than paying state income tax.

■ NATIVE CLAIMS

The Alaska Native Claims Settlement Act (ANCSA) of 1971 settled aboriginal claims on Alaskan territory, by creating Native corporations, almost all of them for-profits, with the right to select a total of 44 million acres of federal lands, and paying them \$962 million. ANCSA included a "D-2" provision authorizing the Interior Secretary to designate up to 80 million acres for interim protection and possible recommendation to Congress for permanent preserve status.

■ NATIONAL LANDS CONSERVATION

Enacted in 1980, the Alaska National Lands Conservation Act (ANILCA) fulfilled the D-2 promise of ANCSA by creating 104 million acres of parks and preserves, including a major expansion of the Arctic National Wildlife Refuge. ANILCA formally designated most of the Refuge as wilderness. Sec. 1002, however, called for study of the 1.5 million acre coastal plain, a presidential recommendation on wilderness, and interim management to preserve wilderness values, pending congressional action.

■ OFFSHORE DRILLING

The Outer Continental Shelf Lands Act (OCSLA), repeatedly amended since its 1953 enactment, establishing federal title to lands three miles or more offshore (out to at least 200 miles), authorizing competitive bidding for drilling rights, setting procedures and protections for drilling, mandating that the Department of Interior (DOI) issue plans every five years laying out where drilling may occur, and creating an Oil Spill Response Fund.

■ PETROLEUM RESERVE

The Naval Petroleum Reserves Production Act (NPRPA) of 1976 gave the Department of Interior management of what was thenceforth called the National Petroleum Reserve–Alaska. While it authorized drilling, the Act requires “maximum protection” of areas identified as having “any significant subsistence, recreational, fish and wildlife, or historical or scenic value.” Management plans issued at five year intervals designate such areas.

II. MAJOR POSITIVE EFFECTS

■ WILDLIFE CONSERVATION

The nearly pristine state of America’s Arctic has been extremely positive for its globally renowned animal and bird life. The Chukchi Sea has 10% of the world’s polar bears. The Western Arctic caribou herd may be the largest in existence. Offshore are beluga, gray, bowhead, and other whales, along with ice seals, walruses, and deep-diving seabirds. Grizzlies roam the tundra, warily eyed by musk oxen, wolves and Arctic foxes. Peregrines and gyrfalcons nest in the cliffs and snowy owls in the grasslands. Millions of birds from around the world migrate in and congregate on its waters and coast.

■ PROTECTION OF NATIVE SUBSISTENCE

Native Alaska peoples in the Arctic depend for subsistence and culture on hunting caribou and bears, fishing, and taking marine mammals at sea. Although some Native Alaskans, particularly those responsible for ANCSA corporations, favor development, the only way to ensure these essential resources stay available is to preserve the animals’ marine and terrestrial habitat.

■ PRESERVATION OF WILDLAND VALUES

The Arctic has wild panoramas on a scale now unknown in the Lower 48. By itself, the Reserve in the western Arctic is the largest single reach of federal lands in the country.

III. MAJOR CONCERNS

■ OIL DEVELOPMENT

In 2012, the Interior Department granted Shell Oil permits to begin exploratory drilling in the Chukchi and Beaufort Seas. Shell’s approvals were based on assumptions about its ability to contain any spill. But the company experienced numerous preparation and operational problems, including inability to get emergency vessels certified, loss of control over vessels, failure to meet air pollution standards, storm-related delays evacuating men and disconnecting drill rigs, the spectacular crushing “like a beer can” of an oil containment dome during calm water testing, and the uncontrolled grounding of a drill rig in transit. In January, 2013, DOI announced a 60-day

investigation to inform whether Shell is given permission to resume drilling this summer. The announced review stops shy of the critical question whether any amount of preparation and regulation can ensure against a catastrophic spill, impossible to clean up in the remote, unforgiving Arctic Ocean, beset by storms and unpredictable ice flows, and covered by the polar ice cap most of the year.

■ CLIMATE CHANGE

The Arctic is experiencing global warming much more rapidly than the rest of the country, as predicted by climate change models. Its median temperature rise is double what the Lower 48 has seen. Pack ice vital to polar bears, walruses, and other wildlife is breaking up; indeed the summer polar ice cap has shrunk 40% since 1970. The frozen tundra, the very ground that supports terrestrial life, is melting away. Adding to these stresses, the retreat of snow and ice is encouraging commercial development and infrastructure construction that harms wildlife and spoils wildlands.

IV. UPCOMING ISSUES

■ RENEWED OFFSHORE DRILLING

The Obama Administration must decide whether to issue authorizations for Shell to drill in 2013, or instead—in light of Shell’s disastrous 2012 experience and revelations about its limited spill response capabilities—re-examine the fundamental assumption that such drilling can safely and responsibly be carried out under Arctic Ocean conditions. Waiting in the wings are other oil giants.

■ ADOPTION OF NPR-A PLAN

Interior Secretary Salazar has issued a 5-year plan for the Reserve that leaves much of its oil and gas available, but puts many areas of special natural value off limits to drillers. Pressure from oil industry allies threatens this good first step toward securing the Reserve’s future.

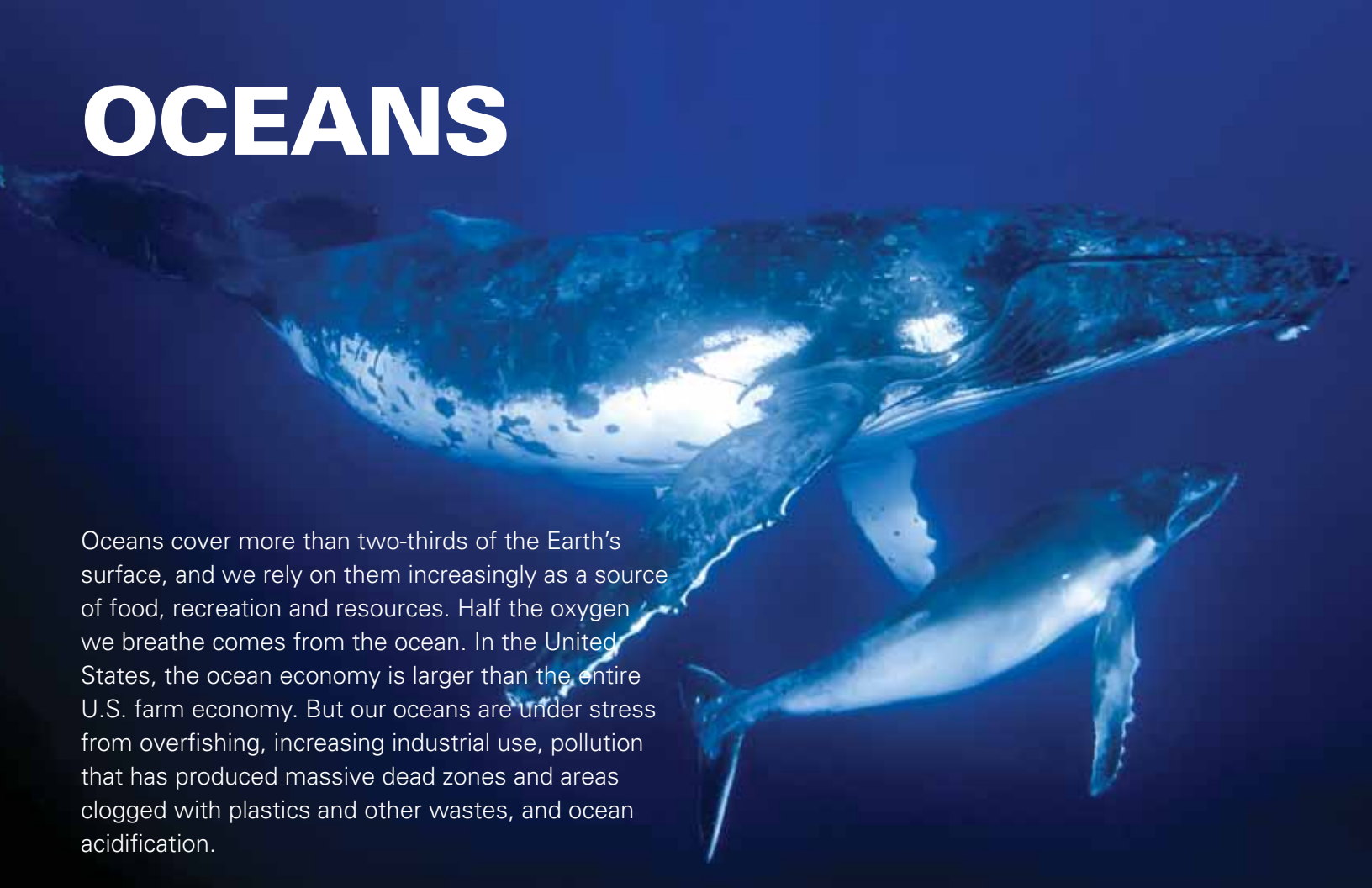
■ DRILLING IN ARCTIC PLAIN

There are periodic efforts in Congress to open up the Arctic Plain portion of the Refuge—the so-called 1002 area—to oil and gas drilling. An effort to do so is expected again this year, at least in the House of Representatives.

PUBLIC OPINION

The public broadly favors preservation of the Arctic’s enormous natural values. A 2012 poll showed 82% in strong or moderate agreement that the Arctic National Wildlife Refuge should receive stronger protection so that the area can be enjoyed by future generations. In previous years, not drilling in the Refuge has repeatedly polled nearly 2-1 over drilling there.

OCEANS



Oceans cover more than two-thirds of the Earth's surface, and we rely on them increasingly as a source of food, recreation and resources. Half the oxygen we breathe comes from the ocean. In the United States, the ocean economy is larger than the entire U.S. farm economy. But our oceans are under stress from overfishing, increasing industrial use, pollution that has produced massive dead zones and areas clogged with plastics and other wastes, and ocean acidification.

I. PRIMARY STATUTES AND EXECUTIVE ORDERS

■ **MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT (MSA)**

Originally enacted as the Fishery Conservation and Management Act of 1976. Most recently reauthorized in 2006. The law sets the ground rules for management of U.S. fisheries in federal waters.

■ **NATIONAL OCEAN POLICY (NOP)**

Established by President Obama via Executive Order 13547 in 2010, the NOP increases coordination among federal agencies in overseeing ocean activities and improves stewardship of ocean resources, something called for by two national commissions (the U.S. Commission on Ocean Policy and the Pew Oceans Commission).

■ **FEDERAL OCEAN ACIDIFICATION RESEARCH AND MONITORING ACT**

Enacted in 2009, the FOARAM Act established a national research and monitoring program on ocean acidification at the National Oceanic and Atmospheric Administration (NOAA), which was funded at \$6.2 million in FY 12.

II. MAJOR POSITIVE EFFECTS OF EXISTING LAW

■ **REBUILT FISH STOCKS**

Implementation of the MSA has restored many commercially and recreationally important fish populations in U.S. waters, including summer flounder and bluefish in the Mid-Atlantic, haddock and sea scallops in New England, and lingcod and widow rockfish in the Pacific. This progress is a result of the MSA's requirement that fishery managers rebuild depleted fish stocks in as short a time as possible (not to exceed 10 years, with certain exceptions). According to the National Marine Fisheries Service, 31 fish stocks have been rebuilt since adoption of this statutory requirement in 1996. Related critical aspects of the MSA are its requirement that catch limits be science-based to prevent overfishing and its enforcement provisions to ensure that catch limits are not exceeded.

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- **THE WHITE HOUSE HAS ESTABLISHED A NATIONAL OCEAN COUNCIL, MADE UP OF THE RELEVANT FEDERAL AGENCIES, TO OVERSEE THE NOP**

The Council is due to release a final implementation plan for addressing priority ocean issues in early 2013. A regional partnership between the federal government, coastal states and tribes has been established in the Northeast to plan for ocean uses; other regional partnerships are likely to follow, for example in the Mid-Atlantic.

- **THE MONITORING OF OCEAN ACIDIFICATION**

Research under FOARAM is already providing crucial data to West Coast oyster growers and the research is generating useful information on the vulnerability of commercially and recreationally important shell-forming organisms to ocean acidification.

III. MAJOR CONCERNS

- **DEPLETED FISHERIES**

The U.S. continues to have fisheries subject to overfishing and that are overfished, particularly in New England, the South Atlantic, and the Gulf of Mexico. To address this problem, NRDC advocates not backtracking on progress made so far in rebuilding depleted fish populations and preventing destructive practices such as overfishing by ensuring that catch limits (*i.e.*, annual fishing quotas) are set, based on the best available science, to ensure that overfishing does not occur. The National Marine Fisheries Service (NMFS) (2011) has estimated that rebuilding all U.S. fish stocks will ultimately increase commercial fishermen's dockside revenues by \$2.2 billion a year.

- **INCREASING UTILIZATION OF OCEAN RESOURCES**

More and more of our ocean space is being utilized for industrial purposes, including energy, shipping, fishing, aquaculture and mining. Human activities already heavily affect more than 40 percent of the world's ocean. Indeed, only a little more than three percent of the oceans are only lightly impacted by human activity, much of this area under sea ice in the poles. There is a need to ensure that the cumulative impact of these activities does not degrade ocean ecosystems on which we depend for food, recreation and jobs and that the impact of these uses on one another is carefully considered in order to minimize conflicts. A more coordinated, integrated approach to ocean management is needed to accomplish these goals.

- **OCEAN ACIDIFICATION**

The ocean absorbs about a third of the carbon dioxide emitted into the atmosphere, creating carbonic acid, which makes the ocean more acidic. Over the last 250 years, ocean acidity has increased by 30 percent. At current rates of carbon emissions, ocean acidity will more than double by 2100. A more acidic ocean can become corrosive to shelled creatures and could wipe out species, disrupting the food web and harming the fishing and tourism industries. Local 'hotspots,' including in Alaska and California, are already experiencing seasonal bouts of harmful, corrosive waters.

IV. UPCOMING ISSUES

- **MAGNUSON-STEVENS ACT REAUTHORIZATION**

The MSA is due to be reauthorized. Reauthorization is vital to maintain the Act's rebuilding requirements and its requirement that science-based annual catch limits be set in all federally managed ocean fisheries to ensure that overfishing does not occur.

- **NOP IMPLEMENTATION**

In 2012, the House voted to block funding for implementation of the NOP as part of the CJS appropriations bill and the House Appropriations Committee signaled concern in report language for certain other bills. The measures did not come up in the Senate. Impeding implementation of the NOP would be harmful to the health of our nation's oceans on which important economic uses like fishing, tourism and recreation depend.

- **FOARAM FUNDING**

Funding for research on acidification is too limited to fully understand or respond to this looming threat to fisheries and the oceans. Ideally, funding would increase to the levels authorized in FOARAM—\$20 million in FY 13 and again in FY 14.

- **OFFSHORE DRILLING**

In the 112th, the House voted to open both coasts of the U.S. to offshore oil and gas drilling without restriction, and to limit federal and public review of drilling projects. This legislation could be reintroduced. NRDC opposes the opening of additional ocean areas to drilling because of the risks and the need to move toward renewable energy.

ENVIRONMENTAL REVIEWS



Projects undertaken or funded by the federal government that could have significant environmental consequences receive analysis and public comment on their effects and possible alternative approaches. This fundamental protection—a process that ensures accountability for environmental impacts and informed participation by the public—was created by the National Environmental Policy Act (NEPA). Many states now also have their own versions of NEPA for state activities.

I. PRIMARY STATUTE

Considered our country's "environmental Magna Carta," NEPA was passed overwhelmingly by Congress in 1969 and signed into law by President Nixon. The law was prompted in part by concerns from communities that felt their views had been ignored in setting routes for the interstate highway system, on which work began in the 1950s. NEPA also established the White House Council on Environmental Quality (CEQ), which sets guidelines for the environmental review process throughout the government and advises the President. NEPA's primary provisions include:

■ PUBLIC ENVIRONMENTAL REVIEW

NEPA is designed to ensure that the public has informed access and input into federal agency decisions that could affect the human or natural environment. It mandates environmental impact statements (EISs) for major projects, which examine the before and after state of the environment. EISs are first released in draft form, allowing the public and other agencies and levels of government to comment on decisions they care about, provide outside scientific opinion, and ask for improvements. In final EISs, agencies have to respond to reasonable input and explain any rejection of outside expert views. Smaller projects are reviewed through a less extensive Environmental Assessment (EA) process.

■ CONSIDERATION OF ALTERNATIVES

At the heart of NEPA review is the opportunity for the public to get agencies to consider alternatives to project design. This heads off tunnel vision and allows the public to show how to save money and reduce impacts. It also gives members of the public a voice in project design, letting them request consideration of their alternatives. That promotes collaboration in planning and buy-in for final decisions.

■ STREAMLINING FOR SMALL PROJECTS

NEPA review scales with a project's impacts. Many need only an EA, and agencies can avoid preparing an EIS by designing mitigation measures into projects. Moreover, many projects do not need any review because they qualify for "categorical exclusions" the agencies create, exempting whole classes of low-impact projects from even an EA (for instance small-scale construction outside sensitive habitats).

■ EMERGENCY PROCEDURES

Agencies never have to do NEPA review before responding to emergency threats to human health or safety, or to valuable natural resources. Step-by-step CEQ guidance shows how to complete appropriate environmental review as expeditiously as possible without delaying emergency response.

■ OVERARCHING NATIONAL POLICY

NEPA establishes a national policy that the federal government, cooperatively with other governments and organizations, "use all practicable means ... to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Americans."

II. MAJOR POSITIVE EFFECTS

■ Much of NEPA's success lies in low-visibility improvements to countless projects conducted or funded by federal agencies (for some examples, see http://ceq.hss.doe.gov/nepa_information/ARRA_NEPA_Benefits_List_May122100.pdf). It also keeps really harmful projects off the drawing board altogether. NEPA review creates eyes-wide-open decisions, reducing later regrets. And because lower impacts often mean lower costs, NEPA promotes fiscal as well as environmental prudence.

■ NEPA informs and empowers citizens, encouraging more and better participation in agency decisions that affect them and their interests. It provides for early, formal cooperation with state, local, and other federal agencies, and Tribal governments. In addition to real collaborative results, it also creates accountability for federal managers. They know that NEPA makes their decision legally vulnerable if they try to sweep environmental issues or impacts under the rug, withhold background information, fail to develop green alternatives, or ignore outside science.

III. MAJOR CONCERNS

■ UNDERFUNDING OF CEQ

Staffing at CEQ is less than half what it once was, and its budget is only \$3 million. At that level, the office has little ability to oversee environmental conflict resolution among federal agencies, develop guidance to make environmental review more efficient and effective, and provide the reporting and analytic functions assigned to it by statute.

■ CAPACITY LOSS AT AGENCIES

Many federal agencies have suffered dramatic cuts to their in-house NEPA capacity. They have lost essential expertise, for example in analyzing and responding meaningfully to citizen input. And they suffer lengthy delays in completing review, for lack of trained staff. This slows down authorizations and funding for the private sector, and builds pressure to shortchange responsible consideration of public input and environmental consequences.

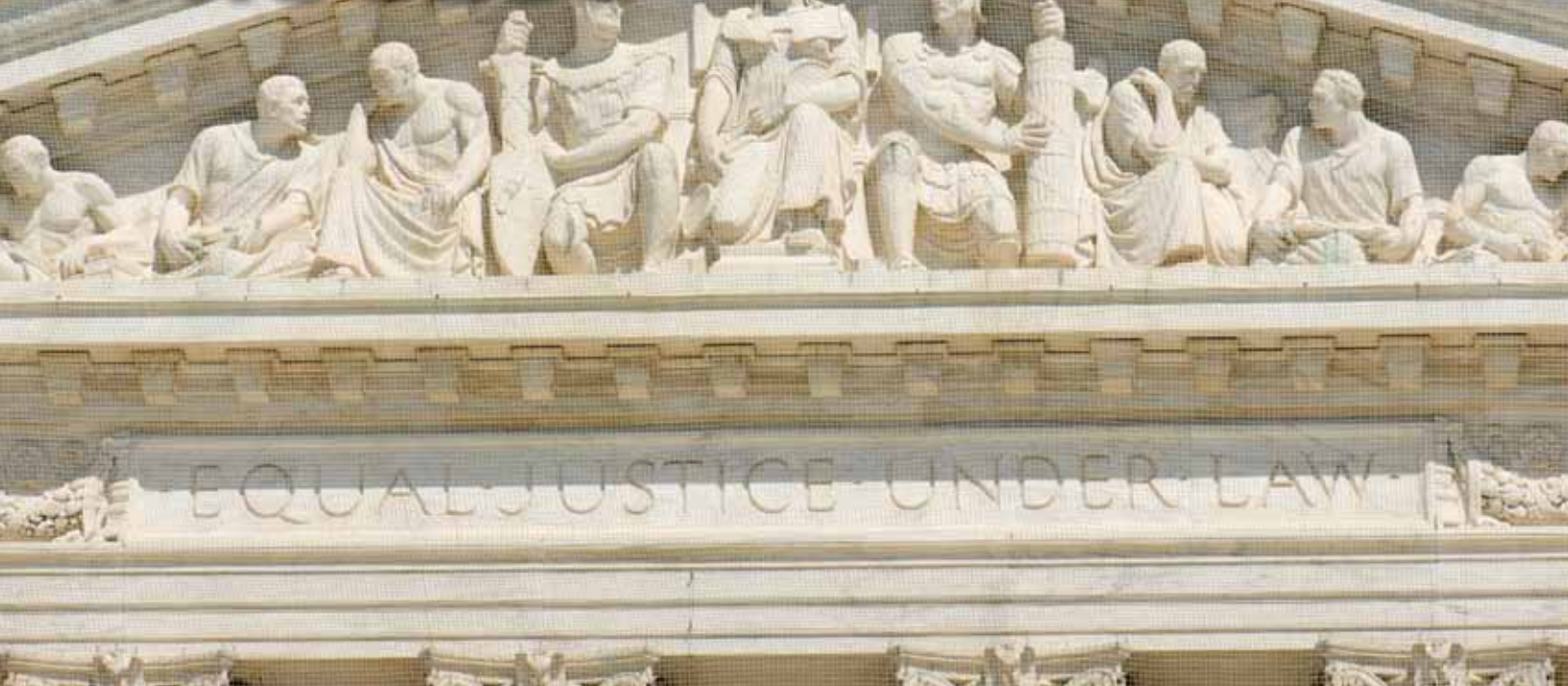
IV. UPCOMING ISSUES

The NEPA process is extremely well-established, and successfully followed in the large majority of cases. However, legislative efforts to waive or constrain it for specific projects or categories appear with increasing frequency.

Sponsors of such measures claim that:

- It is too costly and slow. But the long-term costs of ignoring environmental factors are much greater.
- Agencies have internalized environmental values and don't need NEPA anymore. But only NEPA keeps them from shortchanging the environment and public input, in the face of political and budgetary pressure.
- NEPA blocks emergency response. But existing rules used scores of times provide for immediate and large-scale response to true emergencies like Katrina.
- Their projects are already green. But even green projects can have much greener alternatives, and many turn out to be less than green in the bright light of conscientious public review.

THE REGULATORY PROCESS



Regulations are the fundamental tool the federal government uses to safeguard the American public. Federal agencies have issued regulations, for example, that cut air pollution, protect drinking water, prevent disease outbreaks from contaminated food, and keep kids' toys safe. Agencies can issue regulation only to the extent allowed (or, in some cases, required) by Congress in statute, and regulations can often be challenged in court. In the 112th Congress, a number of bills were introduced to change the regulatory system in fundamental ways that would have made it more difficult or impossible to protect the public. Studies have repeatedly concluded that the benefits of federal safeguards—in lives saved, sick days avoided, etc.—far exceed the costs.

I. PRIMARY STATUTES AND AUTHORITIES

■ ADMINISTRATIVE PROCEDURE ACT

This 1946 statute sets out the fundamentals of the regulatory process for all agencies under all regulatory statutes, including the basics of proposing a rule, getting public comments on it, then promulgating a final rule that, at that point, may be open to court challenges.

■ CONGRESSIONAL REVIEW ACT

Congress inherently has the authority to alter or overturn any regulation. This 1996 statute sets up expedited procedures for Congress to repeal major rules within a limited period after the rule has been made final.

■ EXECUTIVE ORDER (EO) 12866: REGULATORY PLANNING AND REVIEW

This EO, initially issued under President Bill Clinton, and renewed and revised by each of his successors, requires agencies to undertake cost-benefit analysis and risk assessment when proposing rules. It also makes the White House Office of Information and Regulatory Affairs (OIRA—part of the Office of Management and Budget) the gatekeeper for the promulgation of all significant rulemakings.

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II. MAJOR POSITIVE EFFECTS OF EXISTING LAW

- Under existing law, we have a relatively open regulatory system, with many opportunities for review, under which agency experts can act within the parameters set by Congress and the courts. Those regulations have resulted in a cleaner environment, safer workplaces, a more reliable food supply, and a more stable economy, among other benefits. From banning smoking on airplanes to requiring health standards for imported food, these standards protect the public, increase our quality of life and help protect responsible companies from unfair competition from those that cut corners.
- The Bush White House estimated that Environmental Protection Agency (EPA) regulations promulgated between 1997 and 2007 cost between \$32 billion and \$35 billion. But their report found that the health benefits of those regulations were between \$83 billion and \$592 billion, a rate of return of 2.5-to-1 to 16-to-1. In the first three years of the Obama Administration, net benefits of EPA regulations have been estimated to exceed costs by \$91 billion.

PUBLIC OPINION

The public may question the need for regulations in the abstract, but are very supportive of regulations when asked about specific safeguards. For instance, rules that protect public health, such as air and water standards have overwhelming support. For example, an American Lung Association poll found 72% agreeing with the statement that it is possible to protect our air quality and public health and have a strong economy with good jobs at the same time, while only 21% believed that environmental regulations will increase costs, hurt our economic recovery and destroy jobs.

III. MAJOR CONCERNS

- Decades of efforts to prevent “regulatory overkill” have left the regulatory process with so many requirements that it can take years, even decades, to issue a new safeguard. These include requirements for additional analyses to predict a rule’s impacts on states and local communities, and on small businesses, on why a market failure requires the particular rule and on whether the proposal is the least costly alternative.

IV. UPCOMING ISSUES

Several bills from the last Congress that would have seriously weakened the regulatory system could be reintroduced:

- In 2012, the House passed a bill that would have fundamentally altered the regulatory system by requiring Congressional approval of any major regulation. The bill, known as the Regulations from the Executive in Need of Scrutiny (REINS) Act, would literally return the regulatory system to 19th Century procedures and would effectively kill any new major safeguards. Under the bill, major new safeguards would have to be approved by both houses of Congress, effectively allowing either house to block a new rule.
- Another bill, the Regulatory Accountability Act, would weigh down the regulatory system with more requirements that collectively would make it nearly impossible to finalize a regulation. For instance, one additional requirement would mandate that agencies perform a cost/benefit analysis on every single regulatory alternative that anyone submits. These are time consuming and expensive analyses.

Additional hurdles to regulations that protect the public and the environment that may be reintroduced include:

- Adding other additional cost/benefit analysis and allowing court challenges of such economic studies.
- Allowing critics of regulations additional grounds to challenge agency decisions in courts.
- Requiring independent agencies—agencies that are run by bipartisan commissions such as the Securities and Exchange Commission, which oversees Wall Street—to come under the White House regulatory review, encroaching on their statutory independence.
- Freezing the regulatory process for a year or more.

Other problematic proposals would seek to make it harder for public interest groups to challenge government action by, for example, limiting or eliminating the payment of legal fees to successful challengers of some government decisions.

TOXICS/CHEMICAL REFORM

Americans are exposed to hundreds, perhaps thousands, of chemicals in their daily lives—in their homes, schools and workplaces—starting even before they are born. Few of these chemicals have been fully tested for their ability to cause cancer, birth defects, learning disabilities or other chronic illness or disease, and even current uses of chemicals known to be unsafe—like asbestos—remain unregulated. The law intended to protect the public from these chemicals, the Toxic Substances Control Act (TSCA), is broken, and needs to be repaired, via legislation titled the Safe Chemicals Act.

Meanwhile, independent government programs to assess the safety of chemicals—including those at the Environmental Protection Agency (EPA) and the National Toxicology Program—are under attack by the chemical industry.



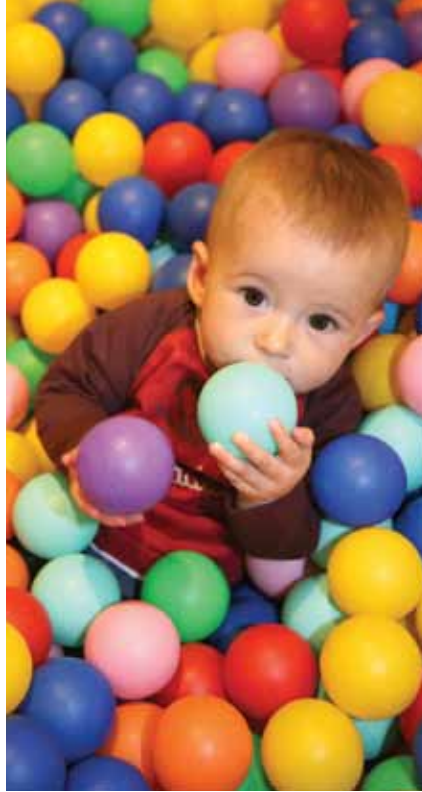
I. PRIMARY STATUTES AND PROGRAMS

- The Toxic Substances Control Act (TSCA) – First passed in 1976, and administered by EPA, TSCA is widely considered to be a failure; it is the one environmental statute from the 1970s that has done little to accomplish its intended goals. It has never been reauthorized. (Note: Pesticides are regulated under another, more effective statute – the Federal Insecticide, Fungicide and Rodenticide Act, or FIFRA.)
- EPA's Integrated Risk Information System (IRIS) program conducts health assessments of toxic chemicals that contaminate our homes, drinking water and air. The IRIS program sets “reference concentrations (RfC) and doses (RfD).” These are the highest lifetime exposure levels believed not to cause appreciable harm. RfCs cover exposure through inhalation and RfDs apply to exposure through ingestion. IRIS assessments have led to important regulations, including protective standards for air, drinking water and land cleanups.

- The interagency National Toxicology Program (NTP) is a non-regulatory body headquartered at the National Institutes of Health's National Institute of Environmental Health Sciences (NIEHS). NTP issues the biennial Report on Carcinogens (ROC) and conducts and assesses research on chemical substances. The Report on Carcinogens has helped to inform the public about toxic chemical substances and other agents known to, or reasonably anticipated to cause cancer.

II. MAJOR CONCERNS

- Of the 62,000 industrial chemicals in the marketplace when TSCA was enacted in 1976, EPA has required testing for fewer than 300, and has partially regulated only five.
- For the 22,000 chemicals introduced into commerce since 1976, chemical manufacturers have provided little or no information to the EPA regarding their potential health or environmental impacts.
- Rates of chronic illness and disease are on the rise, including several kinds of cancer, learning disabilities, autism, asthma, and birth defects. Exposure to toxics could be a contributing factor.



- Consumers have little or no information on the thousands of chemicals used in all kinds of products including building materials, carpets, furniture, cars, toys, electronics, and household cleaners. Everyone is exposed to these chemicals, every day, even before we are born.

PUBLIC OPINION

- **OVERWHELMING SUPPORT FOR STRENGTHENING TSCA.** Nationwide polling conducted by Public Opinion Strategies in June 2012 demonstrates the public's overwhelming support for reform to strengthen regulation of toxic chemicals. Those national results are supported by recent polling in ten states.
- **68% WANT TOUGHER REGULATIONS.** Fully 68% of voters indicated support for stricter regulation of chemicals produced and used in products, including 79% of Democrats, 66% of Independents, 57% of Republicans and 51% of tea party voters.
- **77% WANT STRONGER LEGISLATION.** More than 3/4 (77%) supported legislation along the lines of the Safe Chemicals Act including 90% of Democrats, 75% of Independents, 64% of Republicans and 58% of tea party voters. 83% of women and 71% of men support such legislation. By ethnicity, the support is 85% with Hispanic Americans, 82% for African Americans and 75% of whites.

III. UPCOMING ISSUES

- **TSCA REFORM.** TSCA reform will be an issue in the 113th Congress, initially in the Senate.
 - In July 2012, the Safe Chemicals Act was voted out of the Senate Environment and Public Works Committee, the first TSCA reform bill to be voted out of a House or Senate committee since 1976.
- **REINTRODUCTION OF SAFE CHEMICALS ACT.** Senator Lautenberg (D-NJ) is expected to re-introduce the Safe Chemicals Act in this Congress. To make TSCA more effective, it would for the first time require thousands of industrial chemicals to meet a health-protective safety standard, place the burden of proof on the chemical industry to demonstrate that its products are safe (as is required now for pesticides and pharmaceuticals), expand the public's right to know about health effects and uses of industrial chemicals, and give EPA authority to take expedited action to reduce or eliminate exposure to chemicals we already know are unsafe.
- **INDUSTRY BACKED ALTERNATIVE.** Senator Vitter (R-LA) is expected to introduce an industry-backed alternative bill to reform TSCA. That bill is expected to have an extremely weak safety standard (which only a small number of chemicals would be required to meet), limited authority for EPA to take action to protect the public, insufficient public right to know about health effects and uses of chemicals, and preemption of states from taking action on chemicals. Such legislation would fail to protect or inform the public.
- **BUDGET RIDERS.** As in the past, provisions (riders) may be proposed in spending bills to block the next Report on Carcinogens and to weaken or delay IRIS assessments.

TRANSPORTATION



The federal government supports and shapes our transportation system through funding for highway construction and repairs, mass transit, interstate passenger rail and alternatives such as bike lanes. Our transportation system, while extensive, is increasingly plagued by deteriorating infrastructure and insufficient alternatives to driving. Better planning could give the public alternatives while reducing traffic delays and the need for more car trips.

I. PRIMARY STATUTES AND PROGRAMS

Most transportation programs are funded through the Highway Trust Fund, which was established in 1956 and which is financed with the gasoline tax, which was last raised in 1993. The most recent reauthorization of transportation programs, known as MAP-21 (Moving Ahead for Progress in the 21st Century), was signed into law last summer. It covers fiscal years 2013 and 2014 and provides \$105 billion to build and maintain highways and roads, public transportation and non-motorized transportation (for pedestrians and bicyclists). This is the fourth transportation spending reauthorization statute since the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), which marked the end of the Interstate construction era.

- Most of the funding in MAP-21 is allotted to state transportation departments based on formulas, and some is allocated directly to their metropolitan planning organizations (MPOs), allowing more local control for transportation users. There are, though, some competitive pots of money for more innovative programs.
- While the highway accounts receive the lion's share of transportation program funding, the Highway Trust Fund also includes a mass transit account created 30 years ago as well as more modest funding dedicated to "transportation alternatives" such as bike lanes and trails.

II. POSITIVE EFFECTS

- Per-capita driving has not grown since mid-2005 and public transportation ridership has gone up seven quarters in a row. Partly as a result, the Department of Energy projects oil consumption will drop by almost one-fifth by 2035. Even with this plunge, however, consumption is still projected at 13.5 million barrels a day.
- MAP-21's transit provisions and the new Department of Transportation (DOT) guidance adopted last month under the law improve the "New Starts" program, which funds new rail and bus rapid transit lines on a competitive basis nationwide.

III. MAJOR CONCERNS

- MAP-21 includes provisions short-circuiting the environmental reviews that projects are supposed to receive under the National Environmental Policy Act. The Act excluded more projects from review even though 90 percent already were exempted from evaluation, delegated review authority to states that may be ill-prepared for the responsibility, allowed projects to get started while reviews were still in progress, and imposed stiff penalties if reviews are not completed within arbitrary deadlines.

PUBLIC OPINION

- Nationwide polling conducted in 2012 by a bi-partisan team—Public Opinion Strategies, and Fairbank, Maslin, Maullin, Metz & Associates—demonstrates strong public support for more transportation choices.
- A solid majority (59%) would like more transportation options so they have the freedom to travel other than by driving. More than three in five Americans (63%) favor new transit—buses, trains and light rail—rather than new highways as the best way to solve the nation's traffic woes.
- Moreover, Americans over-estimate what their state spends on public transportation, estimating that it is an average of 16% of their state's transportation budget (compared to the actual level of about 6 percent)—and still they would like that amount nearly doubled, calling for their state to spend an average of 28% on public transportation.
- The public opinion survey found that 78% of Liberal Democrats, 70% of Moderate Democrats, 58% of Independents, 65% of Moderate Republicans, and 55% of Conservative Republicans favor spending on public transportation over road-building as a solution for traffic congestion.

- MAP-21 reduces the percentage of funding going directly to metropolitan areas, and allows state highway agencies to siphon as much as half the money away from the Congestion Mitigation and Air Quality Improvement program (CMAQ), which helps pay for projects to meet air quality standards (including public transportation).
- MAP-21 slashes dedicated funding for projects to benefit pedestrians and bicyclists.
- MAP-21 sets aside no funding specifically for the repair and maintenance of existing bridges and highways.

IV. UPCOMING ISSUES

The 113th Congress will need to address transportation policy before MAP-21 authorities expire on Sept. 30, 2014. MAP-21 was only passed after the previous transportation law was extended several times because of difficulty getting agreement on new legislation, and MAP-21 lasts for fewer years than its predecessors. Issues include:

- **PERFORMANCE MEASURES:** MAP-21 requires DOT, state transportation agencies and MPOs to develop performance measures for highway performance and conditions, safety, congestion, emissions of air pollution, freight movement as well as transit safety and state of repair. Measurements must be accompanied by targets. This could be the foundation for a more effective, efficient transportation program, if states and localities truly follow through. The law has weak enforcement provisions.
- **TRANSIT:** The fraction of the Highway Trust Fund going to transit has remained relatively stagnant at about one-sixth for decades. With high gasoline prices, less driving, and rising transit ridership, the percentage should be increased.
- **LOCAL FUNDING:** One inherent issue in transportation bills is the proportion of funding going to state highway agencies versus directly to metropolitan planning organizations with jurisdiction over cities and suburbs hosting the majority of travel. MPOs tend to be more open to alternatives to highways.
- **INNOVATION:** DOT has initiated more competitive programs to spur transportation agencies to come up with new ideas to increase travel options and decrease pollution. Congress will have to decide whether to continue programs like the Transportation Investments Generating Economic Recovery program (TIGER). Enacted in the 2009 Recovery Act, the TIGER program funds projects through an annual competition, rather than just distributing money by formula. The Obama Administration has also proposed a national infrastructure bank which would invest in projects competitively, based on performance criteria.

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