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The Jobs Case for Conservation

Creating Opportunity Through
Stewardship of America's Public Lands

Jessica Goad, Christy Goldfuss, and Tom Kenworthy September 2011

Center for American Progress



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Fast facts on creating jobs from public land conservation

This report from the Center for American Progress looks at recent research on the direct, indirect, and induced jobs created by the conservation economy—recreation, renewable energy, restoration, and sustainable land management. Good stewardship of public lands provides tremendous public health and social benefits, such as clean air and clean water, but equally important are the jobs it creates—jobs that are especially important to rural communities located closest to America’s public lands.

The job creators so far

- Recreation and tourism on Department of the Interior lands—388,000 jobs with national parks generating 247,000 of these jobs
- Recreation and tourism on Forest Service lands—224,000 jobs
- Renewable energy development on public lands—15,000 jobs
- Restoration of Chesapeake Bay, Great Lakes, Everglades, and the Gulf Coast at the Interior Department—3,700 jobs
- Collaborative Forest Landscape Restoration Program—1,550 jobs from projects launched in 2010

Fifteen policies to boost job creation

Recreation

Millions of people hunt, fish, climb, hike, and otherwise recreate on public lands each year. They use many types of gear and equipment to enhance their outdoor experience, which they purchase from small and large businesses here in the United States. These policies support jobs in the outdoor industry by improving the places where people recreate. To boost recreation we need to:

- Protect more habitats
- Codify the Roadless Rule
- Fully fund the Land and Water Conservation Fund

Rural economies and protected lands

When people travel to recreate on public lands, they spend money in neighboring towns, which are generally in rural communities. Many small businesses thrive off the money from visitors to these areas. The following policies help support the industries that exist in “gateway” communities across the country. To boost rural economies and help protected lands, we need to:

- Increase protected areas
- Expand the National Landscape Conservation System
- Enact a strong budget for the National Park Service

Renewable energy development

Our nation is moving toward a clean energy economy, and public lands have a role to play in this transition. Getting off of oil is doubly important because many national parks and other lands are already some of the first places to feel the impacts of climate change. These policies will help renewable energy projects on public lands get built quickly and in a manner that takes environmental impacts into account. They will create manufacturing, construction, and maintenance jobs. To boost renewable energy development, we need to:

- Provide certainty in financing for renewable energy
- Embrace state and national renewable electricity standards
- Guide renewable energy development

Treasured landscapes

Public lands have historically felt the brunt of impacts from our nation’s natural resource development. Many jobs have been supported and could be created through restoration of our rivers, lakes, bays, forests, and other lands. Restoration jobs include construction, contracting, engineering, scientists, and other experts. To restore our treasured landscapes, we need to:

- Boost government capacity to conduct restoration
- Support and expand the Collaborative Forest Landscape Restoration Program
- Promote the Legacy Road and Trails program

Sustainable forest management

The timber and wood products industries have supported many rural economies for generations. But the economics of national forests are changing—transitioning to a different type of timber economy. Supporting forest management that includes both the harvesting of wood products and restoration not only protects water resources but also creates jobs in industries such as timber, clean energy, and heavy machinery. To expand sustainable forest management, we need to:

- Increase the number of stewardship contracting projects
- Expand sustainable biomass and forest thinning
- Embrace watershed management

Going forward

Political leaders should endorse and promote the 15 policies that we identify in this report, all of which will protect the jobs that already exist and help create new ones. Many of the policies that we identify are threatened from multiple angles, including budget cuts, corporate special interests, and aggressive antigovernment rhetoric. It is important to resist attacks on policies that are already creating hundreds of thousands of jobs.

The American people need to know just how critical public land conservation is to our workers across the country, but no formal studies on employment growth from restoration and sustainable forest management activities have been conducted by the federal government. Congress and the Obama administration should ramp up efforts to track these jobs and their importance to our nation's middle class, especially in rural communities.

Introduction and summary

Most Americans know our public lands as the places we go to get away from it all and enjoy ourselves in the outdoors. Whether it is strolling through a national park, hiking in the backcountry, skiing, hunting, fishing, wildlife watching, or going boating, these places provide immense enjoyment. Conservation, however, also has enormous economic value, supporting a specific economy in recreation, restoration, and renewable energy development, all of which support numerous jobs. What's more, these jobs in outdoor retail, the concessionaire business, outfitters and guides, and the construction industry to repair damaged lands and build renewable energy are frequently located in rural areas.

Americans are feeling the pinch of tough economic times and know that jobs are the key to supporting our families and lifestyles. They know what the August 2011 U.S. unemployment rate of 9.1 percent means to them, whether they have a job or not.¹ And rural America, the location of the majority of public lands, was the hardest hit by the Great Recession, with many rural counties losing more jobs than the national average in late 2009 and early 2010.² Rural America began to feel the effects of the recession early on, which was amplified by the fact that 90 percent of the poorest counties in the United States are rural.³ Luckily, public lands can provide a vast number of jobs that cannot be outsourced.

One of the biggest and best-studied categories of jobs linked to conservation of public lands is in recreation and tourism. Federal public lands, owned by all Americans, see hundreds of millions of visitors every year. People from all across the world come to enjoy unique landscapes and the recreation opportunities they offer. The Department of the Interior, the nation's largest land manager, administers 500 million acres of land that serve 414 million visitors annually.⁴ The Forest Service manages 193 million acres of land and sees on average 177 million visitors per year.⁵ These sightseers and outdoor enthusiasts, who spend significant amounts of money during their travels, help create jobs and stimulate local economies, which are frequently rural gateways to destinations like national parks.

Additional jobs can be found in renewable energy development, which is just beginning to take place on many federal lands across the West and in forests across the country as we move toward a clean energy economy and energy independence. Public lands should play a role in renewable energy development just as they have historically played a role in other forms of energy development. If solar, wind, and geothermal energy can be carried out in a way that takes environmental impacts into account, renewable energy can be compatible with land conservation. From manufacturing parts to installing projects in the ground, renewable energy has the potential to create hundreds of thousands of jobs.

Finally, restoration and sustainable management of forests and watersheds can also create jobs because they are hugely labor intensive. This type of employment is particularly important to rural communities, which have traditionally been dependent on the timber and forest products industry. Sustainable management of lands—such as combining timber harvesting and restoration objectives into one large project—can ensure rural communities stay resilient. Restoration is also extremely valuable because Americans reap additional benefits from healthy public lands where objectives such as clean drinking water and clean air have traditionally not been valued in economic terms.

In this report we identify 15 policies that have created or will create jobs by supporting conservation and restoration. No national studies on employment stimulated by restoration and sustainable forest management activities have been undertaken. Thus, one key recommendation in this report is that the government and independent analysts undertake a federal agencywide study on the jobs that have been and could be created from restoration and sustainable management of forests and watersheds.

It is important to note that this paper is not a comparison of the relative benefits of developing versus conserving public lands. Rather, we seek to highlight and draw attention to the often-overlooked conservation economy, made up of professions in the recreation, renewable energy, restoration, and sustainable land management industries. Also, the conservation of lands provides social and economic benefits that are additive to job creation. Clean air, clean water, crop pollination, and services that are provided by intact landscapes are valuable public health and social welfare advantages that should be kept in mind when valuing conservation and land protection.

If political leaders support and promote the policies identified in this report, more jobs will be created. But many of these policies are threatened from multiple angles, including budget cuts, corporate interests, and aggressive antigovernment rhetoric. It is important to resist attacks on policies that are already creating hundreds of thousands of jobs in addition to protecting the air we breathe and the water we drink.

For increased job creation from conservation on public lands, stronger leadership is specifically needed in five crucial categories:

- Recreation
- Rural economies and protected lands
- Renewable energy development
- Restoration of treasured landscapes
- Sustainable forest management

Together these policies stimulate a conservation economy that provides a strong and vital economic impact. In this paper we will look at all five of these job-creation categories in more detail, but briefly, here are our recommendations to make these jobs happen.

Recreation

Protect more habitats to encourage recreation—Hunting and fishing are both strong economic drivers, with 34 million people participating in the activities every year.⁶ Many people are drawn to public lands to view wildlife, something that is only possible with protected habitats. Communities surrounding Yellowstone National Park, for example, reap \$70 million every year due solely to the public's interest in viewing wolves.⁷ Prime fish and wildlife habitat should be protected in order to leverage the jobs and economic impacts that come from wildlife viewing, hunting, and fishing.

Codify the Roadless Rule—The 2001 Roadless Area Conservation Rule has successfully preserved millions of acres of high-quality land for recreation, water purification, and habitats. Roadless areas support 24,000 jobs every year but these places are under continued threat from industrial and political interests.⁸ Codifying the rule would make protection of roadless areas and associated jobs more permanent.



Fully fund the Land and Water Conservation Fund—Funded by offshore oil-and-gas drilling revenues, the LWCF leverages money for land acquisition, matching state and local grants, and conservation easements. Adding parcels to existing parks and refuges and assisting in the creation of new ones protects resources and generates jobs because there are more places for people to visit, recreate in, and spend money to stimulate surrounding communities. In 2010 alone 2,980 jobs were created just from the Department of the Interior’s land acquisition activities.⁹

USDA Forest Service Explorers water a newly planted tree at the Angeles National Forest near the Tujunga area of Los Angeles.

Rural economies and protected lands

Additional protected areas—Recreation on national parks, national forests, wildlife refuges, and other types of protected lands sustains more than half a million jobs every year. Recreation and tourism supported 388,000 jobs on Department of the Interior lands and 224,000 jobs were on national forests in 2010.¹⁰ Additional protected areas, including national parks, wilderness areas, and others, are critical ways

to grow the conservation economy, create even more jobs, and help rural communities thrive. Although there is enough space for all kinds of activities on federal lands, protected places are a finite commodity.

Expansion of the National Landscape Conservation System—The national monuments, wilderness areas, and other designations within the National Landscape Conservation System are some of the West’s best-hidden treasures. Recreation on Bureau of Land Management lands, much of which took place on parts of the National Landscape Conservation System, created almost 59,000 jobs in 2010. Expansion of this system will drive jobs and economic development to the mostly rural areas near the units managed as part of this system.

A strong budget for the National Park Service—The centennial celebration of the National Park Service is in 2016 and yet maintenance and land acquisition backlogs are very high. Spending in and around national parks stimulated 247,000 jobs in 2010.¹¹ Ensuring a strong budget for the park service will drive more visitors to these areas and provide additional jobs in upkeep as the parks prepare for their anniversary.

Renewable energy development

Certainty in financing—Time and time again renewable energy developers and investors cite the lack of a comprehensive renewable energy policy in this country as the number-one reason more projects are not getting built. Without policies like tax credit extensions, support for the Loan Guarantee Program, and a Clean Energy Deployment Administration, job creation in this sector won’t meet its potential.

State and national renewable electricity standards—Renewable electricity standards, which require utilities to generate a certain percentage of electricity from renewable resources by a specific date, are one of the best ways to create a market for renewable energy manufacturing, development, and operations. A national clean energy standard, as proposed by President Obama, would provide consistency across states and create jobs in the renewable energy industry. California’s aggressive renewable electricity standard has been predicted to create 500,000 jobs over time.

Guided renewable energy development—At this point, more than 15,000 jobs have been created from renewable energy projects built on public lands. In order

to ensure future sustainable growth, they must be done in a way that takes other values and uses of lands into account, such as habitats and recreation. The first step is for the Obama administration to create enduring renewable energy programs at the Department of the Interior and the Forest Service that will provide regulatory certainty for developers. Additionally, renewable energy development on public lands should be guided to places with the best resources and the least conflicts so projects can be built efficiently and cost effectively.

Restoration of treasured landscapes

Agency capacity to conduct restoration—The Forest Service and the Department of the Interior must have significant funds available to support and maintain the various types of restoration activities that occur on forests, bays and estuaries, rivers and lakes, and other locations. Careful attention to and support for specific restoration line items such as the Integrated Resource Restoration will ensure construction, engineering, contracting, and other restoration jobs can continue to be generated.

The Collaborative Forest Landscape Restoration Program—This program identifies large-scale forest restoration projects and provides directed funds, assistance with stakeholder involvement, and collaborative planning efforts. The 10 projects funded in fiscal year 2010 have already created 1,550 direct and indirect jobs.¹²

Trails program—The Legacy Roads and Trails Remediation Initiative decommissions superfluous and unused roads and trails, and updates those that are the most heavily used. The program supported 1,530 direct and indirect jobs in 2010, most of which were related to construction and small business contracting.¹³

Sustainable forest management

Stewardship contracting—This program is designed to help communities with timber-based economies transition to sustainable management of forests and maintain the value of the timber products industry. Stewardship contracts are agreements with private companies and non-profit organizations that can combine sustainable timber practices with restoration during and after wood products are harvested. Timber, construction, and contracting jobs are created, while forest resources are managed as truly “renewable.” On just one project in Arizona, 319 direct and indirect jobs were created.¹⁴

Sustainable biomass and forest thinning—Woody biomass, especially through hazardous fuels reduction in forests, is a key way to create electricity and fuel that will help transition our country to a clean energy economy. Biomass must be harvested in a manner that provides a net benefit to the forest, especially when it is paired with hazardous fuels reduction via forest thinning. Jobs can be created from harvesting wood products, reducing fire, and maintaining combustion facilities.

Watershed management—Water is one of the most important resources that national forests provide, as 66 million people get clean drinking water from watersheds in the national forest system.¹⁵ Watershed-level management and restoration must be the focus of planning in the future in order to protect this precious resource and create jobs in restoration, recreation, and community-based projects.

With these policies in place, we will be able to support and maintain the hundreds of thousands of jobs that already exist, and create new ones. Protecting public lands can help our economy recover from its past troubles and provide employment in the rural places that need them the most.

Recreation

Americans love visiting the great outdoors—that’s just a fact. According to the Outdoor Foundation, a nonprofit group that promotes outdoor recreation, 48.6 percent of Americans participated in at least one outdoor sport or activity in 2010.¹⁶ A 2006 report from the U.S. Fish and Wildlife Service found that 87.5 million U.S. residents over 16 years of age (37 percent of this demographic at the time) took part in wildlife-based activities such as hunting, fishing, and wildlife watching, just a few of the many outdoor activities in which Americans enjoy participating.¹⁷

Although not all of these outings were on public lands, the Department of the Interior and the Forest Service manage nearly 30 percent of the land in the United States, providing extraordinary opportunities for recreation.¹⁸ As the Outdoor Foundation states, “[Public land] destinations are ... integral contributors to a healthy America.”¹⁹

Americans are taking advantage of their public lands and spending money in and around them, thereby supporting industries that thrive on recreation and tourism. There are many different kinds of jobs directly created by recreation on public lands. One of the biggest sectors is that of the suppliers, manufacturers, and retailers that depend on recreation for their businesses to survive. One example of this kind of company is Recreational Equipment, Inc. (REI), headquartered in Kent, Washington, which retails a variety of brands of outdoor clothing and equipment and also makes its own line called REI Gear and Apparel. Its more than 9,000 employees are all based in the United States, and the company has been on Fortune’s “100 Best Companies to Work For” list every year since 1998.²⁰ Another example is L.L. Bean, Inc., in Freeport, Maine, which designs, produces, and sells outdoor clothing. The company employs 4,600 people year round.²¹

Both of these companies rely on Americans’ desire to get outdoors to help them make a combined revenue of \$3.1 billion just this past year, while creating and maintaining almost 15,000 total jobs.²² There are nearly 1,200 companies like them—members of the Outdoor Industry Association, which represents these manufacturers and retailers. In total, these and other companies provide tremendous numbers of jobs, via direct (through manufacturing and sales), indirect, and induced jobs. The Outdoor Industry Association estimates that the active



AP PHOTO/PAUL SARGUNA

recreation industry contributes \$730 billion and 6.5 million jobs every year from direct, indirect, and induced impacts.²³ Not all of these can be attributed to public lands, but certainly they play a large part.

Tourists look at Half Dome from Glacier Point in Yosemite National Park in Yosemite, Calif.

In addition to the gear industry, there is also the sporting equipment industry, which manufactures and sells goods such as bikes, boats, and hunting and fishing equipment. This industry has an important economic contribution, particularly with regard to jobs. For instance, Trek Bicycle Corporation, which manufactures high-end mountain bikes, is based in Waterloo, Wisconsin, and employs 1,600 people.²⁴ Another example is Bass Pro Shops, headquartered in Springfield, Missouri. With dozens of retail locations throughout the United States and Canada, it is one of the premier hunting, fishing, and outfitting businesses, employing 16,000 staff.²⁵

As with manufacturing and retail, public lands play a key role for this economic driver—according to a U.S. Interior Department report, “the portion of the total

equipment purchases attributed to public land is estimated to be about \$27 billion.²⁶ Indeed, having places to play is essential to keeping the overall recreation industry vibrant. Government data tell us that for every \$1 million invested in recreation, about 22 jobs are created, many of which are in the private sector.²⁷

The state of Utah certainly reaps the benefits. The active outdoor industry in the state contributes \$4 billion in goods and services and 65,000 jobs to the state's economy.²⁸ With its stunning location at the bottom of the Wasatch Mountains, Ogden, Utah, and surrounding cities and towns have become a hub of activity for the state's outdoor industry manufacturing and extreme sports industry. It is the permanent home of gear manufacturers such as Petzl America, Inc. (climbing and mountaineering), Salomon Sports (skiing), and Kahuna Creations (surfing and longboarding).

The city was once home to railroad and military interests, but since the Defense Depot Ogden closed in 1997, it has made extraordinary efforts to attract the outdoor industry, with more than 10 companies answering the call. Ogden's role as a leader in creating jobs via the outdoor industry was further encouraged when it was chosen as the locale for many events of the 2002 Winter Olympics. Mayor Matthew Godfrey said at the time, "There is no Silicon Valley for the ski industry. ... why not us?"²⁹ Since then some of the public policies he and other officials in the state pursued have paid off handsomely.

Policies to support jobs in recreation manufacturing and retail

There are the three broad policy recommendations we believe are key in this arena. The first is to protect more areas to encourage recreation. The Congressional Sportsmen's Foundation found that 34 million people hunt and fish every year, leverage \$78 billion in economic activity, and support 1.6 million jobs.³⁰ This activity takes place on federal, state, county, and private lands, but some of the best wildlife habitat can be found in federally protected areas such as refuges, wilderness, and roadless areas. Wildlife viewing is also a critical economic driver—a 2006 study found that the wolves in Yellowstone National Park stimulate \$70 million every year to the economies of Wyoming, Idaho, and Montana.³¹

In order to encourage continued participation in hunting, angling, and other wildlife-based activities every year, and create even more direct, indirect, and induced jobs, better efforts must be made to protect prime habitats. While industrial development is a valid use of public lands, it is often not compatible with

wildlife. Creating more land designations that protect wildlife will provide even more economic benefits for today's recreation economies.

The second job-creation step in this arena is for Congress to codify the 2001 Roadless Rule to provide more permanent protection for national forests. There are more than 58 million roadless acres in the United States, which are very attractive places for hunters, fishermen, hikers, and other recreationists due to their pristine and undeveloped character. An economic analysis in the year 2000 found that roadless areas provided 24,000 jobs each year, mostly in the recreation and tourism sectors.³² In order to build on this economic success, the 2001 Roadless Area Conservation Rule should be permanently codified by Congress. This rule—one of the most successful land protection efforts in American history—was designed to limit industrial impacts in certain areas on national forests. It has been especially successful in keeping unnecessary new roads from being built. Thousands of miles of unused roads already crisscross our national forests and can severely damage ecosystems.

The third way to create jobs through support for a strong recreation industry is to fully fund the Land and Water Conservation Fund. With receipts from offshore oil and gas royalties, this fund allows federal, state, and local land management agencies to buy parcels of land to be used for recreation. Local parks, waterways, and wildlife refuges can be significantly improved by increasing their inholdings through purchases funded by the Land and Water Conservation Fund. Land acquisition at the Department of the Interior alone stimulated 2,980 direct, indirect, and induced jobs in 2010.³³

Although the fund was designed to be fully funded, this has only happened once in its existence. Because LWCF is subject to the appropriations process, monies that should be going to the fund are frequently diverted elsewhere. Efforts by federal, state, and local agencies to acquire more land and create more opportunities for recreation and tourism are jeopardized when LWCF is not fully funded. So we recommend that LWCF be funded at \$900 million in fiscal year 2012.

Rural economies and protected lands

One of the things that defines America is that we allow our Congress and executive branch to designate places as protected and off limits to industrial development. Land designations provide extraordinary benefits to our country—scenery, water and air purification, and a sense of national heritage. There are opportunities for all kinds of resource extraction and other activities on public lands but protected areas are a finite commodity—Bureau of Land Management data show that just 1 percent of lands in five western states are designated as wilderness while 42 percent are under lease to the oil and gas industry.³⁴ And protecting lands has an entirely additional advantage—economic growth and jobs in nearby cities and towns.

In addition to the tens of thousands of upstream manufacturing and retail jobs supported by public lands as discussed in the previous section, recreation also creates local—and frequently rural—jobs such as outfitters, guides, concessionaires, and employees at nearby restaurants, hotels, and other businesses surrounding parks, monuments, and other protected places.

A June 2011 report from the Department of the Interior shows that recreation and tourism to national parks, national monuments, wildlife refuges, and other public lands contributed \$47 billion in economic activity and generated 388,000 direct, indirect, and induced jobs in 2010.³⁵ According to a report by the U.S. Forest Service, spending by visitors recreating in national forests comes to almost \$13 billion every year and generates 224,000 direct, indirect, and induced jobs.³⁶ More than four-fifths of these jobs are in the private sector, as the Department of the Interior has about 80,000 employees and the Forest Service has about 30,000, most of whom do not work on recreation issues.³⁷

“Gateway regions,” or those places within 60 miles of a protected unit, see the most economic impacts from recreation. A National Park Service study determined that spending by nonlocal visitors created 163,000 jobs around national parks.³⁸ Famous gateways such as Front Royal, Virginia, outside of Shenandoah National Park; Moab, Utah, surrounded by national parks, monuments, and forests; and Bar Harbor,



AP PHOTO/CHRIS PIZZELLO

Maine, near Acadia National Park, would not be bustling communities without the benefits of people visiting to recreate on the lands around them.

Research shows that per capita income in rural counties with protected lands grows faster than those that do not have any. A Department of Agriculture study, for example, finds that counties with “natural amenities” have three times as many jobs after 30 years when compared with counties that did not boast them.³⁹ Headwaters Economics conducted similar research and found that western counties with protected areas like national monuments and roadless areas grow more quickly than counties without them, in part due to their ability to attract a diverse and amenity-driven population.⁴⁰ Entrepreneurs, retirees, and other nonlabor professions have a choice in where to live, and many choose places with a high quality of life. This type of economic development can be observed in communities such as Bend, Oregon, and Bellingham, Washington.

Hired workers with the California Conservation Corps, clears hiking trails in the San Bernardino National Forest in Hemet, Calif.

Per capita income in rural counties with protected lands grows faster than those that do not have any.

In addition, local services in rural communities can be supported by the tourism industry. Traditionally, the federal government has assisted communities when needed with funds for roads, schools, emergency response, and other services. But many of these aid programs are diminishing in a time of tight budgets and stretched-thin resources. Without well-functioning local services, rural communities will have a difficult time competing in the future. Tourism and recreation—often stimulated by protections for public lands—can help support these services by driving economic development, tax revenue, and other resources to them. As the Department of Agriculture found in a study on the topic, “recreation and tourism development contributes to rural well-being, increasing local employment, wage levels, and income, reducing poverty, and improving education and health.”⁴¹

In an interview for this report, Thomas James Kleinschnitz, president of Adventure Bound River Expeditions, Inc., based in Grand Junction, Colorado, succinctly captured the link between our natural heritage, outdoor recreation, and jobs. “Our country has committed to the preservation of these incredible areas and with that commitment the creation of interpretive guide opportunities have been locked in for generations,” says Kleinschnitz, explaining his company’s link to the wilderness. “There may be other consumptive uses for our public lands that will give our rural areas quick economic gains but these will only be short lived.”

The true economic benefits of recreation on protected public lands can be seen in states that have significant acreages of them. Recreation and tourism solely on Interior Department lands in California support about 35,000 jobs in places such as Sequoia and Kings Canyon National Park and Point Reyes National Seashore, the Department of the Interior estimates.⁴² In Wyoming, recreation and tourism on Interior Department lands such as Grand Teton National Park and Bighorn Canyon National Recreation Area create approximately 15,000 jobs, or 5 percent of the state’s total workforce.⁴³ And it’s not just these two states—the economic return from recreation on Interior-managed lands was more than \$1 billion each in Arizona, California, Colorado, the District of Columbia, Florida, Oregon, Utah, and Wyoming.⁴⁴

Wilderness—the highest form of land protection—also benefits local economies. Many critics allege that because motorized vehicle use, extractive industries, and other forms of industrial development are forbidden in wilderness areas, they are places that “kill” jobs. But the evidence points to the opposite conclusion. A Forest Service report found that the presence of wilderness in rural counties directly correlates with positive income, employment, and population growth.⁴⁵ And a 10-year retrospective of the California Desert Protection Act of 1994,

Wilderness in rural counties directly correlates with positive income, employment, and population growth.

which designated 69 wilderness areas, found that it has generated \$1.4 billion every year and supported 3,700 direct and indirect jobs in nearby counties.⁴⁶

Then there's a recent study by Arizona State University, which finds that "human-powered recreation" (without motorized vehicles) supports 86,920 direct, indirect, and induced jobs every year and is responsible for 12 percent of the state's retail economy.⁴⁷ In Arizona national park units alone, visitors supported nearly 13,000 jobs and generated more than \$930 million in one year.⁴⁸

Arizona's best public lands success story is the Grand Canyon National Park, listed by many as one of the natural wonders of the world. It is one of the top national parks in the United States, hosting 5 million visitors every year. Most visitors to the park come to hike into the canyon to visit Phantom Ranch, white-water raft along the Colorado River, or stroll along trails on the rim. The ample recreation opportunities at the Grand Canyon supported 6,000 jobs in 2009 alone, according to Headwaters Economics.⁴⁹

Policies to create jobs in local tourism

There are three areas in which protecting public lands can help maintain and grow jobs. The first is by adding protected areas such as new national monuments, national parks, wilderness areas, and others. Because of the permanent jobs and myriad economic benefits they provide, more areas in our country should be managed for their recreation and tourism benefits. Congressionally led designations often begin with local coalitions, as is the case with collaborative efforts around the Eastern Sierra Wilderness in California. In addition to congressional efforts, the president may use the Antiquities Act to create national monuments. Passed in 1906 and signed by President Theodore Roosevelt, this act has been used by 15 of 18 presidents to protect areas of natural and historical value. Many case studies show that national monuments improve economic welfare in surrounding communities.⁵⁰ One case in point: Montezuma County, Colorado, adjacent to Canyons of the Ancients National Monument, saw growth in personal income, population, and number of jobs after the monument was designated in the year 2000.⁵¹

The second way to create more jobs in local tourism is to expand the National Landscape Conservation System. This program within the Bureau of Land Management maintains many extraordinary areas, including 16 national monu-

ments and 222 wilderness areas. According to the Interior Department, recreation on Bureau of Land Management lands, much of which took place on parts of the National Landscape Conservation System, supported almost 59,000 jobs in 2010.⁵² Adding to this system will increase visitors to mostly rural areas and stimulate economic development.

The third way to create tourism jobs is to pass a strong budget for the National Park Service. The centennial celebration of the National Park Service is in 2016, and as such, now is the time for policymakers to be supporting improved funding for this agency that manages “America’s Best Idea.” The National Park Service alone supported 247,000 direct, indirect, and induced jobs across the country in 2010.⁵³ A strong budget is a long-term investment that will allow maintenance of resources and facilities, provide more on-the-ground staff, and fund basic planning activities that will drive even more visitors to national parks who will spend money and create economic benefits and jobs.

Renewable energy development

Energy development has almost always been a role that public lands have played throughout our nation's history, from mining to oil and gas to coal and hardrock minerals. But our nation's dependence on fossil fuels will have severe consequences on parks and other places that Americans consider part of our national heritage. Towns just outside of Grand Teton National Park in northwestern Wyoming, for example, are seeing very high levels of ground-level ozone from nearby gas drilling facilities, and the views of distant mountains at Great Smoky Mountains National Park in the southeastern Appalachian mountains of North Carolina, Georgia, and Tennessee are marred by haze caused by the burning of coal and other fossil fuels. Additionally, coal mining in the West will continue to fuel climate change, as emerging Asian markets keep demand high and coal export terminals are considered.⁵⁴

What's more, public lands are already among the first to feel the effects of climate change, and will be forever changed by it. Locations such as Glacier National Park in Montana and Biscayne National Park in Florida are already experiencing the effects of rising temperatures, shrinking glaciers, growing ocean acidification, and receding coral reefs.

In order to protect our public lands, help them adapt and become more resilient in the face of climate change, and create more homegrown jobs that decrease our reliance on fossil energy, we should invest in policies that promote renewable energy development and make certain it takes place in an environmentally sensitive manner. Energy development on public lands has not always been responsible, as the legacy of abandoned mines and oil and gas wells that crisscross landscapes show. So smart planning for renewables from the outset will ensure not only that damage to public lands is minimal but also that companies have the certainty they need to invest and build renewable energy projects quickly and efficiently.

Public lands have a role to play in the clean energy future and can support thousands of jobs. The Department of the Interior, for example, has dozens of wind, solar, and geothermal projects underway, and the Obama administration has so far permitted more projects than all previous administrations combined. Just the 10 wind and solar projects permitted last year will provide 7,000 construction and operations jobs and produce almost 4,000 megawatts of energy, enough to power 1.2 million American homes.⁵⁵

Public lands are already among the first to feel the effects of climate change.

According to the National Renewable Energy Laboratory, every megawatt of wind energy provides approximately 22 direct and indirect jobs, while solar provided approximately 42 direct, indirect, and induced jobs per megawatt in 2008.⁵⁶ According to the Geothermal Energy Association, about 1.7 direct jobs and 4.25 direct, indirect, and induced jobs per megawatt are supported by geothermal energy.⁵⁷ Similarly, the Department of Energy extrapolated that offshore wind can provide up to 20.1 jobs for every megawatt.⁵⁸

In 2011 the Department of the Interior hopes to permit 20 onshore renewable energy “priority projects” that would together create 4,440 megawatts of clean energy. As of September 2011 six had been approved.⁵⁹ And, in meeting a goal of 10,000 megawatts of renewable energy on public lands by 2015 (established by Congress in the Energy Policy Act of 2005),⁶⁰ public lands could provide up to 220,000 jobs if just wind was built using the statistic of 22 jobs created per megawatt cited above.

Many jobs in renewable energy on public lands already exist. In fact, 1,275 megawatts of geothermal energy have been installed on Bureau of Land Management lands,⁶¹ which have supported 5,419 direct, indirect, and induced jobs so far (calculated using the industry statistic of 4.25 direct, indirect, and induced jobs per megawatt multiplier referenced in the previous paragraph). Additionally, at the end of fiscal year 2010, 437 megawatts of wind energy had been installed on Interior Department lands,⁶² which supported 9,614 direct and indirect jobs over time (using the industry statistic of 22 direct and indirect jobs per megawatt referenced in the paragraph above).



Workers at Mount Rainier National Park in Washington state install solar panels on the roof of the park's Emergency Operations Center.

At this point, it is difficult to estimate the jobs that have been created from solar energy on public lands because only a few projects are under construction, but we know that the Ivanpah Solar Electric Generating System had 600 workers on site this summer, the only project that has made mid-construction numbers available publicly.⁶³ (The Forest Service did not have any large-scale wind or solar projects installed or under construction as of the point this report went to press.)

Another important point is that investment in renewable energy creates more jobs per \$1 million invested than fossil energy, according to a report by the Center for American Progress and the Political Economy Research Institute. Oil and gas stimulate 5.2 jobs per \$1 million, coal 6.9 jobs, and wind and solar support 13.3 and 13.7 jobs per \$1 million, respectively.⁶⁴

New renewable energy jobs are frequently in rural areas, due to the large swaths of land needed. Developers of the Antelope Valley Solar Ranch One project, located on private lands in California in the vicinity of similar projects on public lands, announced that they will hire 200 to 300 local workers around Quartz Hill, California, a small town outside of Los Angeles.⁶⁵ After hundreds of people attended a job fair related to the project, a spokesman said, “We are building a project out there. People need jobs. We have jobs and we are trying to hire qualified local labor the best we can.”⁶⁶

Investment in renewable energy creates more jobs per \$1 million invested than fossil energy.

Policies to support jobs in renewable energy

There are three ways public policy can ensure all of these jobs related to renewable energy on public lands are created—and created quickly. The first is certainty in financing. Time and time again, renewable energy developers cite the lack of good government policy for financing as the number-one reason more projects are not getting built. Congress and the Obama administration should extend tax credits such as the Section 48c Manufacturing Tax Credit, which provides a tax credit for manufacturing renewable energy infrastructure; the Investment Tax Credit, which provides a tax credit for purchase of renewable energy equipment; and the Production Tax Credit, which provides an income tax credit for the production of renewable electricity.

In addition, the renewable energy industry would benefit from an extension of the Treasury Department’s Section 1603 program, the program that provides valuable cash in lieu of tax credits, and the Department of Energy’s Loan Guarantee

Program to help win private financing for these large energy projects. Finally, a Clean Energy Deployment Administration would leverage public capital and private investment and is another needed policy to get projects off the ground.

The second job creator is the setting of state renewable electricity standards and a national clean energy standard. Mandates for utilities to get a certain portion of their electricity from renewable energy would send necessary market signals and induce investment in renewable energy projects on public lands. A national clean energy standard, as proposed by President Obama, would build on state renewable energy standards and provide consistency across states. These state and national standards would also create many jobs. A recent report from the Union of Concerned Scientists, for example, found that California's 33 percent renewable energy standard could create 500,000 jobs over time.⁶⁷ Many of these jobs will come from projects on public lands in California and neighboring states like Nevada and Arizona.

The third job creator is to guide renewable energy development on public lands to the best places with the least amount of conflict. Because they do not already exist, the Department of the Interior and the U.S. Forest Service should establish programs specific to renewable energy development, rather than permitting projects on a "special use" basis as is currently the case. Permanent programs with concrete policies and processes would provide certainty to industry, states, conservation interests, and other stakeholders, getting projects built in a way that is smart from start to finish.

Competitive leasing and zone-based energy development should be included as part of these programs, with explicit guidance as to how development within zones is incentivized and additional zones are added. Renewable energy programs at both agencies will help more projects get built faster, cheaper, and better by avoiding and addressing conflicts with surrounding communities and habitats.

Restoration of treasured landscapes

As the nation's population expanded west, many areas of public lands felt the brunt of undesirable impacts of fueling America's economic engine. They were the front line for mineral extraction, timber production, cattle grazing, and other forms of industrial development. While public lands certainly will continue to support these industries, recent research shows that, in the West especially, jobs are increasingly transitioning from extractive industries to "a more diversified mix of industries that more closely mirrors the evolving national economy."⁶⁸

Moreover, climate change is inflicting new damage on public lands. Mountain pine beetles, for example, have damaged 3.2 million acres of forest in Colorado alone,⁶⁹ in part because climate change is contributing to new animal migration patterns and opening new areas to beetle populations. And cheatgrass, a flammable grass already covering much of the West due to grazing, will migrate into new areas in a changing climate. Industrial overuse and climate change together pose massive threats to lands and the jobs that already exist on them.

Luckily, there is tremendous opportunity for job creation and economic development by converting places that have been damaged by extractive industries and a changing climate into profitable centers of tourism and recreation, especially in communities that have traditionally been reliant on commodities such as timber. Restoration—conversion of a place back to its natural ecological state—can take many forms, such as repairing and decommissioning old roads, planting native vegetation, removing invasive trees, building new shorelines, and other activities.

Thousands of long- and short-term jobs can be created through restoration and reforestation of public lands. Various government and independent analyses have found that every \$1 million invested in restoration activities such as river and road restoration, hazardous fuels reduction, and tree planting creates between 13 and 30 direct, indirect, and induced jobs, many in the private sector.⁷⁰ Similarly, the Environmental Defense Fund has calculated that every \$1 million invested in restoration of coastal wetlands can create 29 indirect, direct, and induced jobs.⁷¹ These numbers are competitive with other industries, as seen in analysis of the renewable energy and fossil sectors by the Center for American Progress and the Political Economy Research Institute.⁷²

Mountain pine beetles, for example, have damaged 3.2 million acres of forest in Colorado alone.

Mark Vander Meer, a partner at Watershed Consulting, in Missoula, Montana, knows this first hand. Watershed Consulting specializes in ecological restoration, natural resource assessments, and land stewardship services. In an interview with Vander Meer, he explained why restoring our landscapes can be such a key job creator. “The foundation of our business is ecological restoration and the changing economics of the West,” he explains. “My company puts people to work—at any one time, we might have arborists, soil scientists, wetland scientists, foresters, engineers, heavy equipment operators, and technicians working for us. We are able to both restore landscapes across the Inland and Pacific Northwest and provide good-paying jobs to the people that live there.”

Indeed, restoration creates numerous jobs because these positions cannot be replaced by machines. Engineers, contractors, equipment operators, construction workers, and many other skilled laborers are required to complete the often heavy labor that goes into restoring the health of forests and waterways.

Restoration projects are often very costly and therefore inject millions of dollars into local economies. One analysis, using Department of Agriculture numbers, found that obliterating and reseeded unnecessary roads that cause erosion and watershed damage in national forests can cost between \$5,000 and \$10,000 per mile. As a result, restoring the 126,000 miles of unneeded roads in the U.S. forest system would cost hundreds of millions of dollars and thereby generate local economic activity.⁷³ There is an almost never-ending need for these projects on America’s hundreds of millions of acres of public lands—the Forest Service had a \$4.1 billion backlog of deferred maintenance for roads alone in 2007.⁷⁴ Restoring roads also has a tremendous impact on water resources, as it prevents damage from flooding, repairs fish habitats, and stems erosion which can pollute rivers and streams.

In addition to forest restoration, cleaning up abandoned mines has the potential to create thousands of jobs. The Government Accountability Office determined that at least 161,000 hard rock mines in just 12 western states are abandoned, many of which pose environmental and safety hazards.⁷⁵ These restoration jobs require construction workers, engineers, heavy equipment operators, and remediation experts.

But, notwithstanding project-level analyses, few if any studies exist on the number of jobs created from restoration activities on public lands. This is why the government and independent analysts must undertake a study to quantify the number and types of jobs that have been and could be generated on public lands from restoration and forest management investments and activities.

“The foundation of our business is ecological restoration and the changing economics of the West.”



AP PHOTO/JEFF BARNARD

Analyses of individual projects can help with an understanding of the vastness of the job-creation opportunities from restoration. Just four large restoration projects at the Department of the Interior—the Chesapeake Bay, the Great Lakes, the Everglades, and the Gulf Coast—supported about 3,700 direct, indirect, and induced jobs in 2010.⁷⁶ A literature review conducted by Northern Arizona University’s Ecological Restoration Institute estimated that three forest projects in Arizona, New Mexico, and Montana created 805.5 jobs.⁷⁷

Branches are piled on a thinning project on the Rogue River-Siskiyou National Forest near Takilma, Ore. Forest restoration work like this produces healthier forests and biomass for renewable energy.

Here’s a specific example of what this spending would do for job creation in and around Florida’s Everglades National Park. The park has suffered from unchecked development over hundreds of years and its ecological integrity has been undermined by the construction of a series of levees and canals. The effects of this on the “River of Grass” continue to be felt today, and the ecosystem remains dysfunctional.

But many federal agencies are stepping up their restoration efforts with a series of projects across southern and eastern Florida, which will have strong impacts on job creation. A report using U.S. Army Corps of Engineers data found

that in the last three fiscal years, 10,500 jobs were generated from Everglades restoration, which sees involvement from many different agencies.⁷⁸ And many more individual restoration projects are underway, especially through the Comprehensive Everglades Restoration Plan.

Policies to create jobs by restoring lands

There are three ways in which restoring lands around our nation can maintain and create jobs. The first is boosting the capability of federal agencies to conduct restoration. Adequate financial resources and personnel allow for more collaborative restoration efforts to take place. Budget line items such as Integrated Resource Restoration at the Forest Service and the Natural Resource Damage Assessment and Restoration Program at the Department of the Interior are critical to completing hundreds of restoration projects.

In President Obama's budget request for fiscal year 2012, the Natural Resource Damage Assessment and Restoration Program at the Department of the Interior, which restores natural resources damaged by oil and other hazardous substances, was requested to be funded at \$6.3 million.⁷⁹ For the Forest Service, the Integrated Resource Restoration line item was requested at \$854.2 million for fiscal year 2012.⁸⁰ Agencies must be given the budget capacity to create jobs through restoration.

The second way to boost job creation in this area is through the Collaborative Forest Landscape Restoration Program, which selects priority projects for large-scale forest restoration and provides support through funds, stakeholder involvement, and local planning. It has already proven successful—10 projects were selected in fiscal year 2010 and have already generated 1,550 direct and indirect jobs, according to a report by the U.S. Forest Service.⁸¹ This program could have major impacts on future jobs if it is funded at higher levels and more projects are selected in the future.

Then there is the trails program. The Forest Service's Legacy Roads and Trails Remediation Initiative was created in 2007 to decommission unused road and trails and update the most heavily used ones. The program has been very successful, as estimates have it supporting 1,530 direct and indirect jobs in 2010 alone.⁸² This budget line item may be wrapped into the Integrated Resource Restoration line item in coming years but is worth noting because of its impacts on jobs thus far.

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Sustainable forest management

Nearly 200 million acres of forests and grasslands belong to all Americans. Traditionally, our forests have been used for timber and harvesting of wood products. The economics of national forests, however, are rapidly changing. While timber harvesting will continue to have a role to play in local economies, timber sales on federal forests have fallen every year since the late 1980s.⁸³ But many opportunities still exist for sustainable, job-creating industries in forests.

Case in point: Stewardship contracting programs exist at both the Department of the Interior and the Forest Service. This innovative initiative combines restoration goals with economic benefits for local communities by awarding work contracts that can include both the removal of forest products like timber and biomass, and restoration activities. By trading goods for services, such as using funds from timber sales to pay for restoration, forestry products are not only more sustainable but can be more efficient because funding goes directly to the forests themselves, rather than having to be appropriated.

These programs have been both popular on the ground and successful—the Forest Service increased the number of contracts awarded in 2010 by 65 percent to 232 projects.⁸⁴ Colorado's Arapaho, Roosevelt, Pike, and San Isabel National Forests teamed up to award a 10-year stewardship contract in 2009 to help reduce the risk of wildfire and address pine beetle issues in the state. In just its initial stages, the project created 63 new jobs.⁸⁵ A similar project, the White Mountain Stewardship Contract in Arizona, has so far created 319 direct and indirect jobs.⁸⁶

Another way jobs are created from sustainably managed forests is through the development of woody biomass for electricity and fuel. Woody biomass—trees, branches, and other materials from forests—can be an important renewable energy resource that will help our country transition to a clean energy economy. A report from the Center for American Progress and the Political Economy Research Institute found that every \$1 million invested in biomass (all types, not just woody) creates 17.4 jobs.⁸⁷

Roger Johnson, president of Pyramid Mountain Lumber, Inc., based in Seeley Lake, Montana, sees the job-creation benefits of sustainable forests first hand.

“There is tremendous employment potential on public timberlands,” he explains in an interview. “They are under attack by a vast array of insects and noxious weeds. Sawmills are short of fiber and there are biomass opportunities. Forest products companies are only willing to make capital investments when there is some raw material certainty. That has been lacking on federal lands for years and we are hopeful that collaborative efforts will improve that situation.”

In order to be sustainable and create long-lasting jobs, biomass must be harvested from forests in a manner that does not impede natural ecological cycles and provides a net benefit to the forest. Jobs such as mechanics, engineers, forest managers, and equipment operators are all needed on a sustainable biomass project. Thousands of megawatts of installed capacity already source materials from public lands.

Environmentally sound biomass projects are already creating many jobs across the country. The Lakeview Biomass Cogeneration Plant in Oregon, for example, will create 68 jobs just on the project, not to mention indirect employment in local service industries.⁸⁸ In addition to creating jobs, removing biomass from forests helps reduce the risk of large-scale fires.

In the West, sustainable management of forests is extremely important to communities that were once dependent on logging. As Scott Melcher, a third-generation logger and owner of Melcher Logging Co., said of his involvement in new collaborative restoration projects, “I’m surviving in this industry creatively, to say the least.”⁸⁹

Additionally, sustainable management of forests must include consideration of watersheds. Water is one of the most important benefits of forests, and our national forests provide drinking water for 66 million people and are worth \$7.2 billion.⁹⁰ The Forest Service and the Department of the Interior are rightfully beginning to manage forests within a watershed framework, as they must constantly be managed and improved in order to protect them from a wide variety of threats including fire, climate change, industrial development, and pollution.

“There is tremendous employment potential on public timberlands.”

Policies to support jobs in our forests

There are three main ways public policies can support sustainable job creation in our forests. The first is stewardship contracting. The dozens of stewardship contracting

projects at both the Forest Service and the Department of the Interior have proven to be some of the most successful collaborations that either agency has ever seen. They also create long-term, sustainable jobs in rural, timber-based communities.

The second is through sustainable biomass projects. Biomass is an important component of the clean energy mix, although care must be taken to ensure it is not sourced from places that have other economic values like roadless areas. Local markets, especially in places with an existing wood products industry, can be supported by the issuance of tax credits and other incentives to award projects that meet sustainability standards. Funding for forest thinning and other types of hazardous fuel reduction, if undertaken in a manner that is ecologically sustainable, will help create jobs in rural economies. Sustainable biomass projects that are supported by local communities should be a part of hazardous fuels reduction plans.

The third and potentially most important policy to sustainably manage forests and support jobs in them is watershed management. This means supporting large-scale watershed projects, such as the Potomac Watershed Partnership, which involved federal agencies, state governments, businesses, and local nonprofits. The newly created “Priority Watersheds and Job Stabilization Initiative” at the Forest Service will be where the many types of watershed management and restoration will be tracked within the agency (others included some of the restoration policies discussed in the previous section). Contractors, managers, scientists, construction workers for road removal and repair, and other types of jobs are all needed to make sure that clean drinking water, pristine rivers for fishing, and water recreation are all available for the generations that come after us.

Conclusion

Our public lands, owned by all Americans, have many values, from providing natural resources to public health benefits to incredible scenery that beckons visitors to rural areas. But often lost in the discussion of the value of these lands is the fact that conserving special places creates and supports jobs. Protecting and sustainably managing public lands for recreation and tourism, renewable energy development, restoration, and sustainable forestry practices are critical mechanisms to create and support jobs in the places that need them the most.

It is important for all Americans, especially those who live and work in rural areas near public lands, that policies to stimulate jobs through conservation are defended and expanded. While we have found that hundreds of thousands of jobs have already been created from the policies we identify in this report, we know this number is far underestimated due to the scarcity of research on jobs created by restoration and forest management.

Going forward, Congress and the Obama administration should ramp up efforts to track the number of jobs and impacts on rural communities that public land conservation can create. Better recordkeeping will help enumerate the importance of these jobs to communities that are adjacent to and rely on tourism, recreation, and management of public lands for economic development.

Additionally, political leaders should endorse and promote the 15 policies we identify in this report. Not only will advocacy of these policies protect jobs that already exist, but it will allow opportunities for even more jobs to be created. Congress and the administration, via legislation, executive orders, and other proclamations, can ensure these policies are maintained and expanded so our public lands can continue to create jobs and provide economic benefits to millions of Americans.

About the authors

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