STATEMENT OF THOMAS TIDWELL, CHIEF U.S. FOREST SERVICE UNITED STATES DEPARTMENT OF AGRICULTURE BEFORE THE COMMITTEE ON AGRICULTURE SUBCOMMITTEE ON CONSERVATION, ENERGY AND FORESTRY UNITED STATES HOUSE OF REPRESENTATIVES MARCH 13, 2013 CONCERNING

National Forest Management and its Impacts on Rural Economies and Communities

Mr. Chairman and Members of the Subcommittee, thank you for the opportunity to present the views of the U.S. Department of Agriculture regarding national forest management and its benefits for public and private lands on rural economies and communities.

The national forests and grasslands were established to protect the land, secure favorable conditions of water flows, and provide a sustainable supply of goods and services. National Forest System (NFS) lands are managed using a multiple-use approach with the goal of sustaining healthy terrestrial and aquatic ecosystems while addressing the need for resources, commodities, and services for the American people. Rural and urban communities depend on the forests for a variety of resources, commodities, and services, but for the rural communities in particular, national forest management can impact local economic and social conditions. With our many partners, the Forest Service is working to maintain the functions and processes characteristic of healthy, resilient forests and watersheds, and through delivery of our programs, maintain and enrich the social and economic environment of our local communities.

Vegetation Management

Our forests are important to all of us, and people understand that forests provide a broad range of values and benefits, including biodiversity, recreation, clean air and water, forest products, erosion control, soil renewal and more. Forests, which cover a third of the country's landmass, store and filter more than half of the nation's water supply and absorb 20 percent of the country's carbon emissions. Our mission of sustaining the health, resilience and productivity of our nation's forests is critically important to maintaining these values and benefits. Restoring the health and resilience of our forests generates important amenity values. A study by Cassandra Mosely and Max Nielson Pincus has shown that every million dollars spent on activities like stream restoration, hazardous fuels reduction, forestry or road decommissioning generates from 12 to 28 jobs. Through implementation of the Collaborative Forest Landscape Restoration

Program – which relies heavily on stewardship contracting – the proponents of projects on NFS lands created or maintained 1,550 jobs through 2011.

The Forest Service is leading the USDA Wood to Energy Initiative, a partnership between 5 agencies, including Rural Development and the Farm Service Agency. This interagency effort is focused on creating value for woody biomass by creating energy, for heating buildings, manufacturing and producing electricity. The initiative is focused on economically viable uses of wood. For example, wood chips and pellets are about half the cost of fuel oil and propane for heating. The U.S. uses about 25 billion gallons of fuel oil and propane at a cost of about \$75 billion, most of it consumed in rural America. It is important to keep in mind that wood energy is just one more part of an integrated wood products industry that produces structural material, furniture, pulp and paper. Our goal is to use all the parts of the trees for the highest value we can so that landowners can effectively manage their land whether it is public or private.

Unfortunately, it is estimated that there are between 62 and 85 million (high and very high fire risk) acres of National Forest System (NFS) lands in need of restoration. More than 60 percent of the contiguous United States is in a moderate or more severe stage of drought – with 20 percent of those areas experiencing exceptional drought conditions. In addition, insects and disease have weakened the resilience of America's forests. Nationally, approximately 80 million acres of trees are projected to be at risk of severe mortality due to insect and disease. Over the past 10 years in the west, approximately 45 million acres across all land ownerships have been affected by 20 different species of bark beetles.

It is widely recognized that management of our forest resources has not kept pace with the ever increasing need for restoration. Organizations such as the National Forest Foundation, American Forest Foundation, The Nature Conservancy, the National Association of State Foresters, the Wilderness Society, U.S. Endowment for Forests and Communities, the Intertribal Timber Council, and the Western Governors Association have embraced an agenda to actively restore resilient landscapes and provide for community vitality. The Forest Service is striving to increase the number of acres that are restored by a variety of treatments annually. This increase would allow the Forest Service to increase the number of acres and watersheds restored across the system, while supporting existing infrastructure and jobs.

The Forest Service recognizes the need for a strong forest industry to help accomplish forest restoration work; the best opportunity for reducing the cost of these restoration treatments is through timber harvest and stewardship contracting.

The benefits of maintaining a robust forest industry flows not only to local communities but also to the Forest Service itself as the agency relies on local forest contractors and mills to provide the workforce to undertake a variety of restoration activities. The industry's workforce is larger than either the automotive or chemical industries, currently employing nearly 900,000 workers. And the good news is that there have been recent upturns in the housing market and lumber prices, resulting in higher demand and prices for sawtimber. The capacity exists within current infrastructure to meet this increased demand for lumber through adding extra shifts, reopening mills, and efficiency gains. The higher demand and prices for timber will enable the Forest Service (FS) to complete more restoration treatments, especially under a stewardship contract.

Stewardship contracting is a critical tool that allows the Forest Service to more efficiently complete restoration activities. Permanently reauthorizing stewardship contracting and expanding the use of this tool is crucial to our ability to collaboratively restore landscapes at a reduced cost to the government by offsetting the value of the services received with the value of forest products removed. In fiscal year 2012, 25 percent of all timber volume sold was under a stewardship contract. Stewardship contracting authorities, such as goods for services, funded watershed and wildlife habitat improvement projects, invasive species removal, road decommissioning, and hazardous fuels reduction activities.

The Forest Service continues to be a leading agency in the federal government to preferentially select domestically harvested wood products in building construction projects while increasing its commitment to green building standards. All Forest Service building projects incorporate green building principals such as energy efficient, locally produced wood products, recycling and reuse of building materials. New building construction and major renovation projects for administration facilities or research laboratories over 10,000 gross square feet must be registered and certified using either the United States Green Building Council LEED rating system, or other accredited third-party certification systems.

The Forest Service and USDA, as well as the forest products industry and resource management organizations, support a science-based approach of outlining the benefits of using wood and wood-based products in green building in the U.S. The inherent benefits of using wood go beyond economic gains. Conservation components such as increased forest productivity, cleaner air and water, and enhanced wildlife habitat will be realized as we actively manage our nation's forests. The process of harvest, transport, manufacturing and use of wood in structures creates less gas emissions than other building products such as concrete or steel. ("Life-cycle inventory and assessment research at the Forest Products Laboratory: Wood products used in building construction, U.S.D.A Forest Service").

The Forest Service provides a significant amount of value to the rural economies through its active management of rangelands. 95 million acres are within grazing allotments on national forest lands, grasslands or the Midewin Tallgrass Prairie, in 30 different states. 10 million private acres are within grazing allotments which are co-operatively managed, providing open space and un-fragmented wildlife habitat, connecting state, private, and federal lands.

To accomplish effective vegetation management, the Forest Service is fostering an efficient National Environmental Planning Act (NEPA) process by focusing on improving agency policy, learning, and technology. These NEPA process improvements will increase decision-making efficiencies, resulting in on-the-ground restoration work getting done more quickly and across a larger landscape. In addition to the Forest Planning rule, the agency has initiated a NEPA learning networks project to learn from and share the lessons of successful implementation of efficient NEPA analyses. The goal of this effort is to ensure that the Agency's NEPA compliance is as efficient, cost-effective, and up-to-date as possible. Specifically we are looking at expanding the use of focused Environmental Assessments (EAs), iterative Environmental Impact Statement documentation (EISs), expanding categories of actions that may be excluded from documentation in an EA or an EIS, and applying an adaptive management framework to NEPA. Regarding technology, the Forest Service's investments in Electronic Management of NEPA (eMNEPA) provide considerable cost and time savings, contributing to an efficient NEPA process by reducing the administrative workload.

Our landscape-scale NEPA projects will also increase efficiencies. For example, our Mountain Pine Beetle Response Project on the Black Hills National Forest is implementing a landscapescale adaptive approach for treating current and future pine beetle outbreaks. We are also implementing the Four Forest Restoration Initiative project in the Southwest for landscape-scale forest restoration projects. All of these efforts are aimed at becoming more proactive and efficient in protecting the nation's natural resources, while providing jobs to the American people.

Water

Water is a vitally important natural resource flowing from America's forests, which provides great economic benefit to many rural and urban communities. It is estimated that forests provide clean drinking water to more than 180 million people from coast to coast. Watersheds on national forests and grasslands are the source of 20 percent of the nation's drinking water supply and over 50 percent of the water supply in the West. Many major urban centers, like Denver, Portland, Atlanta, and Los Angeles, depend on National Forests for their water.

Water on the national forests is an important recreational resource and rural areas near forest land often depend on tourist spending to help support their local economies. Water-based outdoor recreation is a major attractant since more people in the U.S. fish, 30 million, than play golf, 24.2 million, or play tennis, 10.2 million (The Economic Benefits of Protecting Healthy Watersheds, EPA 841-N-112-004). National forests and grasslands contain more than 200,000 miles of fish-bearing streams – streams that support nationally renowned recreational fisheries and local jobs.

Forest Service research helps maintain clean water important to communities by providing watershed management tools and educational programs. An example is the Stream Systems Technology Center which improves knowledge of stream systems and watershed hydrology by developing operational tools and technology, providing training and technical support, and identifying needs to secure favorable conditions of water flows.

Recreation

Recreation on the national forests is extremely important for many communities. Over the past few years, the national forests and grasslands have hosted an average of nearly 166 million visits per year. Visitors engage in activities such as camping, picnicking, skiing, snowboarding, hunting, fishing, hiking, off highway vehicle and snowmobile use, viewing scenery and wildlife, scenic driving and visiting cultural sites and visitor centers. In connection with their visits, recreation visitors directly spend about \$11 billion in communities near national forests. With multiplier effects, this amounts to \$13.5 billion and accounts for 47% of the Forest Service contribution to the national Gross Domestic Product (GDP) (National Visitor Use Monitoring, 2011). The direct visitor spending, combined with the ripple effects in the nearby economies, sustains more than 200,000 full and part-time jobs (National Visitor Use Monitoring, 2011). The vast majority of these jobs are in gateway communities. These towns' distinguishing feature is proximity to public lands; the vitality of their social and economic structure often depend on the management decisions being made on and for these public lands.

Partnering with private sector businesses to develop and maintain ski areas on NFS lands has proven to be a particularly significant economic engine for gateway communities. Currently, 122 alpine ski areas are located on NFS lands, which together comprise over 60% of the downhill skiing capacity in the United States. The direct spending on downhill skiing and snowboarding by visitors to national forests amounts to about \$3.5 billion annually. With ripple effect, this translates to nearly a \$5 billion contribution to GDP and represents approximately 4,000 full and part-time jobs. Moreover, many of these locations are expanding their summer activity offerings, further enhancing their importance to gateway communities. (National Visitor Use Monitoring, 2011).

The number and diversity of our recreation opportunities and the quality of our recreation settings are the primary reasons visitors keep coming. Stable and robust visitation numbers provide desirable opportunities for a wide array of businesses. High quality natural resource settings are among the benefits that people seek when deciding where to live or retire. Gateway communities benefit from both.

The operation and maintenance of many of our recreation sites and reservation system is dependent on user fees, such as campground fees. The agency collects about \$65 million annually in user fees through the Forest Land Recreation Enhancement Act (FLREA), which sunsets December 8, 2014. Ninety five percent of FLREA funds go back to where they are collected for the maintenance and operation of recreation facilities. The Forest Service is working with the Department of the Interior to reauthorize FLREA. A loss of this funding would create a burden that could not be made up with appropriated or other partnered funding and would have a direct impact on rural economies due to closures of recreation sites and loss of jobs.

Special Uses

The Forest Service manages approximately 74,000 special use authorizations. Special use authorizations allow for the use of NFS lands for numerous purposes to benefit the public such as energy transmission and communications infrastructure, renewable energy-related uses, public service facilities such as ski areas, resorts and marinas, as well as services such as outfitting and guiding. There are 180 types of special uses.

The special uses program provides significant public benefits. Over 6,600 miles of energyrelated pipeline and some 15,000 miles of transmission line rights-of-way cross NFS lands. In addition approximately 1,600 communication sites are located on NFS lands. Federal Energy Regulatory Commission (FERC) licensed dams provide enough power for some 15 million homes. Private businesses and non-profit entities provide approximately half of the recreation opportunities on NFS lands, including 122 ski areas, 259 resorts, 77 marinas, 311 organizational camps, 230 concession campground operations, nearly 5,000 outfitting and guiding operations, and nearly 1,000 recreation events each year. The agency also leases some 14,000 forest cabin lots.

Forest Service special uses generate approximately \$100 million in land use fees annually Special uses provide many benefits to the American public and are one of the many ways that NFS lands provide resources and services in areas such as energy, communications, and recreation. Special uses provide business opportunities for large and small companies, thereby supporting the national and local economies. Because 10 percent of the continental US is National Forest System land, the agency necessarily plays a critical role in energy development, energy transmission and communications.

In addition, the public benefits greatly from this program by receiving recreation and other services which could not be provided by the Forest Service.

Minerals, Oil and Gas

Over 5 million acres of NFS lands are currently leased for oil, gas, coal, and phosphate mining operations. Our energy and minerals programs contribute to sustainable domestic energy production and support many jobs and socioeconomic benefits to the American people, while protecting healthy ecosystems.

At any given time, the Forest Service administers operations on approximately 160,000 mining claims and manages approximately 2,600 mineral material sale contracts. The value of energy and minerals production from these operations on NFS lands typically exceeds \$6.5 billion per year, as calculated by the Forest Service and the Department of the Interior's Office of Natural Resources Revenue.

Mineral receipts are derived from annual lease rentals, royalties on production, bonus bids for competitive leases, and mineral material sales. Of the total revenues received, between 25 and 50 percent—depending on whether production is from acquired lands or lands reserved from the public domain—are returned to the State or county of production. Federal royalties from oil and gas leases on NFS lands were \$136 million in calendar year 2009. Returns to the Treasury each year from lease rentals, royalties on production, bonus bids, and mineral material sales on NFS lands typically range from \$650 million to \$850 million. The Forest Service is analyzing additional lands across the country which could be made available for leasing.

Wildland Fire

Within the United States, many States have recently experienced their largest and/or most destructive fires in history. Similar situations are happening on the global stage as well.

Two primary factors are contributing to additional acreage being burned by wildfires: climate and vegetation. We can only expect climate-related drivers to increase. We are experiencing increases in the frequency of warm days and decreases in cold days. Heat waves are increasing in length, frequency, and/or intensity over most land areas. Researchers have shown a 78-day increase in the western fire season since 1970. Rising spring and summer temperatures across the west appear to be correlated to the increase in size and number of wildfires. Time of

snowmelt also may be a factor. Scientists predict the western States will get hotter and drier by the end of the century. Fire seasons will grow longer and fires will increase. More and bigger fires will become the norm as climate continues to change. Key considerations to consider:

- In the absence of treatment, fuels continue to accumulate, setting the stage for future fires to be more extreme. In many areas fuels are at higher levels than historic norms.
- Where we are able to treat fuels and vegetation, we are able to reduce fire impacts. The Forest Service monitors when wildfires burn into treated fuels and the monitoring showed that, of almost 1,200 cases studied, 94% of the fuel treatments were effective in changing fire behavior and/or helping with suppression.
- The pace of our fuel management activities has not kept pace with the trends that drive fuel accumulation. Even with the increase in wildfire many areas are still accumulating more fuel than is being burned. Natural vegetation succession, drought, land use patterns, insect outbreaks, invasive species, and fire suppression all contribute to accumulating fuel loads.
- New construction of homes in the wildland urban interface (WUI) greatly compound the fire management problem. About 1/10 of land area occupied by housing and about 1/3 of all housing units in the conterminous United States are located in the wildland urban interface.
- Severe fire may bring landscape conversions which can lead to reduced habitat for endangered and threatened species such as spotted owls, sage grouse, and cold water fish species. These type conversions will also have impacts on water yield and quality.
- The increased presence of wildfire is already having costly and serious impacts on public health with increased levels of smoke. As the fire seasons grow longer and fires increase, there will be increased impacts to local and State economies.
- Regional action plans are being developed with federal, State and local cooperators to meet the goals of the National Cohesive Wildland Fire Management Strategy (Restoring and Maintaining Resilient Landscapes, Creating Fire–Adapted Communities and Responding to Wildfires)

State and Private Forestry Programs

The Forest Service works with a variety of partners to help private forest landowners conserve and manage their forest resources so the lands can contribute to local, rural economic growth and provide ecosystem services on which we all depend. Many rural economies rely on the proximity of forests and forestry sector jobs, and most of the nation's forest land, about two-thirds, is in private ownership. Through our National Woodland Owner Survey and other related studies, we attempt to better understand private and family forest owners – about 11 million of them – so we can continue to deliver appropriate tools and the types of technical assistance most needed.

The Forest Stewardship, Forest Legacy, Community Forest, Urban and Community Forestry, Conservation Education, Forest Health Protection, and Cooperative Fire Protection Program first work to keep our state and private forests as forests in the face of increasing development pressures and other threats. These programs then work to protect these forests from harm while enhancing the benefits they provide.

The Forest Stewardship Program is delivered directly to landowners through state forest agency partners, and a vast network of forestry technical assistance providers, forestry consultants, state

forestry agencies, and non-profit partners. Sustaining forest health on private ownerships through this program is thus vitally important, not only for the environment but also for the economic and social well-being of surrounding communities. Program funding is frequently leveraged locally to train professional consulting forester pools that landowners can then access. Assistance is provided primarily in the form of comprehensive long-term Forest Stewardship Management Plans. Currently, about 20 million acres of private forest land are being sustainably managed under these plans nationally. According to a study by the National Alliance of Forest Owners (NAFO, 2009), the contribution of these managed acres to employment is significant: "On average, each 1,000 acres of privately-owned forest is responsible for the creation of 8 jobs."

The program is also increasingly serving as a "gateway" through which landowners can gain access to a variety of assistance, programs, and incentives including USDA cost-share, state tax abatement, forest certification, and emerging ecosystem service and renewable energy markets.

Our newly adopted Landscape Stewardship Approach is attempting to provide further access to emerging markets by creating economies of scale for smaller landowners. Landscape-scale plans also facilitate cross-program and interagency coordination, make more efficient use of limited resources, tie individual ownership objectives to landscape-scale resource management objectives, and help landowners understand how their actions contribute to broader landscape management efforts and their local economies.

The Forest Health Protection Program (FHP) is helping states, landowners, communities and tribes combat insect pest, disease and invasive plant infestations that, if left unchecked, can have severe local and regional economic impacts. Restoration of bark beetle infested landscapes across rural western communities is one of the priorities of the Forest Service Western Bark Beetle Strategy. FHP also produces the National Insect & Disease Risk Map, which provides vital information on future risk to forests across all lands. In addition, on-going Aerial Detection Surveys are conducted to assess general and annual forest health conditions. Both of these information sources are essential to help federal, state, and local land managers make better management decisions in the face of landscape change, potentially resulting in significant rural forest industry and related economic benefits.

Forest Research and Development

Forest Research and Development (R&D) serves the nation and communities with a variety of research efforts to better understand forests and their economic impacts. Forest Service R&D continues to adapt and reposition its programs as needed to address the needs of a rapidly changing society. The social, economic, and environmental forces driving the change have the potential to fundamentally change existing relationships among people, cultures, communities, political institutions, and the natural environment. Forest Service R&D is responding to these issues through six priority research Areas: (1) Forest Disturbance, (2) Biomass and Bioenergy, (3) Urban and Natural Resources Stewardship, (4) Nanotechnology, (5) Water Management and Restoration, and (6) Localized Needs Research. These priority research areas demonstrate Forest Service R&D's commitment to remaining an interactive, vibrant, and visionary partner in addressing today's critical natural resources problems with science and technology. This science

and leadership service is a highly important investment for a world struggling with environmental change.

Forest Inventory and Analysis (FIA) information provides the forest resource information needed to assess current and future opportunities and risks to maintaining healthy forests and vibrant rural communities. FIA data and information are updated annually for all 50 states. The information is used by states, forest landowners, forest planners and forest investment firms to plan silvicultural treatments. Investment decisions for development and location of wood based manufacturing facilities also access FIA information. We have also learned from assessments based on FIA information that urbanization is resulting in forest losses and that reduced demand for domestic forest products is impacting rural communities.

Additionally, we continue to set priorities for fuels treatments around communities linked to restoration goals resulting in avoided costs to water, decreased insurance costs to owners, and decreased loss of infrastructure. Forest Service fire scientists, analysts, and technology transfer specialists put science in the hands of managers, decision makers, policy makers, homeowners and communities in the form of user-friendly software and data, real-time support of trained analysts on active wildfires, and educational material for schoolchildren. Smoke modeling tools have been developed to integrate meteorological data, cutting edge smoke science, and fire behavior predictions to help fire managers schedule essential prescribed burns to minimize these health impacts. The Wildland Fire Decision Support System assists fire managers and analysts in making strategic and tactical decisions for fire incidents by providing easier sharing of analyses. I-Tree, a peer-reviewed software suite, provides urban forestry analysis and benefits assessment tools to help communities strengthen their urban forest management and advocacy efforts by quantifying the structure of community trees and the environmental services that trees provide.

The Forest Service is expanding the use of wood and a sustainable and environment friendly material by developing new materials and technologies at the Forest Products Laboratory. These new materials range from Nano sized particles that can be used in developing light weight and strong car bodies or a green substitute for petroleum based plastics and films to new construction materials and techniques for multiple story buildings. These new technologies use low value wood from restoration treatments to provide sustainable alternatives to non-renewable materials and create jobs in rural area. Forest Service studies show that using wood products for building materials, instead of fossil-fuel intensive alternatives, results in a smaller carbon footprint.

The Forest Service also provides science-based information for community planning in recreation planning, including the social and quality of life benefits of recreation on communities and society, and the impacts of economic cycles on tourism-dependent communities and the effects of changing land use and ownership patterns, amenity migration, and labor markets on recreation businesses and management.

In summary, the Forest Service continues to work toward accomplishing restoration objectives, providing information, research, and quality recreational experiences, all linked to healthy rural communities. I want to thank the committee for its interest, leadership, and commitment to our national forests and their surrounding communities. I would be pleased to answer any questions you may have.