Statement of Cassandra Moseley, Ph.D.
Ecosystem Workforce Program
Institute for a Sustainable Environment
University of Oregon
To the U.S. Senate Energy and Natural Resources Committee
Regarding Investments in Clean Energy and Natural Resources Projects and Programs to Create Green Jobs and to Stimulate the Economy
December 10, 2008

Mr. Chairman and Members of the Committee:

Thank you for the opportunity to speak before you today about the critical issue of how the public land management agencies can use green job development to stimulate the economy today and create the foundation for a strong, sustainable economy in the long term.

I am on the faculty of the University of Oregon, where I direct the Ecosystem Workforce Program in the Institute for a Sustainable Environment. The Ecosystem Workforce Program (EWP) was founded in 1994 to help retrain displaced forest workers and build a green economy in the Pacific Northwest. Today, EWP seeks to build ecological health, economic vitality, and democratic governance in rural natural resource communities in the American West. It is a partner in the Rural Voices for Conservation Coalition, which promotes balanced conservation-based approaches to the ecological and economic problems facing the West.

Today, I want to argue that the restoration and maintenance of our nation's forests and grasslands, acceleration of wood-based energy development, and the greening of federal facilities offer significant opportunities to stimulate the economy in the short term by providing jobs in regions and sectors that are likely to be hit particularly hard by this deep recession. With $8.5 billion, the Forest Service and Bureau of Land Management (BLM) estimate that, together, they could create approximately 127,000 direct jobs over the next one to three years.[1]

In addition, by making these investments today, we can create the foundation for a sustainable economy, in which our public lands and rural communities play a vital role in providing our nation with a wide array of ecosystem services ranging from carbon sequestration, clean air and clean water to wood products and renewable energy.

Economic and Environmental Challenges

It is clear that we are in a severe recession, which economist Nouriel Roubini predicted in October would last at least two years, with some risk of it lasting a decade.[2] We need a large infusion of government spending to stimulate the economy to dampen the effects of the rapidly contracting economy on families, businesses, and communities and to prevent a prolonged (e.g.

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[1] "Green Jobs: Economic Stimulus through Training and Land Restoration, United States Forest Service", Memorandum from Doug Crandall, USDA Forest Service to Scott Miller, U.S. Senate Energy and Natural Resources, December 2, 2008; "BLM - Potential Economic Stimulus Projects within a 2.5 year timeframe", December 8, 2008.

[2] Nouriel Roubini, Written Testimony, Hearing on Faltering Economic Growth and the Need for Economic Stimulus, the Joint Economic Committee, U.S. Congress, October 30, 2008.

decade-long) recession. It is critical that Congress act now by focusing on spending that can employ workers quickly.

Despite the constant barrage of news stories about the economy, there has been much less news about how the economic crisis is impacting rural America. Even before this current economic crisis, rural America faced significant economic challenges. Over 90% of the nation's 200 poorest counties are rural. Now, in the rural West, conditions are deteriorating rapidly. For example, from October 2006 to 2008, Oregon lost 17 percent of its wood products manufacturing jobs and logging jobs, most of them in the last 12 months.[3] Unemployment rates in many Western and Southern rural counties are above 9 percent.[4]

In addition to the rapidly worsening economic situation, we are facing a longer-term decline in the conditions of our public lands. For more than a decade, the budgets of the land management agencies have been flat or declining while fire suppression costs have increased dramatically.[5] This budget squeeze has meant that the land management agencies have fallen farther and farther behind in addressing problems such as fire hazard, the spread of noxious weeds, degraded wetlands and wildlife habitat, and decaying roads, trails, and recreation sites. Today, we face expensive wildfires, growing risk of road failure, and reduced capacity to provide a wide variety of ecosystem services. If we are to create green jobs today and build the foundation of a sustainable economy long into the future, we must address the conditions of our nation's forests and grasslands.

Moreover, the United States needs to rapidly reduce greenhouse gas emissions and increase carbon sequestration. The federal land management agencies, as the managers of vast amount of carbon, must play a central role in reducing emissions, increasing sequestration, and restoring and maintaining ecological resilience in the face of climate change.

Green Jobs Today, Long-Term Benefits

There are three strategies that the Forest Service and BLM could use to create a significant number of jobs immediately while investing in the long-term economic future of America. These strategies are: restoration and stewardship of our nation's forests, grasslands, and rivers; sustainable wood-based energy development; and the greening of federal facilities.

Land stewardship– There are broad-reaching and diverse activities that the land management agencies could pursue to create jobs in the short term, including fire hazard reduction, restoration of watersheds and wetlands, road decommissioning and maintenance, wood bridge repair and construction, wildlife habitat improvements, control of noxious weeds and invasive species, range restoration, remediation of orphaned wells, abandoned mine reclamation, trail and recreation site maintenance, wildlife surveys, and the planting and maintaining of riparian and urban trees.

Several billion dollars per agency is a major commitment, and yet it would only begin to address the ecological and infrastructure needs of the public land management agencies. One

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[3] Oregon Employment Department, Current Employment Statistics, http://www.qualityinfo.org/olmisj/CES, accessed 12-3-2008.

[4] Bureau of Labor Statistics, Local Area Unemployment Statistics, Unemployment Rates by County, October 2007-September 2008, http://www.bls.gov/lau/maps/twmcort.pdf, accessed 12-7-08. http://www.qualityinfo.org/olmisj/AllRates, accessed 12-7-08.

[5] USDA Forest Service, Agency Transition Document, November 5, 2008.

2002 Forest Service and Department of Interior team estimated, for example, that the agencies may need at least $1.4 billion in additional funds annually to make significant inroads into reducing ecological and community risks to wildfire.[6] Similarly, the Forest Service alone has close to an $8 billion road maintenance backlog.[7]

In addition to the immediate jobs benefits, investments in land stewardship would help maintain the business capacity to care for our nation's forests and grasslands in the long term. Moreover, significant investments in fire hazard reduction in places that are at most risk to wildfire could create significant cost savings to the government and reduce greenhouse gas emissions. Two recent studies in the Southwest find net benefits from fuels reduction in the range of $240 to $1,400 per acre in reduced suppression costs and avoided losses.[8] Similarly, a recent study estimates that fire hazard reduction can reduce net carbon emissions from forests by as much as 98 percent.[9] Other kinds of restoration can also create considerable long-term economic benefits; river and road restoration, for example, increase commercial and tribal fisheries and reduce risks to drinking water supplies.

Wood-based energy development—In addition to conducting fire hazard reduction, we need to develop businesses and markets that can use the woody material that is the byproduct of these treatments to create heat, electricity, and value-added wood products. By expanding the existing Forest Service woody biomass grants program, we could create jobs in the short term conducting feasibility studies and constructing wood heat and co-generation facilities. More significantly, these investments can help lower the costs of fuels reduction treatments over time. They would also reduce our dependence on fossil fuels and increase our use of renewable energy. In addition, conversion to wood heat can create substantial cost savings for schools, hospitals and other public buildings, thereby saving public dollars. For example, a small high school in Enterprise, Oregon, recently-installed a wood heat boiler that is expected to generate annual savings equivalent to maintaining 4-8 percent of their teaching staff.[10]

Greening facilities–Land management agencies could invest significant funds in greening their facilities. They have a stock of aging buildings that could be upgraded to reduce their carbon footprint through weatherization, conversion of heating, cooling, and electrical systems to wood or other renewable energy sources, and installation of energy-efficient lighting. In addition to providing jobs via contracting and job training programs, this strategy would have critical long-term benefits including reduced greenhouse gas emissions and costs to the taxpayers.

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[6] GAO, Wildland Fire Management: Important Progress Has Been Made, but Challenges Remain to Completing a Cohesive Strategy, GAO-05-147, January 2005.
[7] USDA, Forest Service, *Fiscal Year 2005 Forest Service Budget Justification*, sec. 10, p. 33, 2004.
[8] C. Larry Mason, et al., "Investments in Fuel Removal to Avoid Forest Fires Result in Substantial Benefits." *Journal of Forestry*, 104(1):27-31, 2006. See also, Gary Snider, P.J. Daughtery, and D. Wood, "The Irrationality of Continued fire Suppression: An Avoided Cost Analysis of Fire Hazard Reduction Treatments Versus No Treatment," *Journal of Forestry*, 104(8):431-7, 2006.
[9] Matthew D. Hurteau, George W. Koch, and Bruce A. Hungate, "Carbon Protection and Fire Risk Reduction: Toward a Full Accounting of Forest Carbon Offsets," *Frontiers in Ecology and the Environment*, 6(9):493-498, 2008; Matthew D. Hurteau and Malcolm North, "Fuel Treatment Effects on Tree-Based Forest Carbon Storage and Emissions under Modeled Wildfire Scenarios, *Frontiers in Ecology and the Environment*, 7, 2009.
[10] Resource Innovations, *Wood Heat Solutions: A Community Guild to Biomass Thermal Projects*, 2008. Nils Christoffersen, Wallowa Resources and Enterprise School Board, Personal Communication, 12-8-08.

Jobs Estimates

The Forest Service estimates that it could spend $5.5 billion over the next one to three years on land stewardship, wood-based energy development, and the greening of its facilities and could create as many as 90,000 jobs.[11] Similarly, the BLM estimates that it could spend roughly $3.0 billion over the next two and a half years, creating over 37,000 direct jobs and nearly 22,600 indirect and induced jobs performing a wide variety of landscape restoration and stewardship activities.[12]

There is little empirical research or analysis about the costs of creating one full time equivalent restoration or stewardship job. Part of the challenge of creating accurate jobs estimates is the huge diversity of activities involved in restoration and stewardship. However, assuming Service Contract Act wage rates, it seems reasonable to assume that restoration-based green jobs costs between $60,000 and $150,000 per direct full time equivalent job, depending on the type of work.

It is easy to get caught up in the numbers game of predicting how many jobs a particular initiative would provide. It is tempting to assume that more jobs are necessarily better. However, it is important to keep the issue of job quality[13] in mind. More jobs per billion dollars often means that these jobs are lower paid. Although low wage jobs may be appropriate for youth entering the workforce for the first time, these sorts of jobs will not help keep children and families fed, clothed, and in their homes. More important than the exact number of jobs that will be created, what is essential is that this stimulus package provide jobs for working people and families who will spend the money they earn on essentials, creating a significant multiplier effect.[14]

Regardless of the exact cost per job, public lands stewardship, greening of public lands facilities, and wood-based energy development all fit the bill. While extremely varied in types of activities, they will all employ large numbers of working people in activities that will have lasting effects by building the foundation of a green economy and reducing government expenses in the future.

Getting it Done

Clearly, one central consideration has to be whether the federal land management agencies can spend this money quickly—much of it in the next several months, and all of it in the next few years. There are a number of factors in place that suggest that they can do this.

First, all of the activities proposed here can be accomplished using existing authorities and programs. Although spending these funds effectively will require the focus and coordination at all levels, the agencies will not need to develop new rules, regulations, or programs.

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[11] "Green Jobs: Economic Stimulus through Training and Land Restoration, United States Forest Service", Memorandum from Doug Crandall, USDA Forest Service to Scott Miller, U.S. Senate Energy and Natural Resources, December 2, 2008.

[12] Bureau of Land Management, "BLM - Potential Economic Stimulus Projects within a 2.5 year timeframe", December 8, 2008.

[13] The Ecosystem Workforce Program defines a quality job as one that provides family-supporting wages and compensation, a safe and health workplace, long duration employment, structured training, opportunity for advancement, and the ability to work close to home.

[14] Roubini, Written Testimony.

Second, it will be critical for the Office of Management and Budget, the departments, and agencies' budget staff to work without delay to transfer funds and spending authority to field units. While traditional allocation processes often take months, simply by prioritizing fast action on stimulus funds, the process could move much more quickly.

Third, the agencies will have to prioritize projects with complete environmental analysis or limited analysis requirements, at least initially. However, the agencies appear to have a reasonable shelf stock of restoration and stewardship projects for the first year. For example, the Forest Service estimates that it has 5 million acres of NEPA-ready fire hazard reduction projects.

Fourth, the land management agencies have a wide array of implementation tools that can get money to the businesses and workers quickly. The land management agencies should spend the bulk of the funds via service contracts, stewardship contracts, and cooperative agreements, which they can offer and award relatively quickly. To do so, however, they will probably need to increase contract and agreements staffing to write new and amend existing contracts and agreements.

In addition, the agencies have significant capacity to hire temporary and seasonal employees and use the Economic Action Program, AmeriCorps, Youth Conservation Corps, and Jobs Corps to combine job training with stewardship activities. Appropriately mixed with service and stewardship contracts and agreements, these programs can train young workers and get projects done quickly. The Forest Service estimates, for example, that they would create 5,000-7,000 jobs using these sorts of training programs. If this training done in partnership with local community organizations, as was done in the Jobs in the Woods and Hire the Fisher programs, the economic effects would be greatly enhanced.

Summary Recommendations

1. **Act immediately to provide economic stimulus in the range of $2.0 billion to $3.5 billion per agency** for Forest Service and the BLM, to remain available until September 30, 2010. The focus of spending should be on building a rural green economy. Priority activities should include:

A. Restoration and stewardship activities that will provide green jobs immediately and long-term benefits of improved ecosystem services, sustainable economic development, and reduced costs to the government.

B. Actions that will benefit segments of society that are likely to be hardest hit by the recession and are most dependent on public lands, especially those workers and businesses that live and work in isolated, rural public lands communities who are not likely to benefit from the larger economic stimulus package.

C. Expansion of the Forest Service grants programs that support the development of woody biomass utilization, including for renewable heat and power.

D. Projects that have the potential to reduce green house gas emissions, sequester carbon, or increase ecological resilience to climate change. Land management activities could include, for example, fire hazard reduction, urban and riparian tree planting, and range restoration. Facilities improvements could include, for example weatherizing buildings and replacing aging heating and cooling systems with more efficient wood heat boilers, solar panel insulation, and energy efficient equipment and lighting.

E. A wide range of forest, watershed, wildlife and fisheries restoration projects that are NEPA-ready now or could be NEPA-ready within a year.

F. Land stewardship activities that require little or no NEPA analysis, such as plant, wildlife, cultural resource surveys, and boundary line delineation, and other technical activities.

G. A wide range of recreation, trails, and roads projects that would reduce the risk of catastrophic road failures and reduce stream sedimentation, which are NEPA-ready now or could be NEPA-ready within a year.

H. Increasing the number of contracting officers and agreements coordinators to help award contracts and agreements more quickly.

I. Funding for the Department of Labor and the land management agencies to increase oversight of contractors to ensure that they comply with safety and labor laws, especially in the areas of thinning and reforestation.

2. **Address basic needs**. Over the coming months, more families will struggle to meet basic needs such as food and heat. Ensure that communities surrounded by public lands have adequate access to fire wood and non-timber forest products for subsistence use. This may require temporarily increasing the staffing to set up designated sale areas, process permits, and ensure that resources are managed sustainably.

3. **Prohibit guest workers from employment on contracts using economic stimulus funds.** Inviting guest workers into the country to perform these activities would likely reduce the stimulating effect, as wages may be spent abroad. If contractors cannot find domestic workers to perform particular activities, these activities should be included in job training programs.

4. **Halt administrative actions that would worsen economic conditions in rural and other distressed areas.** The Forest Service has been selling buildings, consolidating units, and moving staff away from rural areas over the past 15 years. Continuing these activities is not appropriate in this economic climate. The Forest Service and DOI should, for example, place a moratorium on the sale of buildings so as to not further depress commercial building prices and forego the consolidation or relocation of units or staff that would lead to a net transfer of federal personnel out of rural or other economically distressed areas.