

MK to kick off:

Thank you Chair Verger, Chair Roblan, Chair Hanna, Members of the Committee. My name is Matt Krumenauer, I am a Senior Policy Analyst at the Oregon Department of Energy, here today from the Federal Forest Advisory Committee Implementation Work Group to discuss the results of the National Forest Health Restoration Economic Assessment.

## Study purpose

"If Oregon were to double the average number of acres treated annually to benefit and restore ecosystem health on Oregon's dry-side national forestlands, then what would that cost and what would be the economic benefit?"

In April of this year, Governor Kitzhaber, and the leaders of this committee requested that the working group complete a study of the economic impact of increasing the scale and pace of forest restoration treatments in Oregon.

With the leadership of Brett Brownscombe, the FFAC working group quickly formed a steering committee to evaluate and select a team of experts to complete the study. The steering committee also ensured that the study received extensive review for technical and scientific accuracy.



The study team consisted of four well-qualified firms. Before I turn it over to Dr. Potiowsky to talk about the economic aspects of the study, I want to take a few minutes and describe the environmental and social situation we found in eastern Oregon.

## Dry-side forests are unhealthy



As you know, the national forests in eastern and south central Oregon are overly dense and unhealthy. As a result, U.S. Forest Service-managed forests experience more and worse fires than usual. This past summer was particularly bad, with more than a million acres of rangeland and forests burnt by wildfire. Of that amount, about 170,000 acres were public and private forests. Looking at the past five years, 2007 to 2011, an average of 56,000 acres were burned annually by wildfire with an average cost of \$43 million each year in fire suppression expenses.



The area we studied encompasses 11.4 million acres of national forests – nearly 60 percent of the forested landscape. Of that amount, about 9.2 million acres is available for management activity. According to the Institute for Natural Resources, the potential for crown fire on these forested acres is significant. Across the acres classified as available, about 78 percent has a moderate to high potential for crown fire – the area indicated by the red and orange shading on the map.



Not only are the forests unhealthy, so are our social systems. Reduced management activity has decreased timber supply and hurt many families in eastern and south central Oregon. Between 2006 and 2011, annual food stamp use and welfare payments tripled to nearly \$300 million. In 2010 – just one year – Oregon distributed \$470 million in unemployment insurance claims to 29,000 people in the study area.

Persistently high unemployment has long been a challenge for rural Oregon. Unemployment rates in non-metropolitan counties were already higher at the start of the recession and these areas of our state have been slower to recover. The non-metro unemployment rate was 10.3 percent in September of this year. That is 2.8 percentage points above the Portland area unemployment rate. One in five people live in poverty.

The most challenging structural change to rural Oregon has been the reduction in forest related jobs and the shift away from wood products manufacturing. Unlike the Portland region, Oregon's rural areas have continued to see net job losses.

Let me now turn the microphone over to Dr. Potiowsky, who can provide a more detailed description of the economic costs and benefits of scaling up restoration efforts.



Good Afternoon Chair Verger, Chair Roblan, Chair Hanna, members of the committee. My name is Tom Potiowsky, Director of the Northwest Economic Research Center at Portland State University, where I am also chair of the economics department.

In order to provide an estimate of the economic impact of increased forest restoration activities, we first had to establish a baseline of what was currently happening - the type of jobs supported by restoration, and the economic impact that current activities provide. We could then use that baseline to estimate what an increase would look like.

The study looked at all of the National Forests east of the Cascades, including the eastern portion of the Rogue River-Siskiyou National Forest. We did not include the Mt. Hood National Forest because of issues with the Bull Run Watershed. We did not include west-side national forests or O&C forests managed by the Bureau of Land Management, because those are significantly different issues. The results are really focused on the impacts of restoration activities in this region. The statewide impacts are probably a little larger that what we are reporting, but I will get into that in a few moments.

Now that we have the region, lets look at what is currently happening.



On an average annual basis, the Forest Service invests nearly \$41 million on forest restoration, treating 129,000 acres – or about 1.4 percent of the national forestland in eastern Oregon not restricted from active forest management. The agency spends most of this budget on non-commercial forest restoration through service contracting. The Forest Service spends an average of \$460 per acre on timber sales, \$330 per acre on stewardship contracting and \$265 per acre on service contracting. Timber sales involve more in-depth planning processes, sale preparation, and administration – as compared to the other categories of restoration.

## Total Economic Impact Average Annual

- 2,310 jobs created or retained throughout the economy
- \$90.5 million in total income
- \$231.5 million in industrial output
- \$3.6 million in state tax revenue

This current level of investment - \$40.8 million – has the following impacts:

- 2,310 jobs, including direct, indirect and induced
- \$90.5 million in income
- \$231.5 million in industrial output
- \$3.6 million in state tax revenue.

The jobs created by restoration activities includes those in the Malheur Lumber Company sawmill in John Day, employees of Quicksilver Contracting out of Bend (a restoration contractor in Bend), and T2, a company that transports processed biomass.

The average wage for these jobs is \$40,000 annually.

The industrial output includes the value of the goods produced by sawmills, veneer and plywood mills, biomass plants and wood chip facilities. This also includes the spending on services – truck repairs, purchase of equipment, supplies and materials to complete the work.

The \$3.6 million in state tax revenue includes state income, corporate, fuels, and any harvest tax generated through these activities.



Now that we have this baseline of economic impacts, we can look at what the impacts would be of increasing the current level of activity.

Lets take a look at the activities that we are increasing.



This chart shows the breakdown of the various types of forest health and watershed restoration activities. Using Forest Service data, we calculated the number of individual acres being treated – 129,000. These we call "footprint acres." Watershed projects are not acreage-based so were treated separately.

The mix of activities will affect the future economic impacts. For example, if there is a higher level of stewardship contracts proportional to the service contracts, there will be more tax revenue generated and higher industrial outputs. That's because many of the stewardship contract activities involve additional equipment and a commercial product like biomass or pulp chips being transported to a buyer. However, service contracts are also less expensive to plan and implement than a timber sale or stewardship contract. The future mix of activities will affect not only the impacts, but also the cost structure.

Timber sales, as you would expect, provide more than 80 percent of the sawlog volume and create the largest number of jobs. They are also the most costly to plan and implement.

What doubling looks like		
Current Level (2007-11)	Doubling	
2,310	4,620	
141 mmbf	282 mmbf	
\$90,517,000	\$181,034,000	
231,512,000	\$463,024,000	
\$3,612,000	\$7,224,000	
129,000	258,000	
	Current Level (2007-11) 2,310 141 mmbf \$90,517,000 \$231,512,000 \$3,612,000 129,000	

There are a lot of factors involved in predicting what an increase would provide. This table shows what a linear doubling might look like, though we probably cannot expect a linear doubling in every category.

It is certainly appropriate to assume that if we were to double the current level of activity, it would likely double industrial output and tax revenue. This is due to the proportional increase in the amount of fuel being purchased, and commercial product being generated.

Jobs would certainly also increase over time, but the actual number would be dependent on the existing capacities of equipment and mills, the extent to which the existing workforce would return to full employment and the certainty of the amount of work that will be available. To ensure that employers can invest in equipment and second shifts, there will need to be a sustained amount of work to allow those decisions to be made.

In addition, an increase in activity would also have broader statewide impacts. It would mean additional shipments on the Columbia River and additional product exported through our ports. Firms outside of the study area could also see increased amount of fiber available for manufacturing, increased demand for manufactured goods like grinders, and greater demand for consulting, legal, and other services.

It is also true that our models are linear, but the real world is not. It is not likely that costs would double. There are efficiencies to be gained and certain fixed costs that will not change if the level of activity is increased.

Overall, a doubling of the level of activity would definitely have a positive economic impact on the region in the short term. To fully reap the benefits of an increased level of restoration, the increase needs to be sustained and provide the certainty that will allow firms to invest.

## Avoided costs

 For every \$1 the USFS spends on forest restoration, the agency avoids a potential loss of \$1.45 due to fire suppression.

While accounting for all avoided costs associated with restoration was beyond the study scope, we can discuss where some savings could be realized.

Forest health restoration activities have the potential to return forested ecosystems to more normalized levels of resilience to fire, insects and disease. The federal government spends a significant amount of money each year on fire suppression. From 2007 to 2011, as Matt mentioned, large fires annually burned an average of 56,000 acres of national forestland in eastern Oregon, which cost \$43.6 million on average – or about \$780 per acre. Based on that figure, the Forest Service could incur approximately \$100 million in fire suppression costs each year if 129,000 acres were left untreated and burned by wildfire. The difference between the cost of implementing restoration or incurring fire suppression costs represents a potential \$59.2 million annual savings. In other words, for every \$1 the Forest Service spends on forest restoration, the agency avoids a potential loss of \$1.45.

Lets also not forget the hundreds of millions of dollars that is spent on unemployment and services for those in need throughout this region.

In sum, an investment in forest health restoration has the potential to save millions of dollars annually in state and federal funds by avoiding costs associated with fire suppression, social service programs and unemployment benefits.

Let me now turn this over to Brett Brownscombe, the Governor's Natural Resource Advisor, for a discussion of what this means for the Governor's Budget.

