Points for Supplement to Protest of:
BLM’s Proposed Resource Management Plan/Final Environmental Impact Statement:
Western Oregon

The BLM’s Failure to Describe the Negative Economic Impacts of Logging
These issues raised in this report were prepared by Ernie Niemi of Natural Resource Economics, Inc., which is solely responsible for their content.

Table of Contents

I. Introduction ........................................................................................................................................... 2
II. Executive Summary ................................................................................................................................. 3
III. Issues in Detail ....................................................................................................................................... 4
  1. The BLM failed to use research showing the ability of natural resource amenities to generate economic growth ......................................................................................................................... 4
  2. The BLM failed to use research showing the positive economic impacts of forestlands protected from logging ............................................................................................................................................... 7
  3. The BLM failed to use research showing that the negative economic impacts of logging likely would outweigh the positive impacts ........................................................................................................... 9
  4. The BLM failed to use research showing that increased logging likely would decrease rather than increase the economic stability of local communities and industries .................................................. 10
  5. Conclusions ............................................................................................................................................ 11
I. INTRODUCTION

My name is Ernest G. Niemi. I am an economist and president of Natural Resource Economics, a consulting firm that provides analysis of economic issues associated with the management of forests, rivers, and other natural resources. I received a Master of City and Regional Planning from Harvard University. My professional experience includes analyzing the economic consequences of resource-management decisions in northern California and elsewhere, and teaching courses on economic development and benefit-cost analysis at the University of Oregon.

I am familiar with the regional and subregional economies of the Pacific Northwest, including western Oregon, the structure of those economies, the forces affecting them, and the changes occurring in them. For more than three decades I have devoted considerable time and attention to reviewing and understanding the economic effects of various proposals and options for managing the region’s publicly owned forests. This work includes serving as a member of the Independent Review Panel chartered by the U.S. Secretary of Agriculture to review the large-cost wildfires of 2008.

My work also includes directing research on the forest-economy relationship, such as:

- The Ecosystem-Economy Relationship: Insights from Six Forested Long-Term Ecological Research Sites (National Science Foundation)
- Assessing Economic Trade-Offs in Forest Management (for the U.S. Forest Service (Pacific Northwest (PNW) Research Station)
- “Economic and Social Implications of Managing the Federal Douglas-Fir Forests on Longer Rotation” (PNW Research Station)
- The Sky Did NOT Fall: The Pacific Northwest’s Response to Logging Reductions (Earthlife Canada Foundation and Sierra Club of British Columbia)
- “The Sky Will Not Fall” (American Fisheries Society)
- Seeing Forests for Their Green (Sierra Club)
- “Economic Reflections on the Northwest Forest Plan.” (PNW Research Station)
- “Economic Issues Underlying Proposals to Conduct Salvage Logging in Areas Burned by the Biscuit Fire” (Wyss Foundation).
- An Overview of Potential Economic Costs to Oregon of a Business-As-Usual Approach to Climate Change (University of Oregon, Climate Leadership Initiative)

I prepared the points in this paper to evaluate the economic reasoning the Oregon State Office of the Bureau of Land Management (BLM) has used to justify the Proposed Resource Management Plan (PRMP) it revealed with the April, 2016 publication of Proposed Resource Management Plan/Final Environmental Impact Statement: Western Oregon (PRMP/FEIS).

In preparing this paper, I drew on the education and experience I describe above, my general knowledge of the economy of the Pacific Northwest, and my review of information in the PRMP/FEIS and other sources. As I explain below, these other sources are assessments, widely known and readily available to the BLM and the general public, of the economic importance of goods and services produced on public lands in the Pacific Northwest.
II. EXECUTIVE SUMMARY

The FEIS provides a seriously incomplete and inaccurate description of the PRMP’s potential impacts on the economy of western Oregon and its communities that is biased in favor of logging. This conclusion reflects numerous analytical and communication errors of omission and commission as the PRMP/FEIS:

- Ignores more than 30 peer-reviewed research articles that describe the ability of unlogged forests — through their scenic vistas and other natural resource amenities — to generate growth in population, jobs, incomes, and economic activity in nearby communities. As a consequence, the PRMP/FEIS never describes what the research indicates to be powerful opportunities for resource-management activities that forgo logging and enhance these amenities to strengthen local economies and the capacity and community resilience of local communities.

- Fails to describe and quantify the potential negative economic impacts of logging, which would materialize as logging degrades or destroys the positive impacts from forests that otherwise would remain unlogged. As a consequence, the PRMP/FEIS never describes that decreases in jobs, incomes, private-property values likely to result from the proposed logging.

- Fails to show that the available research and data indicate the PRMP’s negative impacts likely would outweigh its positive impacts. For example, a peer-reviewed study indicates that, for each 10,000 acres the BLM logs rather than affording the land protections similar to those associated with Wildlife Management Areas or Areas of Critical Environmental Concern, residents of the affected county would experience a net reduction in annual per capita income over the next 10-15 years of $350 or more. As a consequence, the PRMP/FEIS never describes the likelihood that the proposed logging will yield a net decrease in income and other indicators of economic wellbeing in western Oregon.

- Ignores a review of research, specific to BLM-administered lands and other lands covered by the Northwest Forest Plan, ¹ that concludes increased logging correlates with negative socioeconomic indicators, such as drug abuse, domestic abuse, and unstable employment. As a consequence, the PRMP/FEIS never describes the likelihood that the proposed logging will degrade, rather than strengthen the stability of communities in western Oregon.

---

III. ISSUES IN DETAIL

Guidance from the BLM, cited in the PRMP/FEIS as USDI BLM 2013a, describes when and how to use economic methods to estimate nonmarket environmental values when preparing National Environmental Policy Act (NEPA) analyses for the Bureau of Land Management’s (BLM) resource management planning and other decision-making.

USDI BLM 2013a [p. 1-3] identifies two types of economic analysis—“impact analysis” and “benefit-cost analysis”—and states: “Both types of economic analysis should contribute to the BLM’s decision-making.” [Bold emphasis added.] It then gives this explanation:

“Impact analysis provides estimates of the direct, indirect, and cumulative economic activity that a given management decision is expected to create within a specified geographic area. This activity is typically expressed as projected changes in employment, personal income, or economic output.” [Italics emphasis in original.]

The PRMP/FEIS includes an impact analysis that describes the potential positive impacts of recreational activity and logging on BLM-administered lands. The description of logging’s impacts is incomplete and inaccurate, describing only the potential positive impacts but not the much larger negative impacts. As a result, the description is strongly biased in favor of logging. By totally ignoring the negative impacts of logging, the PRMP/FEIS demonstrates that the BLM did not make a good faith effort at studying, analyzing, and expressing the socioeconomic issues, nor did it take a hard look at the socioeconomic consequences of the PRMP.

The following paragraphs describe the errors and biases in the PRMP/FEIS that arise from the BLM’s failure to use readily available research showing:

A. Natural resource amenities on public lands have the ability to generate robust economic growth.

B. Amenities on BLM-administered forestlands protected from logging can generate increases in income, population, the value of private property, and related characteristics of economic growth.

C. The negative economic impacts of logging likely would outweigh the positive impacts.

D. Increased logging likely would decrease rather than increase the economic stability of local communities and industries.

A. The BLM failed to use research showing the ability of natural resource amenities to generate economic growth

Based on its impact analysis, the PRMP/FEIS concludes [p. 676] that, “Changes in timber harvest, recreation visits, and BLM expenditures are the primary influences on projected future BLM-based employment and earnings in local economies in the planning area.” It recognizes that scenic and other natural resource amenities might have impacts on jobs, incomes, and economic activity, reporting [p. 592] that, “Several comments on the Draft RMP/EIS reflected the belief that non-market resources do contribute to economic well-being in planning area communities, by retaining residents, attracting new residents including retirees and

---

entrepreneurs who bring human and financial capital, and through other mechanisms.” It even acknowledges that there is an empirical foundation for this belief, observing that, “These beliefs have been supported by research showing how scenic amenities, open space, healthy watersheds, public lands and protected areas, and other non-market resources contribute to local economic development (e.g., Rasker et al. 2013).”

Nowhere, however, does the PRMP/FEIS demonstrate that it examined this research. Nor does it demonstrate that the BLM conducted any impact analysis that examined the direct, indirect, and cumulative economic activity resulting from the scenic amenities, open space, healthy watersheds, protected areas, and other non-market resources on BLM-administered lands. Its failure to do so is remarkable, because the research on the relationship between natural resource amenities and economic development is extensive. If the BLM had Googled “economic impact of scenic amenities,” for example, it would have found more than 400,000 results. Near the top it would have found a link to a bibliography that describes the 30 peer-reviewed studies of this issue listed in Figure 1.

Figure 1. 30 Peer-reviewed studies that document the importance of amenities on public lands to local economies.


Figure 1. 30 Peer-reviewed studies that document the importance of amenities on public lands to local economies, cont.

<table>
<thead>
<tr>
<th>Number</th>
<th>Reference</th>
</tr>
</thead>
</table>

The PRMP/FEIS shows that the BLM looked at only one of these studies, Rasker et al. (2013), which it then ignored. Had it given even this one paper reasonable attention and analysis, the BLM would have found that it quantifies the positive relationship, between the protection of federal lands and waters and economic growth in nearby communities, that applies in most rural counties of the western states. The analysis looked both at the years between the early 1990s to the mid-2000s, when the national economy and amenity-related migration grew rapidly, and during the Great Recession, when both contracted. The authors considered a broad set of protected lands:

- Wilderness Areas
- National Parks and Preserves
- National Conservation Areas
- National Monuments
- National Recreation Areas
- National Wild and Scenic Rivers
- Waterfowl Production Areas
- Wildlife Management Areas
- Research Natural Areas
- Areas of Critical Environmental Concern
- National Wildlife Refuges

After controlling for other factors that influence local economies, counties with 10,000 additional acres of protected public land, on average, exhibited these characteristics:

1. Per capita income in 2010 was higher by $436.
2. Per capita income growth, 1990-2010, was higher by $237.
3. Investment income growth, 1990-2000, was higher by $175 per county resident.
   (Investment income includes dividends, interest, and rent earned from investments.)

These numbers, which represent the average relationship between protected acreage and income, do not prove that more of the former causes more of the latter. They do, however, indicate that, in most western counties and over more than two decades, the positive effects of protecting public lands and rivers from logging and other industrial activities outweigh the negative.

The BLM did not incorporate this research into the PRMP/FEIS’ analysis of socioeconomic consequences. In fact, it did not even acknowledge its existence. This failure totally erodes the credibility of the BLM’s analysis of the PRMP’s socioeconomic consequences. It also substantiates my conclusion that the BLM did not make a good faith effort at studying, analyzing, and expressing the socioeconomic issues, nor did it take a hard look at the socioeconomic consequences of the PRMP.

**B. The BLM failed to use research showing the positive economic impacts of forestlands protected from logging**

Research specific to BLM-administered and other lands within the Northwest Forest Plan (NWFP) reinforce the findings of Rasker et al (2013). Bruce Weber and colleagues at Oregon State University have for many years examined the NWFP’s economic impacts and concluded that, since 2000, communities within 10 miles of land designated in the NWFP for species protection “experienced higher growth in
community wealth than communities more than 10 miles from NWFP-protected land, even among those that were dependent upon logging.”

Other research findings regarding the impact of federal forest policy on the economic wealth and vitality of communities include:

- “[T]he NWFP dramatically reduced the supply of logs available to Oregon mills. … In retrospect, while the NWFP imposes direct employment pressures on timber-dependent communities, it also opens new opportunities for a change in these timber-related communities and other communities close to NWFP. Through adjustments in economic structure and investment, communities can redirect their local economy onto a more environmentally sustainable path by attracting migrants with higher incomes. Through entrepreneurship and technology, they can add additional impetus to the local economy.”
- “Natural capital clearly plays a key role in rural wealth creation and rural well-being in the Western United States. And because a very significant share of natural capital is owned by the Federal government, Federal decisions about the use of natural capital are critical to rural wealth creation in this region and to the distribution of income and wealth in rural places.”
- “Our results suggest that the impacts on local economic well-being of Federal land management are not trivial [and a] key implication of our study is that government has a central role to play in rural wealth creation.”
- “Because capital (in our case, natural capital) has multiple attributes that value different uses differently, decisions about the uses of natural capital can lead to very different outcomes and different sets of winners and losers.”

More recent research quantifies the “positive amenity impacts on the growth in median income, population and property values for small communities close to NWFP land protected from logging, as compared to communities far from the NWFP.” The research suggests that, for communities of 100–2,500 residents, the amenities from protected, unlogged lands within five miles increase:

---


• Median income by $1,133–$2,964, or 3–8%.
• Population by 57–170, or 5–17%.
• Mean value of property within the community by $18–$63 million, or 29–100%.

These numbers constitute but one set of many that the BLM could have developed, evaluated, and integrated into its analysis of the PRMP’s socioeconomic impacts. They strongly suggest that the impacts on income, population, and property value from proximity to land protected from logging can far outweigh the impacts from logging the land. Determining the exact impact would require further analysis, commensurate to the effort the BLM put into describing the impact of the proposed logging.

The BLM did not use this research to describe the PRMP’s socioeconomic consequences. It did not even show it was aware of the research. This failure totally erodes the credibility of its socioeconomic analysis. It also substantiates my conclusion that the BLM did not make a good faith effort at studying, analyzing, and expressing the socioeconomic issues, nor did it take a hard look at the socioeconomic consequences of the PRMP.

C. The BLM failed to use research showing that the negative economic impacts of logging likely would outweigh the positive impacts

The research described above demonstrates unlogged lands have positive impacts on jobs, incomes, property values, and economic activity in nearby communities. The BLM’s proposal to log these lands will reverse these impacts. The research also indicates that these negative impacts will outweigh any positive impacts from logging.

Consider, for example, the potential impact of managing lands for their wildlife, scenic, or other amenities, rather than to produce timber. As described above, Rasker et al. (2013) suggests that, if the BLM protected rather than logged 10,000 acres, the unlogged land would increase per capita income in the county by $436. If this land were logged, instead, this income would be lost.

Under the PRMP logging would occur on 469,215 acres in the timber harvest land base [p. 82] and produce timber-related annual earnings of $87.8 million [p. 683], or $187 per acre. Hence, logging 10,000 acres would produce annual income of $1.9 million. If this acreage were located in Lane County, with population 351,715, [p. 588] the logging would yield annual per capita income of $5.40.

In other words, logging rather than protecting 10,000 acres in Lane County would increase per capita income by $5.40 and decrease per capita income by $436, for a net impact being a decrease of $430.
The net impact would be similar for other counties. For example, if the 10,000 acres were located in Douglas County, with population 107,667, logging would have a positive impact of $18, a negative impact of $436, and a net reduction of $418 in per capita income. If they were located in Curry County, which has the smallest population, 22,364, logging would have a positive impact of $85, a negative impact of $436, and a net reduction of $350 in per capita income.

These numbers suggest that logging will have a net negative impact on per capita income and, hence, on jobs, property values, and other indicators of socioeconomic wellbeing. Accounting for the negative impacts suggests that the overall decrease in income will be about ($350 ÷ $18 =) 19 times the increase projected by the BLM. Thus, instead of increasing income by $87.8 million, as projected by the BLM, the PRMP could decrease it by $1.7 billion or more.

My calculation of these numbers illustrates how the BLM could have used this research to describe the potential negative impacts of proposed logging, and the importance of doing so. It shows that suitable research was easily available to the BLM for it to quantify the negative and net socioeconomic impacts of logging. The level of effort required to develop more refined calculations likely would have been commensurate with the level of effort the BLM exerted to estimate logging’s positive impacts. Refinement of the calculation might alter its results somewhat, but I expect the fundamental conclusion would remain unchanged: the logging proposed under the PRMP would reduce income in western Oregon.

D. The BLM failed to use research showing that increased logging likely would decrease rather than increase the economic stability of local communities and industries

The PRMP/FEIS asserts [p. 6] that, “The O&C Act requires that the [O&C lands] be managed ‘for permanent forest production, and the timber thereon shall be sold, cut, and removed ... for the purpose of ... contributing to the economic stability of local communities and industries, and providing recreational facilities’ (43 U.S.C. 1181a). [Bold emphasis added.] The calculations in the preceding section demonstrate that the logging proposed in the PRMP/FEIS likely would destroy more income, jobs, property value, etc. than it would create. These impacts, alone, support the conclusion that increased logging likely would decrease rather than increase the economic stability of local communities and industries.

Other aspects of the timber industry would compound the negative impact on stability. These include the industry’s negative influence on social wellbeing. Adoption of the NWFP triggered extensive research into the impacts of changes in logging levels on social wellbeing in communities in which the timber industry had a large presence. A review of this research concluded that, “In most cases, timber dependency seemed to hurt rather than help
communities.” Specifically, communities in which the timber industry played a greater role exhibited:

- Higher unemployment.
- Lower levels of education.
- Older, lower-value housing.
- Higher death rates.
- Lower income.
- More poverty.
- Higher infant mortality.
- Poorer health care.
- More arrests.

The research and data presented above show conclusively that less logging, not more, will likely yield greater economic stability. The PRMP/FEIS, however, presents none of this research and data. As a result, one can reasonably conclude only that the PRMP/FEIS is incomplete, inaccurate, and strongly biased to favor increased logging.

Additional negative impacts on community and industry stability come from within the timber industry itself. Figure 2 shows that the number of timber manufacturing workers per unit of timber. Wages for timber workers also have been declining and their jobs are far more volatile than jobs in other industries.

E. Conclusions

The preceding sections demonstrate that the socioeconomic portion of the RMP/FEIS is deeply flawed. It purports to represent a hard look at the PRMP’s socioeconomic consequences but, in reality, it is nothing less than a deceptive promotional brochure for increased logging. This conclusion stems from the evidence I present above, which demonstrates the BLM ignored a large body of readily available, peer-reviewed research and data that indicates unlogged lands can generate far greater positive impacts on the economy of western Oregon and its communities than would result from logging the lands. For some variables, the negative economic impacts from logging would be at least 19 times greater than the positive impacts.

The PRMP/FEIS totally ignores this information. Instead, it describes the only the positive economic impacts—increases in timber jobs, etc.—of logging. It leaves the reader unaware that the amenities produced by unlogged lands can generate more jobs, etc. than the lands would produce if logged. It does not describe the loss of these jobs, etc.—the negative impacts of logging. The PRMP/FEIS lacks this description of the negative impacts of logging even though the BLM had easy access to the relevant, supporting information. This discrepancy in its treatment of the positive and negative impacts demonstrates that the BLM did not make a good faith effort at studying, analyzing, and expressing the socioeconomic issues, nor did it take a hard look at the

---


socioeconomic consequences of the PRMP. The discrepancy also produces a description of economic impacts that is strongly biased in favor of logging.

Its failure to provide a credible, balanced assessment of both the negative and the positive impacts of logging leaves this element of the PRMP/FEIS incomplete, and unreliable. No decision-maker or member of the public can have any confidence whatsoever that the PRMP/FEIS presents a reasonable description of the PRMP’s impacts on population, jobs, income, property value, economic activity, or community capacity.
Figure 2. Core characteristics of the timber industry will cause increases in logging to decrease, not increase, economic stability of local communities and industries.

- The number of timber manufacturing workers per unit of timber is declining.
- Average wages per worker in the timber industry is declining.
- Jobs in the timber industry are far more volatile than jobs in other industries.