

Committee on Resources

Witness Testimony

Testimony of
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Subcommittee
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Interior Columbia Basin Ecosystem Management Project

Good morning Mr. Chairman and Subcommittee Members.

My name is Tom Haislip. I am a senior scientist and project manager for CH2M HILL, an international environmental engineering firm. I hold a B.S. degree in Zoology and a M.S. degree in Ecology. I lead a team of scientists and planners who participate in the open public process of the Interior Columbia Basin Ecosystem Management Project (ICBEMP). Our goal is to assure that relevant information and the best science are brought to the project, and that appropriate planning processes are used. We have been involved in the project since its inception over two years ago.

The project was initiated to develop an ecosystem management program for federal lands east of the Cascade Mountains in the Pacific Northwest. One of the major drivers was and continues to be rapidly deteriorating forest health conditions on national forest and BLM lands. I believe this to be a very real problem and a threat that needs immediate and significant federal action. This project offers the potential to resolve these issues, but the products need additional work to bring more focus to them.

General Comments

Two of the primary products of the ICBEMP will be the Eastside EIS and the Upper Columbia Basin EIS. We have had a chance to review early drafts of these two documents and I would like to share our analysis results with you.

1. The writing quality is much improved over initial drafts. Much of the value-laden language that would perpetuate controversies has been removed, but work in this area remains.
2. The descriptions of project needs are appropriate. These include resolving forest health problems, and supporting social and economic needs. However, the project purposes do not always relate directly to the stated needs.
3. There is little discussion in the impact analysis of two pieces of key information: (1) the effects on forest health, and (2) the risks and tradeoffs that relate to achieving project goals and objectives. These are critical for evaluating the ability of the alternatives to meet the project needs.
4. The *projected* amounts of restoration and commodity output have been constrained by anticipated agency budgets, but the documents do not identify activity levels needed to fully restore ecosystem conditions to desirable or sustainable levels. The project needs to objectively assess how to achieve the goals in a timely and cost effective manner. Commodity production could be an important means to offset restoration costs, without sacrificing environmental quality.
5. The wildlife sections focus heavily on endangered and stressed species, rather than those that characterize the ecosystems. This distorts the description of current conditions and the impact analysis.
6. There is a continued bias against the past and future roles of humans in managing natural resources. The project fails to recognize that the agencies have done a lot of things right and that improved best management practices are in

place. Also, by inappropriately assuming that the healthiest environments are achieved by keeping people out restricts many potential uses and benefits.

7. The DEIS's contain poor analyses of social and economic impacts. There is almost no assessment of the effects of significantly reduced timber harvests projected for all alternatives.

8. It is important that this project provide sufficient knowledge of cumulative effects to prevent legal challenges to individual projects during plan implementation. The DEIS's appear inadequate to meet that need, but we have not had access to the science products yet to draw a firmer conclusion.

9. The broad-scale modeling analyses are suspect. We have found several data compilations and analyses that are seriously misleading and could result in inappropriate management direction.

Despite their serious nature, most of these problems are fixable. The project has the potential to resolve forest health problems and provide sustainable values, but much work is needed. Enough time should be taken to make corrections, but at a rapid pace.

The project should give broad, but clear direction to future forest management. It should leave sufficient decision space for the individual forest and land management plan amendment process to address local conditions. There has been an attempt to maintain flexibility within the proposed strategies, but there is little guidance on how to use that flexibility. The project needs to provide leadership and support to forest managers in restoring forest health by encouraging local solutions rather than ultra-conservative, politically-safe management defaults.

Additional Comments

I would now like to provide addition information about several of these points.

Project Purpose and Need. The purpose and need section of any Environmental Impact Statement sets the standards against which each alternative will be measured. The DEIS's for the ICBEMP do a good job of describing needs, but list many purposes that are unrelated to these needs. For example, application of adaptive management is a good management tool but hardly a purpose for this project. Similarly, identification of constraints and barriers to implementation of this project is a very important task, but again, not a purpose for the project. The purpose and need sections should be revised to clarify what will be used to judge the alternatives and to avoid potential legal challenges to the EIS's.

Forest Health. There is little discussion in the impact analysis of the effects on forest health. The documents need to bring out several important points as described below. We also present some relevant findings of our own.

O'Laughlin and others define forest health as a condition of forest ecosystems that sustains their complexity while providing for human needs (O'Laughlin, et al., 1993). Forest health problems in the Columbia Basin have been extensively documented in such studies and reports as the Eastside Forest Ecosystem Health Assessment and Forest Health Conditions in Idaho, so I will not take this time to substantiate the known problems. As stated, the forest health problem also has human dimensions. The loss of trees may ultimately reduce long-term timber supplies. Private lands and resources are being impacted by the spread of insects and wildfires. Municipal watersheds are at risk. Outdoor recreation values are threatened. People living in and around the forests are justifiably worried that their communities will lose economic viability. The preferred situation is a more diverse, heterogeneous landscape that is more consistent with the historical range of variability, less susceptible to wide-area disturbances, and thus more easily sustainable (Sampson and Adams, 1994).

According to Sampson and Adams, the forests of the Inland Northwest are not healthy over wide regions (Sampson and Adams, 1994). Remedial, restorative, and preventive treatment and management particularly on federal lands is urgently needed. A brief window of opportunity exists of perhaps 15-30 years in length within which anticipatory and remedial treatments can be conducted. Without timely management intervention, the region is threatened by major ecological setbacks pest epidemics and uncontrollable wildfires that will damage resource values and convert large areas into new, even-aged forest systems that set the stage for a repeat of the current problems far into the 21st century.

Today's conditions in many Inland Northwest forests allow normal processes to become catastrophic events. Unless land conditions can be improved, these catastrophic changes seem certain to continue. On the Boise National Forest, for example, wildfire consumed an average of 3,000 acres per year from 1955 to 1985. From 1985 to 1992, the average annual wildfire acreage jumped to 56,000, including large-area, intense, stand-replacing wildfires in ponderosa pine forests, and indicating a major shift away from the type of fire regime these forests experienced in the pre-settlement era (Sampson and Adams, 1994).

Restoring forest health is central and fundamental to the concept of ecosystem management. Forest health affects all the values we derive from our national forests: it affects wildlife, habitat, fisheries, recreation, grazing, timber outputs, and aesthetics. If we want ecosystem management to succeed in yielding us a sustainable balance of these values, we must aggressively address forest health problems. While the draft EISs do recognize the existence of the forest health problems, they do not give these problems the prominence they deserve, especially in the impact analysis, nor do they propose the aggressive restoration steps that are called for to solve these problems in a timely manner. Before being published, the drafts should be revised to give more weight to the forest health problem, to propose adequate remedies for this problem, and to discuss the consequences of inaction.

One would think that a key feature of a forest ecosystem assessment would be to identify the types and locations of forests needing various types of silvicultural treatments or prescriptions. For example, the stand structures that offer the greatest opportunities for forest health risk reduction appear to be dense, intermediate-aged forests with multiple canopy layers in the high and medium risk categories. These are forest structures that provide the basic components for producing the older forest structures that are in relatively short supply. Through treatments to reduce health risks, these intermediate structures advance more quickly into the more complex structures that are currently underrepresented. Many of these intermediate structures offer commercial products as byproducts of forest health treatments, thereby increasing the operational and economic feasibility of the treatments. With knowledge of an accurate inventory of forest health conditions, various types of silvicultural treatments can be applied to improve forest ecosystem health. Foresters and scientists have long contended that anticipatory management strategies would improve stand vigor and health.

We developed a GIS-based hazard/risk rating system that, when combined with a forest ecosystem diversity matrix and portrayed on large-scale maps, seems to be valid for (1) identifying the relative magnitude of integrated forest health hazards and risks, (2) revealing the types of forest at greatest risk, and (3) directing management activities to locations where probabilities of health problems are greatest.

In our analysis of the four Blue Mountains forests, we showed that high hazard/risk forests ranged from 10 to 22 percent of all forests. When high and medium hazard/risk areas are combined, it appears that 59 to 72 percent of Blue Mountains forests would benefit from various types of anticipatory or remedial treatments to restore or maintain forest health. Although these estimates present a sizable challenge to resource managers, the estimated forest area undoubtedly would have been greater had tree mortality data and several years of insect and disease conditions reports been incorporated into the hazard/risk rating system. Our analysis shows that a significant proportion of the Blue Mountains forests contains medium or high hazards relating to forest health. Presumably, public policy decisions based on these analysis results would promote management levels in ecosystem management strategies commensurate with achieving successful ecosystem restoration. Short- and long-term actions that incorporate forest health restoration strategies would include levels of management activity to address current problems and avoid future ones. Short-term management actions increase the likelihood of existing high hazard forests eventually reaching desired ranges of future conditions specified in forest planning documents. Long-term strategies involve maintaining forest health hazard and risk levels within acceptable limits. Ironically, the levels of timber harvest proposed in ecosystem management strategies for federal lands in the Interior Columbia River Basin show reductions from past trends, yet increases are needed to address identified restoration needs. In fact, the proposed reductions for the Blue Mountains range from 27 to 99 percent of levels allowable by existing forest management plans, on an area basis, depending on the selected strategy. This translates to roughly 60 to 23,000 acres per year of forest land managed for timber harvest. Proposed precommercial thinning and prescribed burning activities would only double or triple the area of forest treated to restore forest health. When compared to the 571,969 acres of forest determined by our study to be in the high hazard/risk category and the sizable forest area in the medium hazard/risk category, one wonders whether restoration

of forest and ecosystem health will receive the priority and level of activity that are needed to succeed. Can it be that management activity levels for forest ecosystem health will be regulated by arbitrary federal budget caps, not restoration opportunities and needs?

Risks and Tradeoffs. For each management standard or guideline within the alternative ecosystem management strategies, there are identifiable and quantifiable risks of not achieving project goals and objectives. Also, where the implementation of management standards and guidelines is in conflict, there are likely to be tradeoffs in project performance and negative consequences for certain expected outcomes. These risks and tradeoffs have not been clearly or thoroughly exposed in the impact analysis, but the information is critical for evaluating the ability of the alternatives to meet the project needs.

For example, riparian and aquatic management standards and guidelines have potential to conflict with those of other programs, such as forest restoration and timber harvest activities. In part, this is a direct result of the ICBEMP's attempt to maintain management flexibility on the ground. But it is not clear how the impact analysis addresses the effects on project goals when only partial implementation of programs is performed.

There are two additional areas of risk that may affect the achievement of project goals. One was alluded to earlier; that is, the risk of not achieving desired future ecosystem conditions if federal forest and land management programs are not fully funded. I suspect that risk analysis of proposed budget constraints on forest restoration activities to improve forest health would reveal that the success of several proposed programs could be in jeopardy. The other area of project risk for which any analysis is absent is the risk of not implementing a final management plan or administrative Record of Decision. I am concerned that management inaction, due to potential budget recisions, legal gridlock, or prolonged implementation delays may place at risk the ability of the project to achieve its stated needs. Implementation delays could arise from the need for additional and subsequent fine-scale ecosystem assessments and the forest plan amendment process. For these reasons, I encourage members of this committee and other members of the House to support the completion of this project, the allocation of a one- to two-month period to correct current project deficiencies and refocus project emphases, and the smooth implementation of selected programs and activity levels.

Fiscal Strategy and Funding Options. The selected ecosystem management strategy should provide optimal achievement of ecosystem management goals with the least cost. Under existing forest and land management plans, many federal programs, such as road maintenance and recreation development, are paid for through the sale of natural resource commodities. Where more than one strategy provides the same levels of benefits and services, the one with the least drain on taxpayers is best. Currently, there is no way to determine which proposed strategy is the most fiscally responsible. The preferred alternative should aim to achieve desired future conditions on federal lands for a cost that federal taxpayers are willing to pay.

I am concerned about the budget cap that appears to limit proposed spending on various programs contained within alternatives. The notion of using a budget cap is problematic because it is based on old budget paradigms, not on current needs and opportunities. Without full funding of programs, the ability to successfully complete projects is in jeopardy. Using the forest health example, where aggressive treatments are appropriate for restoring forest patterns and processes to reduce the potential for large or catastrophic wildfire, ecosystem goals may only be achieved under full funding. The project should identify the levels of activity needed and let policy makers and/or Congress decide how or whether to fully fund it.

Social and Economic Impacts. The DEIS's contain poor analyses of social and economic impacts. There is almost no assessment of the effects of significantly reduced timber harvests projected for all alternatives. It is very difficult to believe that economic considerations have been taken seriously in any alternative. It appears that ecological considerations are elevated above the needs of people. The amount of detail and number of specific economic and social programs within alternatives are out of balance with other programs.

The assessment of the demand for recreation on federal land is inadequate for making informed recreation decisions. Yet there is a stated objective in proposed alternatives for increasing primitive and semi-primitive recreation opportunities. This focus appears to be out of step with the fact that most recreation demand is for developed facilities, many of which are managed by federal agencies other than the Forest Service and BLM. The demand for developed

recreation and increased access to federal resources will undoubtedly increase as the basin's population increases.

One of the criteria for defining timber-dependent communities is high dependency on federal timber. There has been an attempt to reduce the number of communities classified as timber-dependent by reapplying the dependency criteria to today's gridlock situation when federal timber supplies are at a low and, by definition, fewer communities are able to get federal timber. Rather than attempting to eliminate communities, efforts should be made to truly identify all local impacts, not mask them. In order to provide a reasonable analysis of impacts, all of the communities identified in the 1987 period should still be considered timber dependent unless there is some compelling reason for excluding them.

The project does not adequately address the economic and social impacts on local communities due to the stated reductions in federal timber availability within each of the proposed action alternatives. Depending on the alternative chosen, these reductions could range from 21% to 64% in the Eastside project and 24% to 75% in the Upper Columbia River Basin. The extent of these reductions will clearly result in significant economic impacts, especially at the local level, and will likely cause the project to fail to meet its social and economic goals. The data to assess these impacts has already been collected by the project, and needs to be incorporated into the plans.

Concerning proposed economic goals and assistance programs to local and rural economies in transition, I believe that a well-honed ecosystem management plan can provide for the production of commodities for sustaining local economies while avoiding elaborate transition strategies. I am concerned about the notion of mitigating impacts through assistance programs.

My level of concern was raised after I became aware of a social and economic policy analysis prepared by Dr. Robert Lee at the Institute for Resources in Society (Robert G. Lee. 1995. Potential Social and Economic Contributions of Small Wood-producing Businesses in the Spotted Owl Region: A Policy Analysis. University of Washington, Seattle, WA). The study analyzed the potential for small businesses to revitalize rural communities whose economies were adversely affected by reduction in wood processing on federal lands within the Clinton Northwest Forest Plan (FEMAT) region. Among the conclusions were: (1) family-wage jobs in the wood products industry have been replaced by sub-family wage jobs largely in the service sector, (2) tourism is unlikely to help very many of the affected counties compensate for the loss in wood products jobs and income, (3) secondary manufacturing may provide some help to a few of the most heavily challenged counties, but will tend to concentrate near urban areas in proximity to transportation nodes and markets, (4) restoration work, along with associated retraining for new occupations, will do very little to substitute for loss of wood product jobs and income, and (5) small wood products businesses engaged in primary manufacturing provide the best opportunities for challenged counties to develop a stable and sustainable economic base. These early lessons from FEMAT should compel the ICBEMP to proceed cautiously when proposing policies that impact resource supplies and the communities dependent on them. It is clear to me that the reductions in federal timber supply proposed by the ICBEMP need to be reevaluated and avoided until the expected outcomes of social and economic mitigation and transition strategies are known with certainty.

Cumulative Impacts. One of the contributors to the current timber sales gridlock is difficulties in conducting cumulative impact analyses as part of NEPA compliance on individual sales. These analyses need background material at the regional and watershed level to assess potential cumulative effects. It is hoped that the ICBEMP will provide that material in the DEIS's, the Scientific Evaluation of the Alternatives, and/or the Scientific Assessment. The project managers need to assess whether the documents will satisfy future NEPA requirements. Without sufficient background material the gridlock will likely continue.

Broad Scale Modeling Analyses. We have conducted several studies to evaluate the ability of broad-scale ICBEMP forest inventory and GIS data to provide an assessment of forest conditions appropriate for setting forest ecosystem restoration activity levels and for directing actions where forest treatments are most needed. We conducted several exercises in which we compared data generated by the project, which to my knowledge has not been statistically validated, to a more detailed independent data set based on satellite imagery that was acquired from the Forest Service. The ICBEMP data set has limitations when applied spatially to finer scales of management such as those used at the national forest or BLM district level, or those needed for amending forest and land management plans. Additionally, we have revealed concerns about the accuracy of the ICBEMP broad-scale forest inventory data, particularly its representation of forest tree diameters and volumes, forest structural stages, species compositions, and the portrayal of

forest health.

In comparing results from the two sets of data, conflicts between (1) forest management information derived from broad-scale assessment data and (2) inferred management needs and priorities from higher resolution and more accurate fine-scale inventory analysis were revealed. It appears that there is a disconnect between the ICBEMP's broad-scale forest ecosystem assessment and the fine-scale data needs of local managers for planning and implementing ecosystem management strategies. Fine-scale assessments similar to the ones described in our studies will be needed to refocus future management direction subsequent to the ICBEMP. A process for resolving these conflicts is needed for seamless implementation of ecosystem management strategies at all scales.

Furthermore, it is unclear how the ICBEMP will use its Scientific Assessment to identify forest health hazards and risks as they relate to wildfire, insects, and disease potential, and that are expressed by forest vegetation conditions.

I hope these comments are helpful to you in your review of the ICBEMP. Thank you for this opportunity.

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