

**BLM Western Oregon RMP Revisions - Science Team
Input to BLM “Internal Review of Alternatives”, dated March, 2006
April 10, 2006**

Science Team

Sarah Crim (Forest Service - Region 6)
Doug Drake (ODEQ)
Joan Hagar (USGS)
Chris Jordan (NOAA-Fisheries)
Tom Spies (Forest Service - PNW)
Fred Swanson (Forest Service - PNW)
John Cissel (BLM, team coordination)

Background

The Science Team was asked to provide input regarding the “Internal Review of Alternatives”, dated March 2006. This report documents our review. The team focused its review on three questions:

1. Does the range of alternatives encompass a range of landscape strategies that have the potential to meet the purpose and need?
2. Are the management actions appropriate to achieve the objectives of each alternative?
3. Are there key ideas missing?

Most of our comments focus on question two, although we also respond to questions one and three. In addition, we’ve included sub-sections within each section and a section at the end where we list other comments that are more editorial in nature.

Caveats

The Science Team offers this input in good faith, and would like to limit interpretation of our findings in two respects. First, we are not able to understand all aspects of the alternatives, particularly the integration of components across resource areas. Second, the rationale for alternative components or design was not clear in all cases. The alternatives document focuses on management objectives and direction and does not always provide the underlying rationale or design criteria. Our report should not be viewed as comprehensive, but rather focuses on key points that could benefit from further thought and documentation.

I. Does the range of alternatives encompass a range of landscape strategies that have the potential to meet the purpose and need?

- The alternatives appear to be constructed to represent a range of approaches to planning rather than a range of outcomes. As such they appear to cover a broad and interesting spectrum of planning concepts. However, it is not clear that there will be a range of outcomes. This may not be an issue except where it pertains to a Purpose and Need, in particular, “create quality habitats, especially for endangered species”. If this Purpose and

Need is strictly limited to endangered species it may not be an issue since there are not many endangered species, but as it pertains to quality habitats in general it is not clear if these alternatives provide a reasonable sample of a range of outcomes.

- The planned sub-alternatives and sensitivity analyses greatly strengthen the analysis
- The range of alternatives does not appear to be based on using land allocation zoning versus not zoning. For example, management direction varies by plant series in Alternative 3 and by ownership category and other criteria in Alternative 4. This appears to be a form of zoning without drawing lines on a map similar to how riparian reserves were treated in the Northwest Forest Plan (NWFP). The major distinction among alternatives appears to be the degree to which reserves are used.

II. Are the management actions appropriate to achieve the objectives of each alternative?

A. Alternative 1

- The rationale for adjustments to the NWFP contained in Alternative 1 is not apparent. Decisions regarding what to take out and what to leave in appear to be somewhat arbitrary.
- It would be helpful to display a matrix that shows how each modification of the NWFP in Alternative 1 ties to a Purpose and Need.
- It would strengthen this alternative if decisions about which aspects of the NWFP to adjust were tied to the ten-year review of the NWFP conducted in 2005. For example, although incomplete, the aquatic monitoring report indicated that most watersheds were stable or improving under the NWFP; how will changes in the NWFP proposed in Alternative 1 contribute to or alter this trend?
- The BLM should clarify that the statement that this alternative retains the core concepts of the NWFP is a BLM interpretation, not a consensus interagency conclusion. There is no clear definition of what is and is not a core concept in the NWFP.
- It is doubtful that the management actions will achieve the objectives for the second bullet under Objective 3 (p. 59), depending on which species are targeted as being associated with Stand Establishment and Young stands. The management actions regarding site prep and reforestation (3rd bullet) will likely provide habitat for species associated with dense young conifer stands, but not for species associated with different types of vegetation (forbs, shrubs, hardwoods) in early seral stands. A more explicit statement of the kinds of species targeted, and the management actions intended to provide habitat for them specifically, would be helpful in clarifying whether this objective is likely to be met or not.
- The rationale for allowing harvest in stands greater than 80 years of age in reserves is not clear. Perhaps the agency can tie this to the history of influence by European settlers of natural processes, particularly with regard to early mature stands (80 to 150 years of age) that may have experienced significant human-imitated disturbances.
- Revision of key watersheds to encompass “stronghold areas” needs definition and rationale. What is a “stronghold” and what is the relation to adjacent, non-BLM lands?
- Wildlife habitat, objective 1 is stated very broadly, “Enhance and maintain biological diversity and ecosystem health to contribute to healthy wildlife populations”, yet the only

management direction is for late-successional habitat. Where is the direction for the many species associated with other kinds of habitat?

- Does the sub-alternative that excludes regeneration harvests and only uses thinnings meet sustainability requirements?
- It is not clear how the prescription for fuels management, objective 2 (p. 69) relates to other objectives, e.g., critical habitat for spotted owls or sustained timber harvests.

Other comments

- The summary language regarding salvage should clarify that there is no salvage planned in reserves
- The idea that the agency is maintaining land-use allocations in Alternative 1 while changing the standards and guidelines governing management actions within the allocation is questionable. If the standards and guidelines are significantly altered then the purpose of the allocation may itself be changed. For example, maintaining a reserve while changing a guideline to allow regeneration harvesting fundamentally changes the allocation itself.
- p. 3. - Should the full first sentence be “This alternative ... late-successional reserves, but alters their Standards and Guidelines.”?

B. Alternative 2

- The team believes that the likelihood of the management direction pertaining to riparian management areas described on p. 74-77 meeting Objective 1 on p. 74 may be low, particularly for stream temperature. The management guidelines appear to be based on the Oregon Forest Practices Act while the objective is stated in terms of Oregon DEQ water quality standards. We believe that this needs a closer look, and understand that this is a topic of ongoing negotiation at the state level.
- Is there a strong basis for assuming that maintaining all suitable habitat within designated critical habitat will meet BLM requirements for recovery to avoid a jeopardy call?
- What happens to the 100-acre core areas when they experience severe disturbance? Will there be replacements designated?
- For spotted owl, murrelet, and bald eagle, what are the criteria that determine the necessity to conduct salvage to reduce wildfire hazards? Given the political sensitivity of salvage, it would be good to as clear as possible about when and why it would be used in T&E species habitat.

Other comments

- Is Matrix still a land allocation in this alternative (p.73)?

C. Alternative 3

- What are the landscape goals and design criteria for wildlife habitat?
- Are there any wildlife prescriptive requirements for silviculture?
- What are the stand structure and habitat development objectives that govern the application of partial harvests?

- Will there still be suitable spotted owl habitat after the partial harvests scheduled for mature stands? Are there limits on partial harvests to ensure maintenance of spotted owl habitat? It appears that these harvests leave a pretty low level of retention trees.
- Allowing partial harvests in stands over 150 years old when the landscape contains less than 50% of the area in stands over 150 years of age seems contradictory, particularly with respect to spotted owl habitat.
- Regarding timber management objective 1 (p. 86, 8th bullet): “maintain stand density levels between full occupancy...”, management actions to meet this objective will likely reduce understory shrub cover early in stand development, which may not recover throughout a long rotation. This reduction of habitat for shrub-associated species conflicts with the stated Purpose and Need of providing “quality wildlife habitats”. It also may conflict with Objective 2 (p. 86), which seems to strive to emulate stand structure produced by natural disturbance.
- It is important to be clear that this alternative does not “mimic” the disturbance regime *in toto*, but selects particular characteristics to guide management; e.g., rotation age to base silvicultural rotations. It may strengthen the ecological foundation for this approach if a more comprehensive approach to using disturbance regimes were embodied in this alternative.
- The term “emulating” the natural disturbance regime may be better than “mimicking”. The Canadians use the phrase “emulating” the natural disturbance regime to describe their management approach, which may leave room for greater departures from the interpreted historical conditions.
- Ecologically it may be more relevant to use the historical disturbance frequency to guide the frequency of harvests than to set rotation ages. Mean fire return intervals are just a mean and typically encompass high variability, and fires occur without respect for stand rotation age. If fire return intervals were used to establish harvest frequency, habitat goals could be used to establish criteria for stand types eligible for harvest.
- It may be useful to incorporate guidance for the spatial pattern of harvest intensity and the distribution of legacy materials from the historical template at the hillslope scale since that is a scale the BLM usually has control over.
- Is the objective for 50% of the area in stands over 150 years of age tied to an explicit habitat goal? What is the desired age-class distribution for stands over 150 yrs in age? How do stands in plant series that are not subject to stand-replacement harvest count towards this target?
- There does not appear to be any spatial control over the landscape pattern of age/structural classes for habitat or any other objectives; e.g., once a district exceeds 50% of forest over 150 years of age then regeneration cutting could occur in one concentrated area in a district, potentially significantly reducing habitat in that area. Lack of spatial controls may lead to unattainable estimates of timber harvest levels by the harvest scheduling model. It may be helpful to have some form of spatial controls on regeneration harvests that relate to some habitat goals.
- 80% shade is not always sufficient effective shade based on previous EPA-approved TMDLs, and should not be used as an absolute ceiling in all cases.
- For spotted owl, murrelet, and bald eagle, what are the criteria that determine the necessity to conduct salvage to reduce wildfire hazards? Given the political sensitivity of

salvage, it would be good to as clear as possible about when and why it would be used in T&E species habitat.

- The objective of preventing management-related mass movements does not seem attainable. As stated it sounds absolute and there will doubtless be slides influenced by existing roads, old and new cutting units, and perhaps other management legacies.

Other comments

- p. 85, the second bullet appears to be superfluous and potentially confusing relative to direction on p. 87
- Are the 100 acre core areas for the spotted owl essentially reserves?
- Regarding extended rotations, how is stand age defined? E.g., does a 150-year-old stand have at least one tree per acre of that age or a post-disturbance cohort of that age?

D. Alternative 4

- The rationale for the threshold percentage of area in federal land categories is not apparent and appears arbitrary, i.e., why not 40% or 60%?
- Linking landscape management strictly to land ownership ignores existing habitat conditions and management direction. For example, if the federal ownership is matrix or the ownership is State Forest, it may have very different implications than if it is federally designated late-successional reserves.
- Determination of the landscape targets appears arbitrary. Is there a habitat basis that ties to recovery or jeopardy for the 40% target for mature-multiple canopy and structurally complex stand types? It appears that this would provide a substantially lower amount of spotted owl habitat than Alternative 3 where 50% of the entire planning area is intended to be greater than 150 years of age. Does this really constitute an emphasis on late-successional habitat?
- It may be helpful to reorient this alternative so it ties more directly to spotted owl habitat. For example, providing dispersal habitat where landscape connectivity is important for owl persistence seems important to the overall goals of the alternative but is not provided.
- The riparian buffer strategy for large wood source areas is very confusing; it may be helpful to more clearly align this with the tools and strategies being developed in the CLAMS project.
- Timber management objective 1 (p. 100, 11th bullet) may conflict with objective 2 (p. 100), depending on which species are the focus of management for early- and mid-successional forest habitat (see comment for alternative 1).
- For spotted owl, murrelet, and bald eagle, what are the criteria that determine the necessity to conduct salvage to reduce wildfire hazards? Given the political sensitivity of salvage, it would be good to as clear as possible about when and why it would be used in T&E species habitat.

Other comments

- “Situational” is not a very descriptive label for Alternative 4; it does not provide any information about the content of the alternative and is subject to many interpretations

III. Are there key ideas missing?

- It would greatly facilitate understanding of the alternatives if there were an introductory section for each alternative that identified the design criteria for the alternative, how the design criteria relate to the Purpose and Need, and provided some description of how the components of the alternatives are integrated
- An alternative that reverses the emphasis of Alternative 4, i.e., manages for late-successional habitat in areas of low federal ownership, could help the agency evaluate the role of BLM lands
- Another take on Alternative 4 could be that the BLM manages its lands on a landscape-specific basis to complement other land-owners. For example, consideration of owl dispersal habitat, location of high value anadromous streams, consideration of owner's likely management strategy, etc.
- The idea of concentric zones with varying levels of management intensity surrounding an island reserve, first articulated in Larry Harris' book "The Fragmented Forest" (Harris 1984), could be developed in areas where the BLM will be managing for islands of late-successional habitat.

IV. Other comments

Alternative development and description

- Strategies for Developing ... (p. 2). - These bulleted statements do not describe the alternatives in ways that highlight their content and differences.
- "Desired conditions" (p. 2, third bullet) needs some definition as to the basis used to define them.
- Strategies for Developing ... The last two paragraphs of this section are crucial, but need clarification. For example, "varies as a constant element" and "each degree of application" are ambiguous.

General comments

- Snag requirements are expressed in trees per acre in Alternative 2 but are expressed in basal area in Alternative 1
- Objectives for the desired species composition, structural characteristics, and distribution of age classes should be stated more explicitly
- Is it appropriate to have timber sale volume as a management action in late-successional and riparian management areas?
- Use of the term "Sustained Yield Unit" is not treated uniformly – some times capitalized; some times not. Why not just call it a District? What is the intent of having a different term?
- Need to define withdrawn lands and process of adding and removing
- What varies in the cultural section across alternatives?