Question 8

1. Do you feel that the pertinent scientific information and current knowledge base has been incorporated into these management concepts and strategies? If not, what is missing?

Reviewer	Comments
Bisson	My strongest suggestion would be to build more specifics into the monitoring part of the implementation plan. The draft was long on process description but very short on specifics. Much of the monitoring will be time consuming and expensive. Who will do the work and how will it be funded? Will every project be monitored or will there be experimental units that receive monitoring priority? These are key questions because the cornerstone of the adaptive management approach is thoughtful monitoring. For fishes and other aquatic resources there are a number of recent papers on monitoring that merit consideration, e.g., see a book that Bob Wissmar and I edited on dealing with uncertainty in managed aquatic ecosystems: … Wissmar and Bisson, editors 2003 …
Emmingham	As mentioned throughout my response, I think there is a lack of specificity in some of the strategies. The carry-over from the science-based concepts in chapter 4 to the strategies in chapter 5 is poor in some cases. The strategies should be formulated to compensate or avoid the risks or restrictions. Also, all sorts of non-strategy things are included as strategies. This is confusing and it makes evaluation of the document hard. **What is missing?** **Strategies for Economic and Social Benefit – Revenue**: A lot of emphasis is placed on the things that restrict timber production (e.g. green tree retention, reduced stocking to encourage diverse stand structure). What intensive forest management methods will be used to insure high levels of timber production in non-complex stands? Strategies could include securing prompt regeneration, avoiding over stocking by timely stand tending? Will herbicides be used where necessary to insure good growth of regeneration? Will non-complex stands be managed to produce maximum timber using longer rotations or will shorter rotations be determined by economic calculations based on maximizing NPV? Why are strategies to produce high levels of timber not included? **Strategies for sustainable forest ecosystem management:** Many of these strategies have been discussed elsewhere in this review. **Strategies for Aquatic and Riparian areas**. Page 5-36. Apply alternative vegetation treatments. A couple of COPE projects revealed the establishment of conifers in riparian areas requires special attention to reduction of

	competition from both overstory and understory vegetation. If you are not going to reduce both overstory shade and understory competition, planting conifers (even shade tolerant species) is likely to fail. Will use of herbicides be possible in appropriate situations? I did not fully understand some of the strategies laid down in this section because of the very general nature of the statements. Also, many of the strategies consisted of guidelines for developing strategies (e.g. page 5-35 – Identify, design and implement projects ---.)
Gresswell	Overall, the plan is strongly rooted in pertinent scientific knowledge. The one area that may be inadequate is related to fire. Information about the long-term patterns of fire in the region is sufficient, but there are some inconsistencies. For example, comments about fires ignited by Native Americans are unsubstantiated. Although native people undoubtedly used fire to manipulate the environment at a local scale, I am unaware of evidence that supports the contention that large wildfires in forests of western Oregon were set by intentionally by prehistoric humans. If such information exists, it should be cited; otherwise, the statements should be modified. Furthermore, assumptions about the ecological need for salvage logging should be documented by credible scientific information.
Irwin	Primarily, the document does not account explicitly for the well-known influences of productivity (and their various indicators) on biological diversity. An old-growth patch in a rocky or sandy soil is not the same as one in a more productive soil type.
Ohmann	In the parts of the FMP that are within my area of expertise (forest vegetation ecology), I generally found the FMP to be up-to-date with current science, with a few suggestions (some of which I've already mentioned in my comments above). Information on HRV in landscape pattern can be found in Wimberly (2002), and HRV in dead wood in the recent thesis by Nonaka (2003). Also, there are several papers currently in press or in review from CLAMS (contact Tom Spies) on: recent (past 60 years) hardwood dynamics (Kennedy and Spies, in press), recent (past 60 years) changes in landscape proportions of several vegetation types (Wimberly and Ohmann), current vegetation biodiversity (vegetation types, structural conditions, legacy components) (Ohmann et al.), biodiversity indicators (including wildlife species) (Spies et al.), stream habitat (Burnett et al.), and others. The sections of the FMP on dead wood could be improved by incorporating current knowledge summarized in DecAID on dead wood amounts and landscape distributions. Other suggestions are mentioned in my comments at the end of this review.

Oliver	Pg. 4-48-49: Excellent review of relevant data. It does not show how this fits into the management plan, however.