# Topic Adaptive Management, Monitoring

# **Sub-topic**

Scope IP

Comment Number 192

The draft HCP, page 5-14 requires the Implementation Plan to: "Develop and maintain advanced structure in each management basin so that one T&E core plus the area within 0.7 miles of the T&E core's outer boundary contains at least 500 acres of advanced structure." The IP failed to document how this was being achieved.

#### Response

There is no set procedure on how this will be accomplished. It will be the responsibility of district personnel to insure that this requirement is complied with. Accomplishing this task will require the use of our GIS-Arcview program to map out the acres of Advanced Structure within the stated distance of the T&E Cores.

**Sub-topic** Effectiveness and Validation Monitoring

Scope FMP

Comment Number 11

Do models plan for untold events like wind, disease? How does this effect implementation of the plan?

Response

The harvesting models do not incorporate disturbance events. The plan, however, provides for timely response to these types of events.

Comment Number 31

Monitoring-cooperative efforts with other landowners.

Response

Chapter 6 of the FMP describes our approach to adaptive management, including a discussion of how we will coordinate with other research and monitoring activities. This includes adjacent landowners as well as more extensive regional efforts.

Comment Number

Consistency among survey protocols to determine trends.

32

Response

The commenter is referred to Chapter 6 of the FMP, especially pages 6-14 through 6-15 which describes considerations of designing monitoring experiments and plans. When monitoring experiments and plans are designed due consideration will be given to the appropriate methods and protocols to use to best answer our monitoring questions.

Comment Number 53

Why all the red tape to get the plans?

Response

We agree that forest planning on public lands is a complicated and time consuming process. However, there are many interests involved in the process including the State Land Board, Board of Forestry, several state and federal agencies, the public and other stakeholders. To make sure that all input is heard and incorporated takes a considerable amount of time and effort.

Comment Number 54

Enough follow-throughs?

Response

Details of the research and monitoring program are described in Chapter 11 of the HCP. We believe that sufficient check-points are built into the program to allow numerous opportunities for mid-course corrections if necessary. These check-points include at the very least 10-year reviews of the research and monitoring results in the context of adaptive management. In addition, results of research and monitoring projects are reviewed as they become available in order to gauge their importance to potentially inform policy decisions. Please refer to section 11.3 for additional information.

#### Comment Number

Ensure enough resources to do the monitoring.

### Response

Research and monitoring activities on the ESF will be part of the larger State Forests Research and Monitoring Program. We are committed to monitoring on the ESF and funding is ensured through State Forests Program policy.

#### Comment Number

57

55

What is the timeline between evaluate and adjust? Important to know the timeline for the adaptive management steps.

### Response

Our approach to adaptive management is described in Chapter 6 of the FMP. Our approach is based on concepts that have been tested over the last 30 years in a number of natural resource management situations. Adaptive management is a system of making decisions that recognizes that ecosystems and society are always changing and is based on the scientific testing of management hypotheses. There is no way to predict what the time intervals will be between the adaptive management steps. Timing will depend on how long it takes to obtain enough information that we know adjustments are warranted or that we need to continue to collect additional information before making a decision. Currently, we can only say that the time between "evaluate" and "adjust" will be as short as possible, but as long as necessary to make an informed decision.

#### Comment Number

58

Is there going to be enough flexibility in the plan to change/adapt the activities if the results are as expected?

## Response

Our approach to adaptive management is described in Chapter 6 of the FMP. Our approach is based on concepts that have been tested over the last 30 years in a number of natural resource management situations. Adaptive management is a system of making decisions that recognizes that ecosystems and society are always changing and is based on the scientific testing of management hypotheses. We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management.

#### Comment Number

59

Is the monitoring going to be frequent enough to adapt to changing conditions and perceptions?

## Response

We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management. The frequency of monitoring will vary with whatever is being monitored. All monitoring will be reported annually. This will allow us to evaluate the information in a timely manner to determine if more information is needed or if an adjustment in our plan is warranted.

**Comment Number** 

60

Are we going to be able to determine the importance of hardwood stands?

#### Response

We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management. This program is flexible enough to allow us to design research and monitoring projects to address specific questions of interest in detail. Hardwoods would be included in any projects in aquatic and riparian areas. Please refer to Chapter 6.

#### Comment Number

64

Needs to be a process/way to say plan is no longer functional and needs to be adjusted i.e. catastrophic events, physical changes, improved scientific knowledge.

#### Response

Our approach to adaptive management is described in Chapter 6 of the FMP. Our approach is based on concepts that have been tested over the last 30 years in a number of natural resource management situations. Adaptive management is a system of making decisions that recognizes that ecosystems and society are always changing and is based on the scientific testing of management hypotheses. We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management. In the case of catastrophic events, the adaptive approach allows for "reseting the clock" and taking time to evaluate what the best response would be.

#### Comment Number

6.5

How much of the adaptive management is base on scientific knowledge versus environmental ideology?

### Response

Our approach to adaptive management is described in Chapter 6 of the FMP. Our approach is based on concepts that have been tested over the last 30 years in a number of natural resource management situations. Adaptive management is a system of making decisions that recognizes that ecosystems and society are always changing and is based on the scientific testing of management hypotheses.

#### Comment Number

66

*In "1995 Plans (FMP or HCP)", have we ever in the past made any adjustment after evaluating in the adaptive management steps?* 

### Response

Yes. There are several management levels at which adjustments are made. Foresters make adjustments to their operations quite frequently based on their experience and forest conditions. The fact that we are going through this process to update the FMP and work toward a multi-species HCP is an adjustment in response to increased knowledge about habitat requirements and forest mangement.

#### Comment Number

67

Adaptive management should focus on forest health first for timber revenue then for wildlife that resides in the health of the forest.

### Response

The FMP takes a comprehensive, multi-resource approach to forest management. The goal of the plan is to maintain and develop desirable fish and wildlife habitat while concurrently meeting our fiduciary responsibility to produce revenue through harvesting of forest products.

#### **Comment Number**

69

Needs the capability to make adjustments (short term) that are outside the scope of the original plan- Not "red tape" but sensible and reasonable response to an immediate need.

#### Response

There are several management levels at which adjustments are made. Foresters make adjustments to their operations quite frequently based on their experience and forest conditions.

#### **Comment Number**

105

I also appreciate that your plan provides flexibility so it can adapt to the changing needs of threatened species.

#### Response

Thank you for your comment. We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management. Please refer to Chapter 6.

#### Comment Number

144

The ODF is depending on Adaptive Management to test, and change if necessary, the assumption that old clearcuts can provide old-growth like habitat. "Adaptive management approaches and monitoring will provide the feedback and tools to make future prescriptions." The general problems with Adaptive Management on the Elliott are detailed in our attached comments on the DEIS scoping. There are additional problems with Adaptive Management when monitoring species use of new habitat.

"There are also probabilities associated with how well monitoring will identify 'trigger points' that indicate a management plan may need modification. The more complex the plan (i.e., the more variables there are to monitor) the less likely the monitoring plan will successfully detect problems. Manipulation of forest stands to accelerate development of spotted owl habitat on a landscape scale, is an extremely complex issue involving a myriad of variables over a very long timeframe. Development of a monitoring plan intensive enough to isolate the causes of observed variations for wide-scale implementation of the... alternative seems unlikely to us. ...

[I]nadequate monitoring will increase, perhaps dramatically, the risk of failure of a plan that relies heavily on adaptive management."56

SAT then noted the cumulative effects of all these uncertainties.

"The combined risks associated with treatment of spotted owl habitat or stands expected to develop into suitable habitat for spotted owls, as discussed above, will likely result in situations where either habitat development is inhibited or only marginal habitat for spotted owls is developed. The exact frequency of these partial successes or failures is unknown. Given the likely cumulative relationship among the risks for each factor, it appears to us that the overall risk of not meeting habitat objectives is high."

The SAT noted that "considerable additional research is likely required" before we will know whether silviculture can be compatible with spotted owls". The ODF should present some research that refutes these scientific observations before betting the lives of endangered species on 65 year old clearcuts.

## Response

Our approach to adaptive management is described in Chapter 6 of the FMP. Our approach is based on concepts that have been tested over the last 30 years in a number of natural resource management situations. Adaptive management is a system of making decisions that recognizes that ecosystems and society are always changing and is based on the scientific testing of management hypotheses. We have designed a robust research and monitoring program to ensure that we learn from our experience and turn that learning around to inform our management.

# Scope HCP

Comment Number 45

HCP-specify disturbance page 7-7, likely nesting habitat- Monitor and spend money to determine exact locations of birds. Save money, no need for unnecessary restrictions and cost.

#### Response

Oregon Department of Forestry's responsibility in regard to listed species, as it is for other forest landowners, is to manage the forest in compliance with the federal Endangered Species Act. Under the federal ESA, this can be accomplished by avoiding take, or through an approved HCP that allows incidental take in exchange for minimizing and mitigating for this incidental take. The Land Board has directed the Department of Forestry to develop a multi-species HCP to comply with the federal ESA. A multi-species HCP for the Elliott is expected to provide the greatest long-term benefit to citizens of Oregon by facilitating a sustainable even-flow harvest of timber, and by providing management certainty.

#### Comment Number

179

The ODF has never developed an Adaptive Management strategy that they have been able to implement. The current draft plans still lack a clear, unambiguous trigger for adaptive management. At the September public meeting in Roseburg, I discussed the Adaptive Management circle diagram, as shown on page 6-13 of the FMP. I asked the Coos District wildlife biologist if, in the last decade of implementing Adaptive Management on the Elliott, the circle had ever been completed. The biologist could not think of one time the circle of Adaptive Management was implemented and completed, not one. If anyone at the Coos District can think of one time the 6 steps of the Adaptive Management circle has ever been completed, you should share it with the public. Otherwise, Adaptive Management appears to be an empty, meaningless, policy.

In our attached June 23, 2005 Scoping Comments to the USFW on the Elliott's HCP DEIS, we detail numerous problems in implementing Adaptive Management on the Elliott. This includes the failure to implement strong recommendations from the first HCP's 5-year review. ODFs excuse to not implement those recommendations was that Elliott State Forest EA for the Habitat Conservation Plan. No thinning is in the 2005 AOP because Coos District expected the new FMP to "require some of these stands to be clearcut in the next decade".

this new HCP would address the problems. But instead of addressing those problems, they continue to be ignored in the new plans. Please respond to the attached comments on the Adaptive Management problems.

Adaptive Management is being used in the draft HCP and proposed FMP to mitigate the effects of implementation of these plans. This is misguided. For example, the draft HCP states that adaptive management can be used to "re-evaluate" conservation areas in the event of large-scale disturbance. This should be eliminated – the conservation areas must be permanently protected in order to provide the necessary habitat. If there is a large-scale disturbance, then the only option should be designate additional conservation areas. Similarly, the draft HCP states that salvage logging after a large scale disturbance can be used to maintain or to develop advanced structure. However, the science is undisputed that there is no ecological justification for salvage – only economic justifications. Also, if a goal of the HCP is to maintain and incorporate habitat components into the forest, salvage should not be allowed because it only functions to damage wildlife habitat. The science on this is quite clear. Adaptive management should only be used for minor, insignificant changes.

### Response

There are several management levels at which adjustments are made. Foresters make adjustments to their operations quite frequently based on their experience and forest conditions. The fact that we are going through this process to update the FMP and work toward a multi-species HCP is an adjustment in response to increased knowledge about habitat requirements and forest mangement. Information from the 5-year review of the 1995 HCP was used in developing the plan. For example, adjusting the conservation areas to account for the Salander and Roberts owls.

Conservation areas are not permanent reserves as the comment suggests. They are areas designated for certain purposes. If a disturbance event occurs in a conservation area, it will be evaluated for how well it functions for its intended purpose. Salvage harvest may be applied to help speed the process of returning the area back to its intended function. Legacy components such as snags, live treees and down wood will be left in the harvest area in accordance with the FMP strategies.

#### Comment Number 186

The HCP should require ODF to submit annual monitoring reports for NSO, marbled murrelet, bald eagles, and coho that must be reviewed by the Services. Only by carefully monitoring the populations will the agencies be able to evaluate the efficacy of the HCP/FMP management regime.

#### Response

Periodic monitoring of these populations will be done, but it would be cost-prohibitive to do comprehensive monitoring on an annual basis.

#### Comment Number 190

Commenting on the Northwest Forest Plan, the proposed HCP, page 6-3 says: For both late successional reserves and adaptive management areas, the management emphasis is for "restoration and maintenance of late-successional forest habitat". It appears ODF has the wrong concept for AMAs. The management emphasis on "adaptive management areas" (AMAs) is not "restoration and maintenance of late-successional forest habitat". Instead, AMAs have an emphasis of research. Most are treated much the same as Matrix. However, the AMA in the Siuslaw National Forest could have a particular emphasis on research in late successional forests. The ODF should make clear if they are talking about a particular AMA, not all AMAs.

#### Response

The reviewer is correct, AMA's have not been represented correctly in the HCP Chapter on spotted owls. The next draft of the HCP will correct this error.

## Comment Number 217

Monitoring does not appear to include effectiveness and validation monitoring for stream and wetland protection. Monitoring appears to be focused on compliance with HCP provisions, which is necessary but not sufficient to ensure that aquatic resources are being adequately protected.

## Response

Effectiveness and validation monitoring efforts are described in the State Forests Monitoring Program Strategic Plan. Effectiveness monitoring will address the questions:

- Does the combination of the landscape management strategies and the aquatic and riparian strategies lead to riparian stand conditions that provide for properly functioning conditions?
- Does application of the management standards for forest road design, construction, improvement, and maintenance minimize road-related landslides and sediment loading to streams?
- Does application of the risk evaluation process minimize the occurrence of management-related landslides?

Effectiveness will be addressed by using baseline information to be collected on riparian stand conditions across all stream types. Riparian stands will be periodically assessed to determine if management is maintaining or restoring an array of habitat conditions. A sub-set of streams will be periodically re-inventoried to evaluate how aquatic habitat conditions are changing over time in a variety of streams. Development of aquatic habitat in actively managed riparian areas will be compared with habitat development in streams in passively managed young stands. Water quality parameters will be measured periodically on a sub-set of riparian management treatments to assess whether the resulting post-activity conditions are adequate to meet the needs of aquatic species.

Effectiveness of the upland management strategies will also be addressed through research to identify sources of large woody debris in streams and to assess the level of large woody debris entering aquatic systems from up-slope sources. The relationship between management activities and landslide frequency will be assessed. Forest roads inventories will be updated periodically on each district. Projects will be established to evaluate water quality in sub-basins that have varying road densities and also have varying levels of road improvement.

Validation monitoring will address the assumption:

Active management through a combination of landscape level strategies and site specific standards will result in maintaining and restoring properly functioning aquatic and riparian habitats.

Validation monitoring is long term and will be accomplished through the formal research and effectiveness monitoring projects described. ODF will support and participate in research designed to evaluate interactions between riparian area management and aquatic habitat condition and use.