

SCIENTIFIC REVIEW – ELLIOTT STATE FOREST MANAGEMENT PLAN

Background

The focus of this scientific review is the revised Forest Management Plan (FMP) for the Elliott State Forest (ESF). The sections of the FMP to be reviewed describe the management objectives and vision for the ESF, and the management concepts and draft strategies that will be implemented to achieve the management objectives.

The FMP presents a set of integrated strategies that are the basis for landscape-level management of the forest. The strategies will be applied through active management that is intended to achieve goals for timber, fish, wildlife, and forest condition. These strategies focus on developing a healthy, diverse forest and forest ecosystem that produce multiple benefits.

This is the first scientific review of the concepts and strategies for forest management on the ESF. You are asked to thoroughly review the provided documents and answer some specific questions about the management approach.

Summary of Forest Management Plan Concepts and Strategies

A summary of the FMP objectives, concepts, and strategies is provided below for quick reference. Please refer to the specific chapters for details.

Understand the Forest: Planning and Resources (Chapter 2)

This chapter presents the process used to develop the ESF Management Plan and presents information about the forest resources. The planning process involves many people, including local communities, regional communities, agency specialists, and scientists. This inclusive process was based on the belief that public awareness and public involvement leads to the best management plan.

Guiding Principles, Vision and Goals (Chapter 3)

This chapter presents the guiding principles for management of the ESF, the vision for the future of the ESF, and the resource management goals for each resource on the ESF that will be actively managed. The guiding principles are the overall rules, goals, and responsibilities that guide the planning process for the ESF. The forest vision represents an idealized view of the future of the ESF. It describes a forest that produces sustainable and predictable forest products that generate jobs and revenues over the long-term, consistent with sound land management. Resource management goals are general statements of direction. Based on the resource management concepts (Chapter 4), the management strategies (Chapter 5) describe how those goals will be achieved.

Resource Management Concepts (Chapter 4)

The basic concepts for managing the Elliott State Forest in this plan focus on:

- Economic and Social Benefit.
- Sustainable Forest Ecosystem Management.
- Integrated Resource Management.

Economic and Social Benefit — Three economic and social benefit concepts are discussed beginning on page 4-6:

1. Legal mandates and trust obligations.
2. Sustainable and dependable products and revenues.
3. Social benefit of integrated resource management.

Sustainable Forest Ecosystem Management — Sustainable forest ecosystem management is the application of silvicultural tools to attain the desired landscape condition, which will meet the resource management objectives of the FMP. Specifically, it is designed to produce and maintain an array of forest stand structures and habitats across the landscape in a functional arrangement that provides for the balance of social, economic, and environmental benefits called for in the management direction for these lands. These benefits include a high level of sustainable timber and revenue, diverse habitats for native species, a landscape level contribution to properly functioning aquatic systems, and a forest that provides for diverse recreational opportunities.

The following three key concepts are the foundation for sustainable forest ecosystem management:

1. Recognize the importance of forest disturbance regimes and stand development processes.
2. Provide biologic diversity at both the landscape and stand levels.
3. Provide for a diverse and healthy forest ecosystem adhering to the principles of integrated pest management.

These management concepts are discussed in detail in an Appendix yet to be fully developed.

Integrated Resource Management — Integrated resource management means that the design and application of management practices must consider the effects and benefits of all of the forest resources in such a way that those effects and benefits lead to achieving the goals in the FMP over time and across the landscape. It does not mean that all management practices must treat all resources equally or that management practices must provide for all resources on every acre at all times. Two integrated resource management concepts key to managing the Elliott State Forest are discussed beginning on page 4-36:

1. Combine landscape-level approach with site-specific strategies for other resource values.
2. Properly functioning aquatic systems.

Implementation planning is included as a key strategy in Chapter 5 and is discussed in more detail in Chapter 6. The concepts, framework, and processes for monitoring and adaptive management are also described in Chapter 6.

Resource Management Strategies (Chapter 5)

The FMP strategies will be implemented largely through active forest management practices that focus on the production of the identified desired future condition (DFC) in relation to forest landscape and stand complexity. These stand structures are expected to produce valuable wood products, contribute to a broad range of habitats, and enhance and maintain biological diversity. This plan stresses both the achievement of landscape management and stand complexity in the long term, in addition to regular, sustainable, timber harvest through silvicultural operations. It provides for the maximization of revenue to the Common School Fund in the long-term, consistent with sound techniques of land management. In addition, this plan takes the proactive view that appropriate forest management activities, properly applied, can be used to produce a diversified forest landscape and a sustainable timber harvest.

Strategies to Manage for Economic and Social Benefit

1. Sustainable, dependable products and revenues
2. Achieve legal mandates and trust obligations
3. Provide social opportunities within the context of Integrated Resource Management

Strategies using Principles of Sustainable Forest Ecosystem Management

Sustainable forest ecosystem management will gradually move the forest landscape to a range of stand structures and landscape conditions. Once attained, this range of stand structures and their relative abundance across the landscape will remain reasonably stable, although individual stands will continue to change. Embedded within the landscape will be a network of reserves that develop into older forest conditions and then persist in a relatively unmanaged state. Because the structures will be in a dynamic balance across the landscape, the forest will provide a steady flow of timber volume and revenue, jobs, habitats, and recreational opportunities.

1. Actively manage the ESF for a diversity of stand structures across the landscape
2. Design a functional arrangement of stand types
3. Establish reserves to protect special resources
4. Actively manage to provide key legacy structural components outside of the reserves
5. Actively manage for a diverse and healthy ecosystem applying the principles of integrated pest management
6. Develop a district implementation plan that provides more specific information on the application of Sustainable Forest Ecosystem Management Strategies 1-5, for a 10-year period

Strategies to Integrate Resource Management across the ESF

The strategies for sustainable forest ecosystem management are the basis for managing the forest landscape as a whole. The strategies to integrate resource management represent the site specific management strategies for resource values that the sustainable forest ecosystem management strategies alone may not achieve.

1. Agriculture and grazing
2. Air quality
3. Aquatic and riparian, including watershed assessment, slope stability, and forest roads management
4. Cultural resources
5. Energy and minerals
6. Land base and access
7. Plants
8. Recreation
9. Scenic resources
10. Soils
11. Special forest products

Implementation (Chapter 6)

This chapter provides guidance and standards for processes and activities that will be undertaken to implement the strategies. These include:

- Implementation guidelines
- Asset management
- Adaptive forest resource management
- Opportunities for public involvement

Scientific Review Questions

General

You are being asked to comment on the concepts (Chapter 4) and strategies (Chapter 5) for long-term management of the Elliott State Forest. These concepts and strategies provide the direction for achieving the goals and vision (Chapter 3) for the ESF. Information on plan implementation and adaptive management is also provided (Chapter 6). If there are other strategies or portions of the plan that you would like to offer comments on, or that you feel you must clarify in order for you to comment on these chapters, please do so.

During your review of the concepts and strategies, please keep in mind the tradeoffs that ODF must make in meeting its fiduciary responsibility to the State Land Board, which requires “the maximization of revenue to the Common School Fund in the long-term, consistent with sound techniques of land management”.

In addition, please indicate if you feel that you are not qualified or have no opinion on any of the questions.

Specific Questions

1. Are the management goals, concepts, and strategies adequately defined for you to answer the following questions? If not, what assumptions will you need to make to answer the questions? You may refer back to this question after answering the following questions if needed.
2. What are the scientific and technical strengths and weaknesses of the approaches described in Sustainable Forest Ecosystem Management Strategies 1-6? Please discuss the merits and weaknesses of each individual strategy. Are there alternative strategies that better meet the management goals?
3. The approaches summarized in Chapter 4 promote the development of forest areas with complex stand structure, reserve areas for the protection of special resources, and non-reserve areas with an emphasis on commodity production distributed across the landscape. What are the scientific and technical strengths and weaknesses of this approach? Is this approach compatible with the concept of a dynamic balance of forest structures across the landscape?
4. Are the definitions of stands or habitats described in Chapter 4 sufficient to design forest management approaches that will achieve the goals of providing habitats for the range of native plant and wildlife species, and promoting healthy ecosystem function?
5. What is the likelihood that the use of silvicultural manipulation will encourage the development of forest stands described in Chapter 4?
6. The amount of complex stands and reserves anticipated in the desired future condition for the Elliott State Forest ranges between 50%-65% of the Forest. The amount of complex stands and reserves in individual management basins could vary from 35%- 75%. If we apply the Sustainable Forest Ecosystem Strategies as described in Chapter 5, what is the likelihood that the amount and distribution of complex structure, reserves, and non-reserve areas will meet the management goals for fish and wildlife, forest condition, and timber?
7. We have developed Sustainable Forest Ecosystem Management Strategy #4 in an effort to provide important legacy structural components in stands across the forest landscape. We are currently considering three different ranges of values for hard down wood (decay classes 1 & 2) to be provided at the time of regeneration harvest: 50-300 cubic feet/acre, 300-600 cubic feet/acre, and 600-900 cubic feet/acre. Our assumption is that adequate amounts of down wood in decay classes 3-5 currently exist, and will be left, on the landscape. What are the biological costs or benefits associated with each of the proposed ranges? Would your assessment be different if you assume a less than adequate amount of down wood in decay classes 3-5? Would your assessment be different if you assume these ranges apply only to stands proposed to become complex types and no additional down wood would be retained in stands proposed to become non-complex types?
8. 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?

9. In your opinion, how are the concepts and strategies likely to affect key species of concern, particularly northern spotted owls, marbled murrelets, and coho? Do you see any differences in short- vs. long-term effects? Please describe any adverse affects you may identify and associated opportunities to mitigate those adverse impacts. If feasible, also discuss opportunities to modify the management strategies to prevent or minimize the identified negative affects. (Jeff, you may want to reword this, but I think you get the idea)
10. The discussion of specific monitoring questions (Chapter 6) is designed to guide forest managers toward high priority monitoring topics. The questions are intended as examples and are not designed to serve as project-specific monitoring questions. Are the monitoring concepts and questions structured in a way that testable, relevant, and efficient monitoring projects could be developed from them? Why or why not? Do the monitoring questions adequately address the ecological and management assumptions within each resource strategy? Please state any assumptions you feel are not adequately addressed.
11. Does the description of adaptive management (Chapter 6) clearly present steps necessary to translate monitoring results into changes in management at different planning levels and on different temporal and spatial scales? What steps or concepts are missing?