

IV.4 Responses to Individual DEIR E-Mail Comments E-114 to E-124

This section presents responses to individual public comments (i.e., not form letter or form letter based) received via e-mail. The responses immediately follow each letter and are organized in the same order as the comments in each letter. Several of the letters included attachments. Attachments were not included herein if our response did not directly reference the attachment.

E-mail submissions with multiple copies of a single letter format will be addressed in one sample from each type of form letter. Those with additional comments added will be addressed individually if the comment is substantive and thus warrants a separate response.

There will not be comment letters for every number within the series because some letters dropped if they were duplicates or if they were found to be form letters. Form letters are responded to in their own section of the FEIR.

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-114

March, 1 2006

To: The Board of Forestry and Fire Protection
Board.public.comments@fire.ca.gov

From: Teresa Sholars
Professor of Biological Sciences
Mendocino Coast Campus
College of the Redwoods
1211 Del Mar Drive
Fort Bragg, 95437

707 962 2686 voice mail
email: Teresa-Sholars@Redwoods.edu
tsholars@mcn.org

Re: Draft Environmental Impact Report
Jackson State Forest Management Plan

Members of the Board of Forestry:

This second draft Environmental Impact Report of the Jackson State Forest Management Plan is much improved from the 2002 version. I have read the botanical section and have looked at the maps that cover the vegetation description and sensitive plant species. I have a few general comments on the botanical aspects of the plan and a few specific comments:

General Comments:

In order for Jackson State Demonstration Forest to be the true forest leader it should be in forest management for timber, biological diversity and for recreation the plans needs to specify three botanical elements that it lacks:

1. A botanical inventory that is floristic in nature.
2. A monitoring plan for sensitive plant species that occur on site
3. A map that includes all current location of sensitive species that is kept up to date.

All three of these are lacking in the plan. In order to accomplish the above goals, I would suggest the following:

Botanical Floristic Inventory:

1 A general inventory needs to be started. Local colleges like the Fort Bragg Campus of College of the Redwoods can help with preliminary lists. Then as each new timber sale is created, a floristic botanical inventory of each plan can be done under each THP. This is the only adequate way to discover the presence or absence or rare protected species.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Monitoring Plans for sensitive plant species:

- 2 Monitoring plans should be put into place as each species is evaluated. *Astragalus agnicidus* and *Lycopodium clavatum* should top the list for important rare plant species that occur on Jackson that need a plan to insure their protection.

Maps of Vegetation Types and Rare species:

- 3 The vegetation maps provided by the plan are pretty useless and inaccurate. The wildlife habitat system used does not accurately describe the vegetation. Anyone familiar with the forest with any botanical background would not be able to get an accurate assessment of the vegetation from looking at the maps. It would be better to state that mapping the forest is a future project rather than using the maps provided by the plan.
- 4 The map with the sensitive species from the CNDDDB is also not very informative. I know that current staff has better maps of rare species. These should be compiled and made a working part of the plan.

Some specific comments:

- 5 1. "There are several uncommon vegetation communities that occur on JDSF. Rare or sensitive vegetation types include the Mendocino pygmy forest, sphagnum bogs, other wetlands, meadows, and grassy openings page VII 6.2" Add the Bishop Pine Forest to this list.
- 6 2. "This listing is not exhaustive. Unfortunately new species and occurrences continue to be identified on the forest. Some species seem to be restricted to old occupancy sites such as periwinkle (*Vica major*), Arrons beard (*Hypericum calycinum*), and *Acata .sp.* Others are spreading from nearby pastures (tansy ragwort, *Senecio jacobaea*) or homes (English holly, *Ilex aquifolium*)"Pg 13 Do you mean *Acacia*????
- 7 3. "**Species Protection:** A qualified botanist or trained staff will conduct seasonally appropriate rare plant surveys, as necessary, to assess plant occurrence in potential habitat subject to management activities, including management activities intended to reduce or control invasive exotic species, such as road-side treatments. Survey design is described below. Surveys may include suitable on-and off-site habitat that may be affected by project implementation. Survey results will be documented and provided to CDFG. Observations of rare, threatened, or endangered plants or plant communities will be recorded on field survey forms and copies provided to CDFG's California Natural Diversity Database (CNDDDB). JDSF will provide for, on an as-needed basis, sensitive plant identification training for field personnel." Page 21 It is important to emphasize that these surveys must be floristic in nature.
- 8 4. "**Habitat Management Practices:** Limited removal of species in the pygmy cypress forest may occur as a result of habitat development projects for the Lotis blue butterfly. Prior to habitat development projects, rare plant surveys will be conducted according to accepted survey guidelines (see previous section) to address sensitive plant resources. A qualified botanist will assess the appropriateness of removal of any sensitive plant species in relationship to fostering habitat for the growth of the butterfly's host species, Harlequin lotus, (*Lotus formosissimus*). Effectiveness monitoring will be conducted for any habitat

FINAL EIR FOR JDSF MANAGEMENT PLAN

management practice involving removal of plant species in the pygmy forest to assess the response of the forest to habitat alteration." pg 22 This section is exceptionally scary to an ecologists. We have no data that would lead us to believe that we should remove rare plants in a rare plant community in order to promote the possible food plant for an endangered butterfly. Including this idea in the plan with out extensive background supportive data is unwise to say the least.

9 5. "Survey designs will be **based on the concepts** contained in the CDFG Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Plant Communities (CDFG, 2000). Surveys conducted as part of THP development will follow the practices commonly accepted by CDF and CDFG for THP review. Surveys for other types of projects will recognize the specific features of those projects. [For example, road surface maintenance and roadside brushing are ongoing activities that create repeated periodic disturbances, pre-commercial thinning typically occurs a few years following the more substantial disturbance of a commercial harvest, and shaded fuel break construction targets ground cover vegetation". Pg 23 The survey protocols should be those designed by Fish and Game (floristic in nature) not based on their concepts.

10 6. "An extensive inventory of the botanical resources of JDSF has not been conducted. JDSF maintains a map of known rare plant occurrences and has compiled available supporting documents. Inventory is planned to occur on a project-by-project basis through surveys patterned after currently accepted protocol. Potential impacts to botanical resources will be addressed at the project implementation level through pre-survey scoping in consultation with DFG, survey, and development of measures that avoid or mitigate impacts to sensitive plant species." pg 25 Current accepted protocol should include floristic surveys; if not then the surveys can not accurately assess an area for rare plant distribution. If JDSF has a map of known rare plant occurrences why not include it.?

11 7. "Pygmy forest and pygmy-type vegetation on private lands are subject to Mendocino County land use planning and are designated as Environmentally Sensitive Habitat Areas. These areas are subject to more rigorous environmental review and restriction than most other areas (Mendocino Co. Plan Sect 20.532.060 and 20.496045). ".pg 35 Unfortunately this is true only in the coastal zone which covers only a small fraction of the pygmy forest distribution.

8. Appendix : Invasive exotics:

12 *Cotoneaster spp.* -cotoneaster *Cotoneaster pannosa* and *C. franchetii* are similar and frequently confused with each other, and some plants invading wildlands are not readily assignable to a particular species. Add *Cotoneaster lactea* as the most common species.

13 9. On the map for Special concerns add mushroom corners and all adjacent state park land. It is important to maintain buffers for these important regions.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-114

Response to Comment 1

The DEIR notes that; "An extensive inventory of the botanical resources of JDSF has not been conducted. JDSF maintains a map of known rare plant occurrences and has compiled available supporting documents. Inventory is planned to occur on a project-by-project basis through surveys...." (DEIR Page VII.6.2-24).

At this time JDSF has a draft quality floristic list that has been supplemented by surveys in THP areas and the Bob Woods Meadow. JDSF staff have benefited from plant community lists shared by College of the Redwoods and local DFG staff. The change in the survey requirements (see response 7 following) insures that THPs will have a floristic element per DFG 2000 survey protocol guidelines. Although other survey techniques detect targeted species, conducting floristic surveys can help improve understanding of botanical resources.

Response to Comment 2

The DEIR/RDEIR provides for monitoring of rare plants. Monitoring rare plants for threats of invasive species was included in Chapter 3 of the Administrative Draft Final Forest Management Plan Final Management Plan (ADFFMP). The ADFFMP includes a Monitoring and Adaptive management section (Chapter 5), which includes plant resources. Informal monitoring of *Lycopodium clavatum* occurrences takes place. JDSF has developed monitoring and road management measures at the major *Astragalus agnicidus* occurrence in consultation with the Department of Fish and Game. The Management Plan has focused the Research and Demonstration Goal to include forest ecosystem process and forest protection measures. This focus could include rare plants.

Response to Comment 3

The maps within the DEIR reflect CWHR (California Wildlife Habitat Rating) typing, which provides utility for WHR habitat modeling purposes. A vegetation typing exists that differentiates between Bishop pine and Bolander pine/pygmy cypress stands and includes more detail than the CWHR map. This vegetation information includes some overstory/second story species information. A display of other forms of vegetation typing, such as Holland or Keeler-Wolf or CNDDB, is not feasible at this time, since the field data have not been developed. There is potential for analysis of future projects to incorporate both existing and new information that is in a format of value for botanical assessment.

Response to Comment 4

The DEIR includes the level of information required for analysis. Information exists that can be displayed in other formats that have utility in analysis of individual projects.

Response to Comment 5

Bishop pine will be added.

Response to Comment 6

This correction will be made.

Response to Comment 7

The second paragraph under the title "Surveys:" on DEIR page VII.6.2-23 will be replaced by:

For timber harvest plans and other large projects with the potential for negative effects on rare plants, JDSF shall follow the Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities (CDFG 2000). This will result in floristic surveys for the effected areas. On smaller scale projects, the survey effort will be appropriate for the level of CEQA analysis and the risk of impact to rare plants.

Response to Comment 8

The referenced section will be modified to state:

FINAL EIR FOR JDSF MANAGEMENT PLAN

Habitat Management Practices: The concept of conducting control burns in the pygmy forest originated some years ago as an idea to benefit the Lotis blue butterfly and a host species coast hosackia (*Lotus formosissimus*). Currently it is understood that other herbaceous members of the pea family may be hosts for the butterfly and that host plant habitat is not limited to pygmy forest. The concept of manipulating the rare pygmy forest for the possible benefit of the Lotis blue butterfly is not supported at this time. Local Botanists have supported the concept of carefully reintroducing fire into pygmy forest areas on JDSF. CAL FIRE recognizes that any proposal would be; research focused on improving understanding of the pygmy forest, limited in scope, based on sound ecological and botanical knowledge, supported by experts in the field, undergo appropriate CEQA analysis, and include appropriate survey, study, and monitoring.

The following will be deleted:

Limited removal of species in the pygmy cypress forest may occur as a result of habitat development projects for the Lotis blue butterfly. Prior to habitat development projects, rare plant surveys will be conducted according to accepted survey guidelines (see previous section) to address sensitive plant resources. A qualified botanist will assess the appropriateness of removal of any sensitive plant species in relationship to fostering habitat for the growth of the butterfly's host species, Harlequin lotus, (*Lotus formosissimus*). Effectiveness monitoring will be conducted for any habitat management practice involving removal of plant species in the pygmy forest to assess the response of the forest to habitat alteration.

The wildlife section will incorporate changes that reflect the other potential hosts and habitat for Lotis blue butterfly.

Response to Comment 9

See response to Comment 7.

Response to Comment 10

See response to Comments 4 and 7.

Response to Comment 11

The text will be changed to reflect this fact.

Response to Comment 12

This information will be added.

Response to Comment 13

The Mushroom Corners Management Area is mapped in the RDEIR Figure 5 as well as in the Botany section of the DEIR and in the RDEIR (Map Figure 1). DEIR Map Figure D (Special Concern Areas) includes the State Park Special Treatment Areas. The boundaries of the state parks also are depicted.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Page 1 of 1

Kraemer, Candace

E-115

From: Noble Elisa [enoble@CFBF.com]
Posted At: Wednesday, March 01, 2006 4:01 PM
Conversation: Submitted Comments re: JDSF
Subject: Submitted Comments re: JDSF

Please find the California Farm Bureau's comments attached.

Thank you.

Elisa Noble

Director, National Affairs & Research
Livestock, Public Lands, & Natural Resources
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5/20/2006

FINAL EIR FOR JDSF MANAGEMENT PLAN



CALIFORNIA FARM BUREAU FEDERATION

NATIONAL AFFAIRS & RESEARCH DIVISION

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March 1, 2006

George D. Gentry
Executive Officer
California Board of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244
Email: board.public.comments@fire.ca.gov

Re: Jackson Demonstration State Forest Draft EIR and Proposed Management Plan

The California Farm Bureau Federation (CFBF) is the largest general farm organization in our state representing more than 85,000 family members, including many foresters. Our organization's members include industrial and non-industrial timber landowners, who will be impacted by your upcoming decision regarding the Jackson Demonstration State Forest (JDSF). Members on the North Coast depend on timber sales offered in the JDSF to help sustain their lumber milling operations. In addition, all forest landowners and professional forest resource managers benefit from the research and technical information derived from the demonstration projects conducted on the JDSF.

1

The original intent, and continuing principal purpose, of the JDSF is the demonstration of sustainable and economic timber production, through regular periodic timber sales, in consideration of other forest values and in compliance with all applicable rules and regulations. Timber production is to be the primary use on the JDSF. Research conducted on the JDSF is world-renowned, and very important for the science and application of forestry practices. For example, the JDSF houses a permanent plot system that provides data for growth simulations to help foresters better manage the land and timber. Research projects on the Casper Creek watershed are used for education in forestry schools throughout the country. Research is conducted to improve erosion control, habitat management, harvesting techniques, and watershed restoration. In order for this valuable research to continue, the forest must be managed in a way that promotes diversity in stand structure, which can only be achieved by continued harvesting.

2

Due to litigation from CEQA-based legal challenges, only minimal management has been conducted on the JDSF since 2003. There has been minimal road maintenance, no stream restoration, no timber stand improvement, no research conducted, and limited recreational opportunities. This has created a significant loss in infrastructure, including unemployment among the local workforce, and resulting economic losses to the local and state governments and communities.

3

4

California Farm Bureau strongly encourages CDF to manage the JDSF for research in various natural sciences of the forested landscape; demonstration of existing and new methods of sustainable timberland management; educational efforts, tours, publications and demonstrations; maintenance and enhancement of wildlife and fisheries habitats; and public recreations in their proper order of priority. We encourage CDF to adopt a management plan which includes an annual timber harvest set close to growth per year and conservation practices that meet or exceed

5

FINAL EIR FOR JDSF MANAGEMENT PLAN

the requirements of the Forest Practice Rules (FPRs). The plan should include protection of listed species and recruitment of recovery habitat for listed species, a demonstration program, and the maintenance of existing recreational facilities. It is certainly appropriate to harvest under the FPRs in order to fund research and development, management and forest improvement projects. In addition, we would offer that recreation does not need to exist in conflict with timber harvesting. These uses can co-exist, and recreation could even get some of its funding

from a portion of timber sales receipts.

b [In summary, California Farm Bureau strongly encourages the Board to adopt a management plan emphasizing logging activities in the JDSF. We believe the multiple intended uses of the JDSF can all be successfully fulfilled.

Respectfully Submitted,

Elisa Noble

Elisa Noble

Director

National Affairs and Research

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-115

Response to Comment 1

The large small and non-industrial landowner base that benefit from research and demonstration on JDSF is noted. The Forest plans to continue serving this client base through applied research and demonstration, mandated in legislation.

Response to Comment 2

The Board agrees with the commenter the primary purpose of the State forest program is to conduct innovative demonstrations, experiments, and education in forest management (Board Policy 0351.2).

The major goal established for JDSF in the Management Plan is in fact to improve the amount and quality of information concerning economic forest and timber management, forest ecosystem processes, watershed processes and performance of forest protection measures.

The role of JDSF in testing a range of forest management techniques is specifically addressed in the Management Plan, including the designation of three areas for testing approaches to riparian restoration demonstration.

Response to Comment 3

Comment noted. A cornerstone of the Management Plan is in fact a statement of the desired future conditions on the Forest. These are summarized in Table 1 in the Management Plan, and lay out the respective acreages of different forest structures to be accomplished and maintained over time.

Response to Comment 4

The Board concurs that JDSF is a significant influence on the local economy. The Board is committed to getting the Forest back to a productive condition in order to continue its tradition of making a significant contribution to the local economy.

Response to Comment 5

While the Board has not chosen a management direction that will harvest at levels close to growth on the Forest, the Management Plan provides the various elements described in the comment, and is likely to be acceptable to all the competing public interests involved in the management of JDSF.

It is the Board's intention that the information and education role of JDSF and the entire state forest system be enhanced. Several provisions of the management plan are intended to meet this need, including greater availability of research and demonstration materials, expanded data banking, and an increase in local involvement in state forest planning and operations.

The management plan meets or exceeds the requirements of the State forest practice rules. It also provides for recruitment of restoration of older forest structure conditions, and recruitment and recovery habitat for listed species.

Response to Comment 6

While the Management Plan does not emphasize timber management as much as it could within the confines of legislation, Board policy and the principles of sustainability, the Board believes this Management Plan is the best compromise between the different public interest groups with a stake in the management of the Forest, and is the alternative that has the greatest potential to be accepted and resolve years of stalemate and litigation. This Management Plan will result in an average harvest level of 20-25 million board feet (MMBF) per year. In no case will the annual harvest be greater than 35MMBF per year. Annual growth on the Forest is about 65 MMBF per year.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Kraemer, Candace

E-116

From: Mary Aigner [mary@kzyx.org]
Posted At: Wednesday, March 01, 2006 5:05 PM
Conversation: Jackson State Forest EIR
Subject: Jackson State Forest EIR

March 1, 2006

California Board of Forestry and Fire Protection

PO Box 944246

Sacramento, CA 94244

Attention: Executive Officer Y.G. Gentry

Support draft EIR Alternative
E

Dear Executive Officer Gentry:

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the Jackson Demonstration State Forest management plan. I live near Jackson Forest and have followed the tremendous controversy that management there has caused. It would be terrific if the Board could adopt a plan that allows for management the public can support.

I have been very concerned about how little we are doing as a society to prevent global warming. I was encouraged that Governor Schwarzenegger seems to share my concerns on this. Then I noticed your discussion of this in the EIR. Jackson Forest is a wonderful public asset that can readily be used to sequester carbon. Here there is no national forest and woodland parks and preserves are not large, so Jackson is the state's best opportunity to make a real contribution to offset greenhouse gas emissions. Your DEIR notes on Page VII.16-2 that:

"The current protocols require that an organization's (CDF's in this case) entire emissions and sequestration be calculated. Given the size of the Department and its heavy equipment and facilities (aircraft, engines, dozers, trucks, stations, camps, etc.), emissions are likely to substantially offset any sequestration credits. Current CDF emissions from equipment operations and facilities management are estimated to be 30,000 tons/yr. Also, the amount of carbon that can be registered is a function of the difference between the proposed management and the baseline. According to the protocols, the baseline for timber management is defined by the minimums in the Forest Practice Rules."

CDF is probably one of the few agencies within state government that has such an obvious way to offset its greenhouse gas emissions with carbon sequestration. While the EIR outlines the policy, it does not evaluate the effects of the various alternatives on the Governor's greenhouse gas reduction program. This is certainly a fundamental environmental impact that should be analyzed.

5/22/2006

FINAL EIR FOR JDSF MANAGEMENT PLAN

The preferred alternative, C1, and the similar C2, do not provide for the level of old forest habitat protection that would allow carbon storage to be maintained. Unfortunately, the EIR fails to adequately address the habitat and carbon sequestration opportunity loss that will occur under C1 and C2. Identification of existing older forest stands is vague to non-existent. It is impossible to determine with any precision how much of the proposed logging, both short and long-term, will remove or diminish the old forest stands that are crucial for making a significant contribution to carbon sequestration.

The areas proposed for "late seral development" are the only stands where one can be assured that habitat will be protected and developed and carbon will be stored. These "late seral development" areas are a relatively small proportion of the landscape. Under Alternatives C1 and C2, these are too small and isolated to allow any reasonable expectation they will have a significant positive impact on carbon storage. The EIR fails to consider the effect of the loss of the carbon sequestration opportunity.

By contrast, both Alternatives E and F provide larger areas of old forest beneficial for carbon storage. Alternative E is definitely superior from the carbon sequestration point of view.

I urge the Board to adopt Alternative E, maintain more old forest, and take this unprecedented opportunity to make a significant contribution to Governor Schwarzenegger's campaign to address global warming. Thank you.

Sincerely,

Mary Aigner

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-116

Response to Comment

The commitment to set harvest levels well below growth will ensure that increased carbon storage will occur over time on JDSF. Although it is based on simplified assumptions, and significant uncertainties exist in regards to the carbon storage of wood products, projected inventories and below ground biomass, DEIR Table VII.16.1 and RDEIR Table III.19 serve to rank the various alternatives in regards to carbon sequestration over the 100-year planning period. The commenter correctly identifies Alternative E as having the greatest potential for carbon sequestration under these simplified assumptions, although it is important to note that all of the alternatives will have a net positive effect. The ADFMP calls for a reduction in timber harvest to a level that is close to alternative F, which will lead to increased inventories, and therefore carbon storage, in relation to C1 and C2.

Increased inventories are not the only means of storing carbon. Wood products can also serve to store carbon for many decades. As stands age, the growth, and hence the rate of carbon sequestration, declines. Therefore, harvesting timber to allow a faster growing stand and storing the harvested carbon in the form of wood products may provide the greatest potential carbon storage. As stated above there remains considerable uncertainty relating to the carbon storage of in the form of wood products and below ground biomass.

Another issue relates to market forces. The coastal redwood/Douglas-fir forest is one of the world's most productive forest types. If we meet the demand for timber products by simply shifting harvesting to other less productive forest types the net effect may be to reduce overall rate of carbon sequestration.

The management of forests must also be concerned with the effects of climate change on the overall health of a forest. In general, maintaining diverse stand structures on the landscape will likely allow the greatest flexibility for management and for the forest itself in the face of uncertain climate shifts.

JDSF is well suited to do the research needed to fill the gaps in our understanding of these complex issues. JDSF could be utilized to demonstrate how various management strategies may serve to enhance carbon sequestration while remaining economically viable. The goal of the demonstration forests is to test a variety of management strategies and develop economically viable options for surrounding landowners. In this manner, JDSF can extend the possible benefits of various carbon management strategies to land beyond its borders.

While the carbon sequestration issue is very important, managing the forest with maximizing carbon storage as the primary goal would significantly limit the research and demonstration value for other aspects of forest management (see General Response 2).

See also the response to RDEIR comment letter GM-33 (2007 Individual comments, mailed).

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-117

From: Steve Horner [s_horner@cox.net]
Posted At: Wednesday, March 01, 2006 2:39 PM
Conversation: Comment for JDSF Management Plan Draft EIR
Posted To: Round 3
Subject: Comment for JDSF Management Plan Draft EIR

To: Board of Forestry and Fire Protection

Re: Comment for the Jackson State Demonstration Forest Management Plan Draft Environmental Impact Report

On behalf of Barnum Timber Company, a longtime steward of approximately 40,000 acres of timberland in Humboldt, Mendocino and Trinity Counties, I submit the following comments on the JDSF Management Plan Draft EIR. I want to make sure the Board of Forestry understands and addresses the environmental and economic impacts—both positive and negative—of maintaining moderate to higher levels of harvest on JDSF, along with the research opportunities to study intensive forestry.

1 The Jackson State Forest contains a substantial amount of currently merchantable timber that is not only important for generating revenue for the State, but also the entire local timber economy. I must note that I consider the "local timber economy" affected by JDSF includes Humboldt County. The presence of this merchantable timber is a testimony to the good stewardship of JDSF and its sustainable forestry policies that go back many decades. The local timber industry economy and certainly the State depend upon this merchantable timber for jobs and revenue.

According to a recent study of Humboldt County's forest industry, 374 million board feet of timber was harvested in the county in 2002. I estimate that JDSF's potential annual harvest under Alternative C1 represents a significant percentage of that 2002 countywide harvest. This potential harvest volume may not seem like a lot to some, but I'll explain why this amount has inordinate importance to Humboldt County forest landowners and the long-term health of the entire local economy.

The majority of the of the original privately owned forest area of Humboldt and Mendocino County was first harvested within a decade or two of the end of World War II. Because timber values were so low and forest restocking was not a widely available practice, replanting of trees for future harvesting was not accomplished. This fact has led to most of Humboldt County's commercial private forest lands today being at an approximate age of 50-years old, suppressed and inadequately stocked with commercial conifer species.

2 Most of Humboldt County's private forests that may be managed for timber production are just shy of maturity, by approximately 10-years. Ten years from now, however, many of these forests will be mature and many landowners may wish to harvest timber. Local timberland owners have invested much money to improve stocking and hasten growth of their forests in expectation of its eventual harvest.

JDSF's forests were originally harvested before World War II, and the forests contained sprouting redwood. Because of the timing of the original harvest and good forest stewardship practices, today JDSF has mature, well-stocked forests currently available for harvest.

These conditions represent a dilemma for both landowners and the local timber economy: Landowners with trees rely on mills to which they can sell their logs to in about a decade and recoup their investment; the local timber economy will be struggling for the next decade until most local forests mature and are available for economically viable harvest.

Thus the fate of other local timber owners and the local economy relies upon JDSF's immediate ability to conduct a reasonable annual harvest of mature trees over the next decade and provide logs to local mills. There simply is a low likelihood of our local private timberlands replacing during the next decade

FINAL EIR FOR JDSF MANAGEMENT PLAN

the lost harvest volume from JDSF if a low- or no-harvest alternative is adopted.

If a low- or no-harvest alternative is adopted, I predict that the loss of harvest will stress the local timber industry and threaten existence of the few sawmills that remain in existence. I do not believe that the local timber market can compensate for such a significant shortfall in log production that would result from near cessation of JDSF's harvest. This would jeopardize the ability of local sawmills to remain in existence until adjacent Humboldt & Mendocino County forests mature and can provide similar log supplies. If more local sawmills are dismantled before other Humboldt & Mendocino County forests mature, landowners, having few or no markets for their logs, will be significantly harmed economically and it will cause these landowners to pursue other options for their lands to recoup their investments that do not involve preservation for timber purposes. This would result in unintended environmental harm to local private timberlands through loss of open space, subdivision of large land bases and urbanization.

2 Also, if Humboldt County's annual harvest level drops by the amount that could be provided by JDSF through moderate to high—yet sustainable—harvest levels, a collapse of the industry infrastructure—loggers, suppliers, processing facilities—could result. This situation would economically harm all forest landowners in Humboldt County and ultimately the environment if non-forest uses result. This is a clear and present danger that will result if a low- or no-harvest alternative is adopted.

Based upon my preceding comments, I request that the Board of Forestry acknowledge the negative economic impact on the local Humboldt County economy and local timberland owners should a low- or no-harvest alternative be adopted. This analysis should span at least the next decade.

The discussion above points out that the low- or no-harvest alternatives have serious negative economic implications to timberland owners and also the local economy, which could in turn result in unintended negative environmental impacts on the region's private timberlands. An approximate dollar value of the impact to the local timber economy needs to be considered by the Board of Forestry in order to weigh it against the potential positive environmental impacts on JDSF that would result from a low- to no-harvest alternative in JDSF over next decade. This is not to say that environmental degradation is acceptable in exchange for preventing negative economic consequences that might result from adopting a low-harvest level alternative, but provides a relative measure for the burden that the Board of Forestry should endure should you decide to adopt a low- to no-harvest alternative.

I want to make sure that the Board of Forestry is sensitive to the economic impact to private timber landowners and the Humboldt County economy that would result from the adoption of low- to no-harvest alternatives, and consider the unintended negative environmental impacts that could result to private lands in the region should such an alternative be adopted.

3 Additionally, please recognize the benefit to continued study on JDSF of intensive forestry. The findings from carefully controlled study can identify positive and negative impacts to the environment from intensive forestry practices, results of which can be used to support or inhibit similar practices on the private timberlands of the region. What happens on JDSF is magnified by its application (or prevention of its application) on private lands.

Steve Horner
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FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-117

Mr. Horner makes three main points about the broader economic impacts of different management regimes for JDSF that apply to the next decade.

Response to Comment 1

The first point is that even though Jackson Demonstration State Forest (JDSF) is located in Mendocino County, the logs will go to the winning bidder and may be processed in mills in Humboldt or Sonoma counties. Since most of the direct employment as well as the indirect employment and economic activity will be tied to the location of the mill rather than the harvest location, this is quite important. Since it is impossible to predict the eventual location of the mill where the redwood or Douglas-fir logs will be processed, it would be appropriate to consider the location of the economic impact as being somewhere within the three county region (Mendocino, Humboldt, and Sonoma) and closely associated with the communities around the mills. Sections III.5 and III. 6 of the DEIR discuss timber supply and economic issues for the North Coast redwood region, including Del Norte, Humboldt, and Mendocino Counties. Some data also are provided for Sonoma County.

The information on the economic and employment effects of timber harvest on JDSF, discussed in section III.5, III.6, and VII.6.3 of the DEIR and section III.6.4 of the RDEIR can be utilized to help understand the economic effects whether they occur in the county of harvest (e.g., timber yield taxes received by Mendocino County) or in the county where processes occurs (e.g., employment effects of processing logs into lumber). Table III.13 in the DEIR examines employment and revenue effects of various timber harvest levels. This table was developed using information from Mendocino and Humboldt Counties.

Response to Comment 2

The second point focuses on the short and medium term implications of the harvests from JDSF in terms of maintaining a number mills that will be in business when the slower maturing timber stands of the non-industrial forestland owners in the region become financially viable for harvesting. One of the principal purposes of JDSF is to demonstrate to non-industrial owners the actual benefits of good timber management. The state was able to invest more resources decades ago to reduce competition from non-commercial hardwoods such as tanoak. The Forest Inventory and Analysis (FIA) data for the North Coast region is referred to in the EIR and clearly shows the much greater stocking of the less valuable hardwoods on non-industrial ownerships. JDSF harvests in the upcoming decade will demonstrate a range of approaches that can be viewed by non-industrial owners who will be making their harvesting decisions a decade or more after similar stands harvested on JDSF.

In addition the demonstration value, the JDSF harvests will also be important for allowing a larger number of mills to stay in business during a period when available inventories for harvest may be lower than they will be in the following decade. The proposed Administrative Draft Final Management Plan sets an expectation that the annual average harvest level of will be in the range of 20-25 million board feet (MMBF) per year during the first 10 years of Plan implementation, but harvest is permitted to go as high as 35 MMBF. The expected range represents 71-89% of the annual average harvest (28 MMBF) on JDSF during the last 10 years of full operation (1991-2000) at JDSF prior to court injunctions halting timber harvests. The maximum level of 35 MMBF, which is unlikely to be achieved given the range of controls contained in the proposed Administrative Draft Final Management Plan. This level of expected harvest does not constitute a "no-harvest" or "low-harvest" management approach. This harvest level will make a significant contribution to the log supply in the North Coast region. Total 2006 timber harvest in Del Norte, Humboldt, Mendocino, and Sonoma Counties was estimated at 475 MMBF (State Board of Equalization). The Management Plan's anticipated average annual harvest of 20-25 MBF is equivalent to 4.2 to 5.4% of this total.

Response to Comment 3

The final point emphasizes the importance of the intensive forestry research plots within the mix of harvest and management strategies that are demonstrated on JDSF. Some, but not all, non-industrial landowners will prefer to pursue an intensive approach to forest management on their properties.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Maintaining a broad range of forest management approaches on JDSF will allow landowners, regulators, and other interested parties to compare different approaches across a whole range of variables. The Administrative Draft Final Management Plan being considered by the Board of Forestry and Fire Protection places its primary emphasis on research and demonstration and provides for the conduct of intensive forest management, including all forms of even-aged management, although evenaged management is limited to 2,700 acres per decade. The Administrative Draft Final Management Plan specifically allocates areas available for intensive forms of management and identifies long-term and short-term acreage totals.

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-119

From: Linda Perkins [lperkins@mcn.org]
Posted At: Wednesday, March 01, 2006 4:06 PM
Conversation: Jackson State dEIR Comment
Subject: Jackson State dEIR Comment



JDSF comment
ARWPA.doc



JDSF DEIR Albion
comment.doc

Dear Mr. Gentry:

The attached comments are submitted to the record of the draft EIR for Jackson Demonstration State Forest. Also attached are Albion River comments made in 2002.

Thank you.
Linda Perkins

FINAL EIR FOR JDSF MANAGEMENT PLAN

Fax:707-576-2608

Apr 10 '06

8:07

P.20

E-119A

**Albion River Watershed Protection Association/
Friends of Salmon Creek**
~PO Box 661, Albion CA 95410~
Tel: 707-937-0903

February 27, 2006

California Board of Forestry
Post Office Box 944246
Sacramento CA 94244
Attention: Y.G. Gentry, Executive Officer

Dear Mr. Gentry:

On behalf of the Albion River Watershed Protection Association/Friends of Salmon Creek, I provide the following comments regarding the draft Environmental Impact Report (dEIR) and the Draft Forest Management Plan for Jackson Demonstration State Forest.

1 As a member of the Citizens Advisory Committee (CAC) appointed by former CDF director, Richard Wilson, to advise on management of the Jackson Forest, I participated in a process that included representation from a diverse range of interests. Most of the representatives were local residents. We worked well together, often by consensus, the exception being that the CDF personnel present often disagreed with the majority of the group. It is certainly not surprising that the result of our work, finalized in December 1998 and shelved for years, but finally receiving recognition – as Alternative D of the dEIR – is still not the preferred alternative for CDF. It does continue to have strong local support – once again from a diverse group that includes a number of foresters, mill owners and loggers, the Mendocino County Board of Supervisors and the Fort Bragg City Council.

2 What has happened while the CAC recommendations sat on the shelf is that people – among them the legislators of the state of California -- have moved on to a broader, more sophisticated and environmentally sensitive look at the context of Jackson State. More people have looked around and seen that our forestlands are threatened by far more than declining inventories and degraded wildlife habitat. [See Figure V.1.] Much of our commercial forestland has become so depleted that it is no longer economically viable to operate as timberlands. Instead these lands are being converted to other uses, disappearing under grapevines and houses. Rather than declining inventories and degraded habitat, we are witnessing a complete loss of inventory and total depletion of high quality wildlife habitat on these converted lands.

The dEIR acknowledges these pressures [V.1, pp 3 and following] and concludes, "Under these conditions, it is important for the state to maintain a Demonstration Forest Program that can help timberland owners maintain economically viable timber production operations." [page 4]

FINAL EIR FOR JDSF MANAGEMENT PLAN

3 Yet when I turned to Sections VII.11 (Land Use), VII.3 (Agriculture), VII.6.3 (Timber) of the dEIR, I could find no information on how the alternatives compared in meeting this important function of the state forest, "...helping timberland owners maintain economically viable timber production operations."

4 In fact, Jackson State, to date and as evidenced by their own data, would seem to be remarkably ineffective in making this sort of demonstration:

Under Section VIII (Cumulative Effects), I found this statement,

"Where planning watersheds had substantial portions of both JDSF and other ownership, the harvest activity was typically more extensive on the non-JDSF portions during the period of time examined, [past 19 years] due to variable stand conditions, stand management history and management philosophy: Parlin Creek, 69% of JDSF acres harvested/100% of non-JDSF acres harvested; Berry Gulch, 24%/82%; James Creek, 0%/106%; Kass Creek, 92%/111%; Lower North Fork Big River, 3%/75%; Two Log Creek, 4%, 88%; Upper North Fork Big River, 0%/93%; Caspar Creek, 41% 66%. Only the Hare Creek planning watershed had the reverse relationship, 77%/26%....entire cumulative effects assessment area, 32%/71%.

5 We know that harvest entry level has a cumulative effect on the health of aquatic species and systems, particularly listed salmonids. (Higgins comments, 2006)

This "level of disturbance" issue was addressed by the Science Review Panel in their "Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat" that was prepared for the Resources Agency of California and the National Marine Fisheries Service and issued in June of 1999

6 On page two of the executive summary of this document the panel states, "Pending completion of watershed analyses, the SRP recommends the Board of Forestry consider whether a harvest limitation based on percent of watershed area is warranted. This percentage would function as a red flag rather than as a moratorium. Predictably, the environmental community advocated a maximum harvest of 10% to 15% of watershed area per decade, whereas timber industry constituencies offered a maximum of 70% to 85 % per decade. The SRP believes a more likely value would range from 30% to 50% per decade, but will depend on numerous factors including geology, harvest prescriptions, past disturbance, etc. The SRP recommends that a blue-ribbon science panel be commissioned in 1999 to consider the need for harvest limitations."

7 How do the Alternatives compare in addressing the issue of demonstrating to forestland owners the importance of conserving forestlands sufficiently to maintain economically viable operations so that forestlands can remain intact and continue to provide wildlife and water quality values for Mendocino County and the region? How will failure to achieve this demonstration affect environmental conditions on Jackson itself? This must be Jackson's most basic demonstration mandate if we are to continue to maintain a forested landscape in Mendocino County.

10 Yet, it would seem, that the preferred alternative continues to demonstrate forest practices - clearcutting, large-scale commercial logging, cutting of the oldest second-growth

FINAL EIR FOR JDSF MANAGEMENT PLAN

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Apr 10 '06

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10 | stands, inadequate stream protection, and herbicide use – all of which practices have contributed and will continue to contribute to a demonstration of continued and accelerated loss of habitat and loss of value of land for timber production – or, at minimum, to delay their recovery.

11 | We urge you to consider an alternative that addresses this issue. We believe that the most likely alternative to do so is Alternative F, which provides a balance of values that will enhance both timberland productivity and wildlife habitat enhancement.

In addition to our own comments we subscribe to those comments submitted by the Sierra Club.

Sincerely,

Linda Perkins
ARWPA/FOSC

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-119A

Response to Comment 1

Support for Alternative D is noted. During and after the period of time in which the Citizens Advisory Committee met, a number of the recommendations made by the committee were implemented by the Department, in whole or in part. Alternative G and the Administrative Draft Final Forest Management Plan (ADFFMP) incorporate a number of the elements of Alternative D. They also incorporate many of the recommendations of the Mendocino Working Group, a local consensus group formed to address concerns about JDSF management.

Response to Comment 2

The analysis performed for the EIR addresses a broad range of potential impacts to forest lands, in addition to inventory and habitat concerns. Concerns about development and conversion to non-forest uses are specifically recognized. The economic value of timberlands for other uses, both commercial and residential, may be considerably higher than exclusive use for sustainable timber production in many cases, depending upon local factors and landowner objectives. The DEIR/RDEIR also recognizes that forest ecology and management information developed and demonstrated on JDSF can help to inform landowners about economically and environmentally sustainable ways of keeping their land as working forest.

The Board agrees that forest conversion results in a reduction in lands available for timber production, and depending upon the to which it is converted, can result in alteration of habitat and habitat value. The State Forest system can play a valuable role in demonstrating the multiple benefits of continuous timber production and wildlife habitat to private landowners.

Response to Comment 3

The primary purpose of alternatives in an EIR is to examine the different manner in which the alternatives may or may not affect the environment, not to examine different modes or focuses of program delivery. However, demonstration program goals are discussed in the DEIR/RDEIR and the ADFFMP.

The demonstration program for JDSF is guided by Board policy, which is generally described in DEIR Section II. The goals established for research and demonstration can be found in the RDEIR (Appendix 1), and general management planning for research and demonstration is discussed in ADFFMP Chapter 4 (Research and Demonstration). Further, the kind of demonstration that could occur under the various alternatives is in part implicit in the general themes of the alternatives.

With the exception of Alternative A, with its inherent lack of funding, each alternative considered offers an opportunity for research and demonstration of potential value to private timberland owners. Alternatives C1 and C2 offer a broader range of management practices than are available in Alternatives D, E, and F, while sharing in most of the potential management activities that are available with these other alternatives. Alternative G, of the ADFFMP, contains a mix of features from Alternatives C1 through F. The Board believes that the ADFFMP, based on Alternative G, would provide the potential for a broader range of research and demonstration projects, which is expected to benefit a broader range of landowners.

It would be speculative to attempt to determine a level of impact associated with relative demonstration opportunity among the alternatives considered in the EIR, or the extent to which the demonstrations may ultimately affect the behavior of landowners. However, the statutes governing management of the Demonstration State Forests direct that the Forest be managed to provide forest management information for private landowners (Public Resources Code § 4631 et seq.).

Response to Comment 4

A relationship between state forest demonstration value and the current condition of adjacent private lands cannot be reasonably made. The extent to which landowners utilize or benefit from the broad

FINAL EIR FOR JDSF MANAGEMENT PLAN

array of demonstration projects is expected to be highly variable and individualized over space and time. In fact, many landowners have visited JDSF, have reviewed printed JDSF reports, and have attended seminars and field trips that have included management-related demonstration project results from JDSF. The extent to which this reflected in the condition of timberland is speculative.

Response to Comment 5

The Board has concluded that a significant impact upon aquatic resources is not expected to occur. Please see DEIR Sections VII.6.1, VII.10, and VIII.8.7 and RDEIR Sections III.6.2, III.10, IV.3 and IV.6 for the assessment of potential impacts to aquatic systems and species.

Response to Comment 6

The Review Panel report includes a recommendation that the Board consider a limitation upon harvest at the watershed level. They recognized the importance of watershed analysis in helping to determine the expected level of impact. The DEIR provides a substantial level of watershed analysis. Please see DEIR Sections VII.6.1, VII.10, and VIII.8.7 and RDEIR Sections III.6.2, III.10, IV.3 and IV.6 for an assessment of watershed conditions and expected impacts.

Response to Comment 7

Each of the alternatives that were considered, with the exception of Alternative A, is expected to demonstrate the importance of conserving forestlands so that forestlands can remain intact and continue to provide wildlife and water quality values for Mendocino County and the Region. However, the economic viability associated with each alternative can be expected to vary, depending upon the management objectives of private landowners and the degree to which their management emulates the alternative that is adopted. Landowners vary considerably in both their ability and intent to retain their lands intact. The Board believes that alternatives that offer a broad range of management demonstration will ultimately benefit a broader range of landowners.

Response to Comment 8

The Board believes that future JDSF management will help achieve this objective, by demonstrating to forest landowners management methods that can lead to economically viable operations so that forestlands can remain intact and continue to provide wildlife and water quality values for Mendocino County and the region.

Answering the question of how the failure of JDSF research and demonstration in positively influencing private landowner behavior would affect environmental conditions on JDFS itself is highly speculative. Prior to 2006, most of the lands adjacent to and sharing watersheds with JDSF were owned by the industrial landowners Mendocino Redwood Company and Hawthorne Timber Company. As documented in the DEIR, both of these landowners have been talking steps to improve the environmental conditions on their lands. Thus, the likelihood of these landowners suddenly shifting to less protective forms of forest management because of a "failure" of JDSF demonstration programs seems remote and highly speculative. CEQA does not require speculation.

Response to Comment 9

Demonstrating to forestland owners the importance of conserving forestlands sufficiently to maintain economically viable operations is embodied in the legislation and Board policies for management of the state forests (see DEIR Appendix 5) and in the Goals and Objectives for JDSF (RDEIR, Appendix 1 or ADFPMP, Chapter 1).

Response to Comment 10

The ADFPMP places significant limits on the utilization of even-aged management, including clearcutting in particular. The expected average annual harvest level is 20-25 million board feet (MMBF), well below the estimated Long-Term Sustained Yield of 56 MMBF/acre. The ADFPMP designates one-third of the Forest for late seral forest and older forest characteristics. A high level of protection is provided for streams, well beyond the standard practices of the Forest Practice Rules. Additional limitations on the usage or herbicides are put in place, as compared to Alternative C1.

FINAL EIR FOR JDSF MANAGEMENT PLAN

The analysis in the DEIR and RDEIR indicated that management of JDSF under Alternative C1 or Alternative G (the ADFMP), taking into consideration all management provisions and mitigations, would not be expected to result in significant individual or cumulative adverse impacts related to habitat (aquatic or terrestrial) or the value of the land for timber production. In fact, a number of beneficial affects that could contribute to recovery are identified. Please see DEIR Sections VII.6 and VIII for an analysis of potential environmental effects associated with each alternative considered.

Response to Comment 11

The Board believes that the DEIR and RDEIR have addressed these issues. The eight alternatives examined consider and assess a range of values, including timberland productivity and habitat for fish and wildlife. Each provides a unique mix of management proposals relative to productivity and habitat. Timberland productivity and wildlife habitat enhancement are more complex issues than suggested by the commenter. Please see responses 9 and 10 above.

FINAL EIR FOR JDSF MANAGEMENT PLAN

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P.16

63-8957

Albion River Watershed Protection Association/
Friends of Salmon Creek
PO Box 661, Albion CA 95410

E-119B

July 17, 2002

Chris Rowney, Program Manager
Demonstration State Forest
California Department of Forestry
Post Office Box 944246
Sacramento California 94244-2460

RE: JACKSON DEMONSTRATION STATE FOREST
DRAFT FOREST MANAGEMENT PLAN (FMP)
DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR)

Dear Mr. Rowney:

Thank you for the opportunity to comment on the Forest Management Plan (FMP) for Jackson Demonstration State Forest and the Draft Environmental Impact Report (DEIR) regarding the Management Plan.

01 We write as a group with a strong interest in the management of the forest. One of the particular interests of our group arises from the fact that several of our members served on the seventeen-member Jackson Forest advisory committee appointed in mid-1997 by former California Department of Forestry Director Richard Wilson. The committee represented a wide range of interests and included foresters, saw mill owners, small landowners who manage their own forests, biologists and environmentalists. The committee's report- issued in December of 1998- received no response from CDF. Subsequent timber harvest plans on the forest made no reference to the committee's work and evidenced no changed practices reflective of the committee's recommendations. The first official acknowledgement of its work has been that its recommendations have been presented in summary in the DEIR as "Alternative D (All-Age Emphasis)."

02 The committee's work addressed, among other matters, several issues that had been and continue to be, of great concern to the general public. These issues are the use of herbicides, the use of even-aged silviculture prescriptions, especially clearcutting, the cutting of old growth, inadequate standards for road building and maintenance, and the inadequate protection of streams. The committee's recommendations regarding these issues were, in brief, that the Department of Forestry place a moratorium on the use of herbicides, use only single-tree selection methods, stop cutting old growth trees (even isolated trees), develop a plan for the forest's roads, and provide stream protections based on the best available science, i.e., the US Forest Service "FEMAT" standards.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Fax:707-576-2608

Apr 10 '06

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P.17

- 03 The FMP and the DEIR, in spite of acknowledging the environmental superiority of Alternative D to the preferred alternative, has for the most part failed to incorporate even these moderate standards of forest management and wildlife protection into its proposals. This cavalier treatment of the work of a group of citizens selected by its government to advise on lands that belong, in the first instance, to those citizens, severely undermines the credibility of the entire DEIR and calls into question the validity of the CEQA process. Will comments from the general public be given any greater weight than the comments of those who were *charged* with advising?
- Thus, I would first like to incorporate a set of comments that were not written by myself but which I believe reflect a view held by a broad spectrum of the public as to how their forest should be managed, and which certainly reflect the intent of the advisory committee, and which our group adopts as its own.
- 04 "Given how badly the timber industry has decimated the region's forests, it would be appropriate to manage Jackson as a demonstration of various ways to restore lands to old growth conditions.
- 05 **All old growth trees should be protected unless they pose a serious threat to human life.** All old growth trees should have a no-logging buffer. Where there are many scattered old growth trees, they should be aggregated into a special concern area that is managed for late succession development. Old growth trees are a non-renewable resource.
- 06 **The marbled murrelets known to be nesting at Russian Gulch State Park adjacent to Jackson must receive strong protection** because they are listed under both the state and federal Endangered Species Acts (ESAs). Both branches of the headwaters of Russian Gulch must be set aside in a no-logging zone.
- 07 **The recommendations of the federal Recovery Plan for marbled murrelets should be implemented:** Along with careful protection for known murrelets, suitable nesting habitat should be protected where it exists and large tracts should be developed. Doing this is well within Jackson's demonstration mandate. Jackson encompasses approximately 30% of the Critical Habitat designated in California for marbled murrelets. CDF has a duty to conserve listed species under the California ESA.
- 08 **The 80-110 year old second growth should not be logged.** The Forest Management Plan proposes to log most of the oldest second growth stands currently growing. The timber industry has eliminated most old second-growth redwood from their holdings. Jackson is a public forest that must give as much consideration to recreation and aesthetics as it does to logging. Any sort of logging in high use public areas should be eliminated.
- 09 **Clearcutting, even with "variable retention," should be eliminated.** The public is not likely to see much difference between clearcutting, which is supposed to not happen under the new FMP, and "variable retention" cuts, which are clearcuts with a few clumps of trees retained. The timber industry is demonstrating clearcutting in a massive way and

FINAL EIR FOR JDSF MANAGEMENT PLAN

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Apr 10 '06 8:06 P. 18

Jackson already has huge tracts of clearcut land that can accommodate any experimental needs that may arise.

10 **Poor logging practices should be eliminated.** Jackson has a very significant invasive plant problem. Pampas grass and other similar pest plant invasions are directly proportional to the amount of forest canopy that is removed during logging. Even-aged logging, particularly clearcuts (by any name), are highly likely to cause additional infestations of exotic plant species.

11 **Herbicide use should be avoided.** Herbicide use should be eliminated by avoiding timber operations that result in invasive plant problems. Existing invasive infestations should be controlled using non-chemical means.

12 **Stream protection should be increased.** The proposed stream buffers are not as protective as the recommendations of the National Marine Fisheries Service and the US Forest Service for this region. The US Forest Service Standards and Guidelines are most appropriate for implementation at Jackson because they were designed for protection of many species, not only fish.

13 **Jackson Forest has the potential to be a beautiful, successful, and well-regarded regional resource.** The Management Plan update provides CDF with the opportunity to seriously consider and respond to long-standing public concerns about the forest's management. I would like the forest to be a place of peace."

14 Secondly, I would like to point out the inadequacy of the DEIR in addressing the recovery of the marbled murrelet- an important consideration to many as noted above- by its failure to fully disclose information needed to assess impacts in the western area of the forest, the area closest to the known nesting murrelets in Russian Gulch State Park.

15 A large block (1225 acres) of the western portion of Jackson Forest in the north fork of Caspar Creek was designated by the Board of Forestry in 1991 as "experimental forest land". As such, timber operations on this area do not require a timber harvest plan. The proposals for the future of this block are not disclosed in the DEIR nor is it made clear that they will be disclosed in any future document for public review and comment.

It is pointed out on page 19 of the DEIR that the DEIR is not intended to supercede the negative declaration used to establish the 1225-acre experimental forest designation. The DEIR must discuss, however, how activities on the "experimental forest land" might combine with past projects and with future plans proposed for other areas in the FMP to significantly adversely cumulatively impact the marbled murrelet and other species that might be dependent on habitat in the north fork of Caspar Creek. This must include consideration of fish, including the federally listed coho salmon and steelhead trout known to be present in Caspar Creek, and other aquatic species that are potentially present. One cannot declare an almost two-square-mile section of watershed within Jackson Forest exempt from environmental review simply because it does not fall under the purview of the California Forest Practice Rules for timber harvesting.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Fax:707-576-2608

Apr 10 '06 8:07 P.19

16 { Our group would like to suggest that a Jackson Forest Citizen's Advisory Committee be convened once again, that it again be composed of local people, representative of a cross section of interests, and that it be charged with discovering how the best philosophical, sociological and naturalist thought could be brought to bear in the management of this forest such that future generations be given the widest spectrum of options for its use.

Thank you for your consideration of these comments.

Sincerely,

Linda Perkins

ARWPA/FOSC

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-119B

Response to Comment 1

Please see response to Comment 1 to Albion River Watershed Association letter dated February 27, 2006 (Email Letter E-119A).

Response to Comment 2

Please see individual responses below. At the time that the Citizen's Advisory Committee (CAC) met, there was no road management plan. Subsequent to the CAC meetings, a road management plan was prepared and made a part of the DFMP (Appendix VI), and is in Appendix IV in the ADFFP. The road management plan includes appropriate standards for road building and maintenance.

In response to public concerns expressed in the late 1990s, including those of the CAC, the Department severely restricted the use of herbicides on JDSF. This self-imposed use restriction extended for a period greater than three years, during which time alternatives to the use of herbicides were considered (Marc Jameson, personal communication). The FEMAT (Federal Ecosystem Management Assessment Team) recommendations for watercourse protection are a set of interim standards for federal lands that were intended to guide stream protection until local watershed analysis was performed. Whether or not FEMAT standards represent "best available science" is a characterization that is still debated among professionals. The DEIR and RDEIR provide an initial level of watershed analysis. The analysis in the DEIR resulted in the incorporation of additional protection measures into Alternatives C1 and G. The stream protection standards recommended by the CAC do not mimic the FEMAT standards, although some similar principles were applied.

Response to Comment 3

The CAC was a committee appointed by CDF Director Richard Wilson to give advice to the Department. The committee had no oversight responsibilities or authority. The CAC was not appointed as part of a CEQA-related "project". The Department appreciates the efforts of the CAC membership. A number of the recommendations made by the CAC are reflected in past and present management of JDSF, and are incorporated in whole or in part in the ADFFP.

Response to Comment 4

Management of JDSF to restore old-growth conditions is clearly not in conformance with the enabling legislation and Board policies affecting state forests. Under the proposed ADFFP, one-third of JDSF will be managed to develop late seral and older forest conditions, and to conduct research and demonstration on the development of these forest conditions. These conditions are the first steps in the long-term process of at least several hundred years that would be required to transition young-growth forests to old-growth forests. Given that the ADFFP is expected to have a life of only 5-10 years (or perhaps even shorter, depending upon the recommendations of the proposed new JDSF advisory committee) and has a planning horizon of only 100 years, the ADFFP will provide ample demonstration of ways to start moving young-growth forests toward old-growth conditions.

The condition of private lands within the assessment area has been evaluated. Please see Section V (Environmental Setting) and the various biological and watershed assessments within the EIR (Section VII and VIII).

Response to Comment 5

While the comment expressed concern for the protection of individual old-growth trees, no specific environmental concern is expressed. Old trees are a renewable resource that takes many years to produce. Most of the scattered individual old trees outside of identified groves are formerly suppressed and bypassed individuals from the former old forest, or highly defective and of limited merchantability. Most exhibit effects of management related to historic logging or subsequent fire. Those old trees that possess unique structural elements will be retained, along with all old trees greater than 48 inches in diameter. The ADFFP proposes to recruit old trees over time, primarily in the areas designated for development of late seral forest and older forest conditions (one-third of the Forest in the ADFFP).

FINAL EIR FOR JDSF MANAGEMENT PLAN

Response to Comment 6

JDSF is managed in compliance with all applicable state and federal laws. Due to the legal status of the marbled murrelet, it is unlawful to "take" the species. All known occupied habitat will be protected, and individual projects in proximity to this habitat will be evaluated for potential to impact the species. Survey will be conducted in potential habitat to determine occupancy by the species. Any management proposal for the forks of Russian Gulch upstream of the state park will be planned and implemented to avoid take of the species. This area will be among those considered for potential future designation as a habitat recruitment area for the murrelet, following careful study and consideration in consultation with the appropriate state and federal agencies (See EIR Section VII.6.6-52).

Alternative G and the ADFP specifically provide for protection and enhancement of potential murrelet habitat in the vicinity of Russian Gulch State Park. This area of 1,549 acres will be managed for the development of late seral forest conditions that will provide potential murrelet habitat.

Response to Comment 7

Critical habitat designations for marbled murrelet are currently in flux. The US Fish and Wildlife Service had examined a number of different critical habitat configurations for the JDSF area; however they have not yet made a final decision. The response to Comment 5 addresses part of the ADFP's considerations of murrelet habitat protection and recovery. The ADFP also incorporates an Additional Management Measure for Contribution to Recovery of Marbled Murrelet Habitat (see DEIR Page VII.6.6-30). Further, the ADFP provides that Class I and II WLPZs be managed for the development of late seral forest conditions, including large, old trees with suitable for murrelet nesting habitat. The Board believes that the proposed ADFP would contribute to the conservation and recovery of the marbled murrelet.

Response to Comment 8

A significant area of the Forest is occupied by second-growth forest with a component of trees greater than 80 years of age. Some of this forest is even-aged, while some has been partially or selectively harvested in the past. The ADFP proposes a wide range of potential management actions in these stands, similarly to young stands throughout the Forest. These management actions primarily include uneven-aged management, but also include even-aged management, watercourse protection zone management, campground and trail buffer, late seral development, and implementation of various research objectives. Young even-aged stands do not reach optimum productivity on most sites until they exceed 100 years of age. The Board's policies encourage management of stands to achieve maximum productivity, and as a member of the CAC, Ms. Perkins supported a recommendation that JDSF utilize single tree and small group selection to demonstrate various rotation ages between 50 and 150 years, as well as the orderly conversion of even-aged forest into an all-aged forest (Report of the Jackson Demonstration State Forest Citizen's Advisory Committee, December 1998). The Department proposes to continue the development of young forest stands with a significant component of trees in excess of 100 years of age. Further, the ADFP designates one-third of the Forest for the development of late seral forest and older forest structure conditions.

There has been no evidence submitted to suggest that "the industry has eliminated most old second-growth redwood from their holdings", though the Board believes that a significant component of second-growth forest has been regenerated within the region. The Board also recognizes that older stands of trees that have achieved higher levels of production tend to be harvested before younger, less productive stands. Please see DEIR Section VII.6.6 for an estimate of forest habitat conditions present on private lands within the assessment area.

Response to Comment 9

While some members of the public, especially those unfamiliar with forest management, may not differentiate between the various forms of even-aged management, a considerable level of variability exists. The variable retention system is now fairly common in the region, due to a desire to balance production with an improvement of post-harvest habitat conditions and a desire to accelerate habitat

FINAL EIR FOR JDSF MANAGEMENT PLAN

development after harvest is complete. Many forms of even-aged management, including variable retention, offer a significant degree of aesthetic improvement over clearcutting, especially when viewed at a distance. Although private landowners have been implementing even-aged management, often with clearcutting, it is beneficial to continue the practices within the demonstration forest in order to create variable conditions available for research and demonstration. Much more can be learned about the costs and benefits associated with even-aged management, both environmentally and economically. Experience has shown that private lands cannot be relied on to provide stable, long-term opportunities for research and demonstration.

The ADFMP places restrictions on the amount of even-aged management, including clearcutting in particular, that can be conducted on the Forest.

Response to Comment 10

The Board recognizes that management activities are capable of affecting site occupancy by invasive species, and forest canopy can contribute to this relationship. Some invasive weeds in this region are shade tolerant. Soil disturbance is recognized as a contributor to infestations as a result of providing an attractive seed bed and lack of competing native species. Thus, invasive weeds are most often associated directly with activities that create and maintain bare soil surfaces, such as roads and skid trails. Infestations in clearcuts can be minimized by understanding the ecological conditions and using a proactive IWM approach to prevent establishment of invasive weeds. The extent of potential spread of invasives has been considered, and will be prevented by a number of management actions, as part of an integrated weed management approach. Please see ADFMP Chapter 3 (Invasive Weed Species) and DEIR Sections VII.6.2 (Botanical Resources) and VII.6.4 (Forest Protection) and RDEIR page II-10 for a discussion of management actions proposed for the control of invasive species. The DEIR, page VII.6.2-20, provides for consideration of invasives during project development; "The impacts of invasive exotics and the potential for spread will be considered during the development of individual projects."

Response to Comment 11

See response 10 above. Although some level of control of invasive species can be achieved without the use of herbicides, it is anticipated to some herbicide use will be needed, especially for significant infestations or infestations by new and potentially aggressive invasive species that cannot be effectively and economically controlled without the selective use of herbicides. Efforts will be made to keep the level of herbicide use to a minimum, while evaluating the potential for other means to control existing and new populations. Many management options are available or will be sought to reduce the potential for invasive spread.

Alternative G and the ADFMP place some additional limitations on the use of herbicides, as compared to Alternative C1. See Chapter 3 of the ADFMP for details. Neither the DEIR nor the RDEIR identified the potential for significant adverse impacts related to herbicide use for either Alternative C1 or Alternative G.

Response to Comment 12

While the Board agrees that the proposed measures for protection of streams do not provide protection equivalent to that of various recommendations made by the National Marine Fisheries Service (NMFS) and other federal agencies, the proposed protection measures provide for continued recovery and will prevent significant cumulative effects to fish and other species, whether aquatic or terrestrial. Please see DEIR Section VII.6.1 (Aquatic Resources) and VII.6.6 (Wildlife). We also note that both the NMFS and FEMAT guidelines place an emphasis on watershed analysis in determining the level of protection needed for streams. The analysis contained in the DEIR and RDEIR provide an initial level of watershed analysis for JDSF and the eight alternatives examined.

Response to Comment 13

The Board agrees with this statement. The Board is the lead agency for certification of the EIR and approval of the management plan.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Response to Comment 14

The EIR fully considers the recovery of the marbled murrelet. Please see DEIR Section VII.6.6-52 for a detailed discussion of the species, proposed management measures, and environmental assessment. See also the above responses to Comments 6 and 7.

Response to Comment 15

Management of the North Fork of Caspar Creek is subject to the provisions of CEQA, the management plan, DEIR and RDEIR, as is the remainder of the State Forest. This area is exempt from the timber harvest planning process, but is not exempt from the assessment of environmental impacts. No timber harvesting is currently planned for the North Fork, so there were no specific harvesting plans to include in the DEIR/RDEIR analysis. The general programmatic analysis in the DEIR and RDEIR was applied to the North Fork. Any individual projects will be subject to environmental analysis.

Response to Comment 16

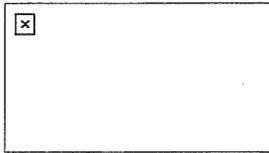
An advisory committee has been formed for the state forest system as a whole (the Demonstration State Forest Advisory Group). The ADFMP, based on Alternative G, contains provisions regarding the establishment of a new JDSF advisory body. This is not an environmental issue.

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-120

From: Dan Jacobson [DJACOBSON@ENVIRONMENTCALIFORNIA.ORG]
Posted At: Wednesday, March 01, 2006 1:19 PM
Conversation: comments
Subject: comments

Dear Sir, my comments are in this email and attached,
Thank you for your consideration of this issue,



March 1, 2006

California Board of Forestry and Fire Protection
PO Box 944246
Sacramento, CA 94244
Attention: Executive Officer Y.G. Gentry

Support draft EIR Alternatives E & F

Dear Executive Officer Gentry:

Thank you for the opportunity to comment on the draft Environmental Impact Report (EIR) for the Jackson Demonstration State Forest management plan. Environment California (formerly CALPIRG) is a statewide, citizen-based environmental advocacy organization. Our professional staff combines independent research, practical ideas and tough-minded advocacy to overcome the opposition of powerful interests and win real results for California's environment. Environment California draws on 30 years of success in tackling our state's top environmental problems.

1 Jackson Demonstration State Forest is a critical public resource for native wildlife and plants in the redwood ecosystem. In the central part of the coast redwood range, where there is no national forest with redwoods and woodland parks and preserves are not large, Jackson is the state's best opportunity to provide for the recovery of threatened and endangered species such as the marbled murrelet and the Humboldt marten.

2 The preferred alternative, C1, and the similar C2, are steps in the right direction from the 1983-era management plan. However, these alternatives do not provide for the level of old forest habitat protection and development that would allow regionally rare species to rebound. Unfortunately, the draft EIR fails to adequately address the habitat loss that will occur under C1 and C2. Identification of

FINAL EIR FOR JDSF MANAGEMENT PLAN

Page 2 of 2

- existing older forest stands is vague to non-existent. Not being properly located and characterized, it is impossible to determine with any precision how much of the proposed logging, both short and long-term, will remove or diminish the old forest stands that are crucial for regionally rare wildlife and plants.
- 3 The areas proposed for "late seral development" are the only stands where one can be assured that habitat will be protected and developed. These "late seral development" areas are a relatively small proportion of the landscape, particularly in the eastern two-thirds of the forest. Although we recognize that allowing Watercourse and Lake Protection Zones to develop late seral characteristics will benefit fish, some wildlife and some plants, species dependent on an upland environment will have to rely on the small late seral areas proposed. Under Alternatives C1 and C2, these are too small and isolated to allow any reasonable expectation they will have a significant positive impact on regionally rare wildlife and plant species. These small areas are widely separated with no effective linkages proposed. The draft EIR fails to consider the effect of fragmentation on the proposed late seral development areas.
- 4 By contrast, both Alternatives E and F provide larger areas of upland habitat that would be beneficial for regionally rare plant and wildlife species and function as larger blocks of carbon storage. Although Alternative F is not as expansive in this regard, it does provide for corridors that will maximize the effectiveness of protected areas. These linkages are essential for many wildlife and plant species.
- 5 We urge the Board to provide more protected and effective habitat for plants and wildlife than is currently proposed when deciding how to manage Jackson Forest. Thank you for your efforts on behalf of the environment.

Sincerely,

Dan Jacobson
Legislative Director

Dan Jacobson
Legislative Director
Environment California
1107 9th street, suite 601
Sacramento, CA. 95814
916-446-8062

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter 120

Response to Comment 1

The Board concurs that JDSF is an important resource and can contribute to the recovery of threatened and endangered species. However, JDSF is a relatively small part of the entire redwood region and the range of listed species, so can be expected to make a contribution to eventual recovery. Please see DEIR Section VII.6 for the assessment of potential impacts to wildlife.

Response to Comment 2

Please see the assessment in DEIR Section VII.6. The comment provides no evidence or support for the statements that are made. The DEIR considers habitat alteration that will occur as the result of management of the state forest, and the potential for adverse impacts associated with forest management. The existing stands of old-growth forest have been identified and will be preserved. Young forest stands are characterized in habitat classifications of value in the assessment of potential for impacts to wildlife species. The ADFMMP proposes to increase the amount of late seral and older forest structure within JDSF over time (to include one-third of the Forest), not to reduce it.

Response to Comment 3

The comment is too general in nature to enable a reasoned response by the Board. The management plan, as modified by the Board as Alternative G, provides for development of late seral and older forest structure within approximately one-third of the Forest area, and most of this area is well connected within JDSF and connected to adjoining forests on private lands, which also contribute to habitat for listed and unlisted species. Both of these habitat conditions, as well as the remainder of the forest, provide varied habitats of potential value to both listed and unlisted species. For example, the northern spotted owl nests, roosts, and forages within managed stands of young forest within JDSF, which contributes to the viability of the species within the assessment area and the region. The proposal to vastly increase the amount of late seral forest habitat over time represents a positive cumulative effect for listed species.

Response to Comment 4

The Board agrees that Alternatives E and F would potentially provide a greater area of late seral habitat in the future, which would potentially increase the amount of habitat for some species over time. The Board has determined that Alternative G will not result in significant environmental effects to wildlife, and that Alternative G provides a net benefit in terms of carbon storage, due to an expected increase in forest inventory over time. See also the responses to RDEIR comment letter GM-33.

Response to Comment 5

Comment noted. Alternative G will increase the amount of late seral and older forest structure available to plants and animals, as compared to Alternative C1

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-121

From: Michele Dias [micheled@cwo.com]
Posted At: Monday, February 27, 2006 11:23 AM
Conversation: JDSF DEIR Comments
Subject: JDSF DEIR Comments



CFA Comments on
DEIR 02.27.06....

Attached are the California Forestry Association's comments on the Jackson Demonstration State Forest Draft EIR. Please respond with confirmation that you have received.

Thank you,

Michele Dias

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-121



California Forestry Association
1215 K Street, Suite 1830
Sacramento, CA 95814
(916) 444-6592 fax (916) 444-0170
www.foresthealth.org cfa@foresthealth.org

February 27, 2006

George D. Gentry
Executive Officer
California Board of Forestry and Fire Protection
P.O., Box 944246
Sacramento, California 94244-2460
Email: board.public.comments@fire.ca.gov

Re: Draft Environmental Impact Report for the Jackson Demonstration State Forest Proposed Management Plan

Dear Mr. Gentry,

The California Forestry Association ("CFA") submits the following comments regarding the *Environmental Impact Report for the Draft Jackson Demonstration State Forest Management Plan* ("Draft EIR" and "Management Plan" or "Plan"). CFA is a non-profit trade association representing forest landowners, professional resource managers, and producers of wood products and biomass energy throughout California. They manage their lands, not only to provide a sustainable timber supply for the manufacture of wood products that Californians and citizens throughout the world rely on, but also to ensure that the public trust resources on those lands are adequately protected for future generations.

2 Many of our members are dependent, in part, on timber sales offered on the Jackson Demonstration State Forest ("JDSF") to help sustain their lumber milling operations along the North Coast. Other members derive a portion of their revenues as licensed timber operators who are responsible for conducting harvesting operations on the JDSF. Moreover, all forest landowners and professional forest resource managers benefit from the research and technical information derived from the demonstration projects conducted on the JDSF.

3 After extensive review of the Draft EIR, we conclude that the activities proposed in the Management Plan are consistent with the statutory mandate set forth in the enabling legislation establishing the Demonstration Forest¹, the subsequent codification in the Public Resources Code ("PRC")², and the direction and policies from the Board of Forestry ("BOF")³. Moreover, we believe that the Draft EIR fully complies with the California Environmental Quality Act ("CEQA"), ensuring
4 environmental protection of this unique natural resource. CFA therefore fully supports the proposed Management Plan and the supporting Draft EIR and recommends Alternative B.

¹ See PRC § 4631.

² See PRC § 4631.5.

³ See Draft EIR, App. 5, *Statutes, Regulation & policies Governing State Forests*.

FINAL EIR FOR JDSF MANAGEMENT PLAN

I. BACKGROUND

5 JDSF provides an opportunity to demonstrate sustainable forest management techniques on nearly 50,000 acres of forest and watershed lands, as well as the opportunity to explore the potential for long-term sustained yield at the forest level, offering the public and private sectors an opportunity to view the potential level and balance of production and protection that can be realized from a large forested ownership when provided with the proper incentive.

6 Due to litigation, only minimal management has been conducted on JDSF since 2003. There are currently no timber operations occurring on the forest. Because the Management Plan is a project subject to CEQA, as defined by statute and the CEQA Guidelines⁴, the legal challenges that resulted in cessation of all research and demonstration in the JDSF were CEQA-based. As a result, the Court⁵ has retained jurisdiction in the matter until the Board has fully complied with CEQA, therefore, CFA will focus its comments on the statutory authority guiding the management of JDSF and the 2005 Draft EIR's compliance with CEQA requirements.

II. MANAGEMENT OF THE JACKSON FOREST AS PROVIDED IN THE LAW

7 The management of the Jackson Demonstration State Forest has been an area of controversy for many years. The California Legislature ("Legislature") established the state forest system for the specific purpose of retaining the forest land "in timber production for research and demonstration purposes" and charged the California Department of Forestry and Fire Protection ("CDF") as the manager of that system, "to achieve maximum sustained production of high-quality forest products while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries and aesthetic enjoyment."⁶

Demonstration forests play an important role in testing the efficacy of forest management techniques, and it is the policy of the state to acquire areas for the purpose of demonstration of economic forest management.⁷ California's Public Resources Code ("PRC") defines "management" to mean "the handling of forest crop and forest soil so as to achieve maximum sustained production of high-quality forest products while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries, and aesthetic enjoyment."⁸

8 In addition to the statutory mandate for demonstration forests, Board Policy 0351.2 states, in part, "[t]imber production **will be the primary use** on the Jackson State Forest . . ." and "[r]ecreation is recognized as a **secondary** but compatible land use . . ." Board Policy 0351.4 also directs CDF to conduct regular periodic timber sales on the JDSF.

CDF is authorized to manage California's state forests, including JDSF, "in accordance with plans approved by the Board,"⁹ and "acting in accordance with policies adopted by the Board."¹⁰ The Board has also promulgated a regulation that commands: "The **harvesting of forest products from**

⁴ PRC §§ 21000 et seq.; 14 CCR §§ 15000 et seq.

⁵ Superior Court of California, Mendocino County

⁶ PRC §§ 4631, 4631.5, 4639 and 4645.

⁷ PRC § 4631.

⁸ PRC § 4639.

⁹ PRC § 4645.

¹⁰ PRC § 4646.

FINAL EIR FOR JDSF MANAGEMENT PLAN

state forests and management of state forests shall follow management plans developed for each forest . . .”¹¹

8

It is clear from the enabling legislation, Board policies, and timber harvesting regulations that the principal purposes of JDSF is the demonstration of sustainable and economic timber production, through regular periodic timber sales, in consideration of other forest values and in compliance with all applicable rules and regulations. The essential theme of “maximum sustained production of high-quality forest products”¹² is the primary driver of management at JDSF. This can be accomplished without eliminating, recreation, fisheries, aesthetics, and other non-timber related values, which while important, are not the mandated priority of JDSF.

Unfortunately, CDF has drafted an update to the current JDSF Management Plan that elevates wildlife, watersheds, and ecosystem processes to a level of importance equivalent to the timber management and the research, demonstration and education programs.¹³ Given the legal mandates discussed above, this is an improper prioritization of uses for JDSF.

9

Therefore, CFA strongly encourages CDF to adhere to statutory mandates by managing JDSF for research in various natural sciences of the forested landscape; demonstration of existing and new methods of sustainable timberland management; educational efforts, tours, publications and demonstrations; maintenance and enhancement of wildlife and fisheries habitats; and public recreations in their proper order of priority.

Despite recommendations by those who would prefer to see the purpose of JDSF changed to focus primarily, or even solely, on habitat or recreation, such a decision would be inconsistent with the mandate to demonstrate sustainable timber management as called for in the enabling legislation. In order to remain consistent with this mandate, the Management Plan must be developed in that manner. Therefore, Alternatives C1, C2, D, E, and F should not be adopted and certified.

For the reasons set forth above, CFA strongly encourages the adoption and certification of Alternative B which includes an annual timber harvest set close to growth per year and conservation practices that meet or exceed the requirements of the FPRs. This alternative includes protection of listed species and recruitment of recovery habitat for listed species, includes a demonstration program, and the maintenance of existing recreational facilities while adhering to the legislative intent and mandate found in statute for JDSF. A vibrant forest industry needs a regional view and perspective, similar to what current forestland owners and managers encounter that Alternative B can provide. JDSF was not intended to be a “cash cow,” however, it is perfectly appropriate to harvest under the FPRs in order to fund research and development, management and forest improvement projects. Alternative B will provide more funding than the other alternatives and therefore, more research will be available to demonstrate that balance is possible.

10

III. CEQA

11

Separate from the Management Plan, prepared by CDF, is the environmental analysis found in the draft and final Environmental Impact Reports (“EIR”) prepared and certified by the Board. These

¹¹ 14 CCR § 1510.

¹² PRC § 4651.

¹³ See Draft EIR, section VI Alternatives, p. VI-10; Table VI-1.

FINAL EIR FOR JDSF MANAGEMENT PLAN

documents stand apart from the project, here the JDSF Management Plan. Therefore, the following discussion will focus on the Draft EIR's compliance with CEQA without reviewing the draft JDSF Management Plan itself.

One of the primary purposes of CEQA¹⁴ is to inform the public in such a way that it can intelligently weigh the environmental consequences of a project and have an appropriate voice in the formulation of the ultimate decision.¹⁵ To achieve these purposes, the Legislature has required that every EIR include a discussion and analysis of a number of required topics and that this discussion be set forth in a separate section or appropriately indexed.

The standards for determining the adequacy of an EIR are stated in the CEQA Guidelines.¹⁶

An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

11

In addition, the Guidelines state:¹⁷

CEQA does not require technical perfection in an EIR, but rather adequacy, completeness, and a good-faith effort at full disclosure. A court does not pass upon the correctness of an EIR's environmental conclusions, but only determines if the IR is sufficient as an informational document.

In other words, in evaluating the efficacy of an EIR, the reader must ask, does the Draft EIR: provide a sufficient degree of analysis to provide decision-makers with information on which to base their decisions in the light of what is reasonably feasible; summarize the main points of disagreement among the experts; and is the information provided adequate, complete and a good faith effort at full disclosure?

In an effort to assist in answering these questions, the CEQA Guidelines provide specifically what must be contained in a draft EIR. Key sections are discussed in detail below:

Project Description

The description of the project shall contain specific information **but should not supply extensive detail** beyond that needed for evaluation and review of the environmental impact. The information required includes: the precise location and boundaries of the proposed project, shown on a detailed map including the location of the project on a regional map; a statement of the objectives sought by the proposed project to assist the lead agency in developing a reasonable range of alternatives and in

12

¹⁴ Public Resources Code §§ 21000 et seq.

¹⁵ EPIC v. County of El Dorado (1982) 131 Cal.App.3d 350, 354.

¹⁶ 14 CCR § 15151.

¹⁷ 14 CCR § 15003(i)

FINAL EIR FOR JDSF MANAGEMENT PLAN

preparing findings or a statement of overriding considerations, if necessary; and finally, a statement of objectives should include the underlying purpose of the project.¹⁸

12 Here, the purpose and objectives¹⁹ are clearly detailed as well as the project goals. Included in this discussion is a *Summary of Potential Actions Resulting from Implementation of the JDSF Management Plan*, including both on-site actions and off-site actions. These purposes, objectives and goals are discussed, properly, within the boundaries of the enabling statute, legislative intent, Board Policy, and Department planning.²⁰

The precise location and boundaries of the project is provided, including regional maps, and a statement of the objectives is provided for each of the nine goals. The number of objectives ranges from as few as three to as many as seven. In addition, potential actions are discussed relative to each of the goals both on-site and off-site. Economic, social, and community effects are properly detailed because of the dependence on timber harvesting by the local community. This analysis included harvesting trends, neighborhood compatibility, and the social and demographic characteristics of Mendocino County. The amount of detail is sufficient to provide assistance in developing a reasonable range of alternatives and in the preparation of findings.

Environmental Setting

An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the environmental analysis is commenced, from both a local and regional perspective, constituting the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary for an understanding of the significant effects of the proposed project and its alternatives.²¹

13 Knowledge of the regional setting is critical and special emphasis should be placed on resources that are rare or unique to that region and would be affected by the project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed, and it must permit the significant effects of the project to be considered in the full environmental context. The EIR shall discuss any inconsistencies between the proposed project and applicable general and regional plans, such as water quality control plans.

In this instance, the Draft EIR discusses the Management Plan in the regional setting of the redwood region, surrounding watersheds and private forestlands. These forest ownerships and the management trends associated with them are discussed in detail as are other regional land use. Discussion of climate, topography and geology, vegetation, wildlife and aquatic resources are detailed. Included are tables describing areas in landslides and other forms of mass wasting for several river basins and watersheds as well as sediment production for the cumulative watershed effects assessment area. These tables and the accompanying discussion are important as they establish the baseline condition of the region and are an important consideration of the regional water quality control plans. Finally, this section addresses the wildlife species dependent on the

¹⁸ 14 CCR 15124 et seq.

¹⁹ See Draft EIR, p. 1-2 - 1-4; 11-6;

²⁰ See Draft EIR, Section III, *Project Information*, pp. III-1 to III-56.

²¹ 14 CCR 15125 et seq.

13 forested within and adjacent to JDSF, and the geographic suitability of JDSF to contribute to habitat stability.²²

Consideration and Discussion of Environmental Impacts

All phases of the project must be considered when evaluating its impact on the environment, including planning, acquisition, development and operation.²³ Specifically, in assessing the impact of a proposed project on the environment, the lead agency should normally **limit its examination** to changes in the existing physical conditions in the effected area, as they exist at the time the notice of preparation is published or at the time the environmental analysis is commenced. Direct and indirect **significant** effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects. Environmental impacts should include relevant specifics of the area, the resources involved, physical changes, and alterations to ecological systems. They should also describe any significant impacts, including those that can be mitigated, but not reduced to a level of insignificance.

14

Here, the Draft EIR addresses the concerns raised through the public scoping and written comment process. For example, a resource specific analysis is included, in-depth, for aesthetics of the JDSF, aquatic resources, timber resources and forest protection, wildlife, geology and soils, recreation, heritage resources, and the harvesting of old-growth forest and its effects on wildlife habitat. Additional analysis was included, to a lesser extent for agricultural and mineral resources, air quality, biological resources, botanical resources, wetlands, hazardous materials, noise, land use planning, and climate change and carbon sequestration.²⁴

The Draft EIR clearly identifies both the direct and indirect impacts of possible significant effects of the projects, both in the short-term and long-terms. And while there are potentially “significant environmental effects” associated with implementation of the proposed project, the Draft EIR proposes mitigation measures to avoid or substantially lessen those potential impacts.

CEQA requires that, in addition to a discussion of impacts related to a project, mitigation measures may be proposed to minimize significant effects. In general, an EIR shall describe feasible measures that could minimize significant adverse impacts. The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed by the lead, responsible or trustee agency or other persons that the lead agency determines could reasonably be expected to reduce adverse impacts. Mitigation measures are not required for effects not found to be significant.

Mitigation measures must be consistent with all applicable constitutional requirements, including, first, a nexus between the mitigation measure and a legitimate governmental interest. (*Nollan*) and the mitigation measure must be roughly proportional to the impacts of the project. (*Dolan*).

²² See Draft EIR, Section V, *Environmental Setting*, pp. V.1-28.

²³ 14 CCR 15126 et seq.

²⁴ See Draft EIR, Section VII, *Resource Specific Analysis*, pp. VII.1-1 to VII.16-5.

Moreover, site-specific analysis and mitigation will be developed at the project level typically through the Timber Harvest Plan (THP) preparation and review process, as discussed in cumulative impacts section below.

14

The Draft EIR clearly lays out each of the impacts of the proposed project (listed above) and then identifies the mitigation, monitoring, cumulative impact and alternative related to each. The more significant the impact, the more detailed the analysis. There can be no doubt that decision-makers, or the public in general, will have a clear picture of the existing physical environment and any/all potential impact and the related mitigation measure of this project.²⁵

Discussion of Cumulative Impacts

An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are **significant** when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects."²⁶

Cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in their together with other projects causing related impacts. An EIR should not discuss impacts that do not result in part from the project evaluated in the EIR.

15

Here, the Draft EIR is programmatic, considering a series of potential future projects that are geographically similar, carried out under the same authority, and having roughly the same environmental effects which can be mitigated in similar ways.²⁷ For timber harvesting conducted under the Management Plan, the Draft EIR recognizes that additional analysis of cumulative impacts will be routine as part of the THPs that will be prepared and that will be tiered to this EIR.²⁸

In addition to the thorough environmental analysis accomplished in the Draft EIR, additional and duplicative environmental review is provided the state forest in several ways. This duplication occurs when a contract is awarded in the JDSF because THPs are the functional equivalent of an EIR, providing complete environmental review including cumulative impacts. In addition, adjacent landowners who perform logging operations/activities must also perform cumulative effects analysis at the project level of the entire planning watershed that includes a 10-year look back and a 10-year look ahead at projects completed and projects anticipated, which includes JDSF.

IV. CONCLUSION

The adequacy of the JDSF Management Plan Draft EIR depends upon compliance with the Guidelines section 15151 and 15003(i). Because it provides a sufficient degree of analysis to provide decision-makers with information on which to base their decisions in the light of what is reasonable feasible, summarizes the main points of disagreement among the experts, and provides

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²⁵ *Id.*

²⁶ 14 CCR 15065.

²⁷ 14 CCR 15355.

²⁸ See Draft EIR, Section VII, *Resource Specific Analysis*, Ch. 3 *Timber Resources*, pp. VII.6.3-1 to VII.6.3-50.

FINAL EIR FOR JDSF MANAGEMENT PLAN

the information adequately, completely and with a good faith effort at full disclosure, it meets CEQA requirements

16 CFA believes that the Board has followed the very clear legislative directives with regard to CEQA, and produced a Draft EIR that more than adequately discusses the environmental setting in the area surrounding the JDSF and the cumulative impacts the implementation of the Management Plan would have in combination with other activities in the area. The Board has carefully followed the clear CEQA guidelines and conducted an environmental review that deserves certification and supports a management plan emphasizing logging activities in JDSF.

17 However, CFA strongly encourages the Board to adopt Alternative B in order to also meet the clear legislative directive for “maximum sustained production of high-quality forest products” and your own policy that requires that “timber production will be the primary use on the Jackson State Forest . . .”

Sincerely,

Michele Dias

Michele Dias
VP, Environmental and Legal Affairs

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-121

Response to Comments 1-3

Comments noted.

Response to Comment 4

Comment noted. The proposed Administrative Draft Final Forest Management Plan (ADFFMP) is based on minor modifications to Alternative G, which was circulated as a part of the 2007 Recirculated Draft Environmental Impact Report (RDEIR).

Response to Comment 5

The Board recognizes the importance of the research and demonstration role of Jackson Demonstration State Forest (JDSF). The Board and the Department of Forestry and Fire Protection (CAL FIRE) have both expressed an interest in JDSF being the flagship of a world-class research and demonstration forest system. The top goal detailed in the Administrative Draft Final Forest Management Plan is Research and Demonstration (ADFFMP, Chapter 1):

Improve the amount and quality of information concerning economic forest and timber management, forest ecosystem processes, watershed processes, performance of forest protection measures, that is available to the general public, forest landowners, resource professionals, timber operators, the timber industry, and researchers.

Response to Comment 6

Comment noted.

Response to Comment 7

Comment noted.

Response to Comment 8

The potential role for JDSF in testing the efficacy of forest management techniques is specifically addressed in the ADFFMP, including the designation of three areas for testing approaches to riparian restoration demonstration (see Map Figure 5).

The statutes and Board policies for the management of the Demonstration State Forests and JDSF in particular are discussed and reproduced in the 2005 DEIR (see, e.g., Section II and Appendix 5). The Board carefully reviewed these mandates in its consideration of management direction for JDSF and finds that the ADFFMP is consistent with them.

Research and demonstration on forest management, including timber harvesting, are clearly established as having a preeminent role relative to recreation. The harvesting of forest products is to be based on the Administrative Draft Final Forest Management Plan. The achievement of maximum sustained production of high quality timber products is addressed below in the response to comment 9.

Board Policy 0351.2 provides that:

The primary purpose of the State forest program is to conduct innovative demonstrations, experiments, and education in forest management. All State forests land uses should serve this purpose in some way.

The major goal established for the Forest in the Administrative Draft Final Forest Management Plan is:

Goal #1 - RESEARCH AND DEMONSTRATION: Improve the amount and quality of information concerning economic forest and timber management, forest

FINAL EIR FOR JDSF MANAGEMENT PLAN

ecosystem processes, watershed processes, performance of forest protection measures, that is available to the general public, forest landowners, resource professionals, timber operators, the timber industry, and researchers.

Goals #2-4 more specifically describe how a balance is to be achieved among (#2) Forest Restoration, (#3) Watershed and Ecosystem Processes, and (#4) Timber Management. Recreation, which is addressed under Goal #5, clearly plays a secondary role to other forest management objectives. Maximum sustained production of high quality timber production is addressed under the response to Comment 9.

Response to Comment 9

See response to Comment 8. Public Resources Code (PRC) § 4639 defines “management” of JDSF as:

... the handling of forest crop and forest soil so as to achieve maximum sustained production of high quality forest products while giving consideration to values relating to recreation, watershed, wildlife, range and forage, fisheries, and aesthetic enjoyment.

The Board has substantial discretion in determining the consideration to be given to the listed nontimber values while implementing the direction for maximum sustained production of high quality forest products.

The statutes and Board policies for the management of the Demonstration State Forests and JDSF in particular are discussed and reproduced in the 2005 DEIR (see, e.g., Section II and Appendix 5). The Board carefully reviewed these mandates in its consideration of management direction for JDSF and finds that the Administrative Draft Final Forest Management Plan is consistent with them. See also the response to Comment 8.

Response to Comment 10

While the Board has not chosen the specific management direction of Alternative B, the Administrative Draft Final Forest Management Plan proposed by the Board provides the various elements described in the comment. While the Board anticipates that this Plan will result in a lower level of harvest than would Alternative B [an expected 20-25 million board feet (MMBF) per year for the Administrative Draft Final Forest Management Plan, but in no case greater than 35MMBF/year, as compared to 35.6 MMBF/year for Alternative B], the Board notes that this level of harvest will provide substantial revenues for management of JDSF, including research and demonstration.

Response to Comment 11-16

Comments noted.

Response to Comment 17

Comment noted. Please also see response to Comments 8 and 9.

FINAL EIR FOR JDSF MANAGEMENT PLAN

E-123

From: Walter Epp [for7gen@idiom.com]
Posted At: Wednesday, March 01, 2006 1:32 AM
Conversation: Jackson State Forest draft EIR comments
Subject: Jackson State Forest draft EIR comments

Jackson State Forest draft EIR comments
for Board of Forestry and Fire Protection

- 1 The time is long overdue to end the era in which one special interest has had disproportionate sway over the use of Jackson State Forest and old-growth forests.

The logging industry provides less than 1% of California jobs.
[[http://www.calmis.cahwnet.gov/file/occproj/cal\\$tb6.htm](http://www.calmis.cahwnet.gov/file/occproj/cal$tb6.htm)]
- 2 A Forest Service analysis found that recreation, hunting, and fishing in national forests contribute 37 times more income to the nation's economy than logging, and create 31 times more jobs.
[Explanatory Notes for the 1997 US Forest Service Budget;
http://www.findarticles.com/cf_dls/ml525/5_85/64426309/print.jhtml]
In northern California communities adjacent to the National Forests, more than 20 jobs in other sectors of the economy have been gained for every timber job lost.
[Primer on California's National Forests - Western Ancient Forest Campaign]
- 3 If there were to be an even-handed fair compromise that would be to split things down the middle, namely 50% for logging and 50% for old-growth.
Something like 96% of California's original old-growth Redwood forest has already been chopped down. In other words, we are in a state of extreme un-even-handed unfair uncompromising imbalance. In this circumstance, cutting a single additional old-growth tree is a one-sided sell-out.
All of Jackson Forest must be managed for restoration as one small part of a comprehensive plan to move the pendulum from the radical extremist position of 96% to the middle compromise position of 50% of the original old-growth forest cover in this bioregion.
- 4 In just 50 years of its life, a tree contributes services worth \$196,250 but is only worth \$590 as lumber.
[<http://www.forestcouncil.org/press/worth.php>
http://www.science.dug.edu/esm/Course_Material/ESM551/Notes/Forests/Ch.%20Sustaining%20Eco.%20Notes.HTML]
- 5 When is the state of California going to wake up to the fact that chopping down forests is killing the goose that lays golden eggs?
The DEIR fails to adequately make the corresponding calculations specific to Jackson Forest, much less address the implications.
- 6 Fungi from old growth forests are able to neutralize VX and sarin, some of the most potent known chemical weapons. Thus we need to grow more old-growth forests for national defense. [<http://www.fungi.com/mycotech/mycova.html>
<http://www.salon.com/tech/feature/2002/11/25/mushrooms/print.html>]
The DEIR fails to adequately take this into account, with national security given a higher ranking than logging as a use of the forest.
- 7 Old-growth fungi are also able to remediate soil contaminated with toxic petrochemicals, a wide-spread problem that has been costly and difficult to solve till now.

Extracts from fungi of old growth forests have been found to be effective against tuberculosis, pneumonia, E. coli, and cancer.
[MycMedicinals by Paul Stamets]
- 8 The DEIR fails to adequately factor in these opportunities for research and creation of new money-making job-producing businesses.
- 9 The Mendocino County Coastal Conservation Plan shows Jackson State Forest in the center of the plan's "High Priority Conservation Areas."

FINAL EIR FOR JDSF MANAGEMENT PLAN

- 10 When is the Department of Forestry going to stop living in the consumption-oriented mindset of the 1800s, and start working on the conservation and sustainability goals of the future?
- 11 Humboldt Watersheds Independent Science Panel Final Report on Sediment Impairment and Effects, commissioned by and presented to the North Coast Regional Water Quality Control Board in January 2003, using empirical scientific methods, determined that maintenance of water quality requires significant reductions in logging levels.
- When is the state of California going to wake up to the fact that water is more essential to quality of life than wood?
- 12 The soil of the Eel River watershed has been found to hold more water than the reservoir of the Grand Coulee Dam. Trees hold the soil together.
- According to former head of the US Department of Forestry Mike Dombeck, "Water quality should be the primary measure of managing forests and all public land. Scientists increasingly recognize that our system of preserving biodiversity is inadequate, and public lands stand as the last best sanctuaries for many plant and animal species." [SF Chronicle 1 Jan 2004]
- 13 Salmon have sustained thousands of generations as a staple of the diet. When the oil runs out, which is going to happen in a short time in human history and a fleeting instant of evolutionary history, the underpinnings of the current economic system will be invalidated and thus also economic calculations predicated on it, and industrial agriculture and industrial fisheries will fade as both are quite energy-intensive, so Salmon will return to a position of high value in the new economic order. Major changes to the economic system will happen long before the oil is close to physically running out, and these changes could already be beginning. See the book *The Party's Over: oil, war, and the fate of industrial societies* by Richard Heinberg and websites such as <http://www.hubbertpeak.com> and <http://www.postcarbon.org>. For part of 2003, half of US nitrogen fertilizer production was shut down due to shortages of natural gas. Fertilizer imports have jumped by 43%. In a few years we could be vulnerable to having our food supply cut off if foreigners decide to withhold fertilizer.
- [<http://www.agriculture.com/ag/story.jhtml?storyid=/templatedata/ag/story/data/1130343281366.xml>
http://www.fromthewilderness.com/free/ww3/060903_natural_gas.html
http://www.energypulse.net/centers/article/article_display.cfm?a_id=365] Thus Salmon may be important for our food security, which is a vastly higher priority than price or availability of wood.
- The DEIR fails to adequately factor in these considerations.
- 14 Salmon are harmed or killed if temperatures rise too high. Thus they need plenty of shade. With global warming, there will be a need for more cooling than there was in the pre-logging era when most of the forest was old-growth.
- The DEIR fails to adequately address this.
- 15 Pesticides may be a significant factor in the decline of Salmon. For details see *Diminishing Returns: Salmon Decline and Pesticides*, a review of the scientific literature on how supposedly sublethal concentrations of pesticides can alter the basic biology of fish in subtle ways that decrease their chances for reproduction and survival, available at <http://www.pesticide.org/SalReportNewsRelease.html>, which also has another tidbit on glyphosate: a standard trick pesticide makers pull is to say that their chemical breaks down quickly but neglect to say that the breakdown products last longer and are as toxic or more toxic than the parent chemical.
- Some herbicides inhibit normal migration of salmonids to and/or from the sea, resulting in disruption of the life cycle.
- Effects of "sublethal" levels of pesticides include lethargy, muscle spasms, loss of orientation, loss of stamina, and immune system disruption, which aren't likely to cause death in fish living in sterile spoon-fed laboratory conditions but will cause deaths in wild fish who need to find food, avoid predators, and handle diseases and competitors and periods of reduced food availability. In other words, most LC50 laboratory death rate data does not apply to the real world.
- 16 Atrazine can result in extinction of a frog population without ever killing a single

FINAL EIR FOR JDSF MANAGEMENT PLAN

individual, by disrupting their endocrine systems so they fail to reproduce. It can do this at 100 parts per trillion, 50 million times lower than the rat LD50. This information only came to light 38 years after the registration date. [Hermaphroditic, demasculinized frogs after exposure to the herbicide atrazine at low ecologically relevant doses, Tyrone Hayes et al, Proceedings of the National Academy of Sciences April 16, 2002 v99 i8 p5476(5)] If the science of glyphosate proceeds on the same trajectory as that for atrazine, a bombshell about its toxicity requiring revision of danger levels into the parts per trillion range will not come to light until the year 2009.

Use of herbicides and all other toxics must cease immediately at Jackson Forest.

17 Salmon require big logs in the streams to form proper habitat. This means logging must be reduced - if all the trees are committed to logging there won't be any large woody debris for Salmon.

18 Logging and road-building cause sedimentation and can cause landslides, damaging Salmon habitat and possibly suffocating eggs and fry.

Salmon are pivotal to the health of the ecosystem in the long run, closing a great loop by bringing nutrients from the sea, without which the land's vitality might steadily decline as the rains wash nutrients downstream.

19 The wealth of the land may be due to the work of Salmon. In other words, loggers may ultimately owe their jobs to Salmon. For example, measurements by Dr. Tom Reimchen of the University of Victoria demonstrate that up to half of the nitrogen in riparian trees came from the sea via Salmon [http://www.davidsuzuki.org/files/Newsletter_Nov99.pdf]. "Pacific Salmon and Wildlife," a report by a collaboration coordinated by the Washington Department of Fish and Wildlife and Department of Natural Resources, builds on 500 scientific studies and decades of research to document the vital role Salmon play in the overall health of ecosystems, including the more than 137 species of wildlife that depend for their survival on Salmon. By any rational objective measure, Salmon have more rights to the land than corporations or people, since Salmon have invested a million years of their life blood to build the land into what it is, while most corporations are just pilfering it. If we consider the rights to benefits should be proportional to the amount invested, and consider the number of years an approximation to the investment, then given that loggers have been in this area hardly more than 100 years, the DEIR should give the interests of Salmon $1,000,000 / 100 = 10,000$ times more weight than the interests of loggers.

20 Jackson Forest should be used for ecological research, not just research on logging methods.

21 Soil ecology is a frontier that science is hardly beginning to understand. A good source on the subject is the book *The Hidden Forest: biography of an ecosystem*, by Jon Luoma, which describes the results of research at Andrews Experimental Forest and the Long-Term Ecological Research Program (US Forest Service, <http://www.fsl.orst.edu/lterhome.html>). Here are some excerpts.

22 Virtually everybody believed rotting logs were trash - wood fiber that had gone to waste. In retrospect, it's incredible that we could have been that stupid. The tree that's green and standing up is the one they should have called 'dead'. The tree down on the ground is the one that's really alive. Only about 5% of a live tree might be living cells, but as much as 20% of the weight of a rotting log can be living tissue. Termite guts are filled with nitrogen-fixing bacteria.

23 Logs play an especially significant role when the forest must rebound from disturbances. We came to believe that logs were the focus of recovery in the forest. Old-growth forests are resilient in ways that younger forests are not. Logs are supersponges. They can accumulate enormous volumes of water and can retain it even after an intense fire at the peak of a summer drought. In one acre they measured 219 tons of down logs plus 47 tons of standing snags.

24 A lot of people have assumed that there's always enough nutrients in the deep layers of the soil to take care of trees forever. But now we're coming around to the general conclusion that the vast percentage of nutrients that exist in the forest ecosystem are in

FINAL EIR FOR JDSF MANAGEMENT PLAN

fact recycled - that the roots that go down deeply are mainly going down to tap water sources. But it's the soils at the top, those that are almost entirely biological in origin, that contain most of the nutrients used by the system.

25 Researchers determined that virtually all of the nutrients that entered the forest remained bound up in the ecosystem, continually recycled and retained by living plants and animals. After the researchers had one of the valleys clear-cut, nutrients promptly began to surge out of the stream that drained the valley: nitrate loss alone increased sixtyfold.

26 Logs in the stream played far more important ecological roles than anyone previously imagined. In a stream where woody debris has been neatly cleared away, banks and bottoms tend to be uniform and well graded. Log-choked waters offer far more complex structure with pools and riffles. Currents are slowed dramatically, dropping their sediments to the stream floor and dissipating their energy, thus reducing their ability to erode stream banks. Logs slow down the flow of nutrients so they can be consumed by small invertebrates that form the animal base of stream food-webs.

27 In the moist soils of old-growth forests, Andrews entomologists discovered an astonishing diversity that now appears to rival that of tropical ecosystems. Andrews researchers counted some 3500 species of arthropods in the forest soil but believe that is less than half of the estimated 8,000 species that inhabit Andrews, most of them in the soil. In contrast, they have counted a grand total of 143 species of mammals, birds, reptiles, and amphibians at the site.

28 Insect communities of the forest are so finely tuned to their environment that they serve as a sort of precision barometer: a knowledgeable entomologist might, simply by analyzing the species of tiny organisms in a handful of soil, describe in astonishing detail the ecosystem above.

29 There are "keystone bugs" in the soil so critical to survival of the forest ecosystem that if they vanish the ecosystem might collapse.

30 Mycologists believe that mycorrhizal fungi effectively connect trees with as much as 1,000 times more soil area than the roots themselves. A single gram of forest soil may contain several miles of fungal hyphae. As they pump water and mineral nutrients to the roots, the fungi form a sort of protective armor against disease bacteria around the roots, and sometimes actually inoculate the soil with antibiotics that kill disease bacteria. Some trees can thrive on acidic mine slag heaps if they have enough fungi-mediated defenses against the acids in the soil. Mycorrhizal fungi are keys to how a damaged ecosystem heals.

31 40% of photosynthate made by leaves of trees does not feed the plant at all but rather seeps out of the roots to feed mycorrhizal fungi and the rest of the ecosystem surrounding the roots.

32 Some mycorrhizal fungi can dissolve stones and pump the minerals into the ecosystem. Their density plummets after a clearcut, and the missing mineralization of rock and freeing nutrients in humic matter may explain why some replanted forests are unable to thrive. A forty-acre site was leveled by loggers in 1968. It has been replanted with new seedlings four times, but most of the new seedlings died each time they were planted. 3 years after replanting some seedlings the usual way and some seedlings inoculated with soil from healthy forest, only the inoculated ones had survived.

33 Root zone fungi and bacteria exude glues (polysaccharides) that bind soil particles together, resulting in better retention and movement of air and water. Mycorrhizal fungi break down nitrogen into forms that can be used by plants, and chelate iron which is needed by trees. Mats of fungi in the soil store nutrients that otherwise would be likely to dissolve and leach away. Mycorrhizal fungi provide a bridge connecting trees, allowing shaded ones to borrow photosynthate from overstory trees, even of different species.

34 In Japan and Europe some forests are in profound decline. The problems have been blamed on pollution, but Trappe wonders if it is more because these soils have not had their input of woody debris, and associated development of the right fungal balance. Policies and plans for Jackson Forest must make sure this does not happen.

FINAL EIR FOR JDSF MANAGEMENT PLAN

35 According to Paul Stamets, leading authority on fungi, "Of the estimated 6,000,000 species of fungi in the world, we have catalogued only about 50,000. The genetic diversity of fungi is vast by design, and apparently crucial for life to continue. Throughout the lifespan of a Douglas fir, nearly 200 species of mycorrhizal mushrooms can be joined in this most holy of alliances. The interrelationships of these species with other organisms in the forest are just beginning to be understood. What we do know is that fungal complexity is the common denominator of a healthy forest. The loss of nearly 50 percent of the mycorrhizal mushroom species in Europe in recent decades forebodes impending ecological collapse."

36 I'm used to thinking that the purpose of soil is to feed plants, but who knows, maybe as far as Nature is concerned the soil is where it's at, and plants are appendages whose purpose is to feed the soil.

The DEIR fails to adequately address the opportunities for soil-related and other ecological research.

37 Failure to protect the health and integrity of the ecosystems on which the productivity of natural resources depend will result in lower productivity in the future and thus constitutes the imposition of higher taxes on future generations, which is taxation without representation.

38 Redwoods can live as long as 70 generations of people. People will be affected by loss of old growth forest for this amount of time, possibly much longer if damage is done, such as loss of topsoil. This is the minimum time frame for thinking about these issues. If for round numbers we figure a constant population, 20 years per generation, and 70 years per lifetime, then the total number of people living in that time is 20 times the number living now. Thus if we are to have democracy for all - one person one vote - then all people today combined have at most 5% (1/20th) of the vote, while future generations have at least 95% (19/20ths). This would also apply to calculating economic benefits. If endangered species such as Salmon are lost, then the timeframe of consequences changes to a million years and the proportion of the vote for the current generation becomes microscopic.

39 The DEIR fails to adequately address these kinds of multi-generational considerations. The time is past overdue to stop consuming the inheritance of future generations and start maturing toward sustainability through restoration and recreation. Old-growth forests and Jackson State Forest are good places to start.

40 Now is the time to get the Department of Forestry out of the control of logging interests in general, and change the plans for Jackson State Forest from consumption to restoration, recreation, and sustainability in particular.

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FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-123

Response to Comment 1

The Forest will be managed for a broad range of purposes and benefits. It has been managed in accordance with statutes, Board policy, and Board-approved management plans.

Response to Comment 2

The Board has conducted a thorough analysis of economic affects associated with the management of JDSF (DEIR Section III.5). JDSF is available for public recreation, including hunting. The Board recognizes that recreational activities produce economic benefits. A direct comparison of recreation and timber sector jobs between national forests and JDSF cannot be made, due to the extremely variable levels of production and recreation within the national forest system across the country. For example, many large national forests have virtually no high-value timber production potential, yet are utilized extensively for recreational purposes.

Response to Comment 3

The current distribution of old-growth relates largely to the historic practice of removing old forest for economic purposes. The ADFMP will preserve the existing groves of old-growth forest remaining within JDSF, and will provide for development of late seral forest and older forest structure on approximately one-third of the Forest area, a significant increase over current conditions. The Board believes that over two hundred thousand acres of young forest in various parks and reserves throughout the redwood region may eventually develop late seral and older forest conditions.

Response to Comment 4

This statement presents a very broad characterization that does not relate to conditions within JDSF. The forest will be managed on a sustainable basis, and it is expected that the forest volume will increase over time. The value of "services" produced by a tree in monetary terms is largely speculative in nature, and not readily quantifiable as suggested by the commenter. Trees to be harvested will provide a stream of ecosystem services up until the time of their harvest.

Response to Comment 5

It is not the Board's intent to maximize any specific value associated with the Forest. The Board has adopted a management plan that fulfills the intent of legislation and Board policy for the state forest. The forest will be sustainably managed. See General Response 15.

Response to Comment 6

This comment does not present an environmental concern that the EIR may address. The comment is speculative. The ADFMP will not reduce the amount of old growth forest present on JDSF.

Response to Comment 7

Comment noted. Significant impacts associated with soil contamination by toxic chemicals are not expected to occur. Please see the analysis in Section VII.8.2. The Board notes that young forests support a vast population of fungi.

Response to Comment 8

Comment noted. The Forest is available for research in this area. A significant area of the Forest will be managed to develop late seral and older forest conditions available for research and demonstration.

Response to Comment 9

Comment noted. The management of JDSF represents a forest conservation approach.

Response to Comment 10

The comment is unclear. Conservation and sustainability are important components of the ADFMP.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Response to Comment 11

The management of JDSF is not expected to produce significant impacts to water quality. The management of JDSF will comply with the regulatory standards set by the Regional Water Quality Control Board. Logging levels and water quality are not directly related. However, logging is capable of impacting water quality if not appropriately assessed and mitigated. Significant impacts to water quality are not expected to occur. Please see DEIR Section VII.10. The Board considers both clean water and wood products to be valuable resources provided by forests.

Response to Comment 12

Comment noted. The Board is aware of the benefits associated with trees and their root systems. The Board agrees that water quality is an important indicator of potential impacts associated with land management. The DEIR analysis indicated that the ADFMP will contribute to water quality improvements, for example, reduced sediment levels and lower stream temperatures.

Response to Comment 13

The management plan will not significantly affect the world-wide supply of oil or fertilizer. The Board recognizes the importance of salmon as a food source. The analysis in the DEIR shows that the management plan will provide for maintenance and recovery of aquatic habitat, which is expected to provide for an increase in the salmon population.

Response to Comment 14

The management plan is intended to provide for an increase in canopy that provides shade for streams, thus maintaining cool water to benefit the fishery. If at some future date, long-term ambient air temperature were observed to rise in relationship to a global phenomenon, the Board may reconsider the management plan and make adjustments in order to prevent significant impacts. The current stream shade levels within JDSF are high, and are expected to remain high due to the provisions for canopy retention and forest growth and development. The department will examine and propose to the Board for their consideration strategies that will address specific potential climatic impacts as these become scientifically verifiable. The department can do this at any time or as a part of the Board's five-year cycle of management plan review.

Response to Comment 15

DEIR Appendix 13 lists the aquatic toxicity of the herbicides proposed for use. Water monitoring of forestry use has constantly shown little water contamination by the herbicides proposed for use (Wofford et al, 2003, Schuette, 1998, Ganapathy 1997, Neary & Mitchel 1996). The issue of listed salmonids and herbicides has received substantial attention as a result of the lawsuit regarding endangered salmonids - Washington Toxics Coalition v. EPA. The following findings resulted; Four of the five herbicides proposed for use by JDSF were reviewed. Imazapyr and Sulfometuron methyl were found to have "not-likely-to-adversely-affect the salmon and steelhead or their habitat". Triclopyr TEA (amine form) was found to have "no direct or indirect adverse effects" on ESUs (Evolutionary Significant Units) relevant to JDSF. For Glyphosate: "the use of glyphosate at label limits may affect the species of concern, but is unlikely to adversely affect" for the Coho ESU relevant to JDSF. Note that uses that would approach the label limit of 5lb ai/acre are not anticipated at JDSF. Forestry use Triclopyr BBE (ester form) was found to "May Affect, not likely to adversely affect" for some ESUs relevant to JDSF. There are additional buffering measures in effect for Triclopyr BBE near salmon supporting waters. The type of analysis undertaken for the lawsuit would include not just mortality but adverse effects as well.

The DEIR and RDEIR provide programmatic direction for vegetation management. At JDSF individual projects will vary in the potential to deliver herbicides to water; requiring site specific measures such as increasing buffer width or changing surfactants to reduce this risk. This document does not preclude site-specific projects from future CEQA analysis. The future quantity or timing of herbicide use is speculative at this point in time. Site-specific mitigation is developed to prevent significant impacts.

FINAL EIR FOR JDSF MANAGEMENT PLAN

Regarding breakdown products of Glyphosate, this subject was addressed specifically in the response to DEIR comment letter E-28. Please see that section for an in-depth response.

Regarding the comment on unnamed pesticides on salmon migrations, pesticides are a large classification of compounds, the comment provides no basis to assume this refers to the limited list of herbicides proposed for use at JDSF.

The LD-50 dose is a standardized measure of concentration that will cause mortality in a specific number of fish under specific conditions. This number's value is not for predicting exact field mortality, but providing an understanding of the relative toxicity of compounds.

Response to Comment 16

Atrazine was not listed among the herbicides that would be considered for use at JDSF. Atrazine's mode of action is different than Glyphosate. The potential for estrogenic effects from Glyphosate have been extensively studied and to date, no effects have been identified. See E-28 response 87 for detailed discussion. The comment letter provides no factual basis for ceasing the use of herbicides at JDSF.

Response to Comment 17

The comment is not supported. The watercourse and lake protection zones within JDSF will be managed to develop late seral forest conditions, and with the implementation of a management measure for large woody debris survey, recruitment, and placement, thus increasing the availability of large trees and large logs over time (ADFFMP, Chapter 3, Riparian, Wetland, and Floodplain Management).

Response to Comment 18

The Board is aware of the potential impacts of logging and road building to salmon habitat and salmon reproduction. Significant impacts are not expected to occur. Please see DEIR Section VII.6.1 for the assessment of potential impacts to aquatic resources.

Response to Comment 19

As demonstrated in the DEIR and RDEIR, the management plan is expected to contribute to the continued recovery of aquatic habitat, contributing to the health of the salmonid population.

Response to Comment 20

The Board agrees with this comment. The management plan makes provision for research on a broad range of subjects, including forest ecology.

Response to Comment 21

Comment noted. The Board is familiar with current soils research.

Response to Comment 22

Comments noted. The management plan incorporates provisions to increase snags and down logs throughout the Forest (ADFFMP, Chapter 3, Fish, Wildlife, and Plants, and Appendix IX).

Response to Comment 23

Comments noted.

Response to Comment 24

Comments noted. The Board is aware of the soil nutrient cycle, and the current state of knowledge concerning the soil nutrient cycle. A significant level of research in this subject area has been conducted within JDSF.

Response to Comment 25

See response 24. Nutrient loss will be prevented by leaving green vegetative matter on site following logging operations by, promptly regenerating harvested areas, preventing overland water flow and

FINAL EIR FOR JDSF MANAGEMENT PLAN

erosion, avoiding broadcast burning of slash as has accompanied most research projects in this area of study, and by increasing the forest volume over time.

Response to Comment 26

Comments noted. The Board is aware of the value of woody debris in streams. Please see DEIR Section VII.6.1.

Response to Comment 27

Comments noted. The ADFMP will not decrease the existing old growth forest on JDSF.

Response to Comment 28

The relationship is generalized in the comment. The Board is aware that living organisms can serve as indicators of ecosystem health.

Response to Comment 29

Comments noted. The Board cannot speculate as to the specific nature of the comment and its relationship to the EIR or management plan. Insufficient detail on the stated "keystone bugs" is provided.

Response to Comment 30

The Board is aware of the function and value of mycorrhizal fungi. The management of JDSF is expected to maintain a viable population of fungi throughout the Forest by maintaining forest cover by a broad range of tree and understory plant species, and by maintaining the soil and vegetative soil cover resource.

Response to Comment 31

Comments noted. The comment represents a generalized characterization of a highly variable natural phenomenon. Implementation of the management plan will maintain ecological function within the Forest.

Response to Comment 32

Most natural settings don't lack for mycorrhizae. They tend to be absent in disturbed soils like construction sites, heavily compacted logging sites, or sterilized nursery soils. Mycorrhizae offer an alternative to heavy fertilizer and pesticide use in areas like forest nurseries, but artificial inoculation should not be necessary in logged sites on JDSF.

Research and practical application has demonstrated that the redwood forest readily regenerates following clearcutting when appropriately conducted, and that the soil nutrient levels remain high after logging and regeneration, and rebuilds to precut levels prior to the end of the rotation. Please see DEIR Sections VII.7, 10.4, and Section VIII.

Response to Comment 33

Comments on the ecological function of forest noted.

Response to Comment 34

Comment noted. Soils receive nutrients from vegetative material, rainfall, and other sources. The ADFMP has standards for recruitment and retention of large woody debris.

Response to Comment 35

The commenter is correct that less is known about forest fungi populations than flowering plants or mammals. This is due to the fact that many species are not visible on an annual basis, and perhaps not over a number of years. Others are extremely small and difficult to find or identify, while others are not well distributed. JDSF is a study destination for prominent mycologists from California colleges and universities, and the body of knowledge concerning fungi is increasing. The management plan recognizes a fungi study area named "Mushroom Corners", and will consult with mycologists regarding management of the area (ADFFMP, Appendix IX).

FINAL EIR FOR JDSF MANAGEMENT PLAN

Response to Comment 36

The ADFFMP recognizes and promotes a broad range of research, and does nothing to preclude the conduct of this research, which is encouraged by the Board. The ADFFMP Chapter 4 lists forest ecology, biological process and below ground carbon cycles as State Forest Identified Research Priorities. This type of research will provide opportunities to explore soil dynamics.

Response to Comment 37

The Board believes that the ADFFMP will provide for protection of the health and integrity of the forest ecosystem. The many analyses conducted as part of the DEIR and RDEIR did not indicate that the health and integrity of the ecosystem would be impaired to any significant degree, and a number of beneficial effects were identified.

Response to Comment 38

The EIR appropriately considers cumulative impacts. It is not the intent of CEQA to produce speculation on potential impacts over a period of thousands of years. The ADFFMP is expected to be in effect for the next 10 to 15 years, and the EIR provides an assessment as prescribed by law, covering a reasonable period of time and reasonably foreseeable probably future projects.

Response to Comment 39

See response to comment 38 and General Response 15.

Response to Comment 40

Comments noted. The Department of Forestry is granted authority by the legislature to manage the state forests. The management of JDSF is not in the control of logging interests, and includes a broad management mandate providing for restoration, recreation, and sustainability, including sustainable production of high quality timber products. The Board of Forestry and Fire Protection provides ongoing oversight to ensure that JDSF is management in accordance with statutes and policies to serve the broad public interest.

References

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FINAL EIR FOR JDSF MANAGEMENT PLAN

I strongly oppose the proposed management plan for Jackson State Forest

Page 1 of 1

E-124

Kraemer, Candace

From: Jon Spitz [jonspitz@xprs.net]
Posted At: Wednesday, March 01, 2006 9:23 AM
Conversation: Jackson Forest EIR
Subject: Jackson Forest EIR

February 28, 2006

George D. Gentry
Executive Officer
Board of Forestry and Fire Protection
P.O. Box 944246
Sacramento, CA 94244-2460

board.public.comments@fire.ca.gov

Re: Proposed EIR for the Jackson State Demonstration Forest

1

Mr. Gentry,

2

The proposed EIR for management of the Jackson State Forest is a complete sham. Within its 1,500 pages it rules as unfeasible the most reasonable Alternative E which mandates an emphasis on habitat restoration while it considers it feasible for the public to comment on a document that is virtually unreadable over the internet and costs over \$200 per hard copy. This is the EIR process gone berserk.

3

Furthermore, the Board of Forestry's preferred Alternative C represents a catastrophic misuse of public lands. Clearcutting and herbicide use in commercial forestry is exactly what the Jackson State Demonstration Forest should be demonstrating against. How many more acres of redwood forests must be destroyed before the BOF learns this lesson? It couldn't be more clear cut that Alternative C is simply a funding mechanism for the BOF under the arcane rules that allow you to keep the proceeds from these logging methods that have already proven to be so disastrous.

How many trees were destroyed to produce this pathetically inadequate document? It is this kind of waste that must be curbed if the BOF is to be taken seriously about how to manage this States forested habitats.

Sincerely,

Jon Spitz, Board of Directors
Willits Environmental Center
316 South Main St.
Willits, CA 95490

FINAL EIR FOR JDSF MANAGEMENT PLAN

Email Letter E-124

Response to Comment 1

Please see General Response 5.

Response to Comment 2

The comment calls for speculation and a reasoned response is not possible, given the level of detail provided by the commenter. The use of clearcutting and herbicides has been thoroughly considered, and significant impacts are not expected to occur. Further, the ADFMP places additional limits on clearcutting and the use of herbicides. Statutes limit the use of JDSF timber revenues to support of the Demonstration State Forests. All funding allocations are made through the legislative budget process.

Response to Comment 3

The EIR is thorough and has been prepared in compliance with applicable laws and procedures. A relatively small number of copies of the DEIR were printed; use of electronic formats was encouraged. Free CD copies of the DEIR were available upon request.