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April 30, 2000

Mr. Allen Robertson, Environmental Coordinator, CDF
Room 1516-24
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Re: JDSF Scoping

Dear Mr. Robertson:

On behalf of Sierra Club and our members in California, thank you for the opportunity to provide scoping comments in preparation for development of the Jackson Demonstration State Forest (JDSF) Management Plan and its associated Environmental Impact Report (EIR). These comments are in addition to any comments you may receive from Sierra Club chapters and members. This is not intended to be an exhaustive list of factors that should be considered in the Management Plan. In some instances we are suggesting that consideration be given to alternatives that may be mutually exclusive. Nevertheless, we believe all the factors mentioned should be considered during plan preparation.

One of the most important aspects of management at JDSF is the forest's place in the regional ecosystem. This should be carefully analyzed in the EIR. A review of publicly held lands in the coast redwood ecosystem will reveal that JDSF is the largest public forest ownership between Humboldt Redwoods State Park in Southern Humboldt County and the public parks and forests of Santa Cruz County, south of the San Francisco Bay Area. At less than a 1000 acres each, Hendy Woods State Park and Montgomery Woods State Reserve are the next largest such ownerships. Therefore, both the opportunity and the responsibility for maintenance of the region's once vital forest biodiversity rest largely with JDSF. Additionally, with the exception of the very narrow band of public ownership at Sinkyone State and Tribal Park, JDSF has a larger component of coastal-influence forestland than any other public redwood forest south of Redwood State and National Park in Northern Humboldt County and Southern Del Norte.

Industrial forestlands have been logged repeatedly and continue to be logged to ever smaller diameters and at ever shorter intervals. The Hawthorne

Investment Trust's (former Georgia Pacific lands), Sustained Yield Option A calculation just approved by CDF, which includes lands adjacent to JDSF, included "logs" down to 7 inch diameter at breast height (dbh) in the calculation and indicates they plan to re-enter "selection" logging blocks in 15 years or less. There is little doubt that under such a severe management regime whatever tenuous hold those lands now have on natural biological forest characteristics and associated water quality will be lost in the relatively near term. **In the redwood region, plant, fish and wildlife diversity and extent of range is plunging, streams are listed by the federal government as water quality impaired, more species are listed each year, and many more are deserving of such protection.** Barring a miracle of awakened political will, one can only anticipate that this trend will continue. Thus **JDSF must be viewed as one of the very few opportunities to maintain a vestige of our state's natural forest heritage, nearly intact 150 years ago, and on the verge of extinction today.**

Alternatives to be considered under the California Environmental Quality Act (CEQA) should include management actions that are arguably outside the legislatively mandated purposes of the forest. These should include:

- 1. No logging**
- 2. Logging only to enhance restoration of the forest to natural forest conditions**
- 3. Logging only to enhance restoration with proceeds used to finance the costs of that restoration, including rehabilitation of roads and other landscape features associated with timber operations that are causing negative environmental effects.**

The "No action alternative" *does not* mean continuation of activities under the current management plan.

The existing mandate of the forest requires multiple considerations:
PRC Section 4639 says regarding all state forests:

"Management' means 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 American Heritage Dictionary of the English Language defines
con·sid·er·a·tion *noun*, a. Careful thought; deliberation:^{1]}

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PRC Section 742 adds: “The board [of forestry] shall provide for a statewide program of research in the technical phases of forest management.”

Thus the mandated purposes of the forest include:

- 1. Maximum sustained production of high quality forest products**
- 2. Recreation**
- 3. Watershed**
- 4. Wildlife**
- 5. Range**
- 6. Forage**
- 7. Fisheries**
- 8. Aesthetic enjoyment**
- 9. Research on forest management**

Additionally, other governance factors should be considered:

- 10. A Citizen’s Advisory Committee**
- 11. Creation of a State Forest Unit within CDF**

Please consider the following while creating the draft Management Plan:

1. Maximum sustained production (msp) of high quality forest products

In the early 1990s there was a significant public discussion in Mendocino County regarding delaying harvest to allow trees to live through the time in their natural life cycle where maximum absolute growth is occurring. In an even-aged stand this is expressed as Culmination of Mean Annual Increment (CMAI) defined as the point at which the Volume of the stand divided by the Age of the stand begins to decline. It can be demonstrated that harvesting in this manner does, in fact, constitute maximum sustained production.

Industrial forestlands do not use this system for two reasons: a) they place a higher value on generating short term profits and b) they have lumber mills that cannot sit idle while trees are allowed to grow. The state is not operating under either of these constraints. Thus there is no compelling reason to harvest prior to full maturity except to thin for stand improvement. Thus, **if the Management Plan proposes logging, this logging should be constrained to occur only at the point of, or after, CMAI or its nearest equivalent in an un-even aged stand. A mature tree is likely to produce the highest quality lumber. At the rate things are going, the state should have a near monopoly on this product, particularly high quality redwood.**

In consideration of other forest values, in addition to retention of existing snags, **any harvest at CMAI should also mark and permanently retain on every acre representatives of the best phenotypes of the various native species present in the stand before harvest to allow development of old**

growth characteristics. These trees should be allowed to naturally mature, decline, die, and recycle. Replacements should be recruited over time so that all ages and stages of decadence are developed and maintained over time.

Development of older forest characteristics will also enhance the growth of “other high quality forest products” such as mushrooms.

2. Recreation

Foresters can and will argue ad nauseum about the alleged benefits of clear-cutting and even-aged management as a silviculture system. Were the state, however, to take a poll of citizens who are likely to visit JDSF for recreation purposes such as hiking, camping, fishing, horse riding, and biking, one could reasonably anticipate that the overwhelming majority of those potential visitors would prefer a forest that, to the highest degree feasible, maintains the appearance of a natural forest and does not have the obvious appearance of manipulation that results from even-aged management, including clear-cutting.

Clear-cutting and all even-aged management should be eliminated at JDSF.

An analysis regarding the regional economic benefits of enhanced recreation at JDSF, including reasonable multipliers, should be performed. Factors to be considered should include additional income generated for retail, motel, restaurant, and gasoline sales, and rental of recreational equipment such as canoes, kayaks, and bicycles. Existing equipment rental businesses in both Ft. Bragg and Mendocino could provide information. Information on horseback trail rides could be sought from Ricochet Ranch in Ft. Bragg, which guides trail rides at McKerricher State Beach and elsewhere.

Other recreation needs include:

A recreation manager

An assessment of recreation potential

A marked contiguous trail system that includes loop trails of various distances

Trails that connect to State Park trails

Trails that are separated from vehicle roads

Better facility maintenance

Possible additional low impact camp facilities

Better marking of entry roads from major highways

Public information about facilities distributed through local parks

3. Watershed

The most extensively researched government review of ecological and watershed issues ever done for the region that includes JDSF is the

Forest Ecosystem Management Report (FEMAT). From this federal study, recommendations for a riparian management strategy were developed.

These can be found in the *Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*,¹ (Standards) published jointly by the US Department of Agriculture and the US Department of the Interior in April 1994. Although these guidelines are substantially more protective than California Forest Practice Rules, the *Final Supplemental Environmental Impact Statement*² (FSEIS) that accompanied their promulgation states that application of this strategy has only a 65% likelihood of resulting in a “well-distributed” population of coho salmon [FSEIS 3&4-197], currently listed in this region as threatened by the National Marine Fisheries Service. Thus, these guidelines can hardly be considered overly conservative.

As CDF should know, these recommendations include the following (Standards, C-29-C-31):

- Designation of Late Successional Reserves that are withdrawn from logging
- In addition, creation of Riparian Reserves with the following guidelines:

Class I fish-bearing streams: “the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100 year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of two site-potential trees, or 300 feet slope distance (600 feet total, including both sides of the stream channel) whichever is *greatest*.”
[emphasis added]

Class II (defined federally as) permanently flowing nonfish-bearing streams: “the area on each side of the stream extending from the edges of the active stream channel to the top of the inner gorge, or to the outer edges of the 100-year floodplain, or to the outer edges of riparian vegetation, or to a distance equal to the height of one site-potential tree, or 150 slope distance (300 feet total, including both sides of the stream channel) whichever is greatest.”

Class III [defined federally as] seasonally flowing or intermittent streams, wetlands less than 1 acre, and unstable and potential unstable areas: the extent of unstable and potentially unstable areas (including earthflows); “the stream channel and extend to the top of the inner

gorge; the stream channel or wetland and the area from the edges of the stream channel or wetland to the outer edges of riparian vegetation; and extension from the edges of the stream channel to a distance equal to the height of one site-potential tree, or 100 foot slope distance, whichever is greatest.”

- No harvest in these riparian reserves.

“A site potential tree height is the average maximum height of the tallest dominant trees (200 years or older) for a given site class.”

Additional provisions are made for ponds and wetlands greater than 1 acre.

There is no logical reason why these federal standards and guidelines should not be applied at JDSF, unless the more protective Restoration model is to be applied instead.

4. Wildlife

Careful consideration should be given to whether JDSF should operate on a “no take” basis in relation to species listed as threatened or endangered by the US Fish and Wildlife Service, the National Marine Fisheries Service, and the state Department of Fish and Game. There would seem to be no justification for conducting operations that kill or harm imperiled species or species of special concern. If these species cannot be fully protected even on public lands, how can we expect them to recover? **We recommend that JDSF operate on a “no take/ no harm” basis.**

Further, consideration needs to be given to protection for habitat that supports not only known imperiled species, but also a wide variety of other fish, plants, and wildlife: Late-succesional forests, also known as late-seral forests. Although the state of our knowledge in relation to natural systems is imperfect, it can reasonably be argued that maintaining and restoring conditions to as near natural as possible, is bound to benefit an ecosystem’s naturally occurring plants, fish, animals, and water quality. According to the FSEIS, “Many species of amphibians, birds, and mammals use late-successional and old-growth riparian areas, including associated streams, ponds and wetlands, for reproducing, foraging, roosting, and as

travel corridors (Table 3&4-11). The many wildlife species, along with lichens, mosses, vascular plants and mollusks, listed in Table 3&4-11 *depend on* diverse and complex riparian and aquatic habitats.” [emphasis added] Table 3&4-11 indicates that 80 species of amphibians, birds, mammals, and bats are associated with late-successional and old-growth riparian areas in the region that includes JDSF plus an additional 174 species of plants and snails. This does not include insects. The legally mandated “consideration” for wildlife is an additional justification for maintaining or restoring Riparian Reserves as outlined above.

Because the scientific literature often refers to species that are dependent or associated with “late-successional” forests it is imperative that a clear understanding of this term be developed. When developing the Management Plan, careful consideration needs to be given to this issue. **We most vigorously object to reliance on either the Forest Practice Rule that claims to define this term, or on the Wildlife Habitat Relationship (WHR) database categories that are often used as surrogates for this term. A much more reliable definition is found in the Draft Environmental Alternatives Analysis for a 4(d) Rule for the Conservation of the Northern Spotted Owl on Non-Federal Lands (Draft NSO 4(d) Rule), published in December 1995 by the US Department of the Interior:**³

“Late-successional: The stage in forest development that includes both mature and old-growth forests.

“Mature: Forest for which the annual net rate of growth has peaked; stands are generally more than 80 to 100 years old and less than 180-220 years old; stand age, diameter of dominant trees, and stand structure at maturity vary by forest cover types and local site conditions; generally contain trees with a small average diameter, less age-class variation, and less structural complexity than old-growth stands of the same forest type (USDI 1992b).

“Old Growth: An older forest that differs significantly from a younger forest in structure, ecological function and species compositions; containing characteristics that become pronounced at 180 to 220 years of age....” Attributes of these forests are subsequently outlined. (pages 53-57)

Neither the FPR definition nor the WHR categories successfully capture these definitions and must be considered to be technically incorrect indicators of late-successional conditions. As the Management Plan and associated EIR must use accurate information if they are to function properly, the federal definition that was designed for this region should be used for any wildlife analysis and description of existing and desired habitat conditions. To do otherwise will result in a false image of forest conditions. Particular care should be taken not to create GIS maps of the forest that lead the untrained observer to conclude that WHR categories 5 and 6 are somehow equivalent to late-successional forest conditions. They are not. (see suggestion for Demonstration project below).

We are resubmitting for your consideration on the JDSF Management Plan, the letter originally submitted to you on these issues by well-known conservation biologist Reed Noss in relation to the Pacific Lumber Habitat Conservation Plan/ Sustained Yield Plan (PL HCP/ SYP). The exact specifications of the PL-proposed late seral prescriptions have features that are similar enough to the WHR categories that the general concerns are equally applicable to design of the JDSF Management Plan. Regarding the PL HCP/ SYP Noss concludes:

[it] “will fail to maintain true late-seral and old-growth forest in the planning area, disguises this failure by defining “late seral” to include what almost all ecologists would consider young forest, and will lead to a general type conversion of redwood to Douglas-fir. **Thus, the plan has a high probability of contributing to a loss of the species and ecological functions associated with true late-seral redwood forest in the region.**”⁴

According to the Draft NSO 4(d) Rule:

“In the Pacific Northwest and northern California, late-successional ecosystems perform several ecological functions that appear to be lacking or less well developed in younger natural forests and managed timber plantations. Their tall, dense canopies help maintain seasonal water flows and the hydrologic processes of evaporation and condensation by intercepting moisture from clouds and fog. The canopy also buffers micro-climate by sheltering understory habitats that are used by a variety of animals during seasonal climatic extremes. These

forest conditions also produce food types that may be seasonally unavailable in surrounding younger forests. Therefore, they support a greater abundance of animals year-round than can be sustained by younger forests....

“Large trees, snags, and large woody debris (logs and stumps) in late successional forests provide essential habitat for many organisms that contribute to the biological diversity and productivity of the forest ecosystem.” (Executive Summary, xii)

“Late-successional forests are also characterized by unique interdependent communities of vascular plants that cycle energy through the ecosystem by transforming solar energy through the process of photosynthesis into food sources (plants) eaten by animals. When the vegetative structure of the late-successional forest is disturbed or degraded, the entire food chain is interrupted affecting many species.” (Executive Summary, xv-xvi)

Again, JDSF’s status as the largest significant tract of public forestland in an area where most vestiges of late-successional forest have been eliminated by commercial logging, amplifies the need for the Management Plan to allow for maintenance of high levels of this forest type.

All existing old growth stands and individual trees should be retained.

True late-successional forest stands, as defined by federal experts, should be developed across the JDSF landscape and connected along watercourses to provide maximum habitat value for wide-ranging species.

All *stands* containing trees that have suitable nesting structure for marbled murrelets should be retained.

Logging should be avoided on downstream flyways or direct flight paths to the ocean while marbled murrelet surveys are conducted.

At the end of the planning horizon substantially more late successional forests, as defined by federal experts, both redwood and Douglas fir, should be growing on JDSF than are currently growing, and these stands should increase in every decade of the planning horizon.

A significant hardwood component should be tolerated for wildlife purposes and hardwoods should be recruited into larger diameter classes.

5-6. Range and Forage

As there are not significant areas of naturally-occurring range and forage land on JDSF, little consideration need be given to these values.

7. Fisheries

Many considerations regarding fisheries have been covered under “watershed.” Additionally, however, there are specific fisheries concerns in relation to the road system at JDSF. **A high priority should be given to completing a road assessment** that leads as soon as possible to an abandonment, rehabilitation, and maintenance plan in accordance to standards developed for CDF in the *Handbook for Forest and Ranch Roads*.⁵ Priority should be given to fixing or properly abandoning roads that have a high potential for delivering sediment into watercourses.

For minimization of risk to fishery resources, consideration should be given to the minimization or elimination of tractor yarding.

General guidance regarding timber operations in relation to listed salmonids is available and should be analyzed, particularly two documents released recently by the National Marine Fisheries Service.

The first has been characterized by NMFS as “as close to no-take guidelines” as they have promulgated. This document was provided to the Board of Forestry in 1999 and is entitled, *Generic Salmonid Conservation Measures For Forestry Activities for a Short-Term HCP*.⁶ In addition to recommendations for delineation and protection for riparian buffers, guidance is provided regarding road construction, maintenance, and use; fish passage barriers; water temperature and volume; gully and erosion prevention; chemical use; fire suppression; unstable areas; and an extensive glossary of terms is provided. **JDSF should carefully consider each of these subject matters.**

More general recommendations and an extensive bibliography that supports these recommendations has been provided by NMFS in its *Salmonid Conservation Measures for Forestry Activities*,⁷ which was provided by NMFS to the Board of Forestry in December 1999. **If JDSF chooses to substantially deviate from the NMFS recommendations, CDF should provide equally credible scientific justification to that provided in this bibliography.**

Unless incidental take authority is received by CDF, JDSF must operate under a “no take/no harm” assumption for all listed species.

Additional consideration should be given to providing reasonable public access to the forest year around on roads that do not impair riparian habitat.

Operations at the egg taking facility should be considered in light of the most recent guidance from the Department of Fish and Game and the National Marine Fisheries Service.

While maintaining interim protections consistent with NMFS’ recommendations, a watershed assessment of JDSF should be conducted.

This assessment should be conducted with a methodology that has been subject to independent scientific peer review and certified as appropriate for use in California by an interdisciplinary team of qualified and independent scientists with experience and expertise in assessment, forest ecology, fisheries biology, geomorphology, hydrology and related disciplines. The methodology should include procedures for identifying “properly functioning habitat conditions” within each watershed and for determining how cumulative environmental impacts affect those conditions. The assessment should produce recommendations regarding specific management actions, land use prescriptions, and mitigation measures necessary to maintain or contribute to achieving recovery of harvestable salmon and steelhead populations.

A monitoring program to assess implementation and effectiveness of management prescriptions and mitigations should be developed and funded.

The regional economic benefit of contributing to the restoration of sport and commercial fishing should be considered.

8. Aesthetic Enjoyment

This is a category that CDF often fails to consider in any of its deliberations. The dictionary cited above defines aesthetic as, “Of or concerning the appreciation of beauty.” Beauty is often said to be in the eye of the beholder, so one might in this instance revert to the general test, “I know it when I see it.” If CDF were to consult with the general public, who are, in fact, the owners of this forest, one is highly likely to discover that **the public does not consider clear-cutting, herbicide spraying, and extensive tractor yarding to be “beautiful.” More reasons for their elimination at JDSF.**

The encouragement of suitable conditions for a wide range of flora and fauna, including mushrooms, will certainly be considered beautiful by much of the public.

9. Research on Forest Management

This is the “demonstration” in Jackson Demonstration State Forest. Although this function had been greatly diminished in the last decade, CDF has been moving to resurrect this aspect of JDSF. There are certain aspects of forest management that could and should be demonstrated. However, in recent years, JDSF Timber Harvest Plans have claimed that they are demonstrating that logging second-growth timber is economically feasible. We believe this proposition has long-since been demonstrated and that this should no longer be among the forest’s demonstrations. Further, **given that the overwhelming majority of the forestland in the region is being managed using even-aged logging techniques, including clear-cutting, we do not believe that those techniques and systems need be demonstrated at JDSF, even for experimental purposes. Those wishing to conduct research on these subjects should be encouraged to solicit cooperation from industrial timberland owners.**

All timber management activities should have a valid demonstration function.

The following demonstrations should be performed:

- Non-chemical means of avoiding or minimizing forest herbicide use.
- Economical use of small diameter tan oak.
- Develop market for larger diameter hardwood
- Restoration of natural forest conditions starting from a variety of existing stand conditions.
- The accuracy and utility of models, mapping, and assessment tools proposed as part of the year 2000 North Coast Watershed Assessment Budget Change Proposal of the Resources Agency.
- The correlation, or lack thereof, of stream-side shade to shade over water.
- The functionality of a conifer dominated riparian zone over a hardwood dominated zone, if hardwood dominated zones are already available.
- Economical water quality and wildlife monitoring techniques.
- Create and test WHR categories that accurately represent late-succession forest in both redwood and Douglas fir forest types.

Demonstrations should have one of two purposes, or both:

- Assisting the small land-owner in sound forestland management
- Restoration of natural forestland conditions on land previously managed for timber production.

10. Citizens’ Advisory Committee

This is publicly owned forestland and as such, management activities should receive on-going oversight from the public. **The most reasonable way to enable this oversight is to form a Citizens’ Advisory Committee** with nominations made by appropriate non-profit, educational, and governmental

entities, including elected officials. Precedent exists for this at the Soquel State Forest.

11. Creation of State Forest Unit within CDF

The multi-faceted mandate of the state forests do not readily lend themselves to integration of operations into the existing Ranger Unit structure. Forest management has little to do with either of the major concerns of the Ranger Unit—fire prevention and suppression; and review of Timber Harvest Plans. The state forests have more in common with each other than they do with either of these other functions. They have common needs for equipment and technical assistance. **Management would best be served by creation of a unit within CDF for all the state forests, including JDSF.**

While we have attempted to highlight areas that have been of interest to the public, there are undoubtedly a myriad of other issues that should also be considered. We hope that CDF will demonstrate in its draft Management Plan that the public's wishes have been carefully considered in its development.

Sincerely,

Kathy Bailey

Kathy Bailey
Forest Conservation Chair

¹ *Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, US Department of Agriculture (USDA) and the US Department of the Interior (USDOI). April 1994.

² *Final Supplemental Environmental Impact Statement (FSEIS) on Management of Habitat for Late-Successional and Old-Growth Forest Related Species within the Range of the Northern Spotted Owl*, USDA and USDOI, February 1994.

³ *Draft Environmental Alternatives Analysis for a 4(d) Rule for the Conservation of the Northern Spotted Owl on Non-Federal Lands*, US Department of the Interior, December 1995.

⁴ Statement of Reed Noss Regarding the Adequacy of Late Seral and Old Growth Definitions in Pacific Lumber's HCP/SYP, Reed F. Noss, November 1998.

⁵ *Handbook for Forest and Ranch Roads*, Pacific Watershed Associates, June 1994.

⁶ *Generic Salmonid Conservation Measures For Forestry Activities for a Short-term HCP*, NMFS staff, July 1999.

⁷ *Salmonid Conservation Measures for Forestry Activities*, NMFS, December 1999.