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State Board of Forestry and Fire Protection P.O. Box 944246 Sacramento, CA 94244-2460

Dear Chairman Dixon and Members of the Board:

This letter is written in general support of the Jackson Demonstration State Forest Advisory Group (JAG) report, though I have some specific reservations concerning elements of the document. I wish to express my deep appreciation to the members of the JAG, with special gratitude to Chairman Helms, for his dedication, and for the expertise and clarity that he brought to the process.

Jackson Demonstration State Forest (JDSF) has a long and successful history of sustainable forest management. The forest inventory of JDSF has tripled over the past 60 years, while over one billion board feet of high quality timber has been produced. There simply is NO managed forest of this size in better condition than JDSF.

My concerns with the JAG recommendations are few, but significant. While the JAG report is extraordinary when some of the various elements are examined individually; when considered cumulatively, the recommendations appear to create contradictory effects. The JAG has recommended a vast increase in management demands, constraints, restrictions, and processes, while coincidentally reducing the production and revenue potential of the Forest by a substantial margin. I fear that, 1) this may render JDSF unmanageable due to an absence of management flexibility, and 2) there will be inadequate funding to implement the management plan and the JAG recommendations.

It concerns me a great deal that the report suggests that the recommendations of the JAG should be considered together (Chapter 1, p 2&6), seemingly implying that the Board and Department should either accept all JAG recommendations, or none of them, rather than just those considered to have the greatest merit and applicability. If this is the position of some JAG members, I strongly disagree.

The State of California and Mendocino County have been and continue to be in a serious financial bind. JDSF and the state forest system are capable of being self-sustaining, and simply must be, as it was for the fifty years prior to the civil suit which brought things to a wasteful standstill. The virtual shut-down of JDSF over the past decade has cost JDSF and California well over \$60,000,000. This

is an incredible figure, which would have funded an enormous quantity of research, demonstration, recreational development, and restoration throughout the state forest system. In addition, JDSF revenue once supported various popular and valuable forest improvement programs, such as the California Forest Improvement Program (CFIP), which was utilized by a large number of landowners.

The JAG recommendations should be reviewed in consideration of the enabling legislation and the Board's policies for state forests. Jackson is a state forest, not a community forest. Although the needs and desires of the local community are extremely important, they should not trump the value of the Forest to the State of California as a whole. The amount of public community involvement in the JAG process was surprisingly low, while needs at the state level are very high. Above all, Jackson is intended to demonstrate economical forest management (PRC 4631). Additionally, the legislation provides that <u>all state</u> forest lands be retained in timber production (emphasis added) for research and demonstration purposes (PRC 4631.5 (a)) and that management approach a balance between production and growth (PRC 4636).

## General Recommendations:

<u>Feasibility Analysis Needed</u>: Before implementing the JAG recommendations, I urge the Board and Department to conduct a thorough feasibility analysis of the recommendations from an economic and management perspective. Further, I urge the Board and Department to accept and implement major JAG recommendations incrementally, as production, interim results, and funding allow. As things now stand, the Department is incapable of funding and implementing the 2008 Forest Management Plan, before the vast new set of JAG recommendations are even considered.

Research Plan: The recommendations for an improved research program are excellent overall, and should go a long way toward transforming JDSF into a world class research institution. It is notable that the complex processes recommended by the JAG are likely to take many years to fully implement. In my opinion, the unique value offered by JDSF is the ability to facilitate demonstration and research projects at the sub-watershed or landscape level. The Caspar Creek Watershed Project, at 49 years and counting, is a glowing example of this, producing over 150 research papers to date. There are very few other places in the redwood region or the state, if any, where this scale of work can be effectively conducted on a public ownership for the benefit of scientific knowledge. There is room for multiple Caspar-like studies within JDSF, each enabling research in specific areas of study.

I am concerned about the lengthy processes that have been proposed before arriving at a final landscape allocation for research (Chapter 3, Section VII). I also have some reservation about the prospect of attracting research proposals if the vetting and review processes become onerous.

I urge the Department and the Board to move forward very quickly with the work needed to establish an allocation of structure classes on the landscape, though I fear that this complex process may extend into the next management planning cycle. The landscape allocation in the 2008 Forest Management Plan is a worthy one, creating greater structural diversity and research potential than the relatively narrow mix of "matrix" and old forest concepts offered in the JAG report.

<u>Forest Monitoring</u>: I applaud the proposal to vastly increase the amount of monitoring that is done on JDSF, while recognizing that this work is both expensive and time-consuming. It is, however, extremely important and gets to the heart of an effective research and demonstration forest. This is one of the most important recommendations made by the JAG. JDSF maintains some very valuable long-term data sets, but these should be both intensified and broadened to incorporate various key components of the forest ecosystem and forested watersheds. Effective monitoring alone will cost several hundred thousand dollars per year for a forest the size of JDSF.

Landscape Allocation Plan: The recommended allocation of forest structure classes across the landscape is perhaps the weakest element of the report. It is not based upon strong science, nor does it reflect the recommendations made by several of the scientists and research forest managers consulted during the JAG process. Many of these scientists and forest managers recognized the unique opportunity offered by the sheer size of JDSF, making it possible to compare and contrast varied forest structures and management methods across the landscape. The set of structural targets being proposed across the landscape is narrow, in the absence of specific targeted research projects, which may or may not materialize to any significant extent.

A very large acreage is being devoted to the untested and speculative benefits of older and late-seral forest on a managed landscape (Appendix Table 5.2). These concepts should be tested as two of several seral or structural classes in a reasonable, yet constrained area of JDSF. Further, late-seral conditions should be allowed by migrate, ebb and flow, across the landscape over time, such that production and research opportunities are maintained. The current proposals fix these areas upon the landscape, reducing opportunities in the long-run. Further, the very low anticipated level of harvest on the Forest, relative to inventory and growth, will contribute to a further narrowing of conditions over time.

Even-aged management, though not currently popular in with the public in areas of the state, is a long-standing and effective form of forest management utilized extensively on private lands throughout California and the nation. JDSF offers a unique opportunity to examine both even-aged and uneven-aged forest development over a very long period of time. This information would be invaluable, yet it appears as though the JAG intends to constrain even-aged management unnecessarily, due in large part to current public opinion (Chapter 2, Section VIII.C). If practiced judiciously and appropriately, both management

methods may be equally necessary to maintain productivity and biodiversity. Please allow the demonstration of even-aged management within the "matrix", even in the absence of a specific research requirement.

Growth and Yield: A conservative estimate of annual forest growth on Jackson exceeds 50 million board feet. Over the seventeen year period prior to 2001, JDSF successfully harvested an average of 29 million board feet each year, while coincidentally building inventory. In the later years of this period, the harvest earned the State of California \$10 million per year, and sometimes significantly more than this. JDSF contains some of the oldest second-growth forest of any managed landscape within the region. With an increasing and aging inventory, it seems unreasonable and wasteful to allow harvest potential to dip below the levels specified in the 2008 Forest Management Plan and Option A. Even at these harvest levels, JDSF will continue to build inventory, producing larger trees and older forest. The JAG landscape proposal will reduce harvest to less than one-third of growth, making effective management extremely difficult and increasingly difficult in the future.

Forest conditions will continue to narrow, reducing both the breadth of potential future research and demonstration as well as relevance to many private land managers.

Economics: This letter only touches upon the issue of economics, but I hope to emphasize that the best of plans and intentions are of little value when management cannot be funded. JDSF has the inventory and growth levels necessary to generate the revenue required to sustain a significant level of research and demonstration, infrastructure improvement, watershed restoration, and public recreation. JDSF also makes a needed and substantial contribution to the local economy and the local tax base. Economics seems to be treated as an after-thought in the JAG report, while recommendations that either create expensive program elements or result in a reduction in revenue potential are not lacking. Given the full extent of JAG recommendations, only infrequently and in the very best of timber markets would JDSF be self-sufficient at the \$6 million annual budget level. Management of the road system alone may require over \$1 million per year over a decade or longer.

Administration of the Forest: As you know, the Department of Forestry and Fire Protection is primarily a fire prevention and fire control agency. Resource management programs represent little more than 5% of the Department's charge and budget. JDSF was independent of Mendocino Unit management from 1947 to 1992, a period of 45 years. As such, JDSF was self-reliant and appropriately managed by resource management personnel.

In 1992, a regional manager convinced the Director to move JDSF under the Mendocino Unit. Subsequently, personnel and budget control were shifted to the Unit manager, as were the road maintenance personnel and equipment, and the Forest security personnel. Administration of these functions should be returned

to the state forest manager, and the Forest should be placed back under the administrative umbrella of resource management personnel in Sacramento. This issue was discussed by the JAG, at the request of Mr. Forest Tilley, and I believe that most JAG members were quite receptive. However, it did not rise to the top relative to other JAG priorities, perhaps due to the inherent difficulty for persons unfamiliar with CALFIRE hierarchy and administrative processes to fully understand.

## Specific Recommendations:

**Matrix Forestry**: The matrix forestry concept (Chapter 2, Section II; Appendix 5) unnecessarily constrains management of approximately 50 percent of the landscape to a limited range of conditions and treatments.

While there is a provision that matrix forestry can be trumped by specific research projects, neither the funding for this research, nor the availability of researchers to implement and monitor this research over extensive areas and long periods of time, is guaranteed. In the past, most researchers have come to JDSF seeking specific forest conditions to study or to manipulate and monitor. Please allow a greater range of forest structures to be created within the area currently designated as matrix, including the demonstration of even-aged management methods in the absence of specific research projects.

Late-seral and Older Forest Structure: A very large area of JDSF is being slated for the experimental development of late-seral and older forest structures. When the WLPZ is included, this amounts to approximately 40 percent of JDSF. This is a very large area to devote to an experiment in development of these conditions through active stand manipulation.

In nature, old-growth redwood forest is extremely variable, being influenced by site potential, fire, inter-species competition, and a host of other factors. There are NO empirical examples of late-seral or older redwood forest created by active stand management of young forest. Most of the stands that are in the process of managed transition began as even-aged stands, regenerated after 1850.

An assumption is being made that these older uneven-aged stands represent an improvement over younger stands with respect to timber value, fish and wildlife habitat, and watershed health. This remains an open question, however. It is also an open question whether the sustainable growth and harvest of very large trees (i.e. 50-80+ inches DBH) is possible while concurrently sustaining high yields and adequate growth of regeneration. This experiment should proceed, but at a limited scale.

It would be in keeping with the mission of Jackson to create and develop stands within a broad range of stocking levels, stand development trajectories, and management strategies, rather than a narrower set of conditions that tend to

create dense old stands that are uncharacteristic of many or perhaps most that develop naturally.

**Reserves in General:** Due to the fact that the legislation specifies that <u>all</u> productive land on state forests remain in timber production for research and demonstration purposes (PRC 4631.5(a)), perhaps it would be better advised to alter the "forest reserves" recommended by the JAG to something like "temporary experimental control" status, subject to periodic review as revised management plans are prepared and brought before the Board.

When considering the allocation of forest reserves in areas that are currently young forest, especially those toward the west side of JDSF (Chapter 2, Section IV.E), please consider the abundant acreage of young stands located adjacent to JDSF within state parks. These park stands can act as reserves for purposes of comparative research, rather than locking up more productive forest.

Hardwood Study Reserves: The JAG has recommended that 671 acres of young forest be set aside for study of the development of hardwood-dominated stands. The selection of these stands was not made in the field, but based upon broad vegetation type polygons on a map. They do not follow logical subwatershed boundaries. I feel that two adjustments to this proposal are warranted. Firstly, the goals appear to be closely in line with the proposal for late-seral forest development, being primarily ecological in nature, and largely habitat related. I therefore suggest that natural hardwood development be incorporated into areas already designated for either reserve status, or for late-seral development, selecting areas that have relatively high levels of hardwood stocking for this purpose. Second, the study areas should be confined to logical sub-watersheds, rather than current vegetative polygons.

Pygmy Forest Reserve: The stated justification for this area is to provide an example of upland conifer forest development adjacent to the pygmy forest, with no active management (Chapter 2, Section V). While this may be an admirable idea, the proposed area is unnecessarily large for this purpose (1155 acres). I suggest that this reserve or temporary control be limited to the area north of Jughandle Creek, or about 200 acres immediately adjacent to the pygmy forest. As it stands, the proposal results in a large loss of demonstration and productive potential. The designated area is productive timberland that has been managed selectively in the past, and the full potential of this area should be maintained.

Woodlands Special Treatment Area: The Woodlands Special Treatment Area is adjacent to a unit of the state park system that was carved out of JDSF a few decades ago. The enabling legislation recognizes that forest management will occur adjacent to the park. In fact, the State Park's written management objective for this area is childhood education in conservation and use of natural resources. What better place to demonstrate effective and sustainable forest management for the children that attend a few of the camp programs there? The proposed management of the special treatment area is overly restrictive (Chapter

2, Section VII). I suggest that management in this area be allowed without restriction as to timing, and that pre-testing of methods elsewhere on JDSF not be required before implementation within the Woodlands STA. I also suggest that a portion of the Woodlands STA be designated for forms of uneven-aged management other than late-seral or older forest development.

**Recreation**: I am in agreement with most of the recreation-related recommendations (Chapter 5). However, I urge the Board and Department to alter these recommendations when there is evidence that they will result in an unwarranted shielding of recreationalists and forest neighbors from the forest management that JDSF is intended to demonstrate (e.g. Chapter 2, Section VII.5). The Board's policy states that recreation should be compatible with timber production, not the other way around. The impacts of management upon aesthetic quality tend to be temporal and compatible with recreational uses.

The JAG has recommended that a single contractor coincidentally conduct a user-needs study and prepare a full recreation plan for JDSF (Chapter 5, Recommendation 2). I disagree with this recommendation, due to potential for bias. Both the user-needs survey and the recreation plan should be created by a group that includes expertise in, at a minimum, recreation and forest management. This will avoid the potentially significant conflicts that could be created by a single contractor, depending upon experience and philosophical leaning.

Regarding the trail system, Jackson has so little funding available for infrastructure maintenance that virtually all spur roads are rendered impassible, even to foot traffic, in a matter of a few years after productive use. This is a major point of conflict with local forest recreationists, and a major source of frustration for the forest managers.

## Retain Management Flexibility:

While the JAG is to be congratulated on a forward-looking plan for research, a large number of new processes, constraints, and restrictions have been suggested. Please retain an adequate level of management flexibility for the Department, in consideration of staffing and budget. A recently approved management plan is currently in place. Years of thought and effort went into the preparation, review, and assessment of the plan prior to Board approval in 2008. I urge the Board to combine the best and most effective elements of the 2008 Forest Management Plan and the JAG report, in keeping with existing legislative and policy direction for the Forest. The implementation of an overly-restrictive set of constraints and processes can easily result in an ineffective, inefficient, and unproductive management environment.

While this may not be the appropriate time, it is my hope that the Board will one day exempt the management of the Forest from the State's Forest Practice

Rules, vastly increasing the potential of JDSF as a research and demonstration forest.

Sincerely,

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NIPF and State Forest Manager, retired.