

# JDSF Advisory Group

June 25-26, 2010, Meeting

## Compiled Documents for Discussion

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Note: Document formatting may vary slightly from the original documents. Changes may have occurred due to the compilation process. Efforts were made to keep the formatting as similar to the original documents as possible.

## **Integrated Landscape Committee Documents, Sections 1 & 2 Approved by JAG, May 24, 2010**

This document is Sections 1 and 2 of a larger package of documents originating with the JAG Landscape Committee, reviewed and revised by the Integration Team, reviewed and edited by the Landscape break-out session of the May 10, 2010 JAG, re-edited by the Landscape Committee on May 20, and presented at the May 24 JAG meeting. After additional revision, these Sections were adopted by consensus of the JAG. ***This is NOT to be considered the full Report from the Landscape Committee, even in relation to these sections. Landscape recognizes that the final report will include additional background, rationale, charter review, and other information.***

### **Table of Contents: (Sections to be included as they become finalized)**

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**Section 7.** Excerpts from JDSF Management Plan Regarding Even-aged Management (for full JAG discussion)

## Section 1. Silviculture Goals and Guidelines for Harvests in Matrix Lands\* not Associated with Approved Research and Demonstration

**Goals** (to be implemented together as a whole)

- Allow and encourage research and demonstration projects throughout the Matrix.
- Manage the forestland at JDSF that is not included in Special Concern Areas, research and demonstration projects, or otherwise designated for a special status to develop a stand component of large, old trees that will be used for harvesting valuable timber and maintaining habitat as well as to provide a landscape that the community can feel good about.
- Use a variety of silviculture techniques and document stand responses to treatment.
- Maintain or increase timber harvest revenue over time, assuming reasonably normal economic conditions.
- Recognize and plan for aesthetic values.

\* JDSF “matrix lands” are those lands not allocated to *Older Forest Structure Zones (OFSZs\*\**, Reserves, or other Special Concern Areas defined in the Management Plan and shown in Map Figure 5 (as revised to conform with JAG determinations). These matrix lands will be the primary areas allocated to manipulative research, demonstration projects, and to develop the three Centers of Excellence where these studies require treatments not compatible with the goals of OFSZs.

\*\* *OFSZs* are contiguous areas that include *Old Growth* and other *Reserves*, *Late-Seral Development Areas (LSDAs)*, and *Older Forest Development Areas (OFDAs)*. Harvesting is permitted within *LSDAs* and *OFDAs* consistent with their designated goals (see: *Definitions*).

## Guidelines

Harvest on matrix lands will utilize single-tree selection, commercial thinning, and group selection as defined in the Forest Practice Rules with the following provisions and conditions applied. These conditions are to be addressed simultaneously and as a whole.

- Manage for stand components of larger diameter harvest trees
- Favor redwood where appropriate
- While protecting other forest resources, grow a component of trees in each stand toward the maximum size that can feasibly be harvested and milled without undo environmental impact to the site. \*
- Promote the growth of the larger and better phenotypes while giving consideration to wildlife needs and maintaining structural diversity at the stand and landscape levels.
- Retain old growth trees as defined in the JDSF Management Plan.
- Where no old growth trees are present, an average of two dominant trees per acre distributed across the harvest area outside Class I and Class II WLPZs will be designated and retained during the 40-year planning period to provide the opportunity at the end of that time to decide whether to continue to retain these trees for their structural value. Over time, an equivalent tree may be designated if removal of a retained tree is required for safety or unavoidable operational requirements or the originally designated tree cannot be located. If desirable for wildlife structure, larger, mature hardwoods may be designated to substitute for some of the dominant trees.
- Depending on the planned reentry period, the percentage of basal area removal should range from 25-40%.
- Promote adequate regeneration that is free to grow for future harvest.
- Where stand conditions are such that adequate regeneration cannot be achieved by single tree selection, small group openings should be used. Openings should be kept as small as possible, typically not greater than one and a half times dominant tree height in any direction, but not to exceed 2 acres. As the size of the openings increases, individual and/or small clusters of trees should be retained within the openings to provide desired structural characteristics.

- In stands historically dominated by conifers, and where previous management or fire occurrence has resulted in hardwood-dominated stands, exceptions may be made to the standard Matrix Silviculture Guidelines. Exceptions must be approved by the JAG upon recommendation of the Forest Manager.

\* In 2010, this is approximately 48-72 inches DBH, but this may change over time. The JAG recognizes that as trees get bigger, the public may resist harvesting them, but it is JAG's intent that in the matrix area these trees will be available for harvest.

## **Section 2. Silviculture in a Research and Demonstration Context within the Matrix**

Silviculture other than that described in Section 1, including even-aged management, is expected to be a continuing component of operations in the Matrix lands of JDSF within the context of a professionally designed research and demonstration program. Initially, an evaluation of these proposed harvests will be made by JAG until alternative review processes are developed.

In the period prior to the development of the full Research Plan and Structure, harvests in the Matrix implementing other than Matrix Silviculture will only be conducted in the purple-blue areas of Management Plan Map 5, and only for research projects that meet the following Guidelines for Silviculture in a Research and Demonstration Context within the Matrix.

### **Guidelines for Silviculture in a Research and Demonstration Context within the Matrix**

All proposed timber harvests in the Matrix not utilizing Matrix Silviculture, including even-aged management, will be presented to the appropriate advisory entities for review and recommendation prior to implementation. Criteria used by reviewing bodies in approving the use of even-aged methods should include:

- Harvest is pursuant to a peer-reviewed research project plan
- The total area receiving the treatment is the minimum required for the scientific validity of the research involved
- Purpose of project, area of sub-watershed or watershed (including replications), and duration of project
- History of proposed project location in relation to age, structure, and past use of even-aged methods
- Potential conflict with overarching Centers of Excellence, ongoing research projects, neighbors, sensitive areas, designated special treatment areas, and recreation use

[See Section 7. Excerpts from JDSF Plan Regarding Even-aged Management for full JAG discussion. When the contents are agreed on, it will be inserted into Section 2.]

### Section 4. Rationale for Landscape Committee Allocation Changes

The Landscape Committee is recommending several changes to the Landscape Allocation as identified in the existing Management Plan. The most current map expression of these recommendations is dated 2/24/2010, and is incomplete. All recommendations involve adding acreage to Older Forest Development Areas\* (OFDA), Late-seral Development, or Reserve status. The below includes May 20, 2010 recommendations.

Several allocations were changed to buffer old growth groves, enhance connectivity between old growth groves, provide for additional late-seral development, and older forest development areas\* or to enhance older forest structure across north/south gradients. Other changes were made because of special stand features, and proximity to parks or special visitor use corridors. The Goal # in the chart refers to the “Detailed Goals and Objectives” in the January 2008 Management Plan (pages 18-22). The following is a summary of recommended changes *listed from East to West* with rationale briefly indicated:

#### Recommendations Adopted by Consensus of Landscape Committee

<u>Type &amp; Location</u>	<u>Approx acreage</u>	<u>Rationale</u>	<u>Goal #</u>
1. Add LSD around OG at extreme E along Hwy 20		Better buffer for old growth Increase late seral acreage	2
2. Change OFSZ to LSD around Dresser Grove OG, top of N. James Cr.		Better buffer for old growth Increase late seral acreage	2
3. Change Campground Buffers to Reserves at Big River & Camp 20		Enhance campgrounds	5
4. Change OFSZ to LSD in 3 places around OG near Rd 1000		Better buffer for old growth Increase late seral acreage	2
5. Change OFSZ to LSD adjacent to Waterfall Grove OG		Better buffer for old growth Increase late seral acreage	2
6. Add LSD to south of Waterfall Grove, west of W. Chamberlain Cr.		Build on existing residual OG Increase late seral acreage	2
7. Create Indian Springs Fire Reserve		Preserve fire research control area Recreation interest	1 5

<b>Type &amp; Location</b>	<b>Approx acreage</b>	<b>Rationale</b>	<b>Goal #</b>
8. Create Bob's Woods Meadow Reserve		Unique meadow	2
9. Add OFDA* to north of NFSF Noyo LSD		Enhance OFDA* E/W connection	2
10. Add OFDA in east "thumb" of Camp 6 THP after current harvest		Consolidate OFDA	2
11. Add LSD in portion of Brandon Gulch headwaters after current harvest		Concentration of large old redwoods	2
12. Designate Brandon Gulch THP LSD		Adopt legal settlement designation Increase late seral acreage	2
13 Designate part of Camp 3 THP LSD, including adjacent non-THP lands		Adopt legal settlement designation Increase late seral acreage	2
14. Designate remainder of Camp 3 as Reserve/Control		Adopt legal settlement designation Increase late seral acreage	2
15. Change Campground Buffers to Reserves along NFSF Noyo		Enhance campgrounds	5
16. Change Campground Buffers to Reserves along SF Noyo		Enhance campgrounds	5
17. Add OFDA* between Noyo and Big River drainages		Enhance OFDA* N/S linkage	2
18. Designate three N Caspar Controls as Reserves		Protect existing old forest Preserve research integrity	2 1
19. Designate Rd 500-Jughandle Pine/Cypress near Pygmy as Reserve		Complete ecological staircase	1, 2, 3

\* The Landscape Committee is recommending a change in allocation terminology from Older Forest Structure Zone (OFSZ) to Older Forest Development Area to better reflect the actual purpose of the designation and to clarify some confusing conflation of terms in the Management Plan. The map has not yet been revised to reflect this recommendation.





## **Section 5. Recommendations for Presenting Proposed Timber Harvests for JAG Review [Draft]**

A summary of proposed timber harvests for JAG Review prepared by JDSF staff should consist of an approximately two-page statement, plus maps, tables or graphs, commenting on the following elements:

### **1. Goals**

Clear statement of management objections

How plans for individual harvest areas relate to plans for neighboring areas and conform to overarching management goals

### **2. Current Stand Conditions**

Broad quantitative and qualitative description, including maps, of existing variability and health of vegetation (conifers and hardwoods, diameter and volume distributions) within proposed harvest area

Description of current wildlife habitat

Description of understory, ground cover plants, and other important floral features

### **3. Desired Future Stand Conditions**

Broad quantitative and qualitative description and rationale of desired outcome of harvesting, including desired species mix and size class distributions

Description of desired wildlife, understory, and other flora/fauna conditions

### **4. Proposed Prescription**

Include comments on the proportion of existing volume or basal area to be removed, anticipated timing of the next entry, and the extent to which methods are chosen to stimulate regeneration.

### **5. Ecological Constraints or Opportunities**

Presence of legacy elements, and problematic soil, topographic or geomorphological features

### **6. Logging Methods**

Anticipated use of cable and tractor systems

Slash disposal

### **7. Aesthetic Considerations**

Special considerations given to aesthetic and recreational values and constraints, including existing or potential trails and views

### **8. Anticipated Timber Yields**

By species and size class

### **9. Cost Analysis**

## **Section 6. Other Recommendations from Landscape Committee**

By consensus, the Landscape Committee recommends the following regarding landscape-related management measures:

### **1. Maintain NSO Nest Tree Buffers**

**Management Measure:** Until at least the next major review of the JDSF Management Plan, maintain standard 18-acre Forest Practice Rule buffer zones anchored on NSO nest trees for a minimum of ten years after the site was last confirmed occupied.

**Purpose:** To test whether or not Northern spotted owls will reoccupy nesting and roosting areas after they have apparently been abandoned.

### **2. Buffers for Old Growth Outside Reserves**

**Management Measures:** Any exceptions to the following will need approval by, at least, the Assistant Forest Manager and RFP, and will require a field visit. Exceptions may include the need for removal of buffer trees for safety. Apply all of the following.

- In all harvests, buffer all old growth conifers and hardwoods by, at a minimum, maintaining trees that appear to have intermingling limbs, or at some point in time, will grow to have intermingling limbs.
- Additionally, determine whether any old growth tree exhibits attributes (as described in the old growth definition) that may biologically benefit from additional buffering: Assess the attributes, and pick buffering trees that best enhance or protect them, if needed. (NOTE: Take care to fully reflect on the OG attributes and fairly assess the best method/tree-trees available for buffering purposes. Retained buffer trees should be those that will be healthy and wind firm subsequent to the harvest. Common attributes to review are cavities, large limbs and flat tops.
- For old growth trees that have immediate same aged replicates (side-sprouts): leave all same-aged/similar-aged side sprouts. [Language subject to clarification.]
- Unless operationally impossible to do so safely or without damaging other important resource values, maintain an equipment exclusion zone at least thirty (30) feet from the trunk of any old growth tree.

**Rationale:** To attempt to ensure that all old growth trees outside Old Growth Reserves are protected from potential damage during harvest operations, the Landscape Committee recommends special management measures for buffering old growth trees. While these measures are generally based on concepts in the recently revised Old Growth Screen Tree policy of the Humboldt Redwood Company, they are more protective. This is justified for the following reasons:

1. JDSF is public land that is required to be managed for multiple goals, as identified in the Management Plan beginning on Page 18. Relevant to the recommendation of these management measures, these include: #2 Forest Restoration; #3 Watershed and Ecological Processes; and #5 Recreation and Aesthetic Enjoyment.

2. Additionally, according to Chapter 9 (page 265), *Lessons from the Redwoods*, in the book *The Redwood Forest*, edited by Reed Noss on behalf of the Save-the-Redwoods League (2000):

“Protection of redwoods in parks and other reserves has not sampled the various [plant] associations equally. Some types of redwood forest are unrepresented. For example, 10.75 percent of the redwood forests in the southern section is in the highest category of protected areas, compared to 5.76 percent in the northern section and only 1.36 percent in the central section.”

According to the map on page 42 of this book, the HRC lands are located in the northern section, while JDSF is located in the central section with the smallest proportion of protected acres for redwoods.

Old growth resources deserve a very high degree of protection at JDSF because of both the multiple management goals of the forest and its location in an area that is not served by a high degree of redwood protection.

Although information on other conifers and hardwoods is not as readily available, the general lack of public land in the redwood region of Mendocino County suggests that protection for old growth of all species is also warranted.

### **3. Create New Growth and Yield Model**

**Recommendation:** Within the Center of Excellence focused on Silviculture, undertake the following:

Develop and test a growth and yield model for un-even and even-aged stands in the redwood region that not only is capable of making accurate projections out to 100 years and beyond, but also takes into account landowner returns as affected by log quality variations.

**Rationale:** In the course of our work, the Landscape Committee was often frustrated by the limitations of existing growth and yield models. Department practitioners and other forest managers regularly warned us not to rely on any model projection past approximately 40 years. Additionally, many relevant points of information could not be modeled with available tools. Jackson appears to be the ideal place to undertake the long-term studies needed to rectify the shortcomings of existing models. Such a project appears to be consistent with the proposed Center of Excellence #3 regarding Silviculture.

## **Section 7. Excerpts from JDSF Management Plan Regarding Even-aged Management**

The following excerpts from the current Plan require a discussion by the full JAG to determine the extent to which JAG recommends modifications:

Page 255:

*“All proposed even-aged management will be presented to the appropriate advisory entities for review and recommendation prior to implementation.*

***Clearcutting\*** will be restricted to a cumulative maximum of 100 acres per decade and only for purposes of research, demonstration, addressing forest health, or addressing problematic conditions for regeneration. Up to an additional 400 acres may be clearcut per decade, but only for research purposes that cannot be met through any other method.*

**[The Landscape Committee is recommending the following change indicated in red.]**

*The total area of the Matrix receiving **even-aged** \* silvicultural treatments other than Matrix Silviculture shall be the minimum required for the scientific validity of the research involved. not exceed 2,700 acres per decade. In addition, even-aged management will be tied to:*

*a) the Forest condition it is intended to produce.*

*b) necessity and appropriateness for accommodating research investigations either immediately or at a later time.*

*These constraints (i.e. a, b) do not apply to even-aged management necessary for addressing forest health or problematic regeneration conditions.”*

\* Bolding added for clarity

## Late Seral and OFDA Additions in the Volcano Area

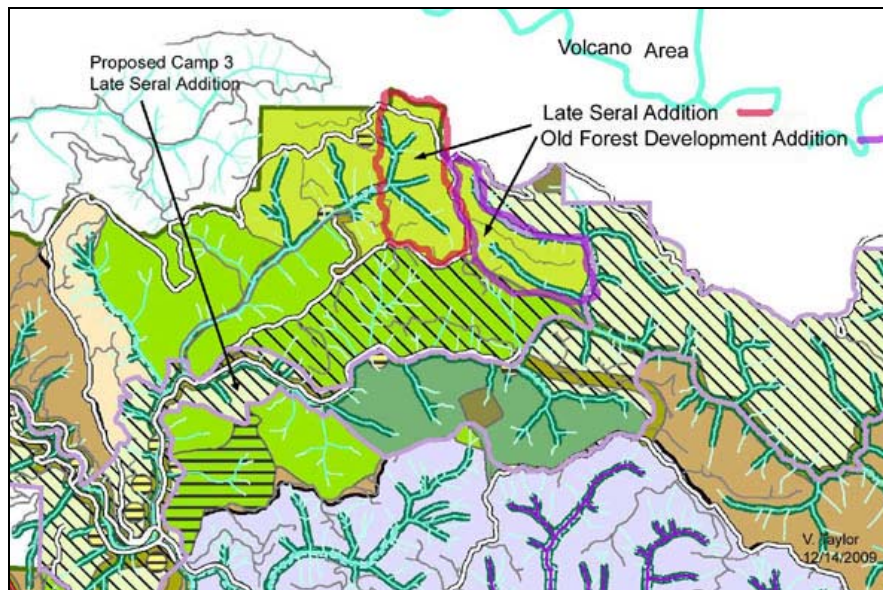
### ***Proposed Volcano Area Late Seral Designation -- Key Points***

- Addition to late seral designation of approximately 125 acres
- Would increase late seral designation outside of WLPZs and Woodlands Transfer to a total of about 1,900 acres
- Would provide protection for significant stands of 90+ year-old second growth trees
- Contains areas of high density of trees greater than 30 inches DBH
- Would be consistent with Management Plan objective of managing for late seral or old growth those areas with “the greatest likelihood of attaining that condition.”
- Would create a potential contiguous old growth development area of approximately 1750 acres
- The old growth development area would be located in area of highest current and potential recreation use
- An approved THP in portions of the proposed area will use single-tree selection and commercial thin to remove a maximum of 30% of basal area, retaining largest trees. This harvest will not differ substantially from an accelerated late seral development harvest.

### ***Proposed Volcano Area Added OFDA Designation – Key Points***

- Addition to OFDA of approximately 125 acres
- Would fill in a gap in previous OFDA designations in the area, creating more continuity in the band of Old Forest Structure Zone.
- Would provide additional protection to a significant stand with a high density of trees greater than 30 inches DBH

Figure 1



The proposed addition to Late Seral designation is within the area identified in the 2008 Management Plan as “Volcano 2”.

Volcano 2 was designated for harvesting in the 5-year schedule contained in the Management Plan. In 2009, the THP in the Volcano Area was modified to restrict the harvest to 3 selected areas within the THP proposed in the Management Plan (outlined in red in Figure 2). The selected areas had a high density of larger trees. Single-tree selection and Commercial Thin will be used. The modified THP was renamed to “Camp 6 THP.” It was approved by the JAG and is planned for sale in 2010.

**Figure 2**

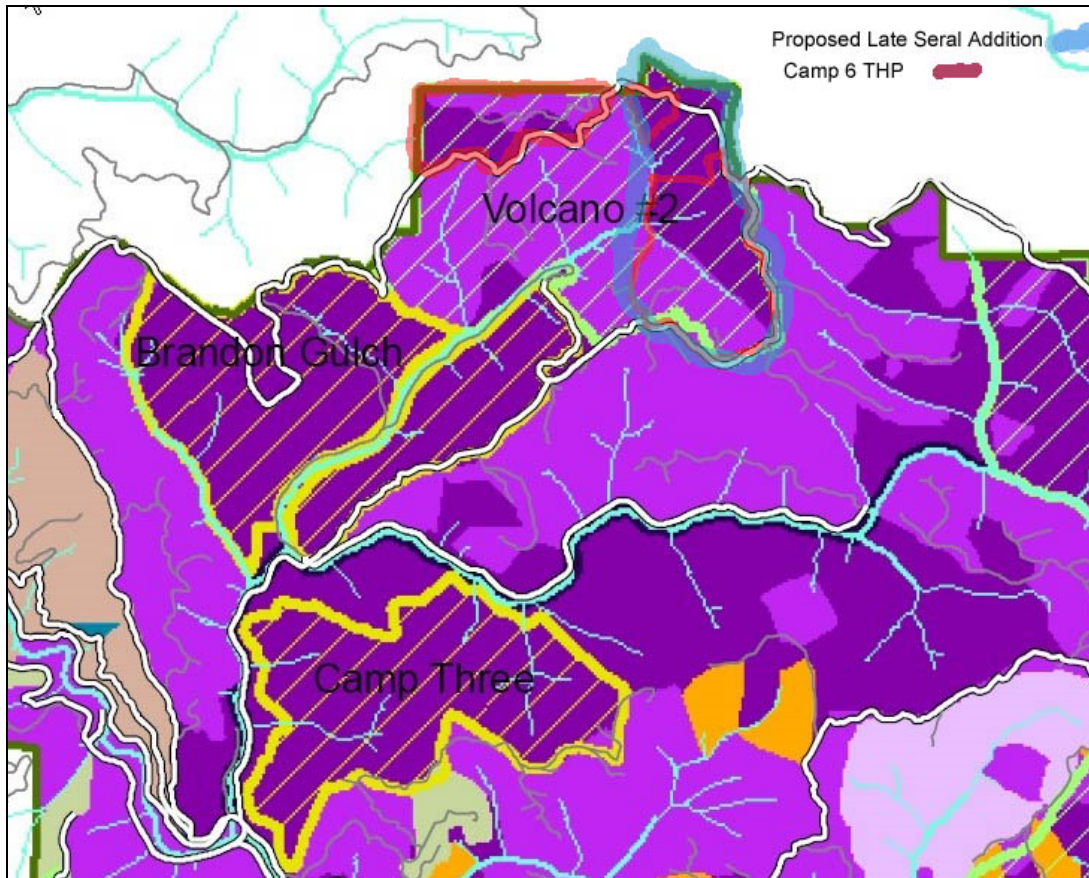


Figure 2 shows that the proposed Volcano Late Seral Area has significant stands of high-density large trees. The dark purple indicates areas with 15-20 trees per acre greater than 30 inches DBH. The medium purple indicates areas with 12-15 trees per acre greater than 30 inches DBH.

Although most of the areas with the densest trees are in the Camp 6 THP, the silviculture to be used does not differ substantially for that to be used to accelerate late seral development in the Brandon Gulch and Camp 3 THPs.

### ***Camp 3 Proposed Late Seral Addition***

Figure 1 shows a small area adjacent to Camp 3 that is now designated as an Older Forest Development Area. This area was omitted from the Camp 3 THP because it contains steep



slopes and perhaps other geological considerations that make harvesting impractical or inconsistent with Forest Practice Rules.

Because Camp 3 and Brandon Gulch are both designated for late seral development and adjoin the proposed small addition, as well as the low timber potential of the addition, it seems desirable to give it late seral designation.

### ***JDSF's Ecosystem Management Approach***

The 2008 JDSF Management Plan states:

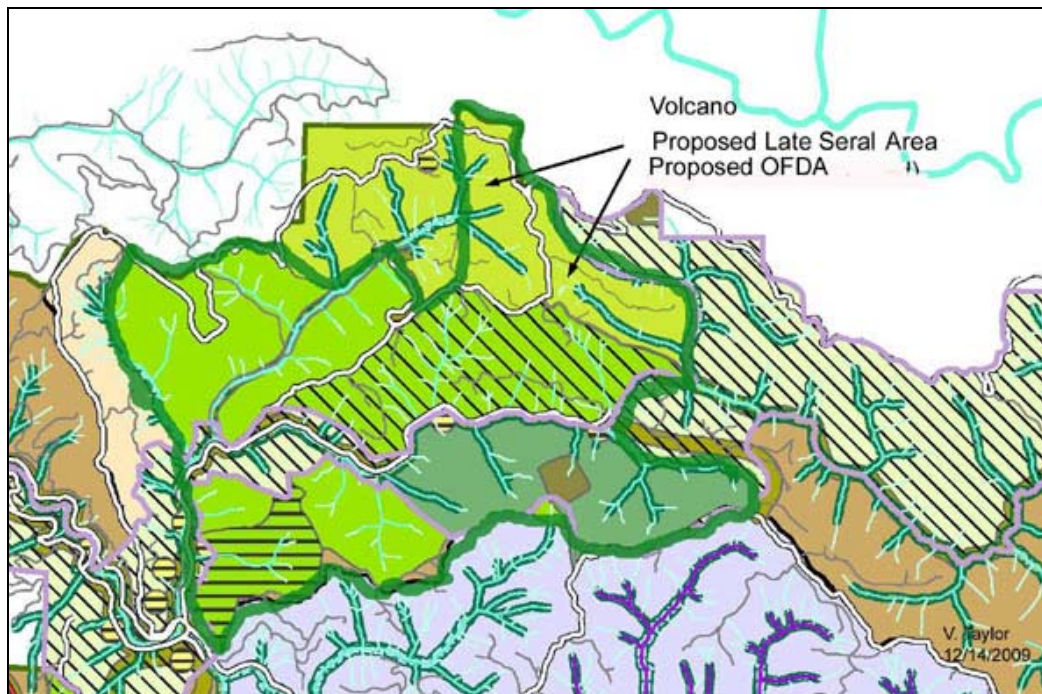
**Consistent with other management objectives manage forest stands toward late seral or old-growth condition in those areas showing the greatest likelihood of attaining that condition or where existing late seral or old-growth associated values can be maximized.<sup>1</sup>**

The areas encompassed by the Camp 6 THP are among the areas in Jackson Forest "showing the greatest likelihood of attaining that [late seral] condition" by virtue of their age and density of large trees.

### ***Creates Potential 2000 Acre Old Growth Development Area***

The proposed late seral additions would create a large compact contiguous area that potentially could be managed for old growth development. The area is shown outlined in green in Figure 3.

**Figure 3**



With the exception of the area in the center with slanted lines and the proposed OFDA addition, the entire area would be designated for late seral management. The central area, which comprised the earlier Volcano 1 THPs, is designated as an Older Forest Development Area. During the planning period of 40 years, the management of the OFDAs would be largely

<sup>1</sup> "JDSF's Ecosystem Management Approach," *JDSF 2008 Management Plan*, p. 65.

consistent with management for late seral. The option would exist to designate it for old growth development at a later time.

### **Arguments for Volcano Late Seral Area**

1. The proposed addition would make the total area allocated to late seral development closer to an amount consistent with the Management Plan's goal for older forest development:

Given the current low level of older forest in the redwood region, a significant portion of the structural goals are oriented towards accelerating the development of older forest structures.

Including all late seral and old growth areas and reserves, including those in WLPZs and the Woodlands Transfer Area, the total acreage to be managed for old growth development before the proposed late seral additions totals 13,800 acres, or 28% of the forest acres.

Although 13,800 acres appears to be a substantial portion of the forest, the total numbers obscure the limited allocations of significant areas to old growth development outside of the WLPZs and the Woodlands Transfer Area. The WLPZs contain 7,300 acres, which are not in blocks. The Woodlands Transfer Area contains (outside of WLPZs) 3,200 acres. Harvesting in the Woodlands Transfer Area is restricted by terms of the transfer deed; so late seral development is, arguably, the only management that could be justified.

**With all of the allocation changes approved to date by the Landscape Committee, there are 2,200 acres designated for late seral or old growth outside of the WLPZs and the Woodlands Transfer Area. This amounts to only 6% of the acreage outside of the WLPZs and the Woodlands Transfer Area.**

To designate only six percent of the area in the largest portion of the forest for late seral development seems inadequate from many viewpoints. Certainly the public desires more than this. The Management Plan's own goals argue for a more substantial portion of the forest to be managed for restoration to old growth.

2. The proposed additions create a large contiguous area of potential old growth management in the area of the forest most used for recreation and with the most potential for further recreation development, including an expanded network of trails.  
The large old-growth development area would be highly valued by the public. It would also, over time, create a significant refuge for species dependent on old redwood forest ecology.
3. The Volcano Area contains substantial stands of old, large second-growth. As such, it fits the criteria stated in the management plan for stands that should be managed for restoration to late seral or old growth:

**Consistent with other management objectives manage forest stands toward late seral or old-growth condition in those areas showing the greatest likelihood of attaining that condition or where existing late seral or old-growth associated values can be maximized.<sup>2</sup>**

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<sup>2</sup> "JDSF's Ecosystem Management Approach," *JDSF 2008 Management Plan*, p. 65.

## Proposed Indian Springs Reserve

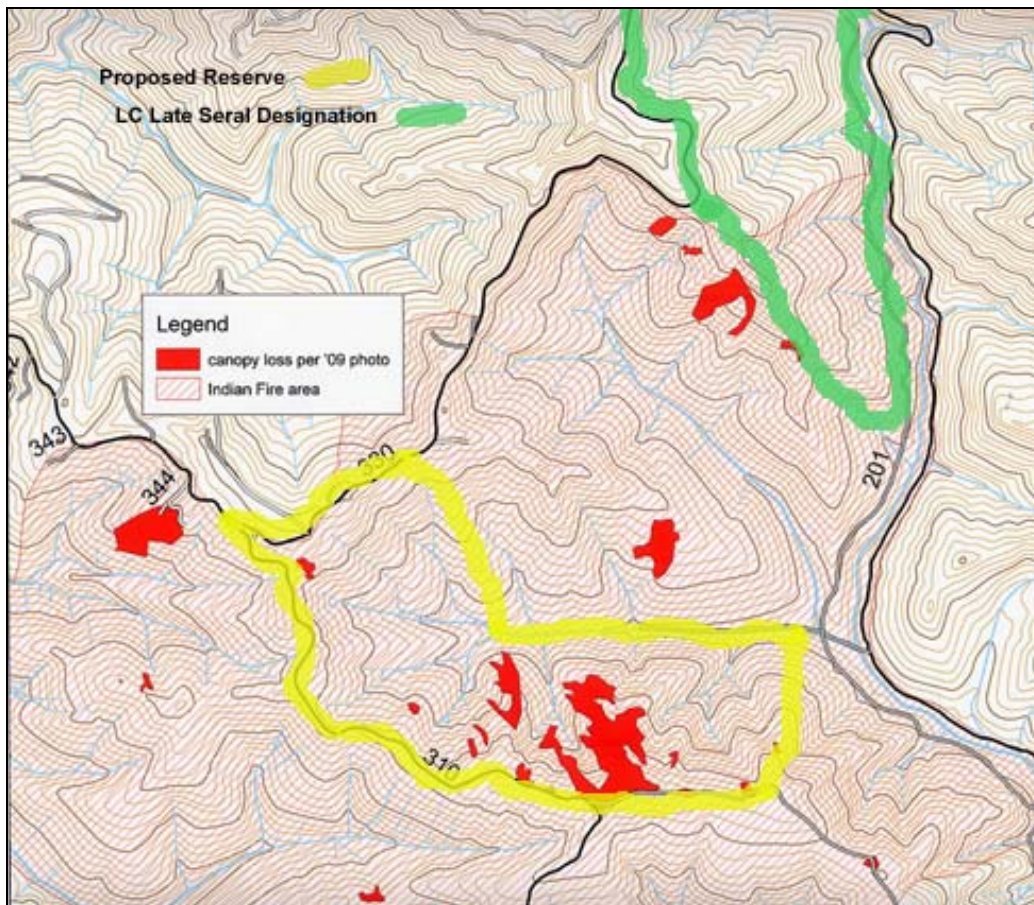
A reserve of approximately 300 acres is proposed in the Indian Springs area of West Chamberlain.

The Indian Springs reserve would be the only significant reserve of older second growth on the eastern half of Jackson Forest. The composition of the forest in this reserve differs significantly from that of the only other reserve of older second growth (Camp 3 Reserve) in Jackson Forest. It contains a relatively higher proportion of Douglas Fir.

The reserve would have a dual benefit:

- The reserve encompasses an area that was burned in the Indian Springs fire of 2008. It contains three drainages that had different intensities of burn. It offers the opportunity to do research on the recovery over time in these drainages without management and compare it to recovery in adjacent burned areas with active management. Future controlled burns would be permitted in the control area for research purposes.
- The reserve would provide an area of unmanaged forest on the eastern side of Jackson Forest in an area of high recreation potential. Unmanaged forest has a high aesthetic and spiritual value for the public.

Figure 1





Indian Springs was long used by Indians and seems likely to be an important archeological site of Mendocino County.<sup>3</sup> The preserve would provide protection for the archeological resources beyond that provided by JDSF practices to minimize impacts of logging.

Indian Springs is the site of the only campground in this section of the forest.



The road to the campsite parallels the railroad built by Caspar Lumber Company. Railroad trestles still remain along this road, adding to its value as a recreation resource.



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<sup>3</sup> Susan M. Hector, Daniel G. Foster, Linda C. Pollack, Gerrit L. Fenenga, and J. Charles Whatford, *A Charmstone Discovery in the Redwood Forests of Mendocino County, California*, November 30, 2005; <http://www.indiana.edu/~e472/cdf/reports/Charmstone.pdf>. This article stresses the value of avoiding damage to the archaeological site by road work and logging.

## ***Why Designate an Additional Reserve?***

If a reserve is to be established in this part of the forest, the proposed reserve has much to recommend it.

The fundamental issue that needs to be addressed is the extent to which reserves should be a part of the landscape allocation done by the Landscape Committee. The JAG has not directly considered the question of what amount of the forest should be placed into unmanaged reserves. The Landscape Committee ultimately needs to bring this question to the JAG, but it seems reasonable the committee first address the issue itself and make its recommendation to the JAG.

Here are some considerations:

Jackson Forest is a publicly owned forest. As such, its management should reflect public values. Unmanaged reserves that are allowed to recover naturally over time to old growth are important to the public. There are many in the public that would like to have no active management on Jackson Forest. Many others accept active management that is aimed at restoring the forest to older forest and providing a location for research on redwood forestry issues. Even among the latter group, however, there is a strong sentiment for maximizing the recreation and spiritual value of the forest. Unmanaged reserves located in areas of high recreation potential serve this purpose.

As the experimental program is developed, additional control areas are likely to be designated, but the criteria for these reserves will be their value for experimental measurements. Recreation and spiritual values will play little role.

It should be the role of the JAG to designate reserves to satisfy the desire of the public to have parts of the forest that are allowed to recover naturally and that can serve as recreational and spiritual resources. The reserves so far designated seem very inadequate for this purpose.

So far, the only reserves that have been designated by the Landscape Committee are:

- An extension of the Jughandle Staircase pygmy area into Jackson Forest.
- Several control areas in the Caspar Creek experimental watershed. These were already designated as controls by the research group, and the designation as reserves only provides more permanent protection. This designation was made with the approval of the manager of the Caspar Creek Watershed Study.

A small reserve in Camp 3 (approximately 120 acres) was designated as part of a negotiated settlement.

These are the only reserves currently planned outside of the old growth stands, all of which are small and together total just 450 acres.

## ***Conclusion***

The proposed Indian Springs Reserve would provide a small but valuable supplement to Jackson Forest reserves. It would be viewed by the public as a valuable recreational and spiritual resource. It would also have high scientific value for comparing the recovery from forest fire in the preserve to the recovery in actively managed areas.

Research and Monitoring Committee Report to  
be provided as a separate document.

## Recommendations of the Recreation Committee

1. Recommend that JDSF should move as soon as possible to hire a contractor to develop a recreation plan and associated user survey.

To speed completion of the recreation plan, a contract should be let to a single contractor to do the user survey required by the FMP as an integral part of developing the recreation plan, rather than first hiring a contractor to do only the user survey.

2. Recommend policies to minimize the impacts of harvesting on recreation opportunities:
  - a. Consistent with safety and legal requirements, JDSF should maximize the time that roads and forest areas are open to non-motorized recreation in harvest areas, including during the winter non-harvest season, on weekends when safe to do so, and by scheduling THPs to “cluster” those them within a given area when environmentally appropriate.
  - b. All trails and roads with significant recreation use should receive at least the aesthetic protection measures contained in the JAG’s **Recommended Late Seral Forest Development Prescription for Brandon Gulch**, “August 8, 2008 (See Attachment 1). These recommendations should be taken as a whole, but adapted to other locations and aesthetic values. Important provisions of the recommendations are:
    - i. ... JAG recommends allowing a lighter-than-average prescription within buffer zones along roads and trails, with the prescription and operations implemented with the goal to recover visual quality in 3-5 years after harvest. The buffers zones would be 100 feet or sight-distance from the edges of the above roads or trails, whichever is less. All logging slash within the buffer shall be uniformly lopped to within 30 inches of the ground.
    - ii. **Note:** the Landscape Committee of the JAG recommends that 300-foot buffers of the 2008 FMP around campgrounds at Camp 20 and Camp 1 be converted to Reserves; this protection exceeds that recommended for Brandon Gulch.
3. Recommend that JDSF proceed, prior to the completion of Recreation Plan process, with recreation maintenance and improvements to existing trails and facilities as needed or as recommended by the Recreation Task Force..:
4. Recommend replacing the Recreation Corridor concept of the FMP with guidelines for protecting recreation resources. There appears to be no need for or usefulness of recreation corridors.

The concept of a recreation corridor was carried over from an earlier time, when the intent was to concentrate recreation development within a specified “corridor”.

The approach favored by the JAG is that low-impact recreation can occur anywhere on the forest harmoniously with other forest management activities, so long as it does not conflict with safety or endanger sensitive habitats, including streams.

5. Recommend that twenty percent of the JDSF budget be spent on recreation staffing, maintenance, and improvement projects.

Cal Fire has historically placed a low priority on recreation. Recreation staffing and expenditures have been cut disproportionately multiple times. Currently, almost no funds are being spent on recreation. The simplest way to ensure a significant, ongoing recreation program in Jackson Forest is to specify that recreation activities receive, on average over several years, a fixed share of the budget.

A twenty percent share for recreation would provide a reasonable balance between recreation and other activities, including THP preparation and oversight. On a \$2 million budget, a minimum budget, recreation would receive \$400,000. This would support perhaps two recreation positions and a modest sum for trail and campground maintenance and improvement. On a \$4 million budget, which can be foreseen for the future, 20% would provide \$800,000 for recreation. This would support increased recreation personnel, trail and campground maintenance and improvement, as well as expansion of trails and facilities as proposed in an approved Recreation Plan.



**Attachment 1: Excerpt from *Brandon Late Seral Prescription Final Report, August 8, 2008*****7. Special Considerations**Recreation and Aesthetics

Recreation use on Brandon Gulch consists primarily of two campgrounds and use of recreational trails (Roads 360, 362, and 1000, see Figure 3) used by campers, hikers, bikers, equestrians, shooters, and unauthorized use of OHVs.

The direction given in the Settlement Agreement (Appendix 2) is to ensure that: Recreation use will be considered when devising the THP amendments. Potential harvest modifications to reduce visual impact on recreation users, including but not limited to those provided by the Management Plan and the Forest Practice Rules, shall be considered for incorporation in the THP amendments.

To meet this directive, treatments should be applied in the close vicinity of campgrounds and trails to mitigate the effects of timber harvest and to enhance vegetation development that promotes desirable aesthetic and visual conditions. Concerns and suggestions provided by recreation-user comments (Appendix 7) should be considered in carrying out timber harvesting and mitigating its effects. JDSF staff will work with timber operator to reduce the visual impacts of the timber harvest.

The following elements provide additions or emphasis to the recreation guidelines in the Management Plan:

1) Roads and Trails: Roads 360, 362, and 1000, are used by hikers, equestrians, and trail bike riders and are valued for providing aesthetic experiences and views of the forest. JAG members agreed on the objective of maintaining high visual quality for trails and campgrounds. JAG considered but rejected no-harvest setbacks as a means to accomplish this objective, feeling that the adopted approach would not produce significant adverse effects, setbacks would unnecessarily constrain harvesting opportunities and operational flexibility during harvesting. In addition, JAG found that ruling out harvesting next to trails would, over the long run, prevent trail users from being able to see into the more visually rewarding late-seral forest. Thus, JAG recommends allowing a lighter-than-average prescription within buffer zones along roads and trails, with the prescription and operations implemented with the goal to recover visual quality in 3-5 years after harvest. The buffers zones would be 100 feet or sight-distance from the edges of the above roads or trails, whichever is less. All logging slash within the buffer shall be uniformly lopped to within 30 inches of the ground. Trails along streambanks are especially scenic and buffers along Brandon Gulch and the North Fork of the South Fork of the Noyo River may exceed specifications of the Forest Practice Rules to protect particular identified values. Sherwood Trail is of particular importance requiring special maintenance to prevent erosion. Trails used by equestrians should provide adequate width and overhead height clearance.

After harvest, all trails should be restored as much as possible to their original or desired condition. All trails and trailheads within Brandon Gulch should be well marked and mapped. Opportunities should be taken to provide information to the public on sustainable forest management, advancing late-seral stand conditions, and balanced resource use on portions of trails from which harvesting can be observed.

2) Existing Campsites and Day-Use Areas at JDSF provide a remarkable sense of solitude and therefore careful attention is required to ensure adequacy of setbacks. Setback size should be 200 feet within which harvesting should be excluded (Management Plan, page 275) with added sensitivity given within 300 feet (Management Plan, page 119). Prior to harvesting, onsite evaluation of potential visible impacts should be conducted by JDSF staff and one or more JAG representatives to ensure that desirable visibility screens are prescribed. These will likely vary considerably around campsites due to variability in terrain and vegetation. Thinning near campgrounds and day-use areas should be limited to enhancing understory development, future screening, and removing potential hazard trees. Planning for thinning should be controlled by visual confirmation from professional staff in the campground, possibly with input from JAG in the initial phase of field implementation. Riparian buffers may exceed standards of the California Forest Practice Rules to protect special values at particularly important locations of recreation areas.

3) Cable Corridors should be kept as narrow as possible and, if practicable, aligned to minimize visibility. Care must be taken to avoid injuring leave trees at the edge of corridors.

4) Tractor Logging should leave as much vegetation as possible for visual screening from roads and trails. Tractor use should be restricted when soils are moist to avoid soil compaction.

5) Landings and Access Routes should be limited to the minimum size needed consistent with providing safe working areas. Landings (including those from previous logging entries) should be cleaned up and planted unless designated for reuse. All access roads and landings should be decommissioned by covering with slash to limit non-authorized use, stabilize surface soil, and enhance regeneration of native plants. Special care should be taken to avoid conditions conducive to establishment of exotic plants.

6) Logging Debris away from trails and visitor use will be treated using standards within the Forest Practice Rules. Slash abatement may in places exceed the normally-prescribed 50 feet from a road (Management Plan pages 119 and 273) to reduce fire risk or enhance recreation and aesthetic values.

JDSF JAG Economics Committee  
Summary of Actions/Recommendations  
Full JAG Meeting of June 25 and 26, 2010

Committee Members: Melo, Liquori, Tilley, Braudrick, Taylor  
Staff: Jameson and Eng

The Economics Committee was assigned six specific tasks in the adopted Work Plan. The actions/recommendations from the Committee are organized by those tasks, and the date of the action/recommendation is also shown.

**Task 1:** What revenue requirements are needed to meet the desired budget?

*On April 3-4, 2009, the committee discussed the revenue requirements to implement the Management Plan as adopted by the Board of Forestry. The conclusion was that about \$6 million is required. The committee adopted a table that indicates the timber volume that must be harvested to raise \$6 million at bid prices ranging from \$50 to \$800 per MBF.*

**Task 2:** What is the desired budget?

*See above Task 1 for April 3-4, 2009. The desired budget to implement the Management Plan as adopted by the Board of Forestry is \$6 million.*

**Task 3:** What is the needed budget?

*On April 3-4, 2009, the committee reviewed the current staff and expense levels, about 38% of what is needed to implement the Management Plan as adopted by the Board of Forestry. The committee adopted a table that indicates the timber volume that must be harvested to raise \$2.3 million at bid prices ranging from \$100 to \$1,000 per MBF.*

**Task 4:** Is CAL Fire able to produce a profit-loss statement, at least quarterly, to track revenues, costs and cash flows?

*On February 23-24, 2009, the committee discussed a profit-loss statement that identified cost centers or cost departments for JDSF. These are timber sales, recreation, security, monitoring and research. Allocation of salaries needs to be based on time spent by staff in these cost centers. The committee recommends these cost centers and the allocation method, leaving the details within the cost centers for JDSF staff to refine and implement.*

**Task 5:** How do we balance revenue generation and our priority goals? What can we afford?

*On June 26-27, the committee recommended that the (timber) sale program will reflect the standards for silviculture consistent with the landscape allocation. The committee*

*discussed the need to generate cash to support the various JDSF programs and to demonstrate silvicultural methods used to achieve land management goals.*

*On June 26-27, 2009, the committee discussed the use of money as a minor source of funding. The committee recommends that if a "Prudent Reserve" is established (See Task 6), the reserve funds could be invested in a money-market-type fund, and that the interest earned should be applied to state forest programs.*

*On August 10, 2009, the committee discussed the highly variable costs for individual research projects. The cost projection for the Camp 3 Sale was a base. This indicated a high initial cost to establish the research project, with periodic monitoring at lower costs. Some years had no costs at all between the periodic monitoring years. The committee recommends a year-by-year projection of individual research project costs (to) provide the base for annual budget allocations as a line item. The projection will be updated periodically. (See also Task 4 that identifies the cost centers.)*

*On August 10, 2009, the committee discussed the difference between JDSF-RFP projects and other projects that will have different sponsors. The committee recommends that JDSF-RFP projects use the above recommendation for annual and future budgets and that other projects (will) be required to provide a long-term projection of costs with assurance from the initiator of budget support.*

*On August 10, 2009, the committee discussed the high cost of transporting logs to mills far from JDSF. The committee recommendation is that in order to reduce transportation costs and raise net values for sales, JDSF should continue to support local utilization of material produced in nearby forest and saw mill operations. This would have a supporting role for local communities.*

**Task 6:** How do we leverage resources to develop the Science Agenda?

*On June 26-27, the committee discussed the variable cash flows associated with the market for timber. Also discussed was the need to support the research and demonstration functions, regardless of the market for timber. The committee recommends that PRC Section 4799.13 may need to be amended to allow for a "Prudent Reserve" to support the various functions at JDSF in times of poor timber markets.*

*On June 26-27, 2009, in line with the above recommendation, the committee recommends that a one-year operating reserve be created, gradually as market conditions allow. The reserve funds should be a dedicated fund that would apply to the entire state forest program, and based on current and near-term program costs.*

*On August 10, 2009, the committee discussed the possibility that grants could be a resource to develop the science agenda. Staff informed the committee that there is no professional grant writing capability in CAL FIRE. The City of Fort Bragg does have professional grant writing capability, and that has provided millions of dollars for city*

programs. The committee also noted the information provided by Dan Porter about grants supporting the projects in Mill Creek and Smith River, Del Norte County. The committee recommends that CAL FIRE should obtain professional grant-writing capability as a way to gather funds (for the science program).

**Matters discussed; no committee recommendation:**

*June 26-27, 2009: Create an inventory of sufficient THPs to respond to market demands. Use variable harvest levels – higher in good markets and lower in poor markets). Consider limiting high-cost deferred maintenance projects, especially those remote from timber sale areas and/or seeking grants for deferred maintenance projects. Use volunteers to conduct projects at low or no cost to the state. Reduce travel expenses; require multiple occupants in state vehicles. Require all persons at a work site to actually work and minimize supervision costs.*

*On August 10, 2009, the committee discussed the fact that JDSF stumpage sales are different from sales of logs preferred by local private timber sellers and local saw mills. The committee recommends that JDSF should determine the feasibility of changing its timber sale process from the sale of stumpage to the sale of delivered logs. This will create several changes, including: (a) JDSF will hire one or more loggers for timber sales. (b) JDSF will need to have log purchase orders from several mills, which JDSF prefers to do with staff rather than by contract with a private log sale contractor. (c) JDSF (will need to) change internal policies that require sale to the highest bidder, if qualified to carry out a contract.*

*On August 10, 2009, following a very low bid on a timber sale, the committee discussed the practice of the expense of substantial capital projects on individual timber sales. In private practice, capital projects are required to be amortized either against a large timber volume or over an extended period of time. By comparison, all operating expenses are charged to a sale volume. The committee discussed a recommendation to differentiate capital costs from operating expenses related to sales. JDSF should consider the development of more traditional business cost accounting practices that proportionally allocate capital costs into relevant timber sales as appropriate.*

*On August 10, 2009, the committee had a discussion of the structure of JDSF reporting. There are examples of equipment and personnel assigned to JDSF who really provide other functions in the Mendocino Ranger Unit. The committee considered a recommendation that JDSF staff report directly to the Resource Management staff and not to the Mendocino Ranger Unit. That was deferred to a future discussion.*

*Several times, the committee had fact-finding discussions about the sale of carbon credits for a source of income to JDSF. The result was that this is not now feasible, because the Management Plan indicates an increasing timber volume over time, and it is not reasonable to assign further increases of carbon sequestration to management practices. Further, the fact that JDSF is public land raises issues not likely to allow qualification for the sale of carbon credits as a source of income.*

## **Document K**

### **References to Use of Herbicides in the JDSF Management Plan**

Extracted by Helms, June 10, 2010

Page 10: Past use of herbicides limited to four situations –

1. road management related to treatment of native vegetation
2. reforestation that targets native shrubs
3. control of hardwoods to adjust conifer/hardwood ratios
4. control of invasive weed species as part of Integrated Weed Management Program

A total ban on herbicide use would compromise research and development values on the Forest and would result in adverse environmental consequences such as expansion of area on and off the Forest occupied by invasive species.

Herbicides may be used in individual research and demonstration projects that are scientifically designed and approved.

Operationally, only used when no other effective and feasible control methods are found after consideration of scope of problem, opportunities to effectively manage the situation, available alternatives to their potential effectiveness, costs, etc.

Page 28: JDSF requested to curtail or eliminate use of herbicides by public Citizens Advisory Committee 1997-1998. Some requests to continue or increase use to control invasive weeds. See also p. 198.

Page 29: Mendocino County does not use herbicides for roadside vegetation control on state or county roads. County-wide, forestry use of herbicides declined from 1.2% of total County pesticide use in 2002 to 0.4% of total use in 2004. On JDSF, use has declined since the 1990s.

Page 51: Use of Herbicides

Past use generally hand spraying to control native hardwoods, native brush (Ceanothus), and invasives such as French broom and Jubata grass. Also in early- and mid-1990s to clear roadsides of invasive weeds. Over past 5 years use has been minimal due to cautious use and low level of management activity.

Page 85: Timber Sales

May consider hand spraying for control of hardwoods.

Page 93: Invasive Weed Species

JDSF policy is to encourage growth of native species and support Integrated Weed Management programs (this is a prevention-oriented, ecologically-based approach to managing weeds cost-effectively with minimal risk to people and environment). Control of non-native invasives has demonstration value.

Page 94: To extent feasible, JDSF staff will avoid or minimize the use of chemical herbicides

## Document K

### Page 95, Chapter 3, “Herbicides”

CAL FIRE and BOF recognize public controversy regarding herbicide use. A total ban could compromise research and demonstration values.

JDSF use limited to:

- 1) when no other effective and feasible control methods are found
- 2) no herbicide use unless it is integral to long-term, ecologically based management
- 3) public and environmental safety is a priority
- 4) herbicide use will be evaluated for aesthetics and potential reaction to seeing dead plants

Herbicide use requires effectiveness and feasibility analysis and limited to part of an integrated pest management program. Herbicide use will be considered with a mix of mechanical and other vegetation treatments to promote natural levels of native hardwoods.

Herbicide use not permitted for purpose of treatment of native species for road maintenance unless for a specific fire prevention project. Also, use is restricted when used for control of hardwoods to adjust conifer/hardwood stocking ratios and control of invasive weed species as part of an Integrated Weed Management program .

Page 142: Existing JDSF studies on herbicides

In relation to precommercial thinning

Temporal and spatial successional complexes (page 208)

Small-scale trials OK (page 279)

Page 200: UC Center for Forestry Workshop 1989 recommendations include “Establish efficiency and safety of herbicides”.

### Page 259: Appendix IX Mitigation and Prevention Measures.

#### Invasive Weeds

To the extent feasible, avoid or minimize use of chemical herbicide weed management tools.

#### Herbicides

- Management Measures. JDSF will adopt the following limitations –
  - Only when no other effective or feasible control methods
  - Effectiveness and feasibility analyses required
  - No herbicide use unless it is integral to long-term ecologically-based management
- Public and environmental safety a priority
- Aesthetics will be evaluated
- Roadside vegetation – not used to treat native vegetation unless there are significant over-riding management concerns such as fire prevention
- Conifer/hardwood stocking levels – adjusting imbalance by herbicides limited to reforestation on East-side where high tanoak stocking can prevent native conifer establishment and growth. Use of herbicides only when other options are prohibitively expensive or not likely to be successful, etc.

Page 285: Consult with Native American tribes to identify important plant collecting areas

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## **Document L**

### **References to Outreach and Education in the JDSF Management Plan**

Extracted by Helms, June 10, 2010

#### **Outreach**

Page 59: Timber related employment and taxes

Timber harvest funds the extension and outreach program

Page 144: Publications

Minimum of two newsletters per year for timely transmittal of information for outreach

Page 146-7: Proposed JDSF Interpretive Center

Possible location on Hwy 20 near Camp 20. Museum. Up-to-date information on research and demonstration programs. General information on the Forest. Classroom space. Interpretive programs. Learning Center. Educational programs. Volunteer docent for interpretation.

Page 175: Reference to the Public Resource Code. Purpose of the Forest includes technical transfer and outreach.

#### **Education**

Page 1: Purpose of Forest BOF policy include education

Page 5: Research and Demonstration

Public education on forest resources, technologies, and issues

Page 15: Purposes of the Management Plan

Legislative purpose includes demonstration and education.

Statutory direction – primarily for sustainable timber production with the primary purpose of education and research relating to economical timber management.

Page 19: Detailed Goals and Objectives

Establish a Forest Education Center at JDSF

Maintain a comprehensive demonstration, education, and research program (p. 20)

Provide regular information to local community regarding educational and recreational opportunities on the Forest

Use public contact to deliver forest management education messages

Page 48: Recreation

Integrate recreation with forestry education

Page 55: Provision for three staff positions in “Research, Demonstration, and Education Program”

Page 71: Provision for two demonstration areas for educational purposes

Page 118: Provision for new maps, posters and displays for education and interpretation



## **Document L**

Page 122: Educational information to help prevent human-caused fires

Numerous references linking education to research and demonstration

Page 140: Research priorities. Public education on forest resources, technologies, and issues

Page 143-6:

Tours. For schools, landowners, scientists, professional groups, etc. Plan to use JDSF as open house for explanation and interpretation.

Data Bank Use internet to make data and other information available to public.

New Interpretive and Educational Facilities At Camp 20 or at Georgia-Pacific mill site in Fort Bragg. Including Forest Learning Center with conference center, classrooms, library, internet services, etc.

Page 174- : Public Resource Code. Policy includes many references to public education in forest management as a primary purpose and priority

## **Research and Demonstration**

Research and Demonstration are closely related and indistinct concepts. Both are related to knowledge needed by forest managers and policy makers. Research focuses on learning, while demonstration focuses on showing and teaching.

The JAG views demonstration as a component of an integrated Research and Demonstration (R&D) Program. Rather than referring to a "Research Projects" and to "Demonstration Projects," we suggest referring to the R&D Program.

Research on forest management will be more influential if it is associated with an effective demonstration component. Thus, demonstrations generally should be explicit complements to research projects. Evaluation of an activity for R& D funding should give strong weight to the proposal's provisions for both research (what can we learn) and demonstration (what and how we can teach). Very few demonstrations should be made without a research complement.

Some basic research may not lend itself to demonstrations. Absence of associated demonstrations should not preclude important research from being funded.

Similarly, some demonstrations may not have nor need a research complement. However, demonstrations that involve non-Matrix silviculture will be carried out only as a part of an approved R&D Project. Such projects will go through the evaluation process we propose for non-Matrix R&D projects. Proposals for funding separate demonstrations should be evaluated and approved by the same bodies and procedures used to approve research projects.

## Compare and Contrast Research and Demonstration

Aspect	Research -- <u>Tends</u> to be more:	Demonstration – <u>Tends</u> to be more:
Intent	Learn	Teach, show
Design	Random allocation of treatments among replicates over space and time; BACI approaches; consideration of the sampling / extrapolation universe.	Few replicates to one instance, site access and availability important in locating treatment(s).
Data	More likely to be quantitative; Statistical tests.	More likely to be qualitative and visual
Presentation	Tables, Figures, Statistical tests	Photographs, videos, tours
Outlet	Professional and Scientific Society journals, conferences	Newsletters, fieldtrips
Subject	Ecological processes, timber economics, human dimensions, ...	Financial considerations; logistics, techniques
Focus	Results, implications.	Methods & Equipment