

Integration Committee's
Recommended Modifications of
Landscape Committee Document

Landscape Committee
Documents for the JAG
Integration Team

Integration File 4 Landscape

Landscape Committee Documents for the JAG Integration Team

Gathered here are documents produced by or prepared for the Landscape Committee. All of these are in draft form and have not been approved by the JAG. Those concerning policy recommendations reflect the positions of the Landscape Committee. Some documents are informational, provided by JDSF staff.

The documents are listed here by Topic. Some Topics contain multiple documents. Comments about the documents have been inserted when appropriate.

Topic	Documents
Natural/Restoration Forestry	Outline of Restoration Management Silvicultural Guidelines
Research and Natural Forestry Definitions	Implications for even-age management Definitions of Older Forest Categories
Landscape and Management Plan Allocation Comparisons	Landscape Committee Allocation Map ¹ Acreage Comparisons of 2008 MP and LC Allocations Map showing only areas where allocations have changed ² Rationale for the allocation changes
Growth and Yield Projections Existing Seral Stage Distribution	Analysis of growth and yield simulation for Natural Forestry ³ Stand History Map Stand History Table
Landscape Committee Recommendations Consideration	Recommendations Under Pending

¹ Pending areas under consideration for allocation are not shown on the map. These include Volcano, West Chamberlain, and the Woodlands

² The round circles on this map are Northern Spotted Owl Activity Center buffers. They were placed on the map in error and should be ignored.

³ After reviewing the simulation, the Landscape Committee requested a revised simulation that would apply the Option A assumptions for Selection Silviculture stands to Natural Forestry stands.

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Natural/Restoration Forestry

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The Integration Committee recommends that the following Silviculture Guidelines replace the two separate drafts on pages 4, 5, and 6 in the Landscape Document

Silviculture Guidelines For Harvests not Associated with Approved Research and Demonstration Projects

Goal: To 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.

Note: The Integration Committee suggests that these Guidelines for timber harvest operations on JDSF "matrix lands" are based on JAG-approved principles and are aimed at applying conservative treatments that maintain stands having options for diverse goals. All treatments will be based on concepts of eco-forestry, which incorporate principles variously described as "restoration forestry", "natural forestry", or "ecologically-based forestry".*

To guide where those operations are not related to research or demonstration

Guideline Elements *This list of elements will likely be consolidated. Group A is derived from page 4 and Group B is from page 5.*

A

- Allow and encourage research and demonstration projects throughout the forest, including in areas managed for this goal
- Manage for stand components of larger diameter trees that are continuing to gain significant volume given site capacity

* 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. 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*).

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- Favor redwood where appropriate
- Grow a component of trees in each stand toward the maximum size that can feasibly be harvested using the most modern logging equipment and milling capacity as these evolve
- Use a variety of silvicultural 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

B

- Preference to uneven-aged management, primarily single-tree selection.
- Goal is to promote the growth of the larger and better phenotypes and maintain structural diversity at the stand and landscape levels. Retain trees with old-growth characteristics as defined in the JDSF Management Plan.
- Emphasis of each harvest entry should be to adjust stocking levels to help move the stand to desired conditions, while giving significant consideration to aesthetic and recreational values.
- Silvicultural methods should vary across the landscape depending on existing and desired stand conditions.
- Depending on the planned reentry period, the percentage of basal area removal should range from 25-40%.
- Within the 40 year planning horizon, pre-harvest stocking levels and average diameter should be greater at each entry.
- Promote adequate regeneration to maintain future harvest.
- Where stand conditions are such that adequate regeneration can not 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 tree height in any direction, but not to exceed 2 acres. As the size of the openings increase, individual and/or small clusters of trees should be retained within the openings to provide desired structural characteristics.
- Treatment methods should vary throughout individual harvest areas, depending on site specific conditions.
- Maintain or increase timber harvest revenue over time, assuming reasonably normal economic conditions.

JAG Review of Prescriptions

Summary recommendations of proposed timber harvests, to be prepared by JDSF staff, should consist of an approximately two-page statement, with maps, tables or graphs, commenting on the following elements:

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1. Goals

Clear statement of management objectives

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

Harvests to be conservative and oriented to keeping future options open

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, if needed, 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 over-views

8. Anticipated Timber Yields

By species and size class

9. Cost Analysis

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Integration Committee Note

Allocation Alternatives in the Interim prior to the development of the full Research Plan and Structure:

1. Utilize the current Management Plan Allocations (Management Plan Table 1 or 7) in conjunction with the proposed Silviculture Guidelines
2. Even-aged treatments are only conducted in the "purple" areas in Map 5 and only by following the Silviculture Guidelines for Even-Aged Management
3. Includes all other Special Area designations as proposed by the Landscape Allocation Committee

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Research and Natural Forestry

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Silvicultural Guidelines for Even-Aged Management

Intent

Even-aged management is expected to be a continuing component of operations at JDSF, within the context of a professionally-designed, research and demonstration program. Initially, this evaluation would be made by JAG until alternative review processes are developed.

The use of even-aged methods is to be restricted to constituting only a very minor proportion of both land area and of silvicultural approaches applied.


JAG-Approved Principles underlying the Guidelines

JAG recommends adoption of the following JDSF Management Plan (page 255):

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

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 total area receiving even-aged silvicultural treatments shall 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  later time.*

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

Guideline Elements *Note: Elements likely to be consolidated*

Criteria used by the reviewing body in approving the use of even-aged methods should include:

- Purpose, area of sub-watershed or watershed (including replications), and duration of project
- Past 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
- Benefits -- must exceed the potential negative ecological and social costs
- How will the proposed even-aged management project interact with the overarching forest-wide "Centers of Excellence" research and demonstrations?

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- How would the project affect neighbors, sensitive areas, designated special treatment areas, and recreation use?
- What percentage of what watersheds would be required for the project and what is the anticipated extent of project effects?
- What acreages would receive even-age treatment over what period of time?
- What sub-watershed(s) would be involved?
- Will replications in the watershed, sub-watershed, or elsewhere on the forest be required?
- What is the harvest history of the project area in relation to past even- aged management?
- Do the benefits from the research/demonstration project justify the ecological and other impacts of the project?

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Definitions

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Note: The Integration Committee suggests that these Definitions replace those in Landscape Document page 11.

Definitions

Older Forest Structure Zone (OFSZ) is composed primarily of reserved Old Growth Groves, other Reserves, Late Seral Development Areas, and Older Forest Development Areas.

The purpose of OFSZs is to produce structural characteristics of older forest, which include large trees, snags, down logs, multiple canopy layers, and a high level of structural diversity. A key feature is the connectivity of the OFSZ across the Forest.

Portions of this zone available for timber management would be managed on an uneven-aged basis to recruit these structural conditions and wildlife habitat elements, to coincidentally grow and produce timber through careful thinnings and periodic replacement of large trees, and to provide recreational opportunities.

(Note: same definition, purpose, timber management guides as in JDSF Plan page 70 and recommended by Landscape Committee).

1. Old-Growth Reserves: 459 ac. Includes the existing mapped old-growth reserves (JDSF Plan p. 196 and Map 5).

2. Other Reserves: (xxx ac)

Landscape Committee recommends adding:

Remainder of Camp 3 (not included as an LSDA) (xxx ac)

Three North Caspar Creek controls (xxx ac)

Road 500-Jughandle Pine/Cypress near Pygmy (xxx ac)

[Note: Check with Landscape C'tee, list may be incomplete]

The JDSF Management Plan also lists (p. 194-196) Special Concern Areas to which various management limitations are applied. Some of these areas, e.g., Pygmy Forest and Cypress Groups, are excluded from harvest and thus constitute reserves.

3. Late Seral Development Areas (LSDAs): 2,762 ac. Include areas adjacent to three old-growth grove reserves, the upper Russian Gulch and Lower Big River.

(JDSF Plan P. 196) LSDAs will be managed *using treatments varying from relatively passive to active (inserted by Integrating Committee)* to promote development of late-seral stand conditions to help buffer the adjacent Old-Growth Groves and to enhance the value of these areas for wildlife species that are associated with late-seral forests.

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(JDSF Plan P. 254) LSDA targets will include a significant component of large, old trees (greater than 150 years), as well as large snags, large down logs, deformed trees, multiple canopy layers, and a high degree of within-stand variability.

(JDSF Plan P. 196) Where timber harvest is proposed adjacent to LSDAs a buffer will be applied. No even-aged silvicultural systems may be used within 300 feet, and only single-tree selection may be used within the first 100 feet adjacent to these areas.

Landscape Committee proposes adding:

- West of Chamberlain Creek (xxx ac)
- Brandon Gulch THP (xxx ac)
- Part of Camp 3 THP (xxx ac)

4. Older Forest Development Areas (OFDAs): (xxxx ac) *[Note: these are not defined in JDSF Plan. The term is mentioned only on pages 70, 71, 200, and 254].*

Landscape Committee proposes: OFDAs are intended to provide an intermediate desired condition (bridge or transition) between Late Seral Development Areas and non-reserved or designated "matrix lands". *[Note: term "matrix lands" added by Integrating Committee as substitute for "natural forestry areas"]*.

Transitional characteristics of OFDAs include (*Landscape Committee recommendations*):

- More weighted to biological characteristics that in Matrix areas
- Timber production would first increase but then likely stabilize
- Trees exhibiting old growth characteristics (*changed from Landscape Committees "late seral characteristics"*) will be retained. See guidelines in Plan p. 104-105. All other trees will be harvested at some point in time
- On average over the stand, at least two dominant trees per acre will be retained
- Base level treatments will meet *Silviculture Guidelines*

Note: Clarity needs to be developed in the Management Plan Figure 5 to reflect definition and statement in the Plan on page 70, first full paragraph.

Matrix Lands (*Proposed by Integrating Committee as replacement for "natural forestry areas"*) (xxx ac): The remainder of JDSF not allocated to Older Forest Structure Zones (OFSZs include Old Growth Groves, Other Reserves, Late Seral Development Areas, and Older Forest Development Areas).

Silvicultural treatments will utilize the *Silviculture Guidelines* that

- Apply conservative treatments to maintain stands having options for diverse goals.
- Require all treatments to be based on concepts of eco-forestry, which incorporate principles variously described as "restoration forestry", "natural forestry", or "ecologically-based forestry".

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Landscape and Management Plan
Allocation Comparisons

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Rationale for Landscape Committee Allocation Changes

DRAFT March 26, 2010 *Note: See Draft Allocation map in the original document from the Landscape Committee (File 6).*

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. All recommendations involve adding acreage to Older Forest Development Areas* (OFDA), Late-seral Development, or Reserve status.

Several allocations were changed to buffer old growth groves, enhance connectivity between old growth groves, 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 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 & Location</u>	<u>Approx acreage</u>	<u>Rationale</u>
Add LSD around OG at extreme E along Hwy 20		Better buffer for old growth
Change OFSZ to LSD around Dresser Grove OG, top of N. James Cr.		Better buffer for old growth
Change Campground Buffers to Reserves at Big River & Camp 20		Enhance campgrounds
Change OFSZ to LSD in 3 places around OG near Rd 1000		Better buffer for old growth
Change OFSZ to LSD adjacent to Waterfall Grove OG		Better buffer for old growth
Add LSD to south of above, west of W. Chamberlain Cr.		Build on existing residual OG
Add OFDA* to north of NFSF Noyo LSD		Enhance OFDA* E/W connection
Designate Brandon Gulch THP LSD		Adopt legal settlement designation
Designate part of Camp 3 THP LSD		Adopt legal settlement designation

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<u>Type & Location</u>	<u>Approx acreage</u>	<u>Rationale</u>
Designate remainder of Camp 3 as Reserve/Control		Adopt legal settlement designation
Change Campground Buffers to Reserves along NFSF Noyo		Enhance campgrounds
Change Campground Buffers to Reserves along SF Noyo		Enhance campgrounds
Add OFDA* between Noyo and Big River drainages		Enhance OFDA* N/S linkage
Designate three N Caspar Controls as Reserves		Protect existing old forest
Designate Rd 500-Jughandle Pine/Cypress near Pygmy as Reserve		Complete ecological staircase

Areas Still Under Consideration (proposals not yet recommended by full Landscape Committee)

Gulch 16/ Trestle area old second growth Fire Reserve		Create reserve to study fire effects Protect easterly old second growth
After operation of current THP, designate Volcano area as LSD		Create uninterrupted block of LSD
Change designation in part of Woodlands STA around Camp		Ensure Woodlands Camp serenity

[We recommend “populating” the Approximate Acreage column and to add a column which clearly connects the specific benefit with the specific JAG-adopted goals from November 2008]

In addition, we recommend that this same list be adopted as a package and that the 3 remaining projects under consideration be addressed by the full JAG rather than going back to the Landscape Allocation Committee.

* 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. It is unlikely that the map will be revised to reflect this recommendation until after the Integration Team has had the opportunity to review this material.

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Recommendations Under
Consideration

Pending Landscape Committee Recommendations

With comments from Integration Committee in Blue

The Landscape Committee is considering development of recommendations on the following subjects:

1. NSO activity centers

We propose that this is a management issue with possible recommendations from the Research Committee

2. Buffers for old growth residuals outside special status areas

We suggest that buffers for individual trees constitute a management decision and are not an allocation issue. See pages 104-105 of Management Plan for specification and guidance.

3. Woodlands STA

We recommend that this topic should be taken up by JAG as a special agenda item.

4. Development of a growth/yield model as a project within a Center of Excellence

We concur that this is a critical component of work. We believe that this is addressed by the Research Committee in their recommendations.