PROPOSED MODIFICATIONS TO DAVIS LATE SUCCESSIONAL RESERVE ASSESSMENT

to Address Fire and Health Hazards and Risks to Management Strategy Areas Adjacent to Stands With High Amounts of Down Dead Lodgepole Pine.

What stands look like now

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Crescent Ranger District

Background

Davis Late-Successional Reserve (LSR) is 48,890 acres that through the Late-Successional Reserve Assessment (LSRA) was divided up into management strategy areas (MSAs). Emphasis wildlife species were identified for the areas that could be managed to provide similar habitat type and function. Approximately 25% of the LSR MSAs are either lodgepole pine or lodgepole pine in combination with mixed conifer, ponderosa pine, and/or riparian plant association groups (PAGs).

The LSR has approximately 18% of the forested acreage in lodgepole pine plant associations. All of these acres have had the overstory lodgepole pine trees killed by the mountain pine beetle (*Dendroctonus ponderosae)*. The south side of Davis Lake is adjacent to approximately 3,000 acres of lodgepole pine forests with overstory trees killed by the mountain pine beetle in the mid-1980s.

The LSR was analyzed with the Odell Pilot Watershed Assessment (OPWA, 1994), The Davis (Davis LSRA, 1995), the Seven Buttes Environmental Assessment (7BEA, 1996), and the Odell Watershed Analysis Review (a second iteration of the Odell Watershed Assessment to evaluate and assure consistency with Regional and National direction, 1999). It was analyzed again with the Seven Buttes Return Environmental Analysis, as a continuation of project implementation resulting from project needs identified in the previous analyses.

As implementation of these projects began, conflicting guidelines were discovered in the Davis LSRA concerning down and dead lodgepole pine.

On October 5, 2000 the district hosted a field trip for the Regional Ecosystem Office (REO) Interagency Working Group to review the dilemma faced by the district. The group supported the idea of an amendment to the LSRA.

Since that time the focus of much of the Forest Service has been the implementation of the National Fire Plan. In looking at specific wildland urban interface areas and facilities that have been identified as needing protection other problems within the LSR assessment became apparent.

Down Wood Issue

Problem

Within the LSR Assessment there are prescribed treatments in areas of LSR lodgepole pine plant associations for the objective of fuels reduction and maintain or enhance late and old structural habitat development. It also provides requirements for dead and down to be left. While removal of excess logs is allowed, the minimum number of logs required to be left presents a dilemma in two ways.

1. The objective of treatment to reduce fire hazard would not be met even if requirements for down wood were met at the low end of the range.

2. Goals for creating LOS or owl dispersal habitat would not be met, as logging operations would not be feasible with the amount of debris required to be left on the ground.

The source of the problem is found on LSRA pages 3-14 in table 3-2 and pages 3-16,17. See Appendix

Proposal

The proposal is to modify the LSR guidelines to leave sufficient down wood in untreated blocks strategically located to meet existing guidelines and to adequately allow for

treatments proposed for the purpose of reducing fire hazard, for development of habitat structure, and treating areas that are necessary to obtain long-term objectives as stated in Odell Pilot Watershed assessment and the Davis LSR Assessment.

This proposal deals with changes to down wood only. Snag numbers called for in Table 3-2 of the Davis LSRA are still valid and to be used.

Amendment to Davis LSR

The existing Davis LSR would be amended as follows:

1. **Page 3-16, in Management of Dead Wood in Forested Areas That Need Treatment:**

   All treated stands should comply with the following guidelines:

   Retain dead wood that represents the species composition of the original stand.
   Retain material among the largest available on the site to meet dead wood requirements.
   Retain adequate green tree replacements to provide future dead wood at levels specified in Table 3-2
   In lodgepole pine plant associations, treat only areas deemed necessary for long-term forest health and reduction of fire risk in accordance with individual MSA guidelines.

Add a fourth bullet that reads,

In lodgepole pine plant association groups:

i. *Treat only areas deemed necessary for long-term forest health and reduction of fire risk as determined by an interdisciplinary team in accordance with the individual MSA guidelines.*

ii. *Retention of the downed woody debris levels as stated in Table 3-2 will be done to the extent practical considering hazard reduction effectiveness (formerly iv). Leave a minimum of 10-12 whole down trees per acre in treatment areas (minimum dbh ≥ 11" or largest available where 11" dbh trees are not available). More can be left if operationally feasible and treatment objectives can be met. Down trees do not necessarily have to be distributed evenly across treatment areas. They can be left in patches or groups, or moved as needed to meet treatment objectives or increase distribution. A variety of methods can be used, such as:*

   1) *Leaving sufficient clumps of downed vegetation unit-wide to come as close as practical to specifications of Table 3-2.*

   2) *Leaving larger areas untreated sufficiently distant from adjacent areas to limit hazards.*

iii. *Hazard, as referred to in this context, is defined as risk to long-term forest health and risk of large-scale stand replacement fire events.*

2. **Page 3-16, under the heading, *Silvicultural Treatments: Commercial thinning, selection cutting, shelterwood harvesting, firewood cutting, and underburning,* change the first paragraph from:**

   All snags and coarse woody debris that meet the following size criteria will be retained in all decay classes to the greatest extent possible during harvest and post sale activities:

   to read:

   All snags and course woody debris that meet the following size criteria will be retained in all decay classes to the greatest extent practical during harvest and post sale activities, considering long-term objectives, treatment effectiveness and operational feasibility:

3. **Page 3-17, under the heading, *Silvicultural Treatment: Salvage of Dead Lodgepole,* change the first sentence in the third paragraph from:**

   Snags and down woody debris will be retained on site to levels and criteria specified for suitable habitat in Table 3-2.

   to read:

   Snags and down woody debris will be retained on site to as close to the levels described in Table 3-2 as practical as discussed in the Management of Dead Wood section above.

Management options to add to MSA L and M

4. **Page 4-107, under the heading, *Management of Forested Areas*:**

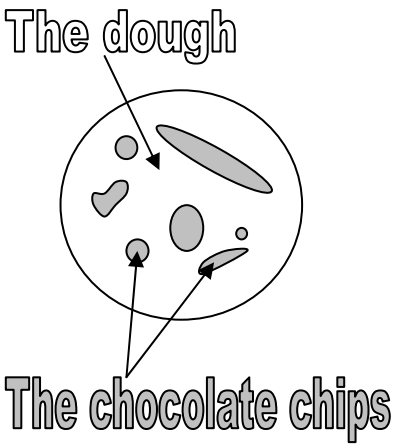
   - In the area to the northwest of Odell Creek, Use silvicultural techniques such as fuel reduction to sustain existing LOS until regeneration stands catch up.

   And Page 4-117, under the heading, *Management of Forested Areas*

   - Outside the Old Growth Management Area (East Odell Creek) reduce fuel hazard in forested areas by removing down, dead lodgepole on up to 30% of the area in the next 30 years within the following parameters:

Add to each:

A variety of treatment options would be utilized to effectively treat stands to meet objectives. Using a chocolate chip cookie as an example:



In the Davis campground areas, treatment would be in the "dough portion of the cookie," and untreated areas would be the "chocolate chips" (see illustration).

In areas adjacent to untreated stands needing protection from wildfire encroachment (i.e. urban interface, unique habitats) the treatment would be the same as Davis campground where the "dough" would be treated. In all other areas stands would have only the "chip" portions treated.

In green stands being treated for habitat development, 15% of the area will be left untreated and 10-15 whole down trees/acre as well as all snags (not considered a hazard to logging) will be left in the treated areas as a maximum impact. More down

material will be left as possible while still meeting fuels reduction needs in the context of adjacent areas and needs.

Discussion

The lodgepole pine areas on Crescent Ranger District are often interspersed with other plant associations, usually in relatively abrupt transitions associated with topographic change. Leaving such large loadings of fuels dominating the lodgepole areas is a very real threat to adjacent areas in the event of fire. In addition, these lodgepole areas are often heavily traversed and used by recreationists since they are frequently near water bodies and developed recreation areas.

Such large amounts of woody material are also an impasse to mechanized equipment that would be necessary to treat excess fuels or to treat green stands with large amounts of the down woody material.

Revising our guidelines would enable us to restore relevant ecosystem functions as noted in the watershed analysis, LSR analysis, and environmental analysis documents for the area.

Analysis completed in Seven Buttes and Seven Buttes Return proposed treatments for the purposes which included reducing the risk of large-scale loss of forest due to insect, disease and catastrophic fire, maintain, enhancing, protecting late and old-structured stands to benefit species associated with those forest conditions, and developing late and old-structured stand characteristics in younger forests. The proposal was in response to the needs outlined in the Davis LSRA and Odell Pilot Watershed Assessment.

These projects have gone through scoping with the public and been consulted upon with USFWS. The decisions for Seven Buttes have been upheld through appeals. Units unfeasible to log due to the conflicting restrictions were dropped and reanalyzed in Seven Buttes Return. The Decision for Seven Buttes Return units affected by the conflicting guidelines is on hold until this change receives REO approval. See Attached map of Davis LSR Amendment with 7Buttes, 7Buttes Return and Davis LSR MSAs.

Wildland-Urban Interface

Problem

In MSA M and L there are specific objectives with accompanying management options for fuels reduction and/or fire protection. However, in MSA-Z there is an objective for "to maintain an area of low fire hazard as a buffer between the urban interface and adjacent MSA-Y", but no companion management option for doing so. In MSA-Y there are no objectives or management options for fuels reduction and/or fire protection, but approximately 85 acres fall within an urban interface boundary where the focus for fuels reduction would need to be accomplished along with the area in MSA-Z to provide the low fire hazard buffer between the urban interface and MSA-Y.

Proposal

The proposal is to add management options for creating the low fire hazard area, and to adjust boundaries to shift 85 acres of MSA-Y into MSA-Z. While it does contain riparian areas with similar values being protected in MSA-Y, the strip is a continuation of the area that contains the powerline and 500' adjacent to it that is needed for a sufficient low fire hazard buffer.

Amendment to Davis LSR

The existing Davis LSRA would be amended as follows:

5. **Page 4-233, under the heading, *Management of Forested Areas add*:**

- Reduce fuel hazards using silvicultural and fuels treatments along the power lines, the Odell Lake Lodge and Resort and Odell Creek campground to create a low fire hazard buffer between the urban interface and MSA-Y.

6. **Page 4-226 map of MSA-Y and page 235 map of MSA-Z, change of common boundary include the powerline and 500' into MSA Z. See Davis LSR Proposal Map in the appendix.**

Discussion

The original LSR assessment was very forward thinking including objectives for urban interface issues before they became a national issue. Our knowledge for fire behavior and successful fuels reductions has increased since that time. This amendment does not change the values being protected by the buffer in MSA-Z. It provides a logical boundary to provide a sufficient buffer in MSA-Z, and meets the goals to protect riparian values in MSA-Y. It was felt that this was more appropriate than developing different objectives for MSA-Y to allow for the treatment needed.

A proposed action for fuels reduction in the Crescent Lake Wildland-Urban Interface area was sent to the public in June 2002. The proposal places an emphasis on hazardous fuels reduction around private property and other developments located in the planning area. The proposal included commercial and precommercial thinning, firewood removal, prescribed burning, mowing, chipping of fuels and thinning slash, and pruning. Analysis on the affects of the proposal is due to be completed this fall.

Edits requested by REO letter of Dec. 13, 2002, appear in color

Down Wood Issue Appendix

Contents:
Davis LSR Amendment – Management Strategy Map
Odell Pilot Watershed Assessment
    Pages 5-6,7 East Odell Creek Landscape Goals and Opportunities

Davis LSRA
    Pages 3-14 Table 3-2A
    Pages 3-16-17 Additional Recommendations for Managing Dead Wood Component
    Pages 4-106-107 MSA-L Criteria for Developing Appropriate Treatments
    Pages 4-116-117 MSA-M Criteria for Developing Appropriate Treatments

Seven Buttes Environmental Analysis
    Pages 1, 4 Purpose of and Need for Action

Seven Buttes Return Environmental Analysis
    Pages 1, 2 Purpose and Need for Action

Full documents available upon request

Where we'd like to take the treated areas (w/less small diameter fuels).

Jim Stone's Designer Lodgepole Pine stand

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Wildland-Urban Interface Issue Appendix

Davis LSR Amendment - Boundary Shift Map

Davis LSRA
- Pages 4-223-225 Criteria for Developing Appropriate Treatments (MSA-Y)
- Pages 4-232-234 Criteria for Developing Appropriate Treatments (MSA-Z)

Scoping Letter for the Crescent Lake Wildland-Urban Interface Fuels Reduction Project

Full documents available upon request

Single Male on Royce MT. July 2002

No treatment in owl activity centers.