

# **30-Day Notice and Comment**

## **Preliminary Decision Memo**

### **Myst Fuel Hazard Reduction Project**

**USDA Forest Service**

**Bend-Ft. Rock Ranger District, Deschutes National Forest**

**Deschutes County, Oregon**

**T 20 S., R 10 E. Sections 1, 26, 27, 31, 32, 34, & 35; T 20 S., R 11 E. Section 6; and in T 21 S. R 9E, Sections 1, 2, & 11**

#### **DECISION TO BE IMPLEMENTED**

##### **Description of Decision**

I have proposed to reduce fire hazard vegetation conditions within the wildland urban interface (WUI) on approximately 763 acres of forested lands adjacent to developed private lands in the areas adjacent to the Spring, Fall, and Deschutes Rivers. Hazardous fuels include surface, ladder, and canopy fuels. Treatments will be accomplished through the use of the following treatments either singly or in combination: commercial and non-commercial harvest, hand and grapple piling of slash, burning or utilization of slash piles, mechanical mowing of shrubs and small trees, and underburning. Commercial and non-commercial thinning will cut trees up to 21 inches diameter-at-breast-height (dbh), although removal of trees over 18 inches dbh will be rare.

##### **Location**

The project area is located southwest of the community of Sunriver in Central Oregon. The northern portion is located adjacent to the southwestern corner of Sunriver. The remaining areas are located south of Forest Road 42 and adjacent to either the Deschutes River or Fall River and adjacent to the developments of Fall River Estates, River Forest Acres, Oregon Water Wonderland Unit 1, and the Beaver Special Road District (Figure 1).

The legal description of proposed treatment units is: Township 20 South Range 10 East in sections 1, 26, 27, 31, 32, 34, and 35; Township 20 South Range 11 East section 6; and in Township 21 South Range 9 East sections 1, 2, and 11.

Treatment areas are located within the boundaries of the Upper Deschutes River Community Wildfire Protection Plan (CWPP) and the WUI as defined by that plan.

Unit 1, 2, 5, 6, 7, and 8 are located within the boundaries of the Upper Deschutes Wild and Scenic River Corridor. All are located in the Recreation segment in sub-segments 3A, 3B, and 3D. Units 9, 10, and 12 are located within one quarter (0.25) mile of the Fall River, a candidate river for designation as a wild and scenic river.

##### **Purpose and Need for Action**

The purpose of the MYST Fuel Reduction Project is to reduce the fuels hazard and the risk of wildland fire within the Wildland Urban Interface (WUI) on National Forest System lands adjacent to private lands. Fuels reductions will reduce the amount of surface, ladder and canopy fuels, interrupt fuel continuities, reduce the intensity of a wildfire should one start, and reduce the risk of a sustained crown fire. The reduction of hazardous fuels would reduce the risk of a wildfire damaging or destroying homes, other improvements and infrastructure. These reductions would also create conditions where firefighters can safely and effectively manage wildfires and members of the local communities can safely exit the area in the event of a wildfire.

Hazardous fuels consist of live or dead vegetation including woody debris, grass, forbs, shrubs, and trees that contribute to one or a combination of risks for high intensity wildfire and rate of spread. Surface fuels are those flammable fuels including grasses, forbs, down wood, needles, and duff. Surface fuels carry fire along the ground and ignite the higher ladder fuels. Ladder fuels are small trees, shrubs, and lower branches on larger trees that enable a ground fire to leave the surface and burn into the crowns of larger trees. Crown fuels are the upper crowns of trees which, when above certain density thresholds, can burn as a continuous fuel layer or with lower densities will burn only as individual trees from adjacent ladder fuels. The reduction of fuels creates conditions where wildfire will burn at lower intensities, reduce the production of embers, lessen the damage to the ecosystem from intense wildfire, and create conditions where firefighters can safely and effectively control wildfires. As a result, treatments reduce the risk of wildfire in close proximity to private land within the WUI.

The CWPP, dated July 21, 2004, encompasses private lands containing 4,911 lots in 13 member neighborhoods – Haner Park, Wild River, Deschutes River Recreation Homesites Units 1-5, 6, and 7-13, Fall River Estates, River Forest Acres Road District, Beaver Special Road District, River Meadows, Vandevort Ranch, Crosswater, and Spring River Acres. Five neighborhoods – Fall River Estates, River Forest Acres Special Road District, Beaver Special Road District, Oregon Water Wonderland Unit I, and Spring River Acres – with a total of 797 lots (452 developed, 345 undeveloped) - are immediately adjacent to proposed treatment areas.

The MYST project would continue to implement the recommendations from the Upper Deschutes River CWPP.

## **Background**

Areas proposed for treatment under the authorities authorized by the Healthy Forests Initiative (Presidential Directive 22 August 2002) were originally developed by the local communities and presented to the Deschutes National Forest through the Upper Deschutes River Natural Resource Coalition (UDRNRC). These recommended treatment areas are in part based on “Recommendations for Federal Lands” contained in the CWPP. Most of the recommendations were used in developing the proposed action. These treatment areas were subsequently modified through collaboration between the Forest Service and the UDRNRC in accordance with direction described in the Deschutes National Forest **Land and Resource Management Plan** (1990) (LRMP, Forest Plan) as amended and the **Upper Deschutes Wild and Scenic River and State Scenic Waterway Comprehensive Management Plan** (1996) (River Plan). These two documents are the primary guiding documents for National Forest lands within the project area.

The CWPP describes the original forests in the area as being dominated by ponderosa pine with an open understory and occasional lodgepole pine stands in colder areas. It notes that stand replacement fires were relatively rare. It describes current stand conditions as being predominately ponderosa pine and thickets of lodgepole pine with occasional large trees and notes that current stand structure is, for the most part, dense seedling/sapling and pole sized trees with a rare mature ponderosa pine. It further states that the majority of the forest area contains excessive ladder fuels with a high incidence of dead and downed trees, bitterbrush, and piled slash and says that these conditions pose an extreme fire hazard to the communities.

The CWPP also states “Most stands adjacent to the communities are dense stands of lodgepole pine with very high basal areas and also posing an extreme risk of catastrophic fire. Forests exhibiting healthy conditions, with appropriate stem and basal area densities, are rare in the analysis area (CWPP page 6).”

Finally, the CWPP states had fuel conditions that would generate extreme fire behavior and that those areas had a Fire Regime Condition Class (FRCC) rating of 3. The CWPP defines Fire Condition Class as

an interagency, standardized tool that is used to determine the degree of departure from natural vegetation, fuels, and disturbance regimes. FRCC 3 reflects the following conditions:

- ⇒ fire regimes that have been significantly altered from their historic range;
- ⇒ the risk of losing key ecosystem components is high;
- ⇒ fire frequencies have departed from historic frequencies by multiple return intervals; and
- ⇒ vegetation attributes have been significantly altered from their historic range.

Priorities for treatment listed in the CWPP to reduce catastrophic fire risk to communities and restore forest health in the WUI are:

1. FRCC 3 within ¼ mile of residential areas;
2. FRCC 3 elsewhere in the WUI; and
3. FRCC 2 (CWPP page 8).

The CWPP “underscores its intention that first priority in the WUI should be the creation of fire-resistant forests unlikely to carry a crown fire (Recommendation H, CWPP page 10).” The CWPP specifically sought a reduction in hazardous fuels specifically in areas closer to residential areas (Recommendation I, CWPP page 10). The plan also states that the Steering Committee was extremely concerned about the Upper Deschutes Wild and Scenic River Corridor which “presents some of the most dangerous forest fuel conditions in the analysis area, and should be considered for treatment, ... (Recommendation K, CWPP page 11).” The goal is to greatly reduce the chance of crown fires and reduce surface fuels that might carry a fire, especially adjacent to residences.

The CWPP recommendations serve as objectives where they do not conflict with the LRMP and/or River Plan or other federal laws and regulations. For example, while the CWPP recommends that thinning standards be applied similarly within and outside the RHCAs located within a ¼ mile of residences, Eastside Screens prescribe buffers (RHCAs) where management activities must result in neutral or positive impacts on water quality and/or riparian resources. This may result in a conflict between this direction and the recommendations for treatments outline in the “Recommendations for Federal Lands” section of the CWPP (pages 9-11). Where conflicts occur between the CWPP recommendations and Forest and River Plan management direction, law, and/or regulation, the conflict has been resolved by following the applicable Forest and River Plan management direction, law, and/or regulation.

### **Proposed Action**

A total of approximately 763 acres would be treated using commercial harvest, non-commercial harvest, mowing, underburning, or a combination of treatments. All treatment units are located within ponderosa pine and/or lodgepole pine stands with understories dominated by bitterbrush and fescue. The treatment acres include approximately 92 acres of treatments within the boundaries of riparian habitat conservation areas (RHCAs) (units 2, 6, 8, 9, and 12). RHCAs are defined as portions of watersheds where riparian-dependant resources receive primary emphasis and management activities are subject to specific standards and guidelines. Table 1 summarizes the proposed treatment methods, the units in which they would be applied, and the number of acres that would be treated by each activity. Figures 2-4 displays the location of proposed units.

**Table 1 Proposed Treatment Activities and Treatment Acres, MYST Fuel Reduction Project.**

Unit Number <sup>1</sup>	Unit Acres	Treatment Prescription (Acres)				
		Commercial Harvest (Single Tree Selection)	Precommercial Thinning	Slash Disposal <sup>2</sup>	Mechanical Shrub Treatment (Mow)	Underburn
1	16	0	16	16	14	0
2	41	41	41	41	41	41
5	146	0	0	0	0	146
6	40	0	40	40	40	0
7	47	0	47	47	47	43
8	282	0	282	282	282	0
9	31	26	31	31	26	0
10	44	0	44	44	44	0
12	116	0	0	0	116	116
<b>TOTAL</b>	<b>763</b>	<b>67</b>	<b>501</b>	<b>501</b>	<b>610</b>	<b>346</b>

**Units 2 and 9 (commercial and non-commercial harvest treatments)**

A total of 66 acres would be commercially thinned; 40 acres in Unit 2 and 26 acres in Unit 9. The prescription for both units is for single tree selection and thinning from below retaining the largest trees. In Unit 2, all commercial size lodgepole pine would be removed to favor the growth and development of ponderosa pine. In Unit 9, any lodgepole pine with live crown ratios less than 40 percent would be removed to retain the most vigorous and healthy trees. No trees over 21 inches dbh would be removed from either unit.

Pre-commercial thinning of trees would follow commercial harvest in both units to reduce ladder fuels. Spacing would average 18x18 feet. Unit boundaries would be the same as the commercial harvest unit boundaries in Unit 2, including the approximately five (5) acres within the RHCA. Unit 9 would increase to approximately 31 acres with approximately five (5) acres being within the RHCA boundaries. No pre-commercial thinning would occur within 75 feet of Fall River in Unit 9. Trees up to nine (9) inches dbh would be cut in Unit 2; maximum diameter of trees cut in Unit 9 would be six (6) inches. Activity slash would be hand piled and utilized and/or burned. No slash piles within the RHCA boundaries would be burned.

Treatment objectives in Unit 2 are to:

1. Maintain vegetation conditions that reduce flame lengths to four (4) feet or less.
2. Develop open, park-like stand conditions dominated by large trees.  
Promote the development of large structure (large diameter) in the riparian habitat conservation areas (RHCA) and reduce the risk of damaging wildfire.

In Unit 9, the objectives of treatment are to:

1. Maintain vegetation conditions that reduce flame lengths to four (4) feet or less.
2. Maintain large lodgepole pine structure for cavity nester habitat, riparian protection, and scenic quality.

<sup>1</sup> Units 3, 4, and 11 were eliminated after field review of the initial proposal.

<sup>2</sup> HP = hand pile; GP = grapple pile.

Figure 1 Vicinity Map - MYST Fuel Reduction Project Area

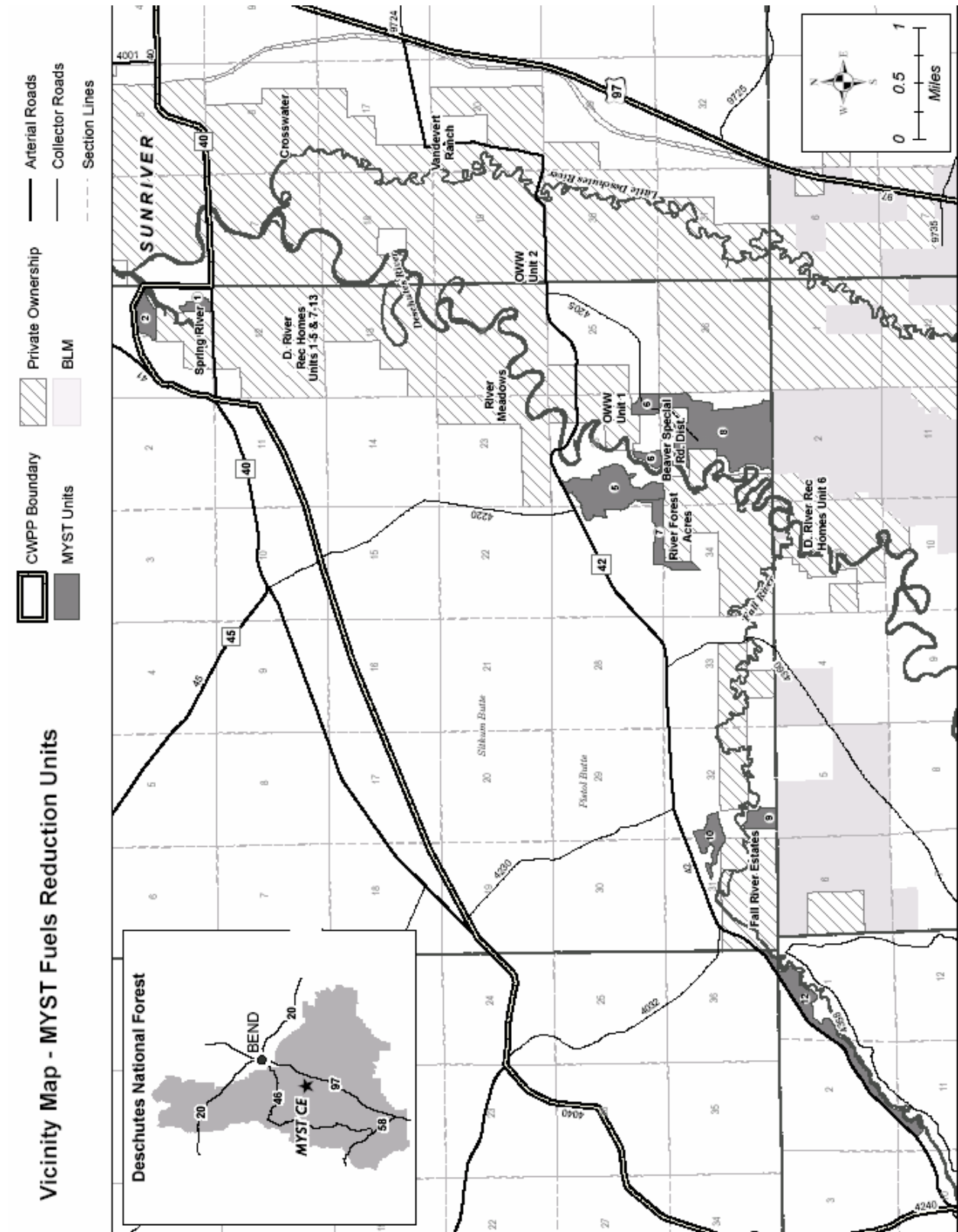


Figure 2 MYST Fuel Reduction Project - Units 1 and 2.

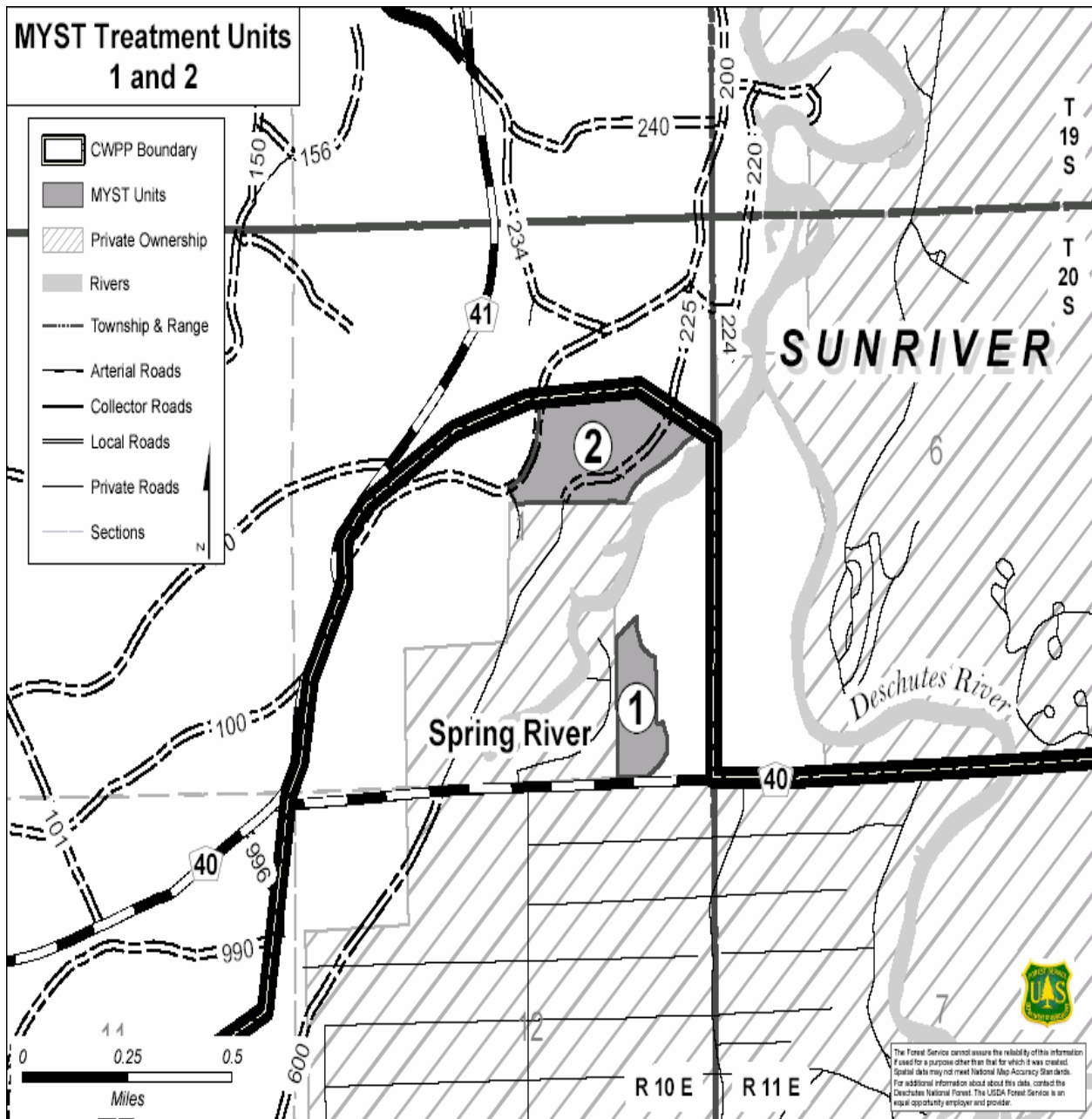


Figure 3 MYST Fuel Reduction Project - Units 5, 6, 7, and 8.

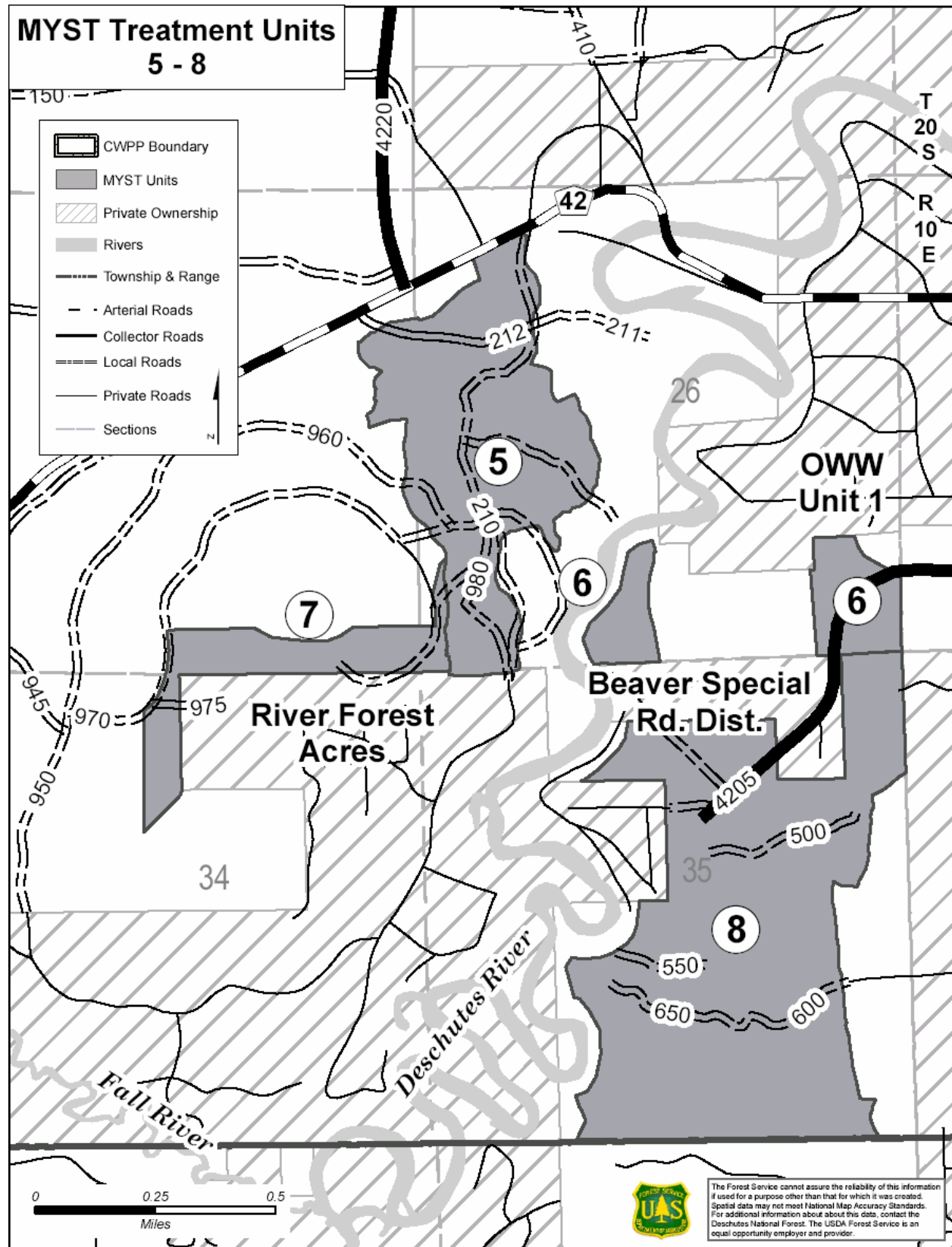
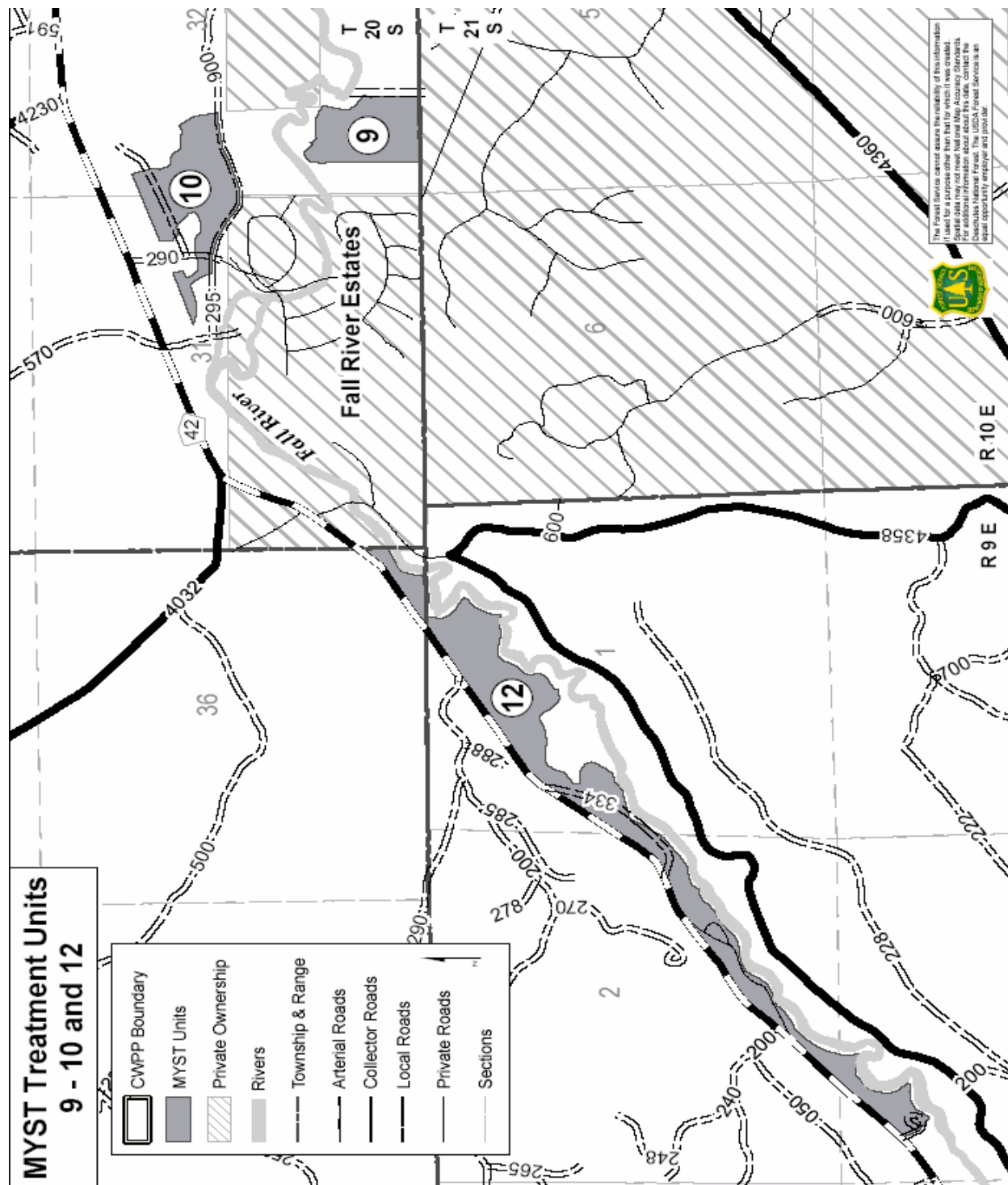


Figure 4 MYST Fuel Reduction Project - Units 9, 10, and 12.





Commercial thinning would use a ground based feller-buncher and skidders. Felled trees would be removed tree length with tops attached. Trees to be removed generally range from nine (9) to 14 inches dbh. In Unit 2, ponderosa pine up to 21 inches dbh would be removed where necessary to reduce the risk of a sustained crown fire by increasing the distance between tree crowns and reducing canopy closure. This would also serve to enhance the vigor and fire resistance of the remaining trees. With the exception of hazard trees felled for safety reasons, no standing dead trees would be removed. With the exception of the feller-buncher, machinery would be restricted to designated skid trails. Skid trails would be spaced at an average distance of approximately 100 feet. The feller-buncher would be permitted to travel between skid trails, but would be limited to a maximum of two (2) passes over a given area.

Commercial thinning would be implemented on approximately five (5) acres of Unit 2 located within the RHCA associated with Spring River to reduce fuel levels and the risk of a crown fire adjacent to the Spring River community. The unit boundary within the RHCA portion of the unit would be located at the closed road located between road 4100-225 and Spring River. No treatments would be implemented below the closed road, a distance of 200 feet or more from the river edge. Harvest activities would be conducted over snow or frozen ground, resulting in no input of sediment into Spring River.

No commercial harvest would be implemented within the RHCA associated with Fall River in Unit 9. The unit boundary would be 300 feet from the river. This would reduce the risk of motorized access to the river and retain cover areas for big game.

Between 10 and 30 percent of each unit would remain untreated to provide cover – thermal and/or hiding cover – for big game, specifically deer and elk as well as for other wildlife species.

Slash generated by harvest activity would be piled and utilized and/or burned on landings in both units.

Unit 9 contains heavy concentrations of downed wood associated with past tree mortality. To reduce fuel loadings and fire risk, existing downed wood in excess of that required to meet other resource objectives would be piled using a ground based, wheeled or track mounted machine. This machine would be have a hydraulic boom capable of reaching out a distance of up to 30 feet to grab and pile downed wood. The machine would be restricted to existing skid trails and roads. Excess downed wood and incidental activity slash would be piled on skid trails and roads. Piles would be retained for wildlife habitat, burned, or sold for firewood. Burning of piles would likely occur in the fall after sufficient rain or snow has fallen.

There would be no new or temporary road construction; harvest activities would utilize existing roads. Unit 9 would use the existing user-created road on the east side of the unit to provide access for harvest activities. Upon completion of management activities, the road would be blocked and decommissioned by subsoiling if funding is available.

Mowing of understory vegetation would occur in both units following completion of commercial and non-commercial harvest operations. Mowing would be accomplished utilizing either a wheeled or tracked vehicle pulling a mower. Understory vegetation, including shrubs and small trees, would be mowed to a minimum of height of at least eight (8) inches. Between 60 and 75 percent of each unit would be mowed to create a mosaic of treated and untreated areas across the unit.

Unit 2 would be underburned following mowing to further reduce surface and ladder fuel levels. Unit 9 would not be underburned.

**Units 1, 5, 6, 7, 8, 10, and 12 (non-commercial harvest, mowing, and burning)**

A total of 409 acres would be non-commercially thinned in Units 1, 6-8, and 10 including approximately 14 acres in the RHCA associated with the Deschutes River in Units 6 and 8. Trees up to nine (9) inches

dbh would be felled on an average of 18x18 foot spacing. Slash would be hand piled and the piles burned.

No non-commercial harvest would occur in RHCAs adjacent to Unit 1.

Non-commercial harvest in the RHCA in Unit 6 will not occur within 75 feet of the high water mark of the Deschutes River. Burning of slash piles will not occur within 150 feet of the high water mark.

Non commercial harvest in Unit 8 will not occur within 50 feet of the slope break above the Deschutes River. Burning of slash piles will not occur within 100 feet of the slope break.

Category 3 and 4 wetlands will be protected with a 50 foot no treatment buffer. Non-commercial thinning, slash piling, and the burning of piles will occur outside of the 50 foot buffer.

A total of 610 acres in Units 1, 6-8, 10, and 12 would be mowed as previously described to reduce surface and ladder fuels. No mowing will occur within 50 feet of Category 3 or 4 wetlands. Units 7 (43 acres) and 12 (116 acres) would be underburned following mowing to further reduce fuel levels. Approximately 67 acres of Unit 12 is located within the RHCA associated with Fall River. Spotty, light underburns may occur within 50 feet of Fall River in Unit 12. No follow-up underburning would be done in units 1, 6, 8, and 10.

A total of 146 acres in Unit 5 would only be underburned to reduce surface fuel levels. Precommercial thinning and mowing were previously completed.

User created non-system roads (primarily Units 5, 6, 8 and 9), would be closed upon project completion and decommissioned by subsoiling if funds are available.

### Management Areas

Table 2 displays land management allocations and acreages of each within the CWPP boundaries as assigned by the Deschutes National Forest Land and Resource Management Plan (LRMP). It also summarizes the total number of acres within each land allocation that would be treated.

**Table 2 LRMP Land Allocations within the MYST Project Area.**

LRMP Land Allocation	Acres within Project Area Boundary	Treatment Unit Acres within Allocation	Units
Bald Eagle Management Area (BEMA)	137	11	5, 7
General Forest (MA-)	9,333	183	6, 8
Intensive Recreation (MA-8)	2,713	106	2, 9, 10, 12
Scenic Views (MA-9)	1,417	116	12
Wild and Scenic River	1,020	345	1, 2, 5-8
Old Growth (MA-15)	1,484	0	NA
Special Interest Area (MA-1)	201	0	NA
<b>TOTALS</b>	<b>16,305</b>	<b>* 761</b>	

\* There is a two (2) acre acreage difference between Table 1 and 2.. This is due to polygon calculation variations within the different Geographic Information System (GIS) theme layers used to analyze this project.

Units 1, 2, 5, 6, 7, and 8 are located partially or entirely within the boundaries of the Upper Deschutes Wild and Scenic River Corridor. They are located within the recreational segment of the corridor and are located in sub-segments 3A, 3B, and 3D.

Units 9, 10, and 12 are located along the Fall River which is a candidate river for inclusion in the wild and scenic river system. Management activities within one quarter (0.25) mile of the river are expected to maintain or enhance the outstandingly remarkable values until the decision is made to include or exclude the river from designation as a wild and scenic river.

The project area is located outside the boundaries of the Northwest Forest Plan.

Table 3 shows the rationale for reducing fuels within the Myst project area.

**Table 3 Principles of fire resistance for dry forests (Agee, 2005)**

Principle	Effect	Advantage	Concerns
Reduce Surface Fuels	Reduces potential flame length	Control easier; less torching	Surface disturbance less with fire than other techniques
Increase height to live crown	Requires longer flame length to begin torching	Less torching	Opens understory; may allow surface wind to increase
Decrease crown density	Makes tree to tree crown fire less probable	Reduces crown fire potential	Surface wind may increase and surface fuels may be drier
Keep big trees of fire resistant species	Less mortality for same fire intensity	Generally restores historic structure	Less economical: may keep trees at risk of insect attack

## Design Criteria and Mitigation Measures

### *Noxious weeds and invasive plants*

1. Clean all equipment before entering and after leaving National Forest System lands. Remove mud, dirt, and plant parts from project equipment before moving it into project area and before proceeding to the next project.
2. Ensure that all road-building equipment is free from mud, dirt, and plant parts prior to moving onto the project.
3. **Unit 1:** Access unit from Spring River side. Monitor unit for five (5) years or longer following treatment.
4. **Unit 2:** Access unit using Roads 41, 4100-200, and 4100-225. Monitor unit for knapweed for five (5) years following completion of treatments due to existing populations along Road 41 and east of unit near the river.
5. **Units 5, 10, and 12:** Recheck known spotted knapweed sites along Road 41 within 1.5 miles of units. Treat prior to project implementation if knapweed is found in this sites. Monitor units for noxious weed introduction and treat for five (5) consecutive years following completion of management activities in these units.

### *Cultural Resources*

Known sites will be avoided during mowing and commercial thinning operations. Whenever possible, include known sites within planned no treatment areas. Commercial thinning in the portion of Unit 2 located between Road 4100-225 and the river will occur only over snow and/or frozen ground. Unknown sites discovered during project implementation would be protected by the use of standard contract clauses, notification of and evaluation by the district archeologist prior to work being permitted to continue.

Precommercial thinning is permitted through known and unknown cultural resource sites. Slash will not be piled or the piles burned on known sites.

Prescribe burning through known and unknown cultural resource sites is permitted when performed under conditions that limit the heating of soils (light underburn).

Treatment units would be monitored following completion of activities.

### *Soils*

**Units 1, 2, 6, 8, 9, 10 and 12:** Restrict mechanical disturbance in potentially wet areas that may contain seasonally-high water tables in localized areas of the dominant landform, such as drainage bottoms,

swales and depressions. If small inclusions of potentially wet soils are encountered during equipment operations, apply appropriate buffers to ensure protection of sensitive soils.

**Units 2 and 9:** Locate designated skid trails and log landings on well-drained sites, upslope from potentially wet areas. Maintain average spacings of 100 feet for all primary (main) skid trail routes, except where converging at landings. Closer spacings due to complex terrain must be approved in advance by the Timber Sale Administrator.

Restrict grapple skidders to designated areas (i.e., roads, landings, designated skid trails) at all times, and limit the amount of traffic from other specialized equipment off designated areas. Harvester shears will be authorized to operate off designated skid trails at 30 foot intervals and make no more than two equipment passes on any site-specific area to accumulate materials.

**Unit 2:** Avoid mechanical disturbance in areas of rocky, uneven lava flows that contain sensitive soils with variable depths.

**Unit 7:** Avoid equipment operations on sensitive soils where slopes may exceed 30 percent gradient. Avoid equipment operations during times of the year when soils are extremely dry and subject to excessive soil displacement.

**Units 2, 5, and 12:** Protect Soils during prescribed burn operations. The burn plan will include all applicable LRMP standards and guidelines and Best Management Practices. It will also include soil moisture guidelines to minimize the risk of intense fire and adverse impacts to soil resources.

**All units:** Retain adequate supplies of coarse woody debris (CWD) (greater than 3-inches in diameter) to provide organic matter reservoirs for nutrient cycling following the completion of project activities (LRMP SL-1). Retain a minimum of 5 to 10 tons per acre of CWD on Ponderosa Pine sites, and 10 to 15 tons of CWD per acre on lodgepole pine sites to help maintain long-term site productivity.

See the Soils Report, pages 12-14 on file, for more detailed discussion.

### ***Wildlife***

**All Units:** Retain all existing snags except where they pose a hazard, conflict with other resource protection, or compromise project logistics. Retain a minimum of 4 to 4.5 snags per acre in lodgepole pine plant association groups (PAGs) and all ponderosa pine snags greater than 16 inches dbh. Additional information regarding snag requirements is found in the Wildlife Report.

**All Units:** Retain all fallen trees and other coarse woody material unless excess to wildlife and soil needs. See the Wildlife Report for additional information and requirements.

**Units 2, 5, 7, and 12:** Prescribe burn prescriptions will minimize charring of logs. Consumption due to burning will not exceed 3 inches diameter reduction (1.5 inches per side). Remove fuels, including shrubs, from within 10 feet of all ponderosa pine snags greater than 20 inches dbh and logs greater than 20 inches diameter and 10 feet in length.

**Units 1, 2, and 6-10:** Where post-treatment coarse woody material levels are below standards and guidelines, leave one (1) slash pile or slash concentration per acre. Size should be approximately 10-15 feet in diameter. Pile locations would be coordinated between wildlife, fuels, and landscape specialists. See the Wildlife Report for additional information.

**All Units:** Seasonal operating restrictions would be applied within one quarter (1/4) mile around active raptor nests discovered during implementation. Operating restrictions are expected in units 5, 7, and 8 for red tailed hawks, unit 8 for Cooper's hawk, and unit 12 for osprey.

**Units 1, 2, 6-10:** Retain 10-30 percent of each treatment unit in an untreated clumps ranging in size from two (2) to 10 acres to provide hiding cover for deer and elk. Clumps will be distributed throughout the

unit, will not be thinned, should include areas with high levels of coarse woody material, and excluded from postl-thinning fuel treatments. Size and placement of clumps will be coordinated with district wildlife biologist.

**Units 2, 5, 7, and 12:** Retain a minimum of 10-30 percent of existing shrub habitat in well distributed patches ranging in size from one tenth (0.1) to 10 acres in size.

**Units 1, 2, and 6-10:** Maintain a buffer around all large down logs and rock outcrops when mowing.

**Units 6, 9, and 12:** To protect calving and fawning, operations would be prohibited between May 1 and July 31. In unit 6, the area between the break of the slope west of the powerline and the western edge of the RHCA associated with the oxbow wetland area would be excluded from all treatments to protect fawning and calving areas.

### ***Hydrology and Fisheries***

RHCAs associated with the Deschutes, Fall, and Spring Rivers will have a width of 300 feet measured from the normal high water mark on each river.

RCHA widths for Category 3 areas (ponds, lakes, wetlands, and reservoirs greater than one (1) acre in size) will be the greater of:

- 1) Outer edges of the riparian vegetation;
- 2) The extent of the seasonally saturated soils;
- 3) The extent of moderately and highly unstable areas;
- 4) The distance equal to one half the height of one site-potential tree; or
- 5) 150 feet slope distance from the edge of the maximum pool elevation of constructed ponds or reservoirs or from the edge of the lake, pond, or wetland.

RCHA widths for Category 4 areas (seasonally flowing or intermittent streams, wetlands less than one (1) acre, landslide and landslide prone areas), the width will be the greater of:

- 1) The extent of landslides and landslide prone areas;
- 2) The intermittent stream channel and the area to the top of the inner gorge;
- 3) The intermittent stream channel and the area to the outer edges of the riparian vegetation;
- 4) One half the height of a site-potential tree; or
- 5) 50 feet slope distance.

### **Unit Specific Requirements**

Unit 1 – no activities within 300 feet of Spring River. No activities within 150 feet of the drainage ditch on the east side of the unit.

Unit 2 – Use 225 road as the RHCA boundary. All management activities are permitted within the RHCA which is 200 or more feet distant from the high water mark on Spring River. Mechanized equipment associated with commercial harvest will be restricted to operating over snow and/or frozen ground.

Unit 6 – No treatments within 75 feet of the high water line on the Deschutes River. Non-commercial thinning of trees up to nine (9) inches dbh is permitted in the RHCA beyond the 75 foot distance from the high water line. Burning of slash piles and mowing is permitted in the RHCA in the portion of the RHCA 150 feet and more from the high water line on the river.

Unit 8 – Same as unit 6 except for the following:

- No treatments within 50 feet of the slope break adjacent to the Deschutes River.
- Non-commercial thinning permitted beyond the 50 foot no-treatment area.
- No burning of slash piles or mowing within 100 feet of the slope break. Pile burning and mowing permitted 100 feet or more from the slope break.

Unit 9 – No commercial harvest or mowing within the 300 foot RHCA adjacent to Fall River. Non-commercial harvest is not permitted within 75 feet of the high water line on Fall River. No burning of slash piles within the 300 foot RHCA.

Unit 10 – Non-commercial thinning is permitted to within 75 feet of the Fall River Hatchery intake canal; mowing to within 150 feet of the hatchery intake canal.

Unit 12 – Use closed road 334 and other unnumbered spur roads located approximately 75 feet from Fall River as treatment boundaries. Fisheries biologist will work with fuel specialists to locate treatment unit boundaries on the ground. When burning, all ignitions will occur outside of the 75 foot buffer. Fire will be allowed to creep into the buffer.

All units – 50 foot no treatment buffers will be established around all Category 3 and 4 wetland sites. Prescribed management activities are permitted beyond the 50 foot buffer.

### ***Infrastructure***

Protect all utility lines, fences, and other improvements during management activities.

### ***Silviculture***

No trees over 21 inches dbh will be harvested under commercial harvest operations.

## **REASONS FOR CATEGORICALLY EXCLUDING THE DECISION**

Decisions may be categorically excluded from documentation in an environmental impact statement or environmental assessment when they are within one of the categories identified by the Chief or the Forest Service in Forest Service Handbook (FSH) 1909.31.2, and there are no extraordinary circumstances related to the decision that may result in a significant individual or cumulative effect on the quality of the human environment.

### **Category of Exclusion**

The appropriate category of exclusion is found in the Forest Service Handbook 1909.15 Section 31.2 Category 10. This category allows hazardous fuels reduction activities to be categorically excluded if the proposed fuel reduction action uses mechanical methods for crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing and does not to exceed 1,000 acres. These activities are:

- limited to areas in wildland-urban interface; and condition classes 2 or 3 in Fire Regime Groups I, II, or III, outside the wildland-urban interface;
- identified through a collaborative framework;
- are conducted consistent with agency and Departmental procedures and applicable land and resource management plans;
- not conducted in wilderness areas; and
- include the use of pesticides, including herbicides, or the construction of new permanent roads or other new permanent infrastructure but may include the sale of vegetative material if the primary purpose of the activity is hazardous fuels reduction.

The proposed action was developed through a collaborative process with the Upper Deschutes River Natural Resources Coalition and considers the recommendations in their Community Wildfire Protection Plan (July 21, 2004).

### **Relationship to Extraordinary Circumstances**

In determining the appropriateness of using the categorical exclusion, a determination of the potential impact to the resource conditions identified in FSH 1909.15 Section 30.3(2) must be made. The following is the list of the potential effects to the resource conditions from the project activities.

1. Federally listed threatened or endangered species or designated habitat or species proposed for federal listing or proposed critical habitat.

Portions of two proposed units, Units 5 and 7, are located within the boundaries of a mapped Bald Eagle Management Area (BEMA). The nest site is located more than ¼ mile from both proposed units. Proposed treatments would, over the long term, enhance foraging and ultimately nesting habitat by creating more open stand conditions suitable for foraging and by increasing the growth rate of existing trees thereby increasing the number and distribution of potential nest sites.

There is no Essential Fish Habitat or critical habitat for any fish species within or near the project area. The nearest listed fish species population is bull trout located over 50 miles downriver near Lake Billy Chinook. This project would have no effect on either Essential Fish Habitat or critical habitat (Fisheries Report page 6).

2. Forest Service sensitive species

**Plant species** – There are no sensitive plant species within or immediately adjacent to proposed treatment units. Two species, the green tinged paintbrush and the white sagebrush, have habitat in nearby areas. Treatments which reduced overstory canopy cover, thinning and burning, would be expected to improve habitat conditions for the paintbrush. The white bitterbrush occurs along rivers. No treatments are proposed along the Fall, Spring or Deschutes Rivers and therefore would have no effect on either the species or its habitat.

**Aquatic Species** –The redband trout is the only species listed on the Region 6 Regional Forester’s Sensitive Species List. Historically, redband inhabited the entire Upper Deschutes River system. Habitat for this species exists within the project area (Fisheries BE page 3). This project would have no effect on this species or its habitat as water quality and associated fish habitat is maintained (Fisheries BE page 3). Treatments occur outside of the primary shading zone resulting in no effect on shade and therefore no effect on water temperature. Proposed treatments would not result in an increase in turbidity and sedimentation.

There are no lakes within the project area. There are three (3) rivers; the Deschutes, Fall, and Spring, in addition to wetlands within and adjacent to proposed treatment units. 300 foot riparian habitat conservation areas (RHCA) have been established along the three rivers. Appropriate width RHCA have been designated for Category 3 and 4 wetlands.

Commercial harvest will occur in the RHCA in unit 2. Activities would be restricted to that portion of the RHCA 200 feet and greater from Spring River. Operations would be restricted to periods when the ground was frozen and/or covered with snow. No commercial harvest would occur within the 300 foot RHCA in unit 9. There would be no detrimental effects on riparian habitats or species.

Non-commercial harvest will occur in the 300 foot RHCA associated with Spring and Deschutes Rivers in units 2, 6 and 8. No non-commercial harvest will occur within 200 feet of Spring River in unit 2. No non-commercial harvest will occur within 75 feet of the Deschutes River in unit 6, within 50 feet of the slope break above the Deschutes River in unit 8, within 75 feet of Fall River in unit 9, within the RHCA in unit 10, or within 75 feet of the Fall River hatchery intake canal .

**Wildlife Species** – The project as proposed, with appropriate design criteria and mitigation measures, would have no measurable direct, indirect, or cumulative effects on any sensitive or management indicator species or their habitats. The Wildlife Report, Wildlife Biological Evaluation, and project file, contains an analysis of the proposed actions on sensitive and management indicator species and their habitats.

3. Flood plains, wetlands, or municipal watersheds

Floodplains have been mapped within and adjacent to units 6 and 8 along the Deschutes River. No treatments are proposed in floodplain areas in unit 6. Precommercial thinning and mechanical shrub

treatments are proposed in floodplain areas of unit 8. Non-commercial harvest would not occur within 50 feet of the slope break above the Deschutes River. Mowing would not occur within 100 feet of the slope break above the river. No adverse impacts associated with proposed treatments have been identified.

There are wetlands within the project area. According to INFISH, management activities within RHCAs are intended to achieve Riparian Management Objectives (RMOs) that are described by habitat features that indicated “good” watershed health and inland native fish habitat. Habitat features appropriate to this project area include pool frequency, water temperature, large woody debris, and width/depth ratio. In general, INFISH standards and guideline TM-1 prohibits commercial timber harvest within RHCAs. An exception to this prohibition is the application of silvicultural practices that acquire desired vegetation characteristics where needed to attain the RMOs (TM-1(b)). The application of these practices should not retard attainment of RMOs or adversely effect inland native fish. Fire and fuels treatments are allowed if they are designed to not prevent attainment of or contribute to the attainment of RMOs (standard and guidelines FM-1 and FM-4).

RHCAs have been identified adjacent to the three rivers (Category 1 sites) and Category 3 and 4 sites are located within and adjacent to proposed treatment units. Prescribed treatments within RHCA areas associated with the Deschutes, Spring, and Fall Rivers have been determined to have either a neutral effect (commercial harvest units) or beneficial effect (non-commercial harvest, mowing, prescribe burning) and, with mitigation measures, design criteria, and standards and guidelines, do not retard or prevent the attainment of riparian management objectives. There would be no short-term effects on the water temperature objective or on the large woody material abundance. Proposed actions would promote growth and survival of large ponderosa pine trees in the secondary shading zone (estimated to start 40-45 feet from the river in unit 2), providing some benefit to long-term shade and recruitment of instream large wood. Benefits to shade and large wood recruitment would provide benefits to the RMO’s of water temperature and large woody debris. Fire risk within RHCAs and potential adverse effects to the RMOs (higher water temperatures and loss of instream large woody debris recruitment) would be reduced. However, treatments are limited on a watershed scale, and may not result in measurable benefits to these RMOs. (Fisheries Report page 10).

Non-commercial thinning, mechanical shrub treatment, and prescribe fire within RHCAs associated with Category 3 and 4 areas within treatment unit boundaries have been determined to also not retard or prevent the attainment of riparian management objectives. Fifty (50) foot no treatment buffers will be established around each area (see earlier discussion).

Municipal Watersheds – There are no municipal watersheds within or adjacent to the project area

4. Congressionally designated areas such as wilderness, wild and scenic rivers, and national recreation areas.

All or portions of units 1, 2, 5, 6, 7, and 8 are located within the boundaries of the Upper Deschutes Wild and Scenic River corridor. Proposed actions, including design criteria and mitigation measures, are in compliance with standards and guidelines in both the Deschutes National Forest LRMP and the Upper Deschutes Wild and Scenic River Corridor Management Plan.

Fall River is a candidate river for inclusion in the wild and scenic river system. Management actions are permitted which do not adversely impact the outstandingly remarkable resource values associated with the river and preclude its inclusion in the wild and scenic river system. Actions proposed would not adversely impact the outstandingly remarkable resource values. No commercial harvest is proposed within 300 feet of the river. Non-commercial harvest would not occur within 75 feet of the river in unit 9. The boundaries of unit 12 are the same as a previously treated non-commercial harvest unit. Prescribe fire would be permitted to “creep” into the 75 feet buffer adjacent to the river and thereby mimicking nature fire occurrence but no ignition would occur within the buffer.



The project area is not within or adjacent to the Newberry National Monument, any wilderness nor national recreation areas.

5. Inventoried roadless areas - There are no inventoried roadless areas in the project area. The project would not construct any permanent roads
6. Research Natural Areas – There are no existing or proposed Research Natural Areas in the project area.

American Indian and Alaska Native religious or cultural sites, archaeological sites, or historic properties of areas - Surveys were conducted for Native American religious or cultural sites, archaeological sites, and historic properties or areas that may be affected by this decision. A ‘*no properties affected*’ determination was made based on the implementation of design criteria and mitigation measures to avoid or prevent damage to known and unknown sites and post-treatment monitoring. Consultation has occurred under the Programmatic Agreement with the State Historic Preservation Office (SHIPO).

### **Other relevant resource conditions considered**

**Maximum Cut Diameter** - Commercial harvest activities in unit 2 are likely to result in the harvest of at least some trees greater than 18 inches dbh. The CWPP requests that when harvest removes trees greater than 18 inches, a specific explanation be provided for such removals. Several comments received during scoping also suggested restricting commercial harvest to trees 12-14 inches dbh or smaller. Thinning would include seedlings and larger trees up to 21 inches DBH and would support the Purpose and Need for Action by reducing the amount of live vegetation. In this case, it specifically reduces canopy closure and the potential for a sustained crown fire. Harvest of trees larger than 12 inches dbh will enhance the vigor and fire resilience of larger trees, and better meet the fuel hazard reduction objective with tree crown separation. In unit 2, removal of some trees between 18 and 21 inches would help meet recommended stocking levels at the stand level and help maintain the growth, vigor and ultimately the longevity of adjacent trees that are presently larger than 21 inches DBH. Removal of these trees to meet desired stocking level will also help to meet the hazardous fuel reduction purpose of this project. Trees between 18 and 21 inches may be cut when they are too close to larger trees thus allowing the larger trees to maintain growth and vigor. Dominant trees between 18 and 21 inches diameter would not be cut. This contributes to another CWPP recommendation to “restore large tree, open park-like ponderosa pine dominated forests.” No trees greater than 21 inches dbh would be cut as part of commercial harvest activities.

**Water Quality** - The Deschutes River is listed by the Oregon Department of Environmental Quality (DEQ) as a water quality impaired or 303(d) listed river. Within the project area, the river parameters for which the Deschutes is listed include the following:

- ⇒ Chlorophyll a in summer;
- ⇒ temperature year-round (non-spawning);
- ⇒ dissolved oxygen year-round;
- ⇒ turbidity spring and summer; and
- ⇒ sedimentation (undefined season).

Current management direction is that management activities will not result in further degradation of these parameters. The project with proposed mitigation and design elements would not result in further degradation of the listed parameters (Fisheries Specialist Report, page 6).

### **Forest Plan Compliance**

**Soil Impacts/Road Construction** - No new or temporary road construction is proposed for this project. Commercial harvest would use existing roads.

Impacts to soils would meet regional and LRMP standards and guidelines that limit detrimental soil impact to 20 percent or less of an activity area. Table 4 displays current and expected levels of detrimental soil impacts associated with commercial harvest activities.

**Table 4 Detrimental Soil Conditions Before and After Commercial Timber Harvest, MYST Fuel Reduction Project (modified from Table 3-1, Soils Report, page 8)**

Unit Number	Unit Acres	Existing Detrimental Soil Conditions (Existing Roads)		Post-Harvest Detrimental Soil Conditions (Existing Roads plus New Logging Facilities)	
		Acres	Percent of Unit	Acres	Percent of Unit
2	41	0.8	2 %	6.2	15 %
9	26	0.3	1 %	3.6	14 %

Detrimental soil impacts resulting from timber harvest activity do not exceed 20 percent within treatment units. In unit 2, the actual levels may be lower due to the fact that the portion of the unit east of road 225 will be logged over snow and/or frozen ground which would result in little or no detrimental soil impacts (Soils Report page 8). Subsoiling is therefore not required. The resultant logging facilities, including roads, skid trails, and landings, would remain in place for use in future operations.

Other proposed treatments are not included in the above figures. Non-commercial harvest (precommercial thinning) does not use mechanized equipment that results in detrimental soil impacts. Mowing uses low ground pressure wheeled or tracked vehicles that make a maximum of one or two passes over a given piece of ground and do not result in detrimental soils impacts. Burning within prescription also does not result in detrimental soil impacts. There will no detrimental impacts within the RHCA's.

**Invasive species** – The project has been rated as “High Risk” due to the combination of existing weed populations adjacent to proposed units, operations, including log haul, would occur adjacent to existing populations, heavy equipment will be used for commercial timber harvest, the presence of Forest Service project vehicles, and the likely presence of recreationists. No known noxious weeds have been found in the proposed treatment units. Populations of spotted knapweed are located along roads providing access to treatment units. Standard contract clauses will be incorporated into all service and timber sale contracts requiring the washing of equipment prior to moving onto National Forest lands and between treatment units to prevent the introduction and/or spread of noxious weeds and other invasive plant species. Monitoring of sites following management activities would occur with treatment to control or eliminate new populations upon discovery.

**Visual Quality** - Proposed treatments within the Deschutes Wild and Scenic River Corridor will meet the River Plan objective of partial retention. No treatment buffers ranging from 50 to 300 feet are present in all units within the corridor boundary. Similar buffers are present in units 9, 10 and 12 adjacent to the Fall River, a candidate river for listing.

Only unit 12 is located with the Scenic Views land allocation of the LRMP. This unit had non-commercial thinning authorized under the Fall EA and was determined to be in compliance with LRMP standards and guidelines at that time. The proposed treatment under this project is a prescribe underburn and is expected continue to meet LRMP standards and guidelines.

**Wildlife** – Existing snags, except those determined to be hazardous, would be retained (WL-38). Sufficient quantities of coarse woody material would be retained to meet wildlife and soil productivity requirements (WL-72).

Seasonal restrictions and habitat protection measures have been identified to protect raptor nests and nesting habitat where and if active nest sites are identified (WL-17, WL-25, WL-31, and Eastside Screens).

Ten (10) to 30 percent of each treatment unit would remain untreated to reduce the potential loss of hiding and thermal cover or travel corridors and to meet the objectives of 30 percent hiding cover in deer summer range and key elk areas and 20 percent cover in key elk areas.

***Eastside Screens*** - Commercial harvest is compatible with Eastside Screen. No stage 6 (single story with large trees) or stage 7 (multi-story with large trees) ponderosa pine late and old structure (LOS) stands are proposed for commercial harvest. No lodgepole pine LOS (stages 4-7) stands are proposed for commercial harvest. No trees 21 inches dbh and larger would be harvested.

***INFISH*** – Proposed actions, including commercial and non-commercial thinning, mechanical shrub treatments, and burning, have been determined to not retard or prevent the attainment of Riparian Management Objectives. RHCA's and appropriate no treatment buffers have been identified. Additional discussion can be found on page 16 of this document and in the Fisheries Report (page 10).

### ***River Plan***

**Outstandingly Remarkable Values** - Management activities within the Wild and Scenic River corridor are permitted as long as they maintain or enhance the outstandingly remarkable values identified for the river segment or segments affected. The following river values are designated by the River Plan as being Outstandingly Remarkable:

- Geological;
- Fishery;
- Vegetation;
- Cultural; and
- Recreation.

The hydrological, wildlife, and scenic values are identified by the River Plan as significant.

The project with the proposed mitigation and design elements would maintain those values. It would do so by:

- 1) reducing the risk of uncharacteristic wildfire that would damage or destroy them;
- 2) improving the resiliency of vegetation to disturbance from fire, insects, and disease by improving stand and individual tree health and vigor; and
- 3) maintaining water quality.

### **Conclusion**

Based on the conclusions regarding the effect to the resource conditions listed above, I have found that no extraordinary circumstances exist with the proposed project activities that may result in a significant direct, indirect, or cumulative effect on the quality of the human environment.

### **PUBLIC INVOLVEMENT**

The “*Community Wildfire Protection Plan (CWPP) for the Upper Deschutes River Natural Resource Coalition (UDRNRC) of South Deschutes Count, Oregon – Phase I of South County Plan*” dated July 21, 2004 prioritized neighborhoods at risk to loss from wildfire. As part of that process, the communities included in the CWPP developed and presented to the Deschutes National Forest and Bend-Fort Rock Ranger District areas they considered to be of the highest risk. The proposal to treat hazardous fuels has been listed in the Schedule of Projects since Spring 2006 under the Myst Fuel Hazard Reduction Treatment CE.

An initial scoping letter with a proposed action for the Myst Fuel Hazard Reduction CE was mailed to 172 individuals, groups and agencies August 23, 2005. Notice in the local Bend newspaper, The Bulletin, was made on September 19, 2005. A total of 19 responses were received from 13 individuals or organizations (several individuals made several different responses).

In addition to developing the initial proposal, the local communities, individually and collectively through representatives of the Upper Deschutes River Natural Resource Coalition (UDRNRC) also participated in the modification of the initial proposal. This included participation in a number of field trips with members of the Forest Service Interdisciplinary Team (IDT) and Deputy District Ranger Vora where discussions of proposed treatments treatment prescriptions, and unit boundaries were held. Representatives from the UDRNRC and local communities included Jake Keller, Ken Lane, Don Mercer, Bob Dryden, Jim King, Carl Jansen, Jim Larsen, Bruce Edmunston, Floyd Dominick, June Ramey, Keith Schaefer, Ed Assony and others. Initial priorities for fuel treatment were presented to the USDA Forest Service by then UDRNRC President Jim King and were reviewed in the field in 2005. There were several subsequent discussions in the development of the project, including additional field reviews in June and September 2006.

#### **FINDINGS REQUIRED BY OTHER LAWS**

This decision is consistent with the Deschutes National Forest Land and Resource Management Plan (LRMP) and its accompanying Final Environmental Impact Statement as amended the Revised Continuation of Interim Management Direction Establishing Riparian, Ecosystem, and Wildlife Standards for Timber Sales (Eastside Screens). This decision is also consistent with the Upper Deschutes Wild and Scenic River and State Scenic Waterway Comprehensive Management Plan (River Plan). The LRMP has also been amended by the Inland Native Fish Strategy (INFISH), which provides standards and guidelines for protection of watersheds and riparian habitat conservation areas (RHCAs). RHCAs within and adjacent to treatment units have been identified with appropriate measures to protect riparian resources. Proposed actions have been determined to have either no adverse or to have positive effects on riparian management objectives and resources. The project was designed in conformance with both LRMP and River Plan standards and guidelines. It incorporates appropriate standards and guidelines for General Forest, Intensive Recreation, and Scenic Views Management allocations in addition to forest-wide standards and guidelines relevant to Bald Eagle and Key Elk Management Areas from the LRMP. It also incorporates appropriate standards and guidelines from the River Plan including those relevant to segments 3A, 3B, and 3D.

#### **IMPLEMENTATION DATE**

This project may be implemented following notice, comment and appeal periods.

#### **ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES**

This decision is subject to Comments and Appeal. A 45 day appeal period will occur following the signing of the Decision Memo and publishing of the notice in *The Bulletin*.

#### **CONTACT PERSONS**

For additional information concerning this decision, contact Maurice Evans (Project Leader) at the Bend-Fort Rock Ranger District, 1230 NE Third Street, Suite A-262, Bend, OR 97701 or via telephone at 541-383-4762.

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PHIL CRUZ

District Ranger

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DATE

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