

**Preliminary Decision Memo**  
**Crossings Fuels Reduction Project**

**USDA Forest Service**

**Bend-Fort Rock Ranger District, Deschutes National Forest**

**Deschutes County, Oregon**

**T 22 S., R 11E. Sections 5, 7, 8, 17 & 18 and in T 21 S., R 11 E. section 32**

**DECISION TO BE IMPLEMENTED**

**Description of Decision**

I have decided to improve forested stand conditions and reduce fire hazard within the Wildland Urban Interface (WUI). Hazardous fuels included for treatment are surface, ladder and canopy fuels within the forest. This will be accomplished through the use of, or a combination of mechanical shrub treatment and thinning of trees from below. Cutting will include all size class trees up to 21 inches diameter-at-breast-height (dbh) See map page 4). The project area is located adjacent to the Newberry Estates Subdivision in LaPine Oregon in T.22 S., R 11E., sections 5, 7, 8, 17 and 18 and in T 21 S., R 11 E., Section 32 Willamette Meridian.

All activities are located within General Forest (Management Area 8) and Scenic Views (Management Area 9) land allocations as described in the Deschutes National Forest Land and Resource Management Plan (Forest Plan). The Scenic Views allocation, within the project area, is a ¼ mile buffer along Forest Service Road 20.

No activities are proposed within Old Growth Management Areas. The project area is not within the Northwest Forest Plan. There is no perennial water or riparian habitat within the planning area. The entire project is within the (WUI) identified in the Greater La Pine Wildfire Protection Plan (CWPP). The Newberry Estates subdivision is identified as a first priority neighborhood community for managing hazardous fuels in the Greater LaPine CWPP.

The current condition in the Crossings area is a mix of managed and unmanaged stands of trees 60 to 70 years old. The stands are dominated by lodgepole pine with some ponderosa pine throughout except in low lying areas. A high percentage of the managed stands are open overstory ponderosa pine with a lesser amount of lodgepole pine. The understory is continuous bitterbrush averaging 18 inches to 2 feet high with established lodgepole and ponderosa pine seedlings. These stands have little chance of crown fire, but the bitterbrush and sapling understory could maintain a fire in high fire conditions, which could cause ember spotting and high mortality to the overstory trees.

The unmanaged stands in the Crossings area are dominated by pole size (5 to 12 inches (dbh)) trees through the stands. Ponderosa pine is present, but tends to be less tolerant of high tree stocking levels. Dead and down beetle mortality in the lodgepole pine has built up dense fuels in some areas. These down fuels along with bitterbrush and seedlings increase the risk for these fuels to initiate and maintain a crown fire during high fire conditions. The crown canopies in these stands are dense enough to sustain a crown fire.

In the WUI as described in the Greater LaPine CWPP, the goal is to greatly reduce the chance of crown fires and reduce surface fuels, especially adjacent to residences. 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 volume thresholds can burn as a continuous fuel layer or with

lower volumes will burn only as individual trees from proximate ladder fuels. The reduction of fuels will create 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. Treatments will reduce the risk of wildfire in close proximity to private land within the (WUI).

In General Forest management areas it is desired to provide firm wood fiber for public consumption.

The proposed activities include the combined use of mechanical shrub treatment (MST) and non-commercial thinning (LFR) on 460 acres, MST only on 37 acres, and commercial thinning from below with non-commercial thinning and mechanical shrub treatment on 501 acres. In combination with the above treatments Hand piling of slash will occur where fuels levels remain dense. Hand piling will occur on 530 acres.

The following table shows the rationale for reducing fuels within the Crossings project area

**Table 1 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 fir 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 resistant species	Less mortality for same fire intensity	Generally restores historic structure	Less economical: may keep trees at risk of insect attack

Mechanical shrub treatment will occur in all areas instead of prescribed burning due to the undesirable mortality on lodgepole pine stands and the proximity to the Newberry Estates subdivision and the BPA power lines. Mechanical shrub treatment will utilize a small tractor, or a small tracked vehicle, with an attachment for mowing or grinding to reduce shrubs and small trees to four (4) to six (6) inches in height above the ground level. Tractor attachments may also include a tree shear for the three to six inch in diameter trees to be grouped in an area for possible utilization. Implementation monitoring has shown that this type of treatment does not cause compaction or displacement that would qualify as detrimental soil condition (Soils Report project file).

In areas of high tree densities and heavy fuel loads, commercial thinning from below will be used to remove trees in excess of stocking needs and which serve as a source of fuels. Trees to be left will be largest diameter trees and the few ponderosa pine, which are more fire resistant. Cutting of trees will use mechanized feller-buncher or hand falling and whole tree yarding will be used to remove the whole tree including tops and branches from the stand. Grapple skidders are expected to be used to remove the logs to landings where they will be processed for haulage. This will be followed by small tree cutting, piling of fuels, burning of the piles and mechanical shrub treatment to reduce the fuel depth.

In Scenic Views, foreground areas along the 20 road will have stumps cut less than 6 inches in height and activities will be completed within two years. A denser thinned screen adjacent to the power substation will be left to reduce the visual impacts of that sight for visitors.

All heavy equipment before entering the National Forest System lands will be washed to remove possible noxious and invasive weed seed. (Noxious weed Biological evaluation in project file)

Commercial thinned units will have main skid roads and landings subsoiled with winged subsoiler to remove the compacted detrimental condition. There are no soil-related issues or extraordinary circumstances associated with the actions. No mechanical disturbance would occur in areas with sensitive

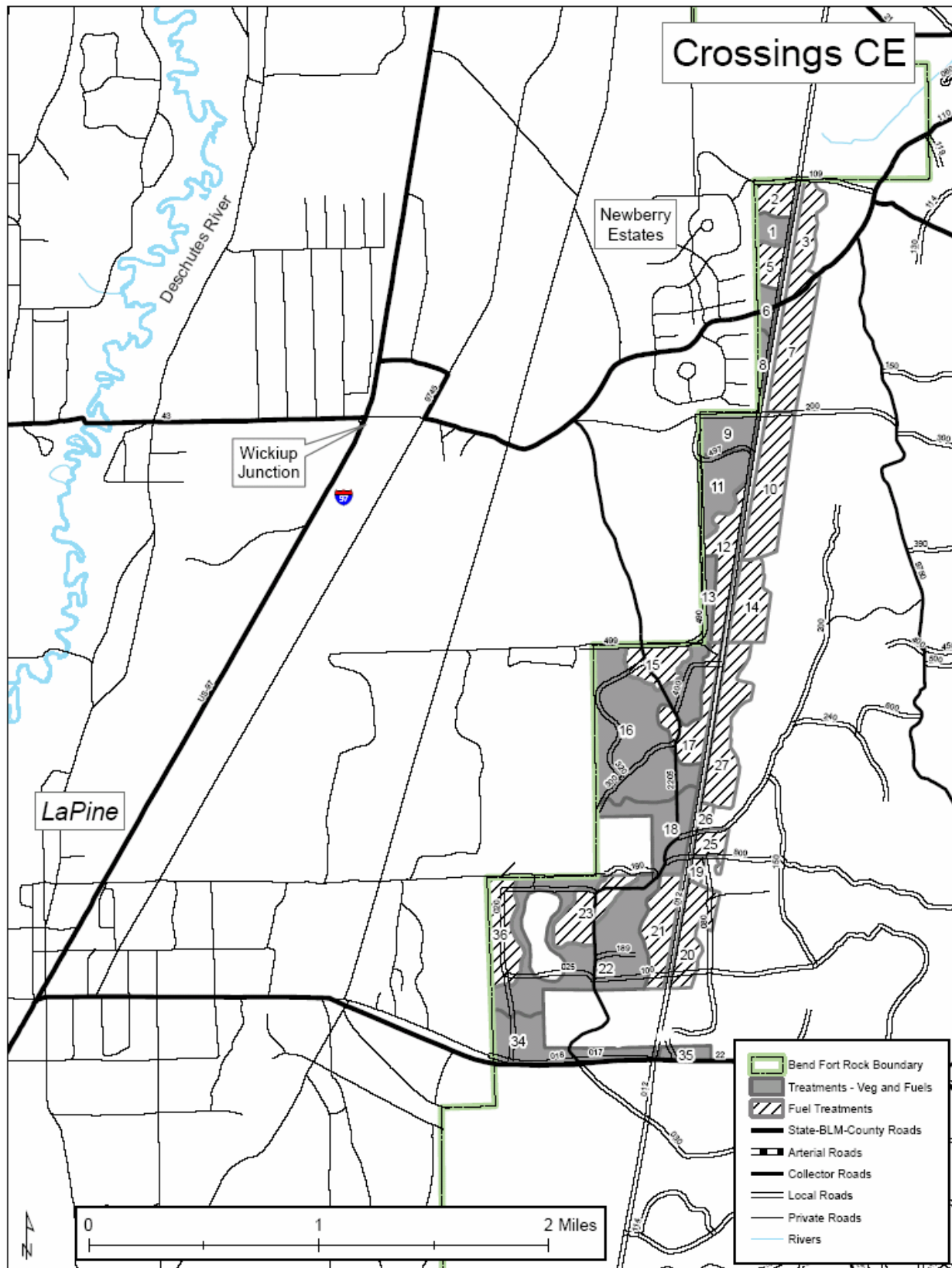
soils and resource protection measures are incorporated into the project design to avoid or minimize potentially adverse impacts to the soil resource. Soil restoration treatments would be applied to rectify impacts by reducing the amount of detrimentally compacted soil dedicated to some of the primary logging facilities within specific activity areas. Based on disturbed area estimates following project implementation and subsoiling activities, none of the activity areas proposed for mechanical harvest would exceed allowable limits set by Regional policy and LRMP management direction for protecting and maintaining soil productivity. (Soils Report project file).

The following Table 1 displays the activities which will occur. Included in the table are treatment units, acreage, treatment types and Forest Plan land allocation the treatment units are in. An activity map, which displays treatment location is on the next page.

**Table 2**

Treatment Unit	Acres	Treatments *	Land Use Allocation
1	12	HTH/LFR/MST/HP	M8 – General Forest
2	18	LFR/MST/HP	M8 – General Forest
3	29	LFR/MST	M8 – General Forest
5	15	LFR/MST	M8 – General Forest
6	11	HTH/LFR/MST/HP	M8 – General Forest
7	44	LFR/MST	M8 – General Forest
8	8	HTH/LFR/MST/HP	M8 – General Forest
9	28	HTH/LFR/MST/HP	M8 – General Forest
10	55	LFR/MST	M8 – General Forest
11	35	HTH/LFR/MST/HP	M8 – General Forest
12	36	LFR/MST/HP	M8 – General Forest
13	12	HTH/LFR/MST/HP	M8 – General Forest
14	32	LFR/MST	M8 – General Forest
15	27	LFR/MST/HP	M8 – General Forest
16	156	HTH/LFR/MST/HP	M8 – General Forest
17	33	LFR/MST	M8 – General Forest
18	46	HTH/LFR/MST/HP	M8 – General Forest
19	4	LFR/MST/HP	M8 – General Forest
20	33	LFR/MST	M8 – General Forest
21	35	LFR/MST	M8 – General Forest
22	133	HTH/LFR/MST/HP	M8 – General Forest
23	33	LFR/MST	M8 – General Forest
25	12	LFR/MST	M8 – General Forest
26	4	LFR/MST/HP	M8 – General Forest
27	50	LFR/MST	M8 – General Forest
34	51	HTH/LFR/MST	M9 – Scenic Views
35	9	HTH/LFR/MST	M9 – Scenic Views
36	37	MST	M8 – General Forest

\* **Treatment Summary** : **HTH** Commercial thinning from below; **MST** Mechanical shrub treatment (mowing ,and crushing); **LFR** Ladder fuels reduction, non-commercial thinning , **HP** Hand Piling.



## **Purpose of Decision**

The purpose of this project is to reduce the fuels hazard and the risk of wildland fire within the (WUI) and provide firm wood fiber where salvage and high stocking warrant. Fuels reductions will reduce the amount of surface, ladder and canopy fuels, interrupt fuels continuity, and reduce the intensity of a wildfire should one start. Fire behavior will be modified in the activity areas, allowing time for fire suppression crews to gain control of the fire. This project will also implement a portion of the work directed by the LaPine Community Wildfire Protection Plan.

## **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 using mechanical methods for crushing, piling, thinning, pruning, cutting, chipping, mulching, and mowing, not to exceed 1,000 acres. These 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. This category of exclusion will be identified through a collaborative framework and be conducted consistent with agency and Departmental procedures and applicable land and resource management plans. This category also shall not be conducted in wilderness areas or and shall not include the use of herbicides or pesticides or the construction of new permanent roads or other new permanent infrastructure and may include the sale of vegetative material if the primary purpose of the activity is hazardous fuels reduction.

## **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.

No federally listed threatened or endangered plant or aquatic species or their habitat occurs within the project area (Botany Biological Evaluation & Wildlife Biological Evaluation in project file).

2. Forest Service sensitive species

Plant species – There are no sensitive plant species or high probability habitat within the project area.(Botany Biological Evaluation in project file)

Aquatic Species – There are no sensitive aquatic species or habitat within the project area. There are no wetlands, streams or lakes within the project area.

Wildlife Species – There are no sensitive wildlife species or habitat within the project area.(Wildlife Biological Evaluation and Report in project file)

3. Flood plains, wetlands, or municipal watersheds

Floodplains Executive Order 11988 provides direction to avoid adverse impacts associated with the occupancy and modification of floodplains. Floodplains are defined by this order as, "... the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent [100-year recurrence] or greater chance of flooding in any one year." – There are no floodplains within the project area.

Wetlands: Executive Order 11990 is to avoid adverse impacts associated with destruction or modification of wetlands. Wetlands are defined by this order as, "...areas inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds." – There are no wetlands within the project area (Soils Report in project file).

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

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

No activities would take place adjacent to or within the Deschutes river corridor.

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.
7. American Indian and Alaska Native religious or cultural sites, archaeological sites, or historic properties of areas - Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effect of a project on any district, site, building, structure, or object that is included in, or eligible for inclusion in the National Register. Section 106 of the National Historic Preservation Act also requires federal agencies to afford the Advisory council on Historic Preservation a reasonable opportunity to comment. The archaeological Resources Protection act covers the discovery and protection of historic properties (prehistoric and historic) that are excavated or discovered on federal lands. It affords lawful protection of archaeological resources and sites that are on public and Indian lands. The Native American Graves Protection and Repatriation act covers the discovery and protection of Native American archaeological sites that contain burials or portions of sites that contain graves through "in situ" preservation, but may encompass other actions to preserve these remains and items. – This decision complies with the cited Acts. 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. Consultation has occurred under the Programmatic Agreement with the State Historic Preservation Office (SHIPO). All cultural sites will be avoided.(Cultural Resources Report and SHIPO concurrence in project file)

## **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.

## **Other relevant resource conditions considered**

Invasive species – No known noxious weeds have been found in the project area.

## **PUBLIC INVOLVEMENT**

The proposal to treat hazardous fuels has been listed in the Schedule of Projects since Winter 2004 under the Crossings Fuels treatment CE. A proposal for the project was brought before the Greater La Pine Community Wildfire Protection Plan Committee on August 9, 2005. The Greater La Pine CWPP steering committee has been evaluating neighborhoods and developing a protection plan for the Greater La Pine area was finalized in December 2005. This group has prioritized neighborhoods at risk to loss from wildfire. The Newberry Estates neighborhood has been identified as one of the highest risk

neighborhoods. The Group through the Chief of the La Pine Fire Department encouraged the completion of the Crossings project.

An initial scoping letter with a proposed action for the Crossings Fuels Treatment CE was mailed to 70 individuals, groups and agencies August 16, 2005. Notice in the local Bend newspaper The Bulletin was made on September 6, 2005.

Government to government relations with the Confederated Tribes of the Warm Springs reservation, Burns Paiute tribe, and the Klamath Tribes consultation through the scoping letter. No response was received from these governments.

### **Comments received**

Three letters were received in response to scoping. All letters were supportive of the proposal, some concerns were raised. A synopsis of these concerns and how they are addressed in this decision follows:

#### **Fuels**

Comment Mechanical fuel reduction such as thinning must be coupled with prescribed burning to adequately restore fire regimes. *Response: Changing fire intensities and maintaining a sense of place for the residents is an objective within the Wildland Urban Interface. Reintroduction of fire in close proximity of private land owners is difficult to conduct but may be in future plans as stands develop fire resistance. Future maintenance will need to include mechanical shrub treatments however they may have prescribed fire also.*

Research demonstrated that thinning alone (without subsequent treatment of activity fuels and maintenance treatments) actually increases fire hazard in both the short- and long-term. *Response: This project will reduce activity fuels in commercial thinning units with whole tree yarding where tops and branches are removed to the landing along with dead down firm wood. Non-commercial thinning fuels will be reduced through follow-up with mechanical shrub treatment activities.*

#### **Commercial Thinning**

You should analyze the possibility of setting a 12" diameter limit on the commercial thinning. *Response: The juxtaposition of the trees to be removed and the desire to remove less fire resistant trees (lodgepole pine) in favor of fire resistant trees present(ponderosa pine) preclude a diameter limit. Thinning from below will remove trees of smallest diameter first up to the trees needed to meet desired stocking levels. The research reference used as a basis for a 12" diameter limit shows that the most effective fuels treatments are thinning from below with no diameter limit thinning down to a stocking level of 45 ft<sup>2</sup>s basal area was the most effective treatment of three treatments. This is very similar to the planned activity.*

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

This decision is consistent with the Deschutes National Forest Land and Resource Management Plan (Forest Plan) 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 1990). The Forest Plan is amended by the Inland Native Fish Strategy, which provides standards and guidelines for protection of watersheds and riparian habitat conservation areas. There are no riparian habitat conservation areas within the project area. The project was designed in conformance with Forest Plan standards and incorporates appropriate guidelines for General Forest and Scenic Views Management allocations.

### **IMPLEMENTATION DATE**

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

### **ADMINISTRATIVE REVIEW OPPORTUNITIES**

This decision is subject to 30-day comment and review period.

**CONTACT PERSONS**

For additional information concerning this decision, Contact Peter Powers (Project Leader) at the Bend-Fort Rock Ranger District, 1230 NE Third Street, A-262, Bend, OR 97701 or via telephone at 541-383-4000

PHIL CRUZ  
District Ranger

DATE: March 8, 2006

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