

Decision Memo

FLAT TOP PLANNING AREA HAZARDOUS FUELS REDUCTION PROJECT

USDA Forest Service
Bend/Fort Rock Ranger District, Deschutes National Forest
Lake County, Oregon
T. 24 S., R. 12, 13, 14 E. and T. 25 S., R 13 E. (Willamette Meridian)

I. DECISION TO BE MADE

A. Decision

The decision to be made will be to implement the use of prescribed burning and mechanical shrub treatment (MST, mowing) to reduce surface fuels and shrub continuity within the Flat Top planning area. These fuels reduction activities will occur primarily beneath large, open grown, ponderosa pine tree canopies.

B. Location Of Planning Area

The planning area is located approximately 30 miles south-southeast of the southern urban growth boundary of Bend, Oregon in T. 24 S., R. 12, 13, 14 E. and T. 25 S., R 13 E. Vicinity (Figure 1, page 9) and activity area (unit locations – Figure 2, page 10) maps are included.

All proposed activity units are located within Deer Habitat Management Area 7. The goal of the management area is “To manage vegetation to provide optimum habitat conditions on deer winter and transition ranges ...”, as described in the Deschutes National Forest Land and Resource Management Plan, page 4-113. The planning area is within the Cabin Lake/Silver Lake seasonal road closure area. No activities will be within Old Growth Management Areas. No permanent lakes or streams are located within the planning area. Activities will not occur within Inventoried Roadless Areas. The Planning area is located outside of and approximately 30 miles to the east of the Northwest Forest Plan boundary (owl line).

II. PURPOSE AND NEED FOR ACTIVITIES

A. Purpose And Need

The Flat Top project has been developed in response to concerns and opportunities regarding natural fuel levels that increase the risk of high intensity wildfire to winter habitat of mule deer and stands of old growth, mature ponderosa pine.

The purpose of the proposed project is to provide a diversity of age, structure and spatial arrangement of forage. There is a need to revitalize, maintain, and protect desirable vegetative shrub species that provide forage for mule deer in Deer Habitat. The purpose of the proposed project is to provide a diversity of age, structure and spatial arrangement of forage.

Optimum mule deer habitat is a mosaic of cover and forage distributed across the landscape with little or no disturbance. Productivity and diversity of herbaceous plants (grasses and forbs), shrubs, and tree age classes are necessary to provide cover and forage over time. Older, taller bitterbrush is important winter deer forage while early spring greening herbaceous plants are important for post-winter energy recovery.

The purpose of the proposed project is to reduce the risk of a high intensity, stand replacement wildfire that could substantially reduce: 1) bitterbrush forage for wintering mule deer and 2) old growth trees that provide habitat for a variety of wildlife species. There is a need to modify the dynamics of wildfire within the planning area through the judicious use of prescribed fire and MST to maintain quality big game forage and habitat and to reduce the risk of a high-intensity, stand replacement wildfire.

The unintended consequences of a very effective wildfire-fighting program has resulted in the absence of the historical fire regime of frequent, low intensity fires. With the corresponding change in forest structure, including shrubs, wildfires have become larger, more dangerous, and more difficult to control. Fire suppression efforts have allowed accumulations of high levels of natural fuels, primarily mature and late seral bitterbrush. Bitterbrush is a highly flammable shrub with oils within the leaves that increase the flammability during the hot, dry summer months. Breaking up fuel continuity and reducing shrub height reduces flame height and fire intensity, making tree crowns and large, old growth ponderosa pine less susceptible to wildfire. Natural regeneration and establishment of bitterbrush in low productivity, low moisture habitats following wildfire can be difficult to achieve and may not provide viable deer habitat for many years.

Natural fuels (needle cast, brush, grasses, dead and down woody material) at the base of large ponderosa pine trees increase the risk of tree mortality from wildfire. Recent wildfires in similar habitats have been difficult to control and damaged or destroyed large amounts of critical mule deer winter forage and other wildlife habitat. The difficulty of re-establishment of ponderosa pine may be observed in similar habitat, such as areas that were impacted by the 1959, 15,575 acre (Forest Service) Aspen Flat wildfire.

B. Description Of Project Activities

Approximately 50 to 60 percent of the acreage within treatment units will be treated. Units will be treated as a mosaic, leaving the remaining 40 to 50 percent of the unit untreated. Prescribed burn units will maintain untreated patches (Table 1) that vary in size. Approximately 50 to 60 percent of the remainder of the unit will be burned. The untreated portions of shrubs within units will remain as open grown bitterbrush.

Approximately 3,600 acres that are at risk for high intensity, stand replacement wildfire will be treated within existing stands of mature ponderosa pine within Deer Habitat (Forest Plan, Management Area 7). Bitterbrush, a key forage species for mule deer, will be increased in the early successional stage. Fire ignition will occur by hand in four (4) units (985 acres) and by either helicopter or hand, or both, in three (3) units (approximately 1,685 acres). Three units (915 acres) will have MST. Table 1 displays the units, acres, and treatments. Refer to Figure 2, page 8, for the location of the units within the planning area.

Unit	Unit Acres Total	Total Untreated Patch Acres Size of Untreated Patches	Treatment Type*	Year
1	177	10 (5 to 10 acre patches)	UB - Hand	2006
2	637	80 to 140 (four 20 – 35 acre patches)	UB (Helicopter and/or Hand)	2006
3	210	0 acres	MST	2010
4	565	40 to 70 (two 20 – 35 acre patches)	UB (Helicopter and/or Hand)	2009
5	338	0 acres	MST	2009
6	484	50 (10 – 25 acre patches)	UB – Helicopter and/or Hand	2010
8	390	30 (10 – 20 acre patches)	UB – Hand	2008
9	314	30 (10 – 20 acre patches)	UB – Hand	2007
10	336	0 acres	MST	2008
11	103	10 (5 – 10 acre patches)	UB – Hand	2007
Total	3,554	250 – 340	N/A	

* **Treatment Type:** UB = Underburn; MST = Mechanical shrub treatment (mowing and crushing)

Mechanical shrub treatment (mowing) would occur within and adjacent to unit boundaries (approximately 85 acres) in order to minimize fire intensities near control lines. Existing road systems and approximately one (1.0) mile of fireline construction would be used to maintain prescribed fire within treatment units. Treatments would occur during the next five (5) years. Table 2 displays the number of acres per year that would be treated.

Table 2: Acres Treated Per Year		
Implementation Year Estimated	Units	Acres Treated
2006	1, 2	814
2007	9, 11	417
2008	8, 10	726
2009	4, 5	903
2010	3, 6	694
Total Years = 5	Total Units = 10	Total Acres = 3,554*

* Total acres treated does not take into consideration the untreated patches. Total acres actually treated outside of the untreated patches would range from 3,245 acres to 3,335 acres.

Mechanical shrub treatment (MST) will utilize small tractors, or small tracked vehicles with an attachment for mowing or grinding to reduce shrubs within the mowing areas. Past implementation monitoring has determined that MST does not cause substantial soil disturbances (compaction, displacement) that qualify as a detrimental condition when no more than two (2) passes with equipment over a given area occurs.

C. Measures To Reduce Or Eliminate Unwanted Impacts Include, But Not Limited To:

Wildlife

1. **BG1:** Deer hiding/thermal cover and diversity-- retain all dense patches of cover by reducing or eliminating impacts from prescribed fire. Spot ignitions within patches to reduce burn intensity, hand lines around strategic patches, and using a cooler burn period are examples of methods to employ. The objective is reduce the burn impacts on lower green limbs and to limit the mortality of understory trees in patches. An emphasis shall be placed on hiding cover and the goal to retain at a minimum 10% of the acreage of a unit where the cover is present [Deer Habitat – Management Area (MA) 7 objective, Standards and Guides (S&Gs), TM (Timber Management) 55 and 56, WL (Wildlife) 74].
2. **BG2:** Deer travel corridors will be provided that are 600 feet wide (400 feet minimum). They will maintain, where available, all suitable hiding cover as detailed in BG1(S&G WL-56).
3. **BG3:** Maintain a good distribution of shrubs age classes by retaining 40 to 50 percent of all units with an emphasis on protecting tall, mature bitterbrush by limiting fire ignitions to the driplines of trees. Monitor fire behavior and manage ignitions and burn periods to avoid burning beyond the driplines to the extent possible [S&G M7-14; reference the Integrated Fuels Management Strategy (IFMS)].
4. **BG5:** Protect mountain mahogany patches from all treatment activities by not directly igniting areas within 50 to 100 feet of the patches (S&G WL-75; reference the ICB Draft Eastside EIS- HA-S10). Refer to PDC S/U1 as most mahogany is associated with rock outcrops.
5. **BG6** Limit the amount of annual prescribed burning treatments to meet the annual 2.0 to 2.5 percent limitation. (applies to all units).
6. **BG7** Coordinate with the District Biologist on the locations and delineation of retention patches (applies to units 1, 2, 4, 6, 8, 9 and 11).
7. **BG8** Do not conduct treatments from December 1 through March 31 (Cabin Lake/Silver Lake Winter Range Cooperative Closure, M7-23). Consult the District Wildlife Biologist for exceptions and permits (applies to all units).
8. **NG1:** Limit treatments that may adversely affect ground-nesting birds to the periods outside of April 1 thru July 30 (reference Regional guidance, Executive Order, Migratory Bird Treaty Act). Apply prescribed fire and mowing to leave a mosaic of burned and unburned shrub habitats, which should provide adequate protection in lieu of the seasonal restriction described.
9. **NG2:** Activities near known or discovered raptor nests must observe the seasonal restrictions (S&G WL-3, 11, 19, 28). Consult the District Wildlife Biologist if nests or defensive birds are observed

(applies to all units).

10. **NG3:** Retain/protect (exceptions for safety) all soft and hard snags (S&G WL-37, 38, M7-12, reference DNF WTWL Strategy, Eastside Screens). Provide logs and down wood to retain where available at least 6 logs per acre of the largest available (S&G WL-63, 72, 73) and minimize charring from prescribed fire. Protect larger snags and logs by lining them and cutting taller shrubs within 25 feet. Monitor the burn and where possible extinguish fire in logs and snags. (or cut out the burning portion) and snags (applies to units 1, 2, 4, 6, 8, 9 and 11).
11. **OG/LOS1:** Connectivity between LOS stands will be provided. Canopy cover within LOS connectivity corridors will be maintained at a level equal to or exceeding 50 percent or the top one-third (1/3) of site potential by preventing mortality of trees from prescribed fire (applies to units 2, 3, 4, 9, 10 and 11; refer to BG2).
12. **OG/LOS2:** Protect all known LOS stands and individual old growth trees when applying prescribed fire to minimize tree mortality. Employ cool burns and/or reduce the fuel accumulations below the crowns of old growth trees by raking or other methods. [applies to units # 1, 2, 4, 6, 8, 9 and 11]
13. **S/U1:** Protect the ecotone areas where forested habitats are adjacent to rock outcrops by not directly igniting within 50 to 100 feet of them or mowing within the buffer areas (S&G WL-70, 75) (applies to all units).
14. Prescribed fire managers need to use smoke management forecasts in order to minimize smoke entering into suitable bald eagle habitat and to ensure that dissipation would be adequate (PDC # I.c.2., USDA Forest Service, 2003).

Soils

1. Minimize fire line construction by using existing barriers for fire lines whenever possible. Fire line construction may be reduced by adjusting boundaries to take advantage of existing barriers.
2. Strive to reduce litter and litter/duff, while not exposing bare mineral soil by the complete elimination of the duff layer to minimize loss of organic matter. Organic matter is important for maintaining site productivity, preventing soil erosion, mitigating soil compaction, and for soil microorganisms. (LRMP SL-6); (Fuels Management BMP F-2); (Timber Management BMP T-13).
3. In unit 1, pull material back into the fire line when burying operations are completed.
4. Minimize mop-up activities to prevent spread of fire out of unit. Mop-up activities can increase site disturbance.
5. Minimize soil displacement caused by excessive turning during the mowing operation.
6. Avoid mowing operations during periods of excessive soil moisture conditions.

Botany

1. Clean all equipment before entering National Forest System lands. Remove mud, dirt, and plant parts from project equipment before moving it into project area.
2. Steam-clean all surface vehicles (ASVs), especially the areas of the tracks, before entering the project area.
3. Where activities will take place near watersets that have cheatgrass, leave an untreated buffer of native vegetation at least 25 feet wide between the area to be treated and the cheatgrass.
4. Do not park any vehicles in areas that are infested with cheatgrass.
5. Do not ignite fire, disturb by mowing, or construct fireline in any obvious cheat grass patches.

Other Measures

1. Limit motorized vehicle use to designated system roads and trails (year around). Maintain Cabin Lake/Silver Lake seasonal closure (December 1 through March 31)
2. Obliterate and block constructed fireline.
3. Protection or avoidance of cultural sites.
4. Protection of infrastructure such as fences, spring developments, and water troughs.

Monitoring Recommendations

Conduct annual reviews of all previously treated units with ODFW prior to initiating the next year's treatments.

Establish pre-treatment digital photo points on selected units to monitor the effects on bitterbrush, snags, CWM, and unique habitats (i.e. lava outcrops with mahogany).

Maintain a file documenting the conditions at the time of each treatment in order to better assess those parameters that contributed to successful burns or to identify those that need modification when objectives were not achieved.

Keep a record of the amount of acreage treated within the Flat Top WRHU as well as a summary of treatments across the North Paulina deer herd unit of the winter range (i.e. MA7 allocation) in order to meet the 2-2.5% annual limitation.

III. 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 of the Forest Service in Forest Service Handbook (FSH) 1909.15 section 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.

This project may be categorically excluded from documentation in an environmental impact statement or environmental assessment as it is a routine activity within a category of exclusion 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.

A. Category Of Exclusion

The appropriate category of exclusion is found in the Forest Service Handbook 1909.15 Section 31.2 Category 6: Timber stand and/or wildlife habitat improvement activities which do not include the use of herbicides or do not require more than one mile of low standard road construction.

B. 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 units. There is a bald eagle site located approximately 2.3 miles from the nearest proposed treatment unit. Potential disturbance from smoke to the site during the breeding season will be minimized by coordinating burning with smoke management forecasts.

2. Forest Service sensitive species

Plant species: There are no sensitive plant species or habitat within the project area.

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.

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.

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

The planning area is located approximately 29 miles southeast of the Deschutes River Wild and Scenic River corridor. No activities would take place adjacent to or within the river corridor.

The planning area is located approximately 12 miles south-southeast of Newberry National Volcanic Monument. No activities would take place adjacent to or within the Monument.

The planning area is not located within a wilderness or a national recreation area.

5. Northwest Forest Plan

The planning area is located outside of and to the east of the Northwest Forest Plan boundaries.

6. Inventoried Roadless Areas

There are no inventoried roadless areas in the planning area. The project would not construct any permanent or temporary roads.

7. Research Natural Areas

There are no existing or proposed Research Natural Areas in the planning area.

8. 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 in 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 human remains and objects that are excavated or discovered in federal lands. It encourages avoidance of 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 (SHPO). All cultural sites will be flagged and avoided.

Conclusion

Based on the conclusions regarding the effect to the resource conditions listed above, 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.

C. Other Relevant Resource Conditions Considered

Noxious Weeds: No noxious weeds were found. This project poses a Moderate risk of noxious weed introduction or spread. Results of surveys are on file at the Bend-Fort Rock District office.

Invasive species: Previous surveys located *Bromus tectorum*, cheatgrass, which is a non-native species not considered noxious, but very invasive. Sites in units include locations at watersets in unit 6 beside Forest Road 2438- 800 and in unit 2 beside Forest Road 2440. Other sites of cheatgrass outside of project units include: 1) sites in the eastern part of the planning area; 2) a waterset adjacent to Forest Road 180; and 3) a large area located on the south side of Flat Top Butte.

IV. PUBLIC INVOLVEMENT

A. Public Scoping

The project to reduce hazardous fuels was first listed in the Winter 2004 edition of the Schedule of Projects. This project was provided to the public and other agencies for comment during scoping from March 1, 2005 through March 18, 2005. Scoping letters were mailed to 31 individuals, organizations, and agencies. The following tribal governments were contacted with letters: Confederated Tribes of the Warm Springs Reservation, Burns Paiute Tribe, and the Klamath Tribes.

Three (3) commenters responded to scoping. While responses were generally supportive of the proposal, the following concerns were raised:

Comment: Burning 70 percent could result in little deer use of treatment areas as is occurring on treated units to the east of the project area. **Response:** *After further discussion, I have decided to decrease the number of acres to be treated with prescribed burning. The range of acreage that would be burned in the units would range from 50 to 60 percent, minus any untreated leave patches. This is within the range of 40 to 60 percent that is felt to be the lowest range that is necessary to provide effective measures to lower the risk of high intensity, stand replacement wildfire.*

Comment: Ask that prescribed burning only be done in fall or early spring to avoid impacts to sensitive plants, fledgling birds, young mammals, and soil moisture retention. Burning conditions should be optimal for avoidance to torching trees and fire escape or burning should not be done. **Response:** *Prescribed burning will be done when it is least likely to adversely impact mammals, birds, and plants. Soil and fuels moisture content will be adequate to maintain a low intensity burn that will be sufficient for the reduction of fuels.*

Comment: Please avoid the 1 mile of fire line construction if possible. **Response:** *It is necessary to construct a fire line because no man-made or natural barrier presently exists at the edge of the unit boundary where the fire line will be constructed. Constructed fireline will be obliterated following prescribed fire operations, which will prevent its use as a possible route for motorized vehicles.*

Comment: Measures to avoid introduction and dispersal of noxious weeds should be stringent and fully specified, including avoidance of known exotic weed sites, full vehicle cleaning of all equipment used, etc. **Response:** *Currently, there are no known noxious weed sites in the project area. Some populations of spotted knapweed grow along State Highway 31, the main access road to roads going into the area from the south and USFS Road 3130-220, less than 2 miles from the south end of the project area. Botany and Other Measures to reduce potential unwanted impacts, page 4, would reduce the likelihood of noxious weeds becoming established.*

B. 30-Day Comment Period

The Flat Top Planning Area Hazardous Fuels Reduction Project was provided to the public for a 30-day comment period. The comment period began January 4, 2006 and ended February 3, 2006. No negative comments were received during this comment period.

V. FINDINGS REQUIRED BY OTHER LAWS

This project is consistent with the Deschutes National Forest Land and Resource Management Plan (Forest Plan) as required by the National Forest Management Act. The Plan is amended by 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 planning area. The project is designed in conformance with Forest Plan standards and incorporates appropriate guidelines for General Forest and Scenic Views Management allocations. Prescribed burning will be done in conformance with the Oregon Smoke Management System to meet smoke management objectives. Safety measures such as warning signs and or traffic control, will be employed when burning and smoke affects the safety of motorists. Nearby landowners will be notified prior to burning operations.

VI. IMPLEMENTATION DATE

This project may be implemented immediately.

VII. ADMINISTRATIVE REVIEW OR APPEAL OPPORTUNITIES

No negative comments were received during the 30-day comment period. This decision is not subject to administrative review or appeal.

For additional information concerning this decision, contact John Erwert (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. The project can also be viewed at the Deschutes National Forest website: www.fs.fed.us/r6/centraloregon/index.html.

PHIL CRUZ
District Ranger

Date

Figure 1: Flat Top Project Locator Map

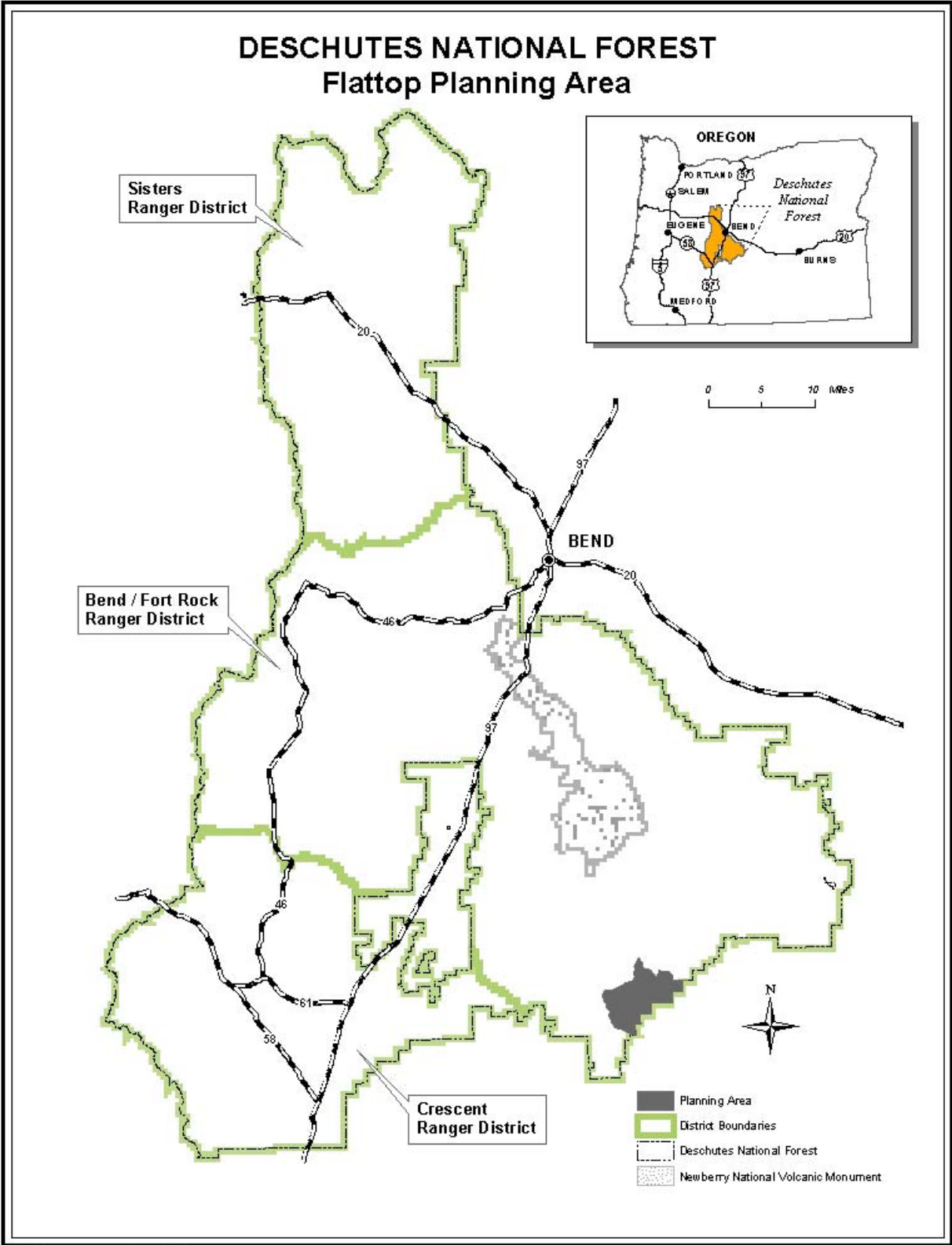


Figure 2: Flat Top Hazardous Fuels Reduction Units

