



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT OFFICE
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IN REPLY REFER TO:

1792(OR116)
GL8162(BY:esg)
So.Or.Buttercup EA

JUN - 6 2003

Dear Interested Public:

The enclosed *Environmental Assessment (EA)* for the So. Or. Buttercup Habitat Restoration Project is being advertised in the Medford Mail Tribune for a 30-day public review period. This proposal thins 36 acres of vegetation for improvement of habitat for *Ranunculus austrooreganus* (Southern Oregon Buttercup), a BLM sensitive species and a State candidate for listing. The hand thinning would increase light and decrease competing vegetation (shrubs) and would increase population size and health. The species evolved with fire and in habitats that were historically more open. This project is also expected to reduce the hazard of a catastrophic wildfire by reducing the fuel loading. The absence of frequent landscape wildfire has led to high tree and brush density levels and dense patches of non-commercial size conifers. The project proposal is located approximately four miles northeast of Medford, Oregon above Agate Reservoir.

The primary purpose of a public review is to provide the public with an opportunity to comment on the BLM's determination that there are no significant impacts associated with the proposed action and, therefore, an environmental impact statement is not necessary.

This EA is published on the Medford District web site, www.or.blm.gov/Medford/, under "Planning Documents."

We welcome your comments on the content of the EA. We are particularly interested in comments that address one or more of the following: (1) new information that would affect the analysis, (2) information or evidence of flawed or incomplete analysis; and (3) alternatives to the Proposed Action that would respond to purpose and need. Specific comments are the most useful. Comments, including names and addresses, will be available for public review. Individual respondents may request confidentiality. If you wish to withhold your name and/or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your written comment. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public inspection in their entirety.

All comments should be made in writing and mailed to Bill Yocum, Ashland Resource Area, 3040 Biddle Road, Medford, OR 97504. Any questions should be directed to the Ashland Planning Department at (541) 618-2384.

Sincerely,

Richard J. Drengbl
Field Manager
Ashland Resource Area

1-Enclosure

1-Environmental Assessment

U. S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
MEDFORD DISTRICT
ASHLAND RESOURCE AREA

ENVIRONMENTAL ASSESSMENT

FOR

So. Or. Buttercup Habitat Restoration

EA No. OR-116-03-01

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
ASHLAND RESOURCE AREA

EA COVER SHEET

Project Name/Number: So. Or Buttercup Habitat Restoration EA/OR-116-03-01

Location: Ashland Resource Area

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ASHLAND RESOURCE AREA - So. Or Buttercup Habitat Restoration EA
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CHAPTER 1

A. INTRODUCTION

The Bureau of Land Management (BLM) proposes to thin 36 acres of vegetation for improvement of habitat for *Ranunculus austrooreganus* (Southern Oregon Buttercup), a BLM sensitive species and a State candidate for listing. The hand thinning would increase light and decrease competing vegetation (shrubs), and would increase population size and health. The species evolved with fire and in habitats that were historically more open. This project is also expected to reduce the hazard of a catastrophic wildfire by reducing the fuel loading. The absence of frequent landscape wildfire has led to high tree and brush density levels and dense patches of non-commercial size conifers. The project proposal is located approximately four miles northeast of Medford, Oregon above Agate Reservoir. Additional resource details are contained in the Buttercup Environmental Assessment file. This is a public file and is available for review by contacting the Medford BLM office, Ashland Resource Area Planning at (541)618-2384.

This document complies with the Council on Environmental Quality's (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (NEPA; 40 CFR Parts 1500-1508) and the Department of the Interior's manual guidance on the National Environmental Policy Act of 1969 (516 DM 1-7).

B. PURPOSE AND NEED

The Medford District Resource Management Plan (RMP) established guidelines for the management of BLM lands, and responds to the need for forest habitat. According to the RMP, the need for forest habitat is the need for a healthy forest ecosystem with habitat that would support populations of native species.

To purpose of the proposed project would be to:

- Improve habitat for *Ranunculus austrooreganus* (Southern Oregon Buttercup), a BLM sensitive species and a State candidate for listing. Hand thinning would increase light and decrease competing vegetation (shrubs), and would increase population size and health. The species evolved with fire and in habitats that were historically more open.
- Reduce the hazard of a catastrophic wildfire by reducing the fuel loading. The absence of frequent landscape wildfire has led to high tree and brush density levels and dense patches of non-commercial size conifers.

Two alternatives were developed for this project. A description of these alternatives can be found in Chapter 2 of this document.

C. CONFORMANCE WITH EXISTING LAND USE PLANS

The proposed activities are in conformance with and tiered to the *Medford District Record of Decision and Resource Management Plan* (RMP) (USDI 1995b) as amended by the *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines* (Amended Northwest Forest Plan) (USDI, USDA 2001). The Medford District Resource Management Plan incorporates the *Record of Decision for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl and the Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* (NWFP) (USDA and USDI 1994). These documents are available at the Medford BLM office and the Medford BLM web site at <<http://www.or.blm.gov/Medford/>>.

D. RELATIONSHIP TO STATUTES, REGULATIONS, AND OTHER PLANS

The proposed action and alternatives are in conformance with the direction given for the management of public lands in the Medford District by the Oregon and California Lands Act of 1937 (O&C Act) and the Federal Land Policy and Management Act of 1976 (FLPMA).

E. DECISIONS TO BE MADE ON THIS ANALYSIS

This environmental assessment (EA) is being prepared to determine if the proposed action and any of the alternatives would have a significant effect on the human environment thus requiring the preparation of an environmental impact statement (EIS) as prescribed in the National Environmental Policy Act of 1969 (NEPA). It is also being used to inform interested parties of the anticipated impacts and provide them with an opportunity to comment on the various alternatives.

The Ashland Resource Area Field Manager must decide:

- Whether or not the impacts of the proposed action are significant to the human environment beyond those impacts addressed in previous NEPA documents. If the impacts are determined to be insignificant, then a Finding of No Significant Impact (FONSI) can be issued and a decision can be implemented. If any impacts are determined to be significant to the human environment, then an Environmental Impact Statement must be prepared before the Manager makes a decision.
- Whether to implement the proposed action alternative or defer to the no action alternative.

F. ISSUES OF CONCERN

The following issues were identified during the scoping process. All issues were reviewed by the Interdisciplinary Team. Issues that directly relate to the proposed action were analyzed in detail.

1. Due to long term absence of fire, vegetation is now at a condition where fire hazard is very high. Recent fires in the Southern Oregon have shown that significant damage and long term degradation of natural resources are likely in the event of a large wildfire.
2. Disturbance to nesting birds and other wildlife during the spring reproductive period.
3. The spread of noxious weeds and other invasive, non-native species.

CHAPTER 2 Alternatives

A. INTRODUCTION

This chapter describes the proposed action alternative and the no action alternative. This chapter also outlines specific project mitigation features described as Project Design Features (PDFs) which are designed as part of the alternative. PDFs reduce or eliminating anticipated adverse environmental impacts.

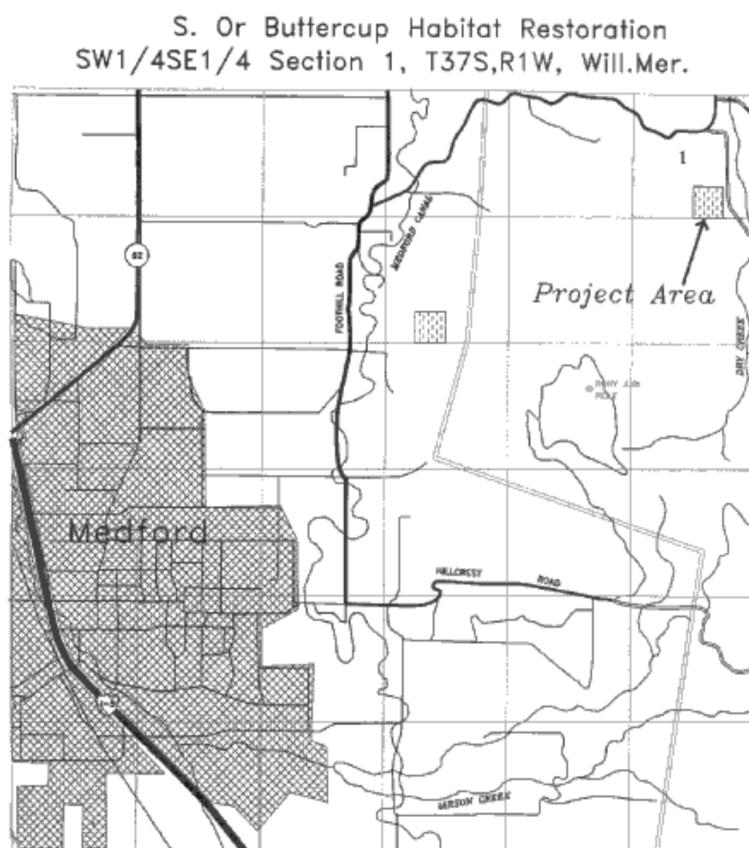
The Ashland Resource Area has developed a proposed action designed with the project objective in accordance with the best management practices as outlined in the Medford District RMP (pages 149-177).

B. PROPOSED ACTION ALTERNATIVE

Improve habitat for *Ranunculus austrooreganus*, a BLM sensitive species, and a State candidate for listing while reducing the hazard of a catastrophic wildfire by reducing the fuel loading. The initial treatment would thin vegetation on 40 acres of federal land.

Vegetation would be thinned using manual treatment which involves cutting, hand piling, and burning of piles. Material to be cut would be less than eight (8) inches in diameter at breast height. Handpile maximum size is 8' x 8' x 4' tall. No piles would be constructed within the dripline of reserve vegetation. Reserve vegetation include all hardwood trees, manzanita shrubs greater than 10" at ground level, pine trees greater than 3" diameter at breast height. One acre per 10 acres would be a no treatment area. Species favored for leave, in order of most desired include hardwood trees, ponderosa pine trees, manzanita shrubs, ceanothus shrubs, and Douglas-fir trees. Spacing of reserve trees would average 10' crown spacing. In areas of heavy reserve vegetation, spacing may be less than 10 feet. Some material may be removed from the site in the form of poles, firewood or other special forest products.

Future maintenance of all areas treated in the project area would be needed in order to maintain low fuel loadings and species dependent on fire. Underburning and broadcast burning are the preferred methods for maintaining these areas. No trails or roads would be constructed to facilitate the implementation of proposed action and no motorized vehicle would be taken off of the main county road.

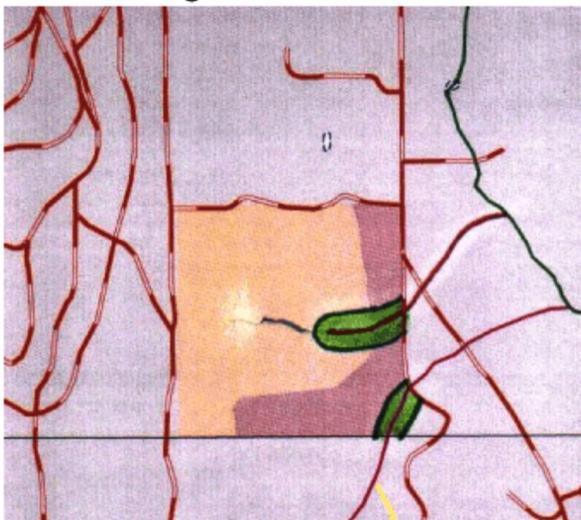


The Project Design Features (PDFs) with an asterisk (*) are Best Management Practices (BMPs) to reduce nonpoint source pollution to the maximum extent practicable. BMPs are considered the primary mechanisms to achieve Oregon Water Quality standards. Implementation of PDFs in addition to establishment of Riparian Reserves would equal or exceed Oregon State Forest Practice Rules. BMP effectiveness monitoring would be conducted and where necessary, BMPs modified to ensure compliance with Oregon Water Quality Standards.

- A. No piling in dry draws would be allowed.*
- B. Vegetation treatment, slash piling, and burning would be hand treatments consisting of hand cutting of existing ladder fuels and then hand piling this material so it can be burned.*
- C. Handpile burning takes place in the late fall and winter and is done after fuels have cured for one summer.
- D. Additional measures to reduce the potential level of smoke emissions would include: mop-up to be completed as soon as practical after the fire, burning with lower fuel moisture in the smaller fuels to facilitate their quick and complete combustion, burning with higher fuel moisture in the larger fuels to minimize consumption, smoldering and burn out time of those fuels, and covering handpiles to permit burning during the rainy season where there is a stronger possibility of atmospheric mixing and or scrubbing.
- E. Pile burning and subsequent maintenance burning would not occur from January 15 through June 1 to avoid the active growing and fruiting season of the Buttercup.
- F. For future maintenance treatment to minimize loss in of organic matter, nutrients, soil productivity, and surface erosion, underburning would be planned and scheduled to result in low intensity.
- G. Prescribed burning would comply with the guidelines established by the Oregon Smoke Management Plan (OSMP) and the Visibility Protection Plan.
- H. Burn during the rainy season where there is a stronger possibility of atmospheric mixing and/or scrubbing.
- I. Post-treatment, the site would be evaluated for native grass seeding needs and noxious weed control.
- J. If poles or other special forest products are extracted, no mechanized vehicles would be used (hike-in, hike-out only).

Riparian Reserves

BLM conducted surveys of the unnamed tributaries to Dry Creek within the project area. The surveyor determined whether stream channels were perennial, intermittent, or dry draws (NWFP Standards & Guidelines, pages C30-C31). In addition, existing maps were corrected using the new information. For locations of Riparian Reserves, refer to the green area on the following Riparian Reserve map.



Riparian Reserves in this project area are inventoried as Intermittent nonfish-bearing streams which require a minimum of 100' slope distance on each side of the stream.

- A. Manual vegetation treatments would occur along intermittent streams and dry draws where necessary to reduce fuel loading.

- B. Riparian hardwood species such as willow, ash, maple, alder, and black oak would not be thinned.*
- C. Thinned material may be lopped and scattered in specific areas where pile burning is not desirable.
- D. Piles would not be placed in channel bottoms.
- E. Down large woody debris over 16" diameter would not be damaged, driven over, or used for fire wood.
- F. No piles in channel/draw bottoms of short-duration intermittent streams.
- G. Treated vegetation could be "lopped and scattered" in areas where hand pile burning is not allowed.*
Where feasible, this vegetation should be dragged outside the no-treatment zone and piled.
- H. With underburns, no ignition would occur within Riparian Reserves,* but backing fire may be allowed to burn down into a Reserve, especially into the non-riparian portions with fire dependant vegetation such as ceanothus and white oak. This would depend on site-specific analysis.
- J. Fire lines would be avoided in Riparian Reserves in order to prevent the creation of "mini roads" that could route sediment into water bodies.*
- K. Foam would not be used in Riparian Reserves.*

Cultural Resources

All known cultural sites have been identified and would be avoided.

C. NO ACTION ALTERNATIVE

Under this alternative no thinning would occur in the planned unit. The habitat for *Ranunculus austrooreganus*, a BLM sensitive species, would continue to decline and the fire hazard with the probability of a catastrophic wildfire event would continue to increase.

CHAPTER 3 AFFECTED ENVIRONMENT

INTRODUCTION

This chapter describes the present conditions within the proposed project area that would be affected by the alternatives. The information in this chapter serves as a general baseline for determining the effects of the alternatives. No attempt has been made to describe every detail of every resource within the proposed project area. Only enough detail has been given to determine if any of the alternatives would cause significant impacts to the environment (additional detail is located in the EA file which is available for review by calling 541-618-2384).

A. Fuels

Prescribed burning under the Proposed Action Alternative is not expected to effect visibility within the Crater Lake National and neighboring wilderness smoke sensitive Class I areas (Kalmiopsis and Mountain Lakes) during the visibility protection period (July 1 to September 15).

B. Wildlife

The proposed project is in an isolated 40 acre piece of BLM land. The habitat in the area is grassland and woodland. Vegetation includes oak trees, manzanita shrubs, scattered ponderosa pine trees, and ceanothus shrubs. The area serves as deer and elk winter range, and is used by turkeys.

SPECIAL STATUS SPECIES

Special Status Species (SSS) include those species that are listed as threatened or endangered, are proposed for listing as threatened or endangered, or as a candidate for listing as threatened or endangered by the U.S. Fish and Wildlife Service under the auspices of the Endangered Species Act (ESA) of 1973, as amended. Also included are those species addressed in the document titled *Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines* (USDA/USDI 2001).

SPECIAL STATUS SPECIES SUSPECTED TO OCCUR IN THE PROPOSED PROJECT AREA

Golden Eagle (*Aquila chrysaetos*). While the golden eagle is not listed under the ESA and is not a Bureau Sensitive species, it is protected under the auspices of the Bald and Golden Eagle Protection Act of 1940. This species probably forages in the proposed project area as well as in the many acres of similar habitat in the immediate area. There are no known nests in the proposed project area. In this part of their range, Golden eagles build large nests in dominant overstory trees. Nest trees often have significant defect, such as a blown out top or unusually large branches, and are often among of the largest diameter trees in mature and old growth stands. There have been numerous golden eagle sightings in the Roxy Ann peak area and even reports of an historic nest near the top of the peak. No surveys have been conducted for this species in the project area, none are required.

White-tailed Kite (*Elanus leucurus*). This is a Bureau Assessment species, which occurs uncommonly in open habitats throughout the Rogue Valley. This species may use the project area. No surveys have been conducted, none are required.

Lewis Woodpecker (*Melanerpes lewis*). This is a Bureau Sensitive species and is listed as species of conservation concern by the USFWS. This species is not known to breed in the Rogue Valley, though it is seen occasionally in oak/pine habitats in the foothills in the fall. The habitat in the project area appears to be suitable for this species but the lack of breeding populations in the Valley make the likelihood of this species occupying the project area quite remote.

Common Kingsnake (*Lampropeltis getulus*). This a Bureau Assessment species that inhabits oak/pine and similar habitats in the foothills of the Rogue Valley. This species is associated with rocks and down woody material that it

uses for cover, and may be present on the project area.

Fringed Myotis (*Myotis thysanodes*). This bat is a Bureau Assessment species. They are found in both forested and non-forested habitats. Caves, crevices, abandoned buildings, large snags or other similar structures are required for nursery colonies. There are no known records of this species being present in the proposed project area, but this species probably uses the project at to some degree at least for foraging if not roosting or reproduction. No surveys for this species have been conducted in the proposed project area; none are required.

C. Soils

The soils identified in the proposed project area are Carney cobbly clay, Heppsie clay and McMullin loam. Also identified are areas of rock outcropping associated with the McMullin soil. Except for the McMullin soil which is shallow, the soils in the project area are moderately deep and moderately to somewhat well drained on hillslopes. They formed in colluvium derived dominantly from tuff, breccia, and andesite. Elevation is 2,000 to 4,000 feet. The mean annual precipitation is 18 to 35 inches, the mean annual temperature is 45 to 52 degrees F. The soils in the project area is considered a sensitive soil area as a result of the high clay content and pyroclastic parent material. The Carney and Heppsie soil have high shrink/swell potential and can be detrimentally effected by soil compaction and displacement forces.

D. Botany

Historic records indicate that the vegetation in this area was scattered Ponderosa pine forest and oak woodland, oak savannah, and open shrubland. Except for some areas of oak savannah, these vegetation types have become overly dense through years of fire suppression.

Currently, this area is approximately 37% oak-shrub, 30% oak savannah, 18% Ponderosa pine forest, and 15% shrubland with weedy grasses and forbs throughout.

Surveys for rare botanical species found a moderately healthy population of *Ranunculus austro-oreganus*, the Southern Oregon buttercup. This population occurs in the more open habitats and extends into the surrounding private lands.

Ranunculus austro-oreganus is only found in the valley bottoms and foothills of the Rogue River drainage in Jackson County. It is listed as a Bureau Sensitive species. Management actions are designed to protect, manage, and conserve sensitive species and their habitats to preclude any contribution towards listing under the Threatened and Endangered Species Act.

There are 31 known sites on BLM managed land. Although this species appears to be tolerant of moderate disturbance, suitable habitat is declining. Threats to this species include fire suppression, overgrazing, land conversion for human uses, displacement by noxious weeds, invasive nonnative plants, and unmanaged off-highway vehicle use.

Yellow starthistle, *Centaurea solstitialis*, is found throughout the project area and adjacent private lands. This noxious weed is more common adjacent to roads; roads occur on all four sides of this parcel. Yellow starthistle is listed by the Oregon State Weed Board.

Medusahead rye, *Taeniatherum caput-medusae*, is found throughout the project area and adjacent private lands. It is more common in the open grasslands. Medusahead rye is listed by the Oregon State Weed Board as a "B" noxious weed.

E. Cultural

The Medford District 1995 Resource Management Plan (RMP) identified this parcel for possible sale. A cultural survey was performed on this parcel during the RMP process. No cultural sites were identified.

F. Fish

The Buttercup fuels treatment project is located in the Dry Creek drainage area. Dry Creek is a tributary to Antelope Creek, within the Little Butte Creek watershed. The project area does not include any perennial streams, but does include two short-duration intermittent.

Dry Creek (a long-duration intermittent stream) is the nearest stream capable of sustaining populations of fish. The northeast corner of the Proposed Action is located roughly 530 feet from the channel of Dry Creek. This drainage has been heavily impacted by past and present land-use practices, and riparian habitat conditions are in poor condition along the majority of the stream. Cattle grazing, roads, and residential uses has removed much of the stream side vegetation, reducing the quality of the aquatic and riparian habitat. The entire stream-corridor is in private ownership. It is likely that native resident and anadromous salmonid fish populations were historically present in Dry Creek, but presence/absence surveys conducted in April of 2003 by the Oregon Department of Fish and Wildlife have not verified any current populations. An irrigation reservoir (Agate Lake) is located approximately 2 miles downstream of the project area and currently blocks all upstream passage. This reservoir does contain populations of introduced fish species, including largemouth bass, yellow perch, bluegill, black crappie, and brown bullhead. Agate Lake acts as a sediment trap, reducing downstream delivery of fine sediments to lower Dry Creek and Antelope Creek. Presence of salmonids downstream of the reservoir has not been documented in Dry Creek. The closest known populations of salmonids in relation to the project area are located in Antelope Creek.

The two short-duration intermittent streams located within the Buttercup project boundary are not considered as Essential Fish Habitat as defined by the National Marine Fisheries Service.

G. Hydrology

Vegetation, climatic, geologic and other processes related to hydrology are discussed in the Little Butte Watershed Analysis.

The treatment area consists of a forty acre unit containing two short-duration intermittent streams (streams that run only in response to precipitation events, generally for 30 days or less). One short-duration stream originates on private land and crosses the southeast corner of the unit. This 200 foot reach has Oregon Ash along its banks. The second short-duration intermittent stream originates from a dry draw (draw lacking a defined channel and evidence of annual scour and deposition) in the center of the unit. The reach length is approximately 250 feet. Both short-duration intermittent streams are unnamed tributaries to Dry Creek, a long duration intermittent stream that drains into Agate Lake.

An Off Highway Vehicle (OHV) trail exists in one of the riparian reserves. The trail crosses one of the short-duration intermittent streams. Per the 1995 RMP, riparian reserves are closed to OHV use. This trail originates on adjoining private land and appears to receive light use.

CHAPTER 4 Environmental Consequences

A. INTRODUCTION

This chapter forms the scientific and analytic basis for comparison of alternatives. Discussions include the environmental impacts of the alternatives and any adverse environmental effects which cannot be avoided should the proposal be implemented. The impact analysis addresses direct, indirect, and cumulative impacts on all affected resources of the human environment, including critical elements. It also identifies and analyzes mitigation measures, if any, which may be taken to avoid or reduce projected impacts.

Only substantive site specific environmental changes that would result from implementing the proposed action or the no action alternative are discussed. If an ecological component is not discussed, it should be assumed that the resource specialists have considered effects to that component and found the proposed action would have minimal or no effects. General or "typical" effects from projects similar in nature to the proposed action alternative are also described in the documents to which this plan is tiered.

B. CRITICAL ELEMENTS

The following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered in all EAs.

Critical Element	Affected		Critical Element	Affected	
	Yes	No		Yes	No
Air Quality	✓*		T & E Species		✓
ACECs		✓	Wastes, Hazardous/Solid		✓
Cultural Resources		✓	Water Quality		✓
Farmlands, Prime/Unique		✓	Wetlands/Riparian Zones		✓
Floodplains		✓	Wild & Scenic Rivers		✓
Nat. Amer. Rel. Concerns		✓	Wilderness		✓
Invasive, Nonnative Species		✓	Energy Resources (EO 13212)		✓
			Environmental Justice		✓

*These affected critical elements would be impacted by implementing the Proposed Action. The impacts are being reduced by designing the Proposed Action with project design, Best Management Practices, Management Action/Direction, Standard and Guidelines as outlined in the Environmental Impact Statements (EIS)/Record of Decisions (RMP) (USDI BLM 1995)(USDA FS; USDI BLM 2001) tiered to in Chapter 1. The impacts are not affected beyond those already analyzed by the above-mentioned documents.

Botany: Proposed Action Alternative

Direct effects: Increasing the amount of light and moisture to the site would benefit *Ranunculus austro-oreganus*. Less competition for these resources would improve the health of this population and numbers of individuals would increase.

Weed and nonnative plant populations would increase initially due to increased available habitat. Newly bared sites and burn pile scars would allow weedy plants to germinate initially. Project design features and vegetation

response monitoring would control existing weed populations and return the site to a historic healthy natural condition.

Indirect effects: Restoration of this site would result in increased use by native pollinators and wildlife. Although this is a small parcel among highly modified private land, it would serve as a refugium and seed source for native species.

Cumulative effects: Restoration of sites in the wildland urban interface would continue across the landscape. Thinning and brush cutting in this zone would occur on private and public lands. Natural plant communities, including rare plant habitat, would increase. Noxious weeds and nonnative plants may not be controlled on private lands and could increase by providing additional disturbed areas.

Botany: No Action Alternative

Direct effects: No direct effects to *Ranunculus austro-oreganus*, its habitat, or weed populations.

Indirect effects: This population of *Ranunculus austro-oreganus* would continue to decline due to the slow degradation of its habitat. Through fire suppression, the plant communities would continue to become overly dense, decadent thickets. *Ranunculus austro-oreganus*, favoring open pine forest, oak woodlands, and savannahs, would slowly lose suitable habitat.

Noxious weed and nonnative plants would continue to spread and establish throughout the area, particularly roadside and open area populations. Invasive weed species populations would increase without active management. Without treatment, the potential remains for a stand replacement fire that would produce habitat for weed invasion.

Cumulative effects: Natural plant communities, including rare plant habitat, would continue to degrade due mainly to private land use and condition.

Fuels: Proposed Action Alternative

The proposal is to use prescribed fire so consequently there would be some smoke related impacts.

Prescribed burning emissions, under these alternatives is not expected to adversely effect annual PM10 attainment within the Grants Pass, Klamath Falls, and Medford/Ashland non-attainment areas. Any smoke intrusions into these areas from prescribed burning are anticipated to be light and of short duration.

The greatest potential for impacts from smoke intrusions is from underburning to localized drainages within and adjacent to the project area. Underburning requires a low intensity burn that would not have the energy to lift the smoke away from the project site. Smoke retained on site could be transported into portions of non-attainment areas if it is not dispersed and diluted by anticipated weather conditions. Localized concentration of smoke in rural areas away from non-attainment areas may continue to occur during prescribed burning operations.

The population centers of Grants Pass, Medford/Ashland (including Central Point and Eagle Point), and Klamath Falls in the past were in violation of the national ambient air quality standards for PM 10 and are classified as nonattainment for this pollutant. The nonattainment status of these communities was not attributable to prescribed burning. Major sources of particulate matter within the Medford/Ashland nonattainment area is smoke from woodstoves, dust, and industrial sources. The contribution to the nonattainment status of particulate matter from prescribed burning is less than 4% of the annual total for the Medford/Ashland air quality management area. Over

the past eight years the population centers of Grants Pass and Medford/Ashland have been in compliance for the national ambient air quality standards for PM 10.

The pollutant most associated with the Medford District's resource management activities is PM 10 found in smoke produced by prescribed fire. Monitoring in southwest Oregon consists of nephelometers (instrument designed to measure changes in visibility) in Grants Pass, Provolt, Illinois Valley, Ruch and eventually in Shady Cove. One medium volume sampler is collocated with the nephelometer at the Provolt site. The medium volume sampler measures the amount of PM 10 and smaller at ground level.

Fuels: No Action Alternative

This alternative would have no immediate negative effect. However, the fuel accumulation in the area would continue to increase, brush would continue to encroach on the grassland habitat, and the larger pine trees would become more susceptible to mortality from drought stress. The accumulation of brush would increase the intensity and effects (environmental and social) when a wildfire burns this area.

Wildlife: Proposed Action Alternative

The proposed action is not anticipated to have any negative effects on special status species or deer and elk winter range. Some species of wildlife dependant on, or preferring, oak woodlands with open grassy understory would benefit from the effects of the proposed project. The long term health of the oak woodland habitat in the project area would be improved, and the likelihood of stand replacement wildfire would be reduced.

Wildlife: No Action Alternative

This alternative would have no immediate negative effect on species using the area. However, the fuel accumulation in the area would continue to increase, brush would continue to encroach on the grassland habitat, and the larger pine trees would become more susceptible to mortality from drought stress. The accumulation of brush could fuel wildlife intense enough to kill large pine and oak trees, thus altering and simplifying habitat structure.

Soils: Proposed Action Alternative

The effects to the soil resource as a result of the proposed action would be minimal as the project design features adequately off set potential negative impacts that could occur. The soil, where the slash piles are burned would have moderate negative effects because the surface would be exposed to low to moderate heat intensities but would recover within a few years. It is estimated that the burn piles would cover less than five percent of the total area which should limit the cumulative effects to the soil resource. Overall, the project would have long-term positive effects to the soil as high fuel loading that could lead to extreme intensity wildland fires would be reduced and ground cover of native grasses and forbs would be re-established.

Soils: No Action Alternative

There would be no direct effect to the soil resource under the no action alternative but the potential for catastrophic fire would continue to increase. There would be no cumulative effect except for the potential effects as a result of large scale wildland fire.

Hydrology: Proposed Action Alternative

Direct Effects: Treated areas would have a more open vegetative canopy, allowing for increases in soil moisture availability and runoff over current conditions. In the treated areas, greater amounts of water from precipitation would likely infiltrate deeper into the soil, especially during smaller rainfall events that at present are mostly intercepted by vegetation canopies or near-surface roots. Implementation of Project Design Features would assure that there would be no direct effect on water quality under this alternative.

Indirect Effects: In the treated areas, more surface water would reach deep into the soil during the winter, allowing for greater levels of deep soil moisture and groundwater storage. This in turn would provide greater soil moisture availability to trees, as well as allowing some streams to have flow and moisture available to riparian vegetation for a longer period of time during the year, further increasing the chances that fire would be low-intensity in nature within Riparian Reserves. Combined with fuel reduction treatments in the Reserves, this would reduce the chance that streams would be at high risk for sudden changes in peak flow, sediment input, and down-cutting due to concentrated runoff following wildfires, loss of fallen wood on the forest floor, and loss of protective duff layers.

It is unlikely that there would be any sediment impacts to water quality from the proposed action. Reduced fuel loading and improved stand structure in the treated areas of both the uplands and the outer portions of Riparian Reserves would reduce risk for severe, stand-replacing fires. It is unlikely that sediment levels from tributaries in the project area would show substantial changes following this treatment or in the event of periodic, low-severity fire. Peak flows would increase slightly over pre-treatment levels, but would remain within the range expected for a properly-functioning landscape setting. Any increase due to the project would be well below what would be expected if a severe, stand-replacement fire occurred. Maintenance of existing large wood and growth of future potential large wood as well as maintenance of colluvial sediment storage in tributaries would maintain or gradually increase summer low flows, and would maintain or decrease stream width/depth ratios. This would have a neutral to positive effect on stream temperatures.

Cumulative Effects: Although conditions would improve within the treated areas, effects to stream flows and channel conditions at larger scales would not be detectable. Over the long term, Riparian Reserve and upland treatments could have a positive impact, especially if this project is successful in reducing on-site fire intensity and this project area receives future maintenance mimicking periodic low-intensity fire. Without a coordinated effort throughout the area, the improvements from implementing this project alone would probably remain undetectable due to the continuing level of negative impacts from other sources.

Hydrology: No Action Alternative

Direct Effects: With no on-the-ground actions, there would be no direct hydrologic effects. Conditions affecting streamflow and channel stability would not be affected directly.

Indirect Effects: Without on-the-ground actions, stream flows and channel stability would remain at current levels in the short-term. Within these areas, it is likely that much of the moisture from all but the heaviest precipitation events would continue to be intercepted and utilized or evaporated away by the canopy of dense vegetation, with very little actually soaking in beyond the surface root zone and allowing it to contribute to deep soil moisture and groundwater storage. The lack of deep soil moisture availability to upland and riparian vegetation and reduced levels of groundwater available to sustain streamflows would continue to allow vegetation and streams to dry out more quickly than they probably would under more open stand conditions, further increasing the chances that fire would be high-severity in nature. Small streams would continue to be at high risk for sudden changes in peak flow, sediment input, and down-cutting due to concentrated runoff following wildfires. Potential sources of future instream large wood could be significantly reduced, leading to additional inputs of sediment as wood levels declined over much of the next century. Likely inputs of sediment would occur from fire suppression-related disturbance. While there would be no immediate effect prior to a wildfire, water temperature could

increase significantly for many years following a severe fire, and loss of large wood and loss of colluvial sediment storage in tributaries would increase the flashiness of streams, leading to decreased summer low flows and increased stream width/depth ratios, all of which could have a significant negative effect on stream temperatures.

Cumulative Effects: The effect of past fire suppression and vegetation management activities, combined with a decision to take no action, would maintain current high levels of risk for severe fire. With continued lack of treatment and the increasing risk of severe fire, significant negative impacts affecting water quality could occur, particularly increasing levels of stream sedimentation and increased water temperatures following a severe fire. At the watershed scale, these impacts combined with the continuing level of negative impacts from other sources could lead to continued declines in condition.

Fisheries: Proposed Action Alternative

There are no direct, indirect, or cumulative effects to endangered coho salmon or to salmon habitat. Aquatic Conservation Strategy objectives would be met (report in EA file) under this alternative.

Fisheries: No Action Alternative

There are no direct, indirect, or cumulative effects to endangered coho salmon or to salmon habitat. Aquatic Conservation Strategy objectives would be met under this alternative.

CHAPTER 5

A. CONSULTATION/GOVERNMENT DISTRIBUTION

Federal Agencies:

U.S. Fish and Wildlife Service
Rogue River National Forest

State and Local Agencies:

Oregon Department of Fish & Wildlife
Oregon Department Forestry
Jackson Co. Commissioners

B. DISTRIBUTION LIST AND AVAILABILITY ON THE INTERNET

This EA was distributed to the following agencies and organizations.

ORGANIZATIONS

Audubon Society
Klamath Siskiyou Wildlands Center
Headwaters
Oregon Natural Resource Council

The Pacific Rivers Council
Association of O&C Counties
Southern Oregon Timber Industry Assoc.
Southern Oregon University
Little Butte Ck. Watershed Council

Federally Recognized Tribes

Cow Creek Band of Umpqua Indians
Confederated Tribes of Grand Ronde
Confederated Tribes of Siletz
Klamath Tribe
Quartz Valley Indian Reservation (Shasta Tribe)
Shasta Nation

Other Tribes

Confederated Bands [Shasta]
Shasta Upper Klamath Indians
Confederated Tribes of the Rogue-
table Rock and Associated Tribes

C. AVAILABILITY

A copy of this EA is available upon request from the Ashland Resource Area, Bureau of Land Management, 3040 Biddle Road, Medford, OR 97540. For more information call Ashland Resource Area Planning at (541) 618-2384. It is also accessible online at www.or.blm.gov/medford, under "Planning" link. The EA has also been placed in the public reading room at the BLM office (above address) and a copy sent to the Southern Oregon University Library.