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Environmental Assessment

Designation of the Wechee Butte Research Natural Area

Deschutes National Forest Service
Bend/Ft. Rock Ranger District
Deschutes County, Oregon

Township 20 South, Range 13 East, Section 27

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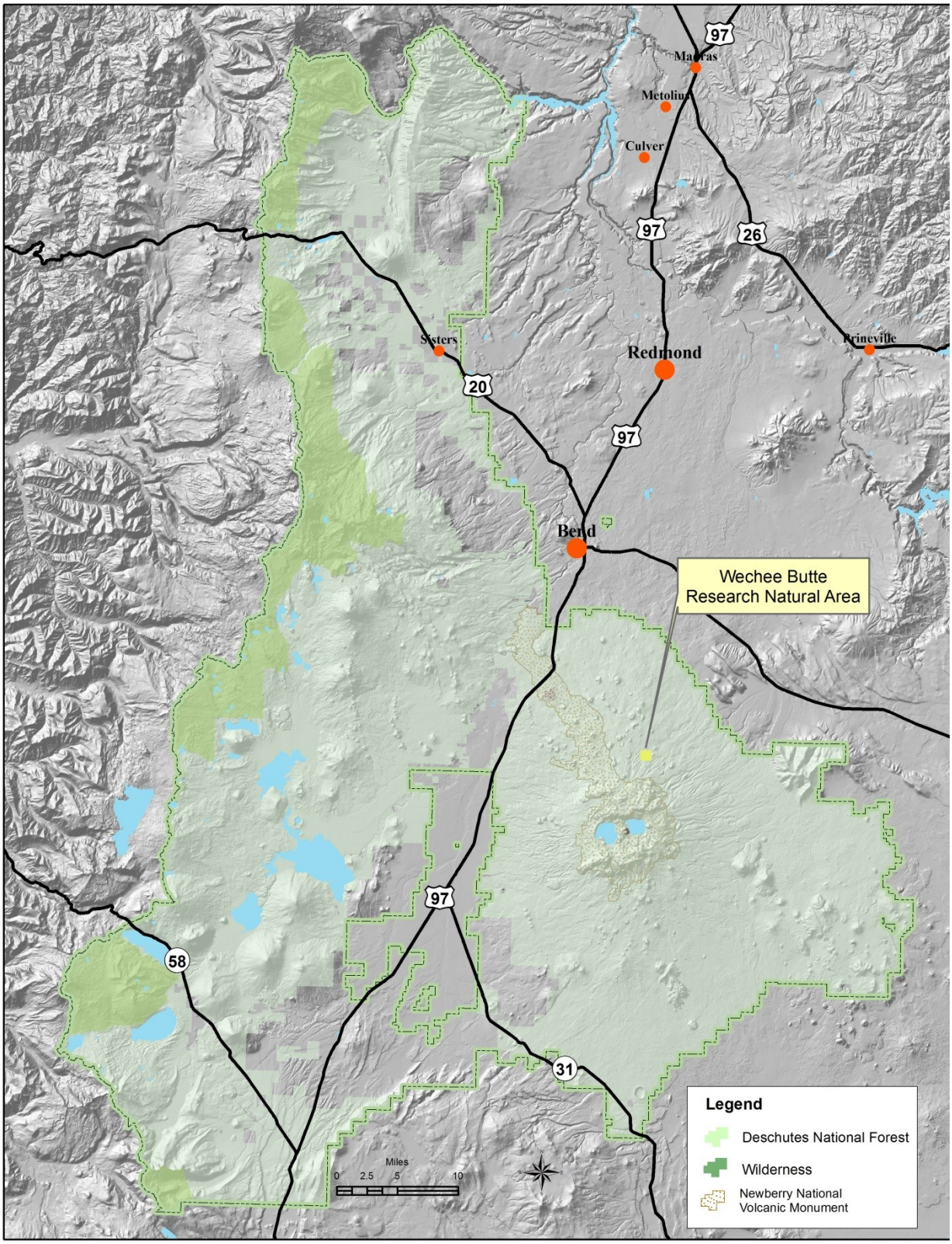

Figure 1: Vicinity of the Planning Area

Chapter 1: Purpose of and Need for Action

Introduction and Planning Area Description

This environmental assessment evaluates the proposal formally establish the Wechee Butte Research Natural Area (RNA). The proposed Wechee Butte RNA is identified in the 1990 Deschutes National Forest Land and Resource Management Plan (LRMP) (USDA Forest Service 1990a) and is described in Appendix E of the 1990 Final Environmental Impact Statement (FEIS) for the LRMP (USDA Forest Service 1990b). The proposed RNA is within and completely surrounded by National Forest System lands. Establishment and designation involves: 1) completion of an environmental assessment to approve the candidate RNA with final boundaries and 2) amendment or adoption of existing LRMP Standards and Guidelines to guide management.

The system of RNAs was established with the goal of allowing natural processes to dominate. RNAs preserve natural features and plant communities for research and educational purposes. The objectives of RNAs are:

- to provide baseline areas against which the effects of human activities in similar environments can be measured;
- to provide sites for study of natural processes in undisturbed ecosystems;
- to provide gene pool preserves for plant and animal species (Franklin et al. 1972).

The Wechee Butte RNA is located in the Deschutes National Forest on the Bend-Fort Rock Ranger District approximately 18 miles southeast of Bend, Oregon and six miles north of East Lake (Figure 1 and Figure 2). The RNA occupies about 333 acres within the High Lava Plains physiographic province (Franklin and Dyrness 1973) and the East Cascades Ecoregion, Pumice Plateau Forest subregion of Oregon (Oregon Natural Heritage Program 2003). The RNA is located on the Central Oregon pumice plateau, an area of numerous small cinder cones, extensive pumice deposits, and young lava flows. A large portion of the RNA is occupied by Wechee Butte, a forested cinder cone that rises 360 feet above the surrounding terrain. The forest within the RNA has not been subject to tree harvest or other human manipulation. Most of the RNA is dominated by lodgepole pine. Pure ponderosa pine stands are present on the southern exposures, the crater rim, and on upper slopes of the cone. On northern aspects at mid-slope whitebark pine and white fir / grand fir hybrid occur as non-dominant species in lodgepole and ponderosa pine-dominated stands. A full description of the Wechee Butte RNA is found in the Establishment Record of the RNA (USDA Forest Service 2010).

> Research Natural Areas are part of a national network of ecological areas designated for research, monitoring, education, and to maintain biological diversity (USDA Forest Service manual 4063). For more information on the research arm of the Forest Service, visit www.fs.fed.us/research.

RNA needs in the Pacific Northwest were originally identified by Pacific Northwest Research Station scientists in the 1960s and early 1970s following national agency direction (Dyrness et al. 1975). Extensive surveys for RNAs were conducted in Central Oregon by Deschutes National Forest Ecologist Dr. Bill Hopkins and other staff in the 1970s and 1980s and

recommendations were further evaluated by Sarah Greene of the PNW Research Station. Public involvement in the selection of the candidate RNAs occurred during the preparation and approval of the Deschutes LRMP in the late 1980s (USDA Forest Service 1990a). The Wechee Butte RNA was identified in the 1990 Deschutes LRMP as a "proposed" RNA based on the unique nature of the area, and recognition that designation of this area as a research natural area would make an important contribution to the Natural Heritage network. A draft Establishment Record (ER) has been prepared providing specific background, justification, objectives, and management prescriptions per USDA Forest Service manual 4063.41. (USDA Forest Service 2010). The ER will be finalized concurrent with the NEPA process. The conversion from candidate to established RNA is accomplished by amending the Deschutes National Forest LRMP through a Decision Notice and Designation Order.

Purpose of and Need for Action

The purpose of establishing the RNA in the Wechee Butte area is to contribute to a series of RNAs designated to "illustrate adequately or typify for research or education purposes, the important forest and range types in each forest region, as well as other plant communities that have special or unique characteristics of scientific interest and importance." 36 CFR 251.23

The Wechee Butte RNA would fill a need for representation of the following natural heritage elements identified in the 2003 Oregon Natural Heritage Plan (Oregon Natural Heritage Program 2003):

- Undisturbed forested cinder cone at mid-elevation with ponderosa pine-lodgepole pine climax

In addition, the RNA provides regional cell representation of both lodgepole pine/bitterbrush/western needlegrass and ponderosa pine/greenleaf manzanita communities.

Field monitoring showed that all of the important ecological features for which Wechee Butte RNA was originally proposed were still present in 2008 except a small portion on the western side that was logged in the 1980s.

There is a need to modify the boundaries of the proposed RNA to provide a boundary that can be better described and recognized, and to provide for the ability to conduct roadside management activities such as hazard tree removal. The proposed boundary would also eliminate the portion of the RNA that was logged in the 1980s.

Proposed Action

The proposed action is to formally establish the Wechee Butte RNA, to revise the boundary of the RNA, and to manage it according to the direction provided in the Deschutes LRMP (LRMP 4-92 to 4-93). Formal designation of the RNA by the Regional Forester would amend the Deschutes LRMP pursuant to 36 CFR 219.4 (1982 planning regulations).

The proposed RNA would be designated Management Area 2 (MA-2). The proposed RNA is presently being managed in accordance with this allocation's direction so designation would not impact other programs or activities. Specifics are given in Chapter 2.

Decision Framework

The Regional Forester for the Pacific Northwest Region of the USDA Forest Service is the responsible official for this project. The responsible official will review the environmental

assessment and the entire project record and will decide whether or not to select the proposed action. In making the decision, the responsible official will take into consideration the specific objective of providing for research and educational opportunities, as well as preserving the unique ecological characteristics that are representative of the area.

The final decision will be to either:

- Amend the Deschutes LRMP to establish the RNA in the Wechee Butte area (Proposed Action), or
- Decline to establish the area as an RNA, resulting in removal of Wechee Butte as a proposed RNA from the Forest Plan during the next Forest Plan revision, or
- Conclude that significant impacts would result from the proposed action which would warrant the preparation of an environmental impact statement.

Public Involvement

Public participation in this project began when a scoping letter and map were mailed to members of the public and to Tribal governments on March 12, 2009. The project also appeared in the Deschutes National Forest Schedule of Projects starting in March 2009 and has appeared quarterly since this initiation. An article "Forest Service Proposes Four Areas of Study" was also published in *The Bulletin* (Bend, Oregon) newspaper on March 22, 2009. The project appears on the Deschutes National Forest's project web page as well: http://data.ecosystem-management.org/nepaweb/project_list.php?forest=110601.

Two telephone calls were received. Both commenters were supportive of the proposed action. The Proposed Action is not highly controversial as evidenced by the number and tone of the responses received from the public during the scoping phase of the process.

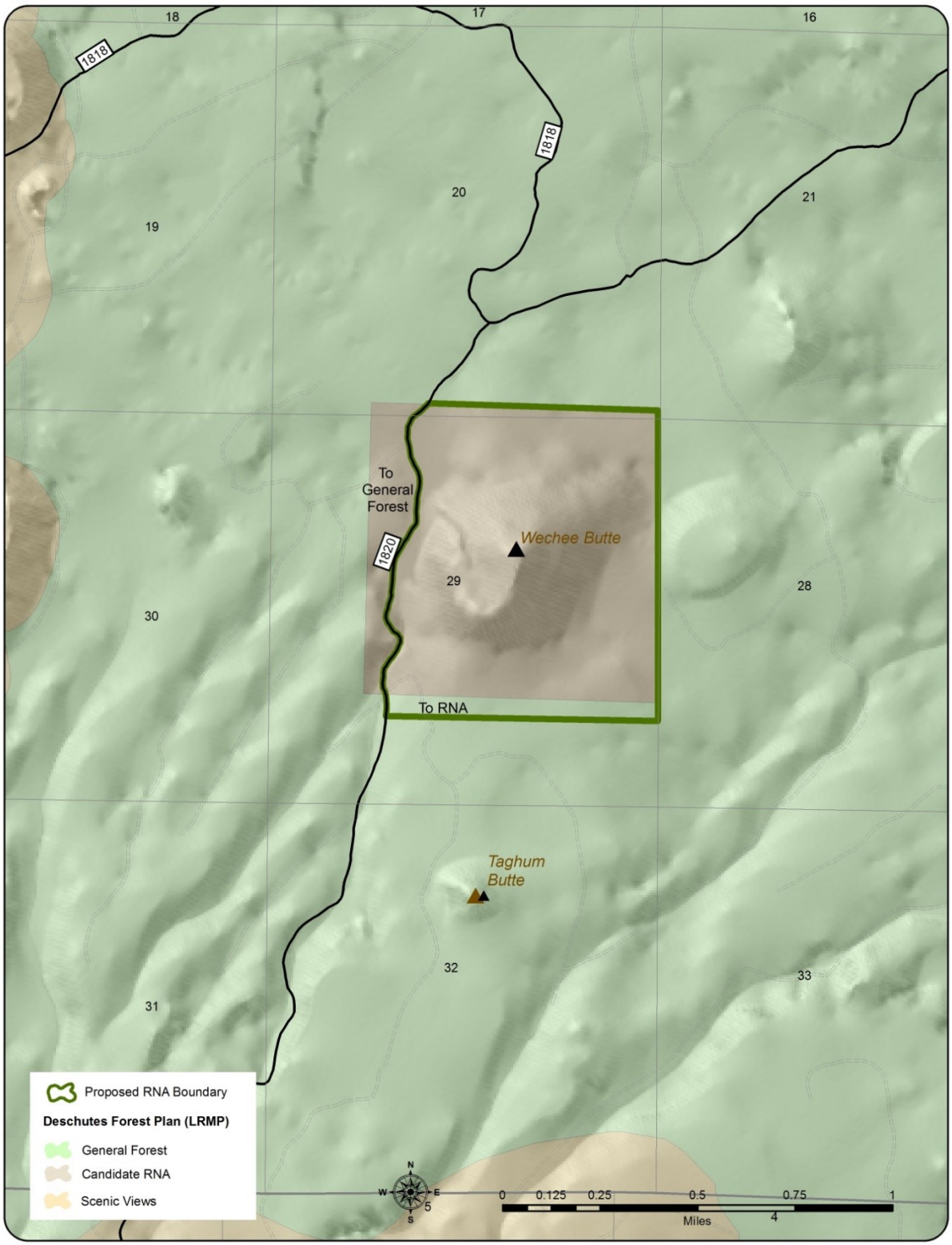

Figure 2: Map displays Deschutes LRMP allocations, including candidate RNA boundary and the proposed boundary for the Wechee Butte Research Natural Area. Where the proposed RNA boundary goes beyond the candidate RNA boundary on the southern side, the management allocation would change from General Forest to RNA. The area west of Forest Road 1820 would revert to General Forest.

Chapter 2: Alternatives

No unresolved conflicts concerning alternative uses of available resources were identified during the scoping process. Therefore, no additional alternatives were developed beyond the No Action and Proposed Action.

No Action

Under the No Action alternative, the candidate area would continue to be managed as a proposed RNA as directed in the Deschutes National Forest LRMP. The boundary of the proposed RNA, which encompasses approximately 357 acres, would not be modified. All current management direction of the Deschutes LRMP Management Area 2 as amended would continue to apply until the LRMP is revised.

Proposed Action

The proposed action would establish approximately 338 acres on the Deschutes National Forest as the Wechee Butte RNA.

Boundary

The Proposed Action would modify the RNA boundary from what is shown in the 1990 LRMP to one that can be better described and identified. The western boundary would follow Forest Road 1820 and the southwest corner boundary would follow Forest Road 1820-900.

Management Direction

The RNA would be managed as MA-2 in the 1990 Deschutes LRMP (LRMP 4-92 to 4-93). There would be no change from the existing standards and guidelines as listed here:

Standards and Guidelines in Deschutes LRMP adopted for Wechee Butte RNA:

Recreation

M2-1: No physical improvements for recreation purposes such as campgrounds or buildings will be permitted.

M2-1: Picnicking, camping, collecting plants, gathering cones and herbs, picking berries, and other public uses will be allowed, though not encouraged, as long as they do not modify the area to the extent that such uses threaten impairment of research or educational values.

M2-3: The area will be closed to all off-highway motorized vehicle use if use of these vehicles threatens natural conditions.[1]

Timber

M2-4: Timber harvest is not allowed in an RNA. No control of insect or disease should be instituted (see M2-22).

M2-5: Firewood cutting is not permitted.

M2-6: Timber harvesting will not be allowed in catastrophic situations.

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[1] Travel management regulations have since prohibited off-highway motorized vehicle use except on designated routes or areas. No such routes or areas exist in the RNA.

Range

M2-7: Grazing is only allowed when authorized to preserve some representation of the vegetation for which the RNA was created.

M2-8: Where RNAs are located adjacent to or within grazing allotments, the boundaries will be marked and physical barriers constructed around the area to prohibit livestock entry if needed. [Note: there are no grazing allotments within or near the proposed RNA].

M2-9: Vegetation manipulation will not be allowed in catastrophic situations.

Wildlife

M2-10: Management practices may be authorized to control excessive non-game animal populations and only in cases where these populations threaten the preservation of some representation of vegetation for which the RNA was originally created.

Minerals

M2-11: Areas are to be withdrawn for mineral entry for mining claims.

M2-12: Geothermal leases will be issued with No Surface occupancy Stipulations. Leases must be approved by the Experiment Station Director.

M2-13: Pits and quarries will require approval of the Research Station Director and the Forest Supervisor.

Visual

M2-14: Management activities and research facilities should meet the visual quality level on the Visual Quality Objective Map. [Note: the Visual Quality Objective Map shows a visual quality level of Partial Retention].

Transportation

M2-15: No new roads or trails will be permitted within these areas, except those considered essential to research, protection, or educational uses.

M2-16: Any transportation facilities such as roads and trails provided for in this MA will have minimum impacts on the area ecosystems and must be located and managed to best fulfill the area's management objectives. Management of the transportation facilities could include closing facilities to all but the designated research personnel. Helispots and special uses such as telephone lines are not allowed.

Wildfire

M2-17: Unless plans approved by the Station Director provide for letting natural fires burn, aggressive containment using low impact methods should be used. High impact methods will be used only to prevent a total loss of the RNA. Mop up should be minimized with natural burnout being the preferred method.

Prescribed Fire

M2-18: Prescribed fire will be used only as specified in approved RNA management goals.

Fuel Loading

M2-19: Fuels will be allowed to accumulate at natural rates.

Special Uses

M2-20: Special uses will be allowed if they support the management objectives of the area and are approved by the Research Station Director and the Forest Supervisor.

Forest Health

M2-21: Monitor the area to detect pest problems which could destroy the RNA or cause damage to adjacent lands. Reintroduction of fire should be considered to reduce possible insect epidemic conditions.

M2-22: Action should be taken when the damage has the potential to modify ecological processes to the point that the area has little value for observation and research.

M2-23: Follow Forest-wide standards/guidelines for forest health.

Eastside Screens

The proposed RNA area falls within the area covered by the Regional Forester's Forest Plan Amendment #2 (Eastside Screens) of 1995 which provides direction for timber sales. Because timber sales are not allowed within the RNA, the direction contained in the Eastside Screens would not be pertinent.

Comparison of the Alternatives

Table 1: Comparison of the Alternatives

	No Action Alternative (1990 LRMP Proposed RNA)	**Proposed Action (Establish RNA)**
Acres of Proposed RNA at Wechee Butte	357	0
Acres of Established RNA at Wechee Butte	0	338
Short-term Management (< 10 years)	Continue Management Direction of proposed RNA under LRMP MA-2 S&Gs until Forest Plan revision.	Continue Management Direction of established RNA with existing LRMP S&Gs for MA-2.
Long-term Management (> 10 years)	To be determined during forest plan revision.	

Chapter 3: Environmental Consequences

This chapter discusses the potential effects on the human environment resulting from the implementation of the no action or proposed action alternatives. This analysis tiers to the Deschutes National Forest Land and Resource Management Plan Final Environmental Impact Statement and Record of Decision (USDA Forest Service 1990b).

Management Allocations

The proposed RNA boundary modifications will not have a measurable effect on Forest Plan goals, objectives, or outputs when considered in context of the Deschutes National Forest. The RNA would total 338 acres which is less than one of half of one percent of the Forest.

The proposed boundary modification would result in a net increase of 19 acres in Management Area 8 General Forest, and a net decrease of 19 acres in Management Area 2 Research Natural Areas (Figure 2). This modification would change the potential management actions that could be undertaken in these areas including timber harvest, fire management and suppression, and recreation. The impact of such actions in an area of this size would be minimal when considered on a landscape level. The boundary modification is in response to the need for a boundary that can be better described.

Forest Plan Amendment – Assessment of Significance

The following items describe non-significant amendments (Forest Service Manual 1926.51):

- Actions that do not significantly alter the multiple use goals and objectives for long-term land and resource management;
- Adjustments of management area boundaries or management prescriptions resulting from further on-site analysis when the adjustments do not cause significant changes in the multiple-use goals and objectives for long-term land and resource management;
- Minor changes in standards and guidelines; and/or
- Opportunities for projects or activities that will contribute to achievement of the management prescriptions.

The conversion from a proposed RNA to an established RNA would not alter the currently described goals for the area, the boundary modifications are minor, no standards and guidelines will change, and the area will permanently be subject to the management prescription for RNAs.

Threatened, Endangered, and Sensitive Fish

A Biological Evaluation (BE) was prepared in compliance with the requirements of Forest Service Manual 2630.3, FSM 2670-2671, FSM W.O. Amendments 2600-95-7, and the Endangered Species Act of 1973.

There are no aquatic environments associated with the proposed RNA. The nearest aquatic environment is a wetland/spring at Swamp Wells, 2.5 miles north. The nearest fish habitat is located at East Lake, over 5 miles to the south.

For aquatics there are no threatened or endangered species or designated critical habitat within the proposed RNA therefore the action will have no effect on any aquatic threatened or

endangered aquatic species.

The Forest Service Region 6 Sensitive Species List (USDA 2011) was reviewed for species that may be present on the Deschutes National Forest. There are no listed sensitive aquatic species located within the proposed RNA or within 5 miles.

Summary of Conclusions for Sensitive Fish Species

1. The No Action Alternative serves as a baseline for all sensitive species.
2. Implementation of the Proposed Action will have no impact on any Sensitive aquatic species on the Deschutes National Forest.

Threatened, Endangered, and Sensitive Plants

A Biological Evaluation has been prepared to determine potential effects from the proposed action on threatened, endangered, and sensitive plant species in compliance with direction in the FSM 2672.4. Species considered are those on the current Regional Forester's Sensitive Species List (USDA Forest Service 2011) that are documented or suspected to occur on the Deschutes National Forest (see Appendix A of the Plant BE).

Summary

Whitebark pine (*Pinus albicaulis*) is a Candidate species for Federal listing as Threatened or Endangered. The Proposed Action to officially designate Wechee Butte as a Research Natural Area would have a beneficial effect on this species. There are no adverse effects to whitebark pine from the proposed action.

There are no other Sensitive plants are known to occur in the Wechee Butte RNA. If Sensitive plants are found in the future, the establishment of Wechee Butte RNA would be a beneficial effect to those species and their habitat.

Existing Condition

The proposed Wechee Butte Research Natural Area (RNA) occupies approximately 333 acres (135 ha) within the Deschutes National Forest, in the High Lava Plains physiographic province and the East Cascades Ecoregion, Pumice Plateau Forest subregion of Oregon (Oregon Natural Heritage Program 2003). The RNA is located on the Central Oregon pumice plateau, an area of numerous small cinder cones, extensive pumice deposits, and young lava flows. Almost 300 acres (121 hectares) of the RNA is occupied by Wechee Butte, a forested cinder cone that rises 360 feet (110 meters) above the surrounding terrain. The cinder cone contains a crater whose northern rim is breached to the northwest. The bottom of the crater lies approximately 120 feet (37 meters) below the northeast rim of the cone and 10 feet (3 meters) below the southwest rim.

Most of the RNA is dominated by lodgepole pine (*Pinus contorta*). Pure ponderosa pine (*Pinus ponderosa*) stands are present on the southern exposures, the crater rim, and on upper slopes of the cone. On northern aspects at mid-slope, whitebark pine (*Pinus albicaulis*) and white fir / grand fir hybrid (*Abies concolor* X *grandis*) occur as non-dominant species in lodgepole and ponderosa pine-dominated stands. A full description of the Wechee Butte RNA is found in the Establishment Record of the RNA (USDA Forest Service 2010).

Whitebark pine (*Pinus albicaulis*), a candidate for Federal listing as Threatened or Endangered, occurs within the proposed Wechee RNA.

The U.S. Forest Service Regional Forester lists 69 Sensitive plant species as suspected or documented to occur on the Deschutes National Forest Sensitive (Appendix A): 36 vascular plants (18 documented to occur), 26 bryophytes (11 documented), 2 lichens (1 documented) and 5 fungi (4 documented).

A pre-field review was completed to determine if any of the 69 Sensitive plant species occur within the RNA. The following sources were used in this review:

1. U.S. Forest Service NRIS-TESP-Invasives Database which is where U.S. Forest Service Sensitive plant locations are entered and tracked.
2. Wechee Butte RNA Plant Species List (USDA Forest Service 2010).

The flora has not been systematically studied but all known plant species lists were compiled into the Establishment Record (USDA Forest Service 2010).

Environmental Consequences

Under both the No Action and Proposed Action, the Wechee Butte RNA would continue to be managed as a Research Natural Area. Research Natural Areas are part of a national network of ecological areas designated for research, monitoring, education, and to maintain biological diversity (USDA Forest Service manual 4063). RNAs are managed to allow natural processes to occur and to minimize human disturbance (USDA Forest Service manual 4063.3).
The Proposed Action would guarantee that the RNA would be managed to maintain biological diversity into perpetuity. Management of RNAs is beneficial to plants and their habitats.

Direct and Indirect Effects to TES Plants

There are no mapped Sensitive plant populations within the proposed Wechee Butte RNA. However, whitebark pine, a Federal Candidate for listing as Threatened or Endangered, is known to occur in the RNA.

There are no direct or adverse indirect effects to whitebark pine from the proposed action. Establishment of the Wechee Butte RNA would benefit whitebark pine because the area would continue to be managed to maintain biological diversity with limited human disturbance, thus protecting this species and its habitat within the RNA.

Cumulative Effects

Implementation of the proposed action for the Designation of the Wechee Butte River RNA will not result in any direct or indirect adverse effects and, therefore, will not result in any cumulative effects to whitebark pine.

Threatened, Endangered, and Sensitive Wildlife

A Biological Evaluation has been prepared in compliance with the requirements of Forest Service Manual (FSM) 2630.3., FSM 2670-2671, FSM W.O. Amendments 2600-95-7, and the Endangered Species Act (ESA) of 1973. A Biological Assessment (BA) will be prepared in compliance with the requirements of Forest Service Manual (FSM) 2630.3, FSM 2672.4 and the Endangered Species Act of 1973 (Subpart B: 402.12, Section 7 Consultation, as amended) on actions and programs authorized, funded, or carried out by the Forest Service to assess their potential for effect on threatened and endangered species and species proposed for federal listing

(FSM 2670.1). This EA includes a summary of the BE which is located in the project file.

Those species thought to occur presently or historically on the Deschutes National Forest and analyzed in this document include the gray wolf.

Table 2: Threatened and Endangered Species Summary

Species	Status	Habitat	Presence
Northern Spotted Owl	Federal Threatened, MIS	Old Growth Mixed Conifer Forests	No
Gray Wolf	Federal Endangered	Generalist	Yes
Oregon Spotted Frog	Federal Proposed Threatened, Regional Forester Sensitive	Stream, Marsh	No
Northern Spotted Owl Critical Habitat			No
Oregon Spotted Frog Proposed Critical Habitat			No

Table 3: Summary of Conclusion of Effects, Threatened and Endangered Species.

Species/Habitat	Action Alternatives
Northern Spotted Owl	**NA**
Gray Wolf	**"No Effect"**
Oregon Spotted Frog	**NA**
Northern Spotted Owl Critical Habitat	**NA**
Oregon Spotted Frog Proposed Critical Habitat	**NA**

Summary of Conclusions for T&E Species

1. The Proposed Action will have "**No Effect**" on the gray wolf and their habitats. Consultation is not required.

2. There is no habitat for the following T&E species – northern spotted owl and the Oregon spotted frog as well as their respective critical habitats.

After a review of records, habitat requirements, and existing habitat components, it was determined the following T&E species do not occur and have no habitat in the project area and will not be included in any further analysis: northern spotted owl and the Oregon spotted frog and their respective critical habitat areas. Rationale for this determination is found in the BE.

Gray Wolf, Federally Endangered

The BE includes a thorough description of the habitat needs and existing habitat on the Deschutes National Forest.

Environmental Consequences

Proposed Action

Direct and Indirect Effects

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no direct or indirect effects to gray wolf habitat.

Cumulative Effects

Implementation of proposed action for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the gray wolf and its habitat.

Determination

The proposed action is programmatic in nature and there will be no change from the existing condition. Therefore, implementation of the proposed action will have a "No Effect" to gray wolves and their habitat.

Consistency

Implementation of the Designation of the Wechee Butte RNA is consistent with the Deschutes Land and Resource Management Plan and the Deschutes National Forest Late-Successional Reserve Assessments.

Regional Forester's Sensitive Species

Species classified as sensitive by the Forest Service are to be considered by conducting biological evaluations (BE) to determine potential effects of all programs and activities on these species (FSM 2670.32). The BE is a documented review of Forest Service activities in sufficient detail to determine how a proposed action may impact sensitive wildlife species, and to comply with the requirements of the Endangered Species Act.

The Forest Service Region 6 Sensitive Species List (USDA 2011) was reviewed for species that may be present on the Deschutes National Forest. After a review of records, habitat requirements, and existing habitat components, it was determined the following sensitive animal species have habitat or are known to occur in the project area and will be included in this analysis:

Table 4: Sensitive Species Summary for the Deschutes National Forest.

Species	Status	Habitat	Habitat/Species Present
Northern Bald Eagle (*Haliaeetus leucocephalus*)	Regional Forester Sensitive, MIS	Lakeside with Large Trees	No
Bufflehead (*Bucephala albeola*)	Regional Forester Sensitive	Lakes, Snags	No
Harlequin Duck (*Histrionicus histrionicus*)	Regional Forester Sensitive	Rapid Streams, Large Trees	No

Tricolored Blackbird (*Agelaius tricolor*)	Regional Forester Sensitive	Lakeside, Bullrush	No
Yellow Rail (*Coturnicops noveboracensis*)	Regional Forester Sensitive	Marsh	No
Greater (Western) Sage Grouse (*Centrocercus urophasianus phaeios*)	Federal Candidate, Regional Forester Sensitive	Sagebrush Flats	No
American Peregrine Falcon (*Falco peregrinus anatum*)	Regional Forester Sensitive, MIS	Riparian, Cliffs	No
Lewis' Woodpecker (*Melanerpes lewis*)	Regional Forester Sensitive, MIS	Large, open ponderosa pine and burned forests	Yes
White-headed Woodpecker (*Picoides albolarvatus*)	Regional Forester Sensitive, MIS	Large, open ponderosa pine	Yes
Northern Waterthrush (*Seiurus noveboracensis*)	Regional Forester Sensitive	Riparian vegetation including willows and alder	No
Horned Grebe (*Podiceps auritus*)	Regional Forester Sensitive, MIS	Lakes	No
Tule White-fronted Goose (*Anser albifrons elgasi*)	Regional Forester Sensitive, MIS	Large rivers, marsh/lakeshore habitat with emergent vegetation	No
Pacific Fisher (*Martes pennanti*)	Federal Candidate, Regional Forester Sensitive	Mixed, Complex	No
North American Wolverine (*Gulo gulo luscus*)	Regional Forester Sensitive, MIS	Mix, High Elevation	No
Townsend's Big-eared Bat (*Corynorhinus townsendii*)	Regional Forester Sensitive, MIS	Caves	No
Pallid Bat (*Antrozous pallidus*)	Regional Forester Sensitive	Canyons, cliffs, caves, and buildings	No
Spotted Bat (*Euderma maculatum*)	Regional Forester Sensitive	Canyons, cliffs, caves, and buildings	No
Fringed Myotis (*Myotis thysanodes*)	Regional Forester Sensitive	Canyons, cliffs, caves, buildings, and large snags	Yes
Columbia Spotted Frog (*Rana luteiventris)*	Federal Candidate, Regional Forester Sensitive	Stream, Marsh	No
Crater Lake Tightcoil (*Pristiloma arcticum crateris*)	Regional Forester Sensitive	Riparian, Perennially Wet	No

Evening Field Slug (*Deroceras hesperium*)	Regional Forester Sensitive	Perennially wet meadows	No
Silver-bordered Fritillary (*Boloria selene atrocostalis*)	Regional Forester Sensitive	Open riparian bogs and marshes	No
Johnson's Hairstreak (*Mitoura johnsonii*) (*Callophrys johnsonii*)	Regional Forester Sensitive	Coniferous forests with mistletoe	No
Western Bumblebee (*Bombus occidentalis*)	Regional Forester Sensitive	Meadows with floral resources	No

Summary of Conclusions for Sensitive Species

1. The No Action Alternative serves as a baseline for all sensitive species.
2. Implementation of Proposed Action will have **"No Impact"** to the Lewis' woodpecker, white-headed woodpecker, and fringed myotis and their habitats for the Deschutes National Forest.
3. There is no habitat for the following species within the Wechee Butte RNA - bald eagle, bufflehead, harlequin duck, tri-colored blackbird, yellow rail, greater sage grouse, American peregrine falcon, northern waterthrush, horned grebe, Tule white-fronted goose, Pacific fisher, California wolverine, Townsend's big-eared bat, pallid bat, spotted bat, Columbia spotted frog, Crater Lake tightcoil, evening field slug silver-bordered fritillary, Johnson's hairstreak, and western bumble bee.

After a review of records, habitat requirements, and existing habitat components, it was determined the remaining sensitive species do not occur and have no habitat in the project area and will not be included in any further analysis: bald eagle, bufflehead, harlequin duck, tricolored blackbird, yellow rail, greater sage grouse, peregrine falcon, northern waterthrush, horned grebe, Tule white-fronted goose, Pacific fisher, North American wolverine, Townsend's big-eared bat, pallid bat, spotted bat, Columbia spotted frog, Crater Lake tightcoil, evening field slug, silver-bordered fritillary, Johnson's hairstreak, and western bumble bee. The rationale for this determination is located in the BE.

Table 5displays those Region 6 Sensitive Species that are known to occur or have habitat within the Wechee Butte RNA.

Table 5: Summary of Conclusion of Impacts, Region 6 Sensitive Species for the Designation of the Wechee Butte RNA.

Species	Action Alternative
Lewis' Woodpecker	**NI**
White-headed Woodpecker	**NI**

Fringed Myotis	**NI**

NI = No Impact
MIIH = May impact individuals or habitat, but will not likely contribute a trend toward federal listing or loss of viability to the population or species
BI = Beneficial Impact

Lewis' Woodpecker, Region 6 Sensitive and MIS

Existing Condition/No Action

Formerly widespread, this species is common year-round only in the white oak ponderosa pine belt east of Mt. Hood. Habitat for the Lewis' woodpecker, a migrant in this part of its range, includes old-forest, single-storied ponderosa pine. Burned ponderosa pine forests created by stand-replacing fires provide highly productive habitats as compared to unburned pine (Wisdom et al. 2000). Lewis' woodpeckers feed on flying insects and are not strong cavity excavators. They require large snags in an advanced state of decay that are easy to excavate, or they use old cavities created by other woodpeckers. Nest trees generally average 17 to 44 inches (Saab and Dudley 1998, Wisdom et al. 2000). Known breeding has been documented in low numbers along Why-chus Creek (Marshall et al. 2003) and in recent burned areas across the Deschutes.

In evaluating landscape predictor variables for the Lewis's woodpecker, Saab et al. (2002) found a negative relation to burned ponderosa pine/Douglas-fir stands with high crown closure (>70%) but was positively associated with low snag densities overall. However, although it selects for more open stands, this species selected nest sites with higher densities of large snags (>20"dbh) (Saab and Dudley 1998). Lewis' woodpeckers are different than other woodpeckers. They are aerial insectivores during the breeding season and use lower densities of smaller snags but rely more heavily on large snags (Saab and Dudley 1998). Habitat for Lewis' woodpecker will increase 5-10 years after in fire areas as smaller snags fall.

The Lewis' woodpecker is declining throughout its range. Threats to this species include the loss of suitable habitat, competition for nest trees, and effects of pesticides on insects.

Habitat for the Lewis' woodpecker occurs sparingly throughout the Deschutes National Forest in ponderosa pine and xeric ponderosa pine PAGs and other PAGs where ponderosa pine is the dominant species in the early and mid seral stages in open stands where average tree size is 15"dbh or greater.

Environmental Consequences

Proposed Action

Direct and Indirect Impacts

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no direct or indirect effects to Lewis' woodpecker habitat.

Cumulative Effects

Implementation of action alternative for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the Lewis' woodpecker and its habitat.

Determination

Implementation of the Designation of the Wechee Butte RNA will result in no change to suitable Lewis' woodpecker habitat. Therefore, the Action Alternative will have "No Impact" to Lewis' woodpeckers or their habitat.

White-headed Woodpecker, Region 6 Sensitive and MIS

Existing Condition/No Action

White-headed woodpeckers are uncommon permanent residents in forests east of the Cascades. They use habitat with large open ponderosa pine, low shrub levels and large snags. Dixon (1995) found white-headed woodpecker densities increased with increasing old-growth ponderosa pine trees and showed a positive association with large ponderosa pine. The white-headed woodpecker is a primary cavity excavator of soft snags. This woodpecker is the only woodpecker species to rely heavily on seeds of ponderosa pine for food (Marshall et al. 2003 p. 364).

A long term study on the white-headed woodpecker occurred on the Deschutes and Winema National Forests from 1997-2004 with several Deschutes study sites occurring in the Metolius Basin area. Frenzel (2000) calculated the mean diameter for white-headed woodpecker nest trees to be 26.2"dbh while Dixon (1995) found similar results (mean diameter of 25.6"dbh). Frenzel (2003) found nests at sites with a high density of large diameter trees had a higher survival rate than nests in recently harvested sites. Unharvested sites or sites with greater than 12 trees per acre >21"dbh had a success rate of 63.1% while nests at previously harvested sites or lower densities of large trees had a success rate of 39.8%. Therefore, white-headed woodpeckers were positively associated with higher densities of large trees. On the Winema National Forest, white-headed woodpeckers were found to be using small-diameter trees, logs in a slash pile and upturned roots (6-13"dbh) where large snags were uncommon (Frenzel 2002).

Threats to this species include increased stand densities in ponderosa pine due to fire suppression, loss of large, old ponderosa pine trees and snags, wildfire, and increased shrub densities. Increased shrub densities may be factors leading to increased mammalian nest predation and increased risk of avian predation on adults (Frenzel 2000).

Habitat for the white-headed woodpecker occurs sparingly throughout the Deschutes National Forest in ponderosa pine dominated forests in open stands where average tree size is 10"dbh or greater.

Environmental Consequences

Proposed Action

Direct and Indirect Impacts

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no direct or indirect effects to white-headed woodpecker habitat.

Cumulative Effects

Implementation of action alternative for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the white-headed woodpecker and its habitat.

Determination

Implementation of the Designation of the Wechee Butte RNA will result in no change to suitable white-headed woodpecker habitat. Therefore, the Action Alternative will have "No Impact" to white-headed woodpeckers or their habitat.

Fringed Myotis, Region 6 Sensitive

Existing Condition/No Action

Fringed myotis are migratory to Oregon. They are a small, insectivorous bat that roosts in caves, mines, rock crevices, buildings, and other protected sites (NatureServe 2013, Harvey et. al 1999). Nursery colonies are established in caves, mines, and buildings (NatureServe 2013). Beetles and moths are common prey items and they glean insects from the ground or near thick or thorny vegetation. These bats are known to forage close to vegetative canopy and have relatively slow and highly maneuverable flight (Harvey et al. 1999). Females give birth to one young (pup) in June or July. For Oregon, NatureServe (2014) ranks the fringed myotis as S2, Imperiled. They report the greatest threat to the species is human disturbance of roost sites, especially maternity colonies, through recreational caving and mine exploration. Other threats include closure of abandoned mines, renewed mining at historic sites, toxic material impoundments, pesticide spraying, vegetation conversion, livestock grazing, timber harvest, and destruction of buildings and bridges used as roosts.

Environmental Consequences

Proposed Action

Direct and Indirect Impacts

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no direct or indirect effects to fringed myotis habitat.

Cumulative Effects

Implementation of action alternative for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the fringed myotis and its habitat.

Determination

Implementation of the Designation of the Wechee Butte RNA will result in no change to suitable fringed myotis habitat. Therefore, the Action Alternative will have "No Impact" to the fringed myotis or their habitat.

Wildlife other than Threatened, Endangered, and Sensitive

The Wildlife Report documents the review of activities and projects to meet the requirements of the Forest Service Manual (2634.03-.2), the National Forest Management Act, the Land and Resource Management Plan (LRMP) for the Deschutes National Forest, the Northwest Forest Plan (NWFP), and the Decision Notice for the Continuation of Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales (i.e. "Eastside Screens"), and the Landbird Strategies. The complete Wildlife Report is located in the project file.

Species and Habitats

The following wildlife/habitats have been reviewed to determine if the project/activity will have any negative effects on them including LRMP Management Indicator Species (MIS), NWFP Survey and Manage (S&M) species, and landbirds.

The Deschutes National Forest Land and Resource Management Plan (LRMP) (USDA 1990a) identified a group of wildlife species as management indicator species (MIS). These species were selected because they represent other species with similar habitat requirements. Management indicator species can be used to assess the impacts of management activities for a wide range of wildlife species with similar habitat needs (FSM 2620.5).

In addition to the above mentioned MIS species there have been a number of wildlife species deemed "species of concern" either through the Northwest Forest Plan (e.g. bats; pg C-43) or through other directives (e.g., landbirds).

Management Indicator Species

Table 6: Deschutes NF Management Indicator Species Summary

Species	Habitat	Habitat in Project Area
Northern Goshawk (*Accipiter gentiles*)	Mature and old-growth forests; especially high canopy closure and large trees	Yes
Cooper's Hawk (*Accipiter cooperi*)	Similar to goshawk, can also use mature forests with high canopy closure/tree density	Yes
Sharp-shinned Hawk (*Accipiter striatus*)	Similar to goshawk in addition to young, dense, even-aged stands	Yes
Great Gray Owl (*Strix nebulosa*)	Mature and old growth forests associated with openings and meadows	No
Great Blue Heron (*Ardea herodias*)	Riparian edge habitats including lakes, streams, marshes and estuaries	No
Golden Eagle (*Aquila chrysaetos*)	Large open areas with cliffs and rock outcrops	No
Waterfowl	Lakes, ponds, streams	No
Woodpeckers (Cavity Nesters)	Snags, Mature Conifers, Hardwoods, etc.	Yes
Red-tailed Hawk (*Buteo jamaicensis*)	Large snags, open country interspersed with forests	Yes
Osprey (*Pandion haliaetus*)	Large snags associated with fish bearing water bodies	No

Townsend's Big-eared Bat	Caves and dwellings	No
American Marten (*Martes americana*)	Mixed Conifer or High Elevation late successional forests with abundant down woody material	Yes
Elk (*Cervus elephas*)	Mixed habitats	No
Mule Deer (*Odocoileus hemionus*)	Mixed habitats	Yes
Snags and Down Wood Associated Species and Habitat	Snags and down woody material	Yes

The following table displays the acres of potential habitat mapped within the proposed Wechee Butte RNA.

Table 7: Acres of potential habitat for species within the proposed Wechee Butte RNA.

Species	Acres of Potential Habitat	Percent of Proposed RNA
Northern Goshawk	315 acres	72%
Coopers Hawk	288 acres	66%
Sharp-shinned Hawk	347 acres	79%
Great Gray Owl	0	%
Great Blue Heron	0	%
Golden Eagle	0	
Waterfowl	0	%
Black-backed Woodpecker	382 acres	88%
Hairy Woodpecker	0	%
Northern Flicker	0	%
Pileated Woodpecker	0	%
Three-toed Woodpecker	325 acres	74%
Williamson's Sapsucker	0	%
Red-tailed Hawk	9 acres	2%
Osprey	0	%
Townsend's Big-eared Bat	0	
American Marten	351 acres	80%
Elk Hiding Cover	0	
Elk Thermal Cover	0	
Mule Deer Hiding Cover	358 acres	82%
Mule Deer Thermal Cover	0	

Environmental Consequences

Proposed Action

Direct and Indirect Impacts

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no

direct or indirect effects to the above management indicator species.

Cumulative Effects

Implementation of action alternative for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the above mentioned management indicator species and their habitats.

Determination

This project will not affect the above mentioned management indicator species in the project area. Therefore, the designation of the Wechee Butte RNA project will not contribute to a negative trend in viability on the Deschutes National Forest for the above mentioned management indicator species.

Conservation Strategy for Eastslope of the Cascade Mountains

Landbird Strategic Plan

The Forest Service has prepared a Landbird Strategic Plan (January 2000) to maintain, restore, and protect habitats necessary to sustain healthy migratory and resident bird populations to achieve biological objectives. The primary purpose of the strategic plan is to provide guidance for the Landbird Conservation Program and to focus efforts in a common direction. On a more local level, individuals from multiple agencies and organizations with the Oregon-Washington Chapter of Partners in Flight participated in developing a publication for conserving landbirds in this region. A Conservation Strategy for Landbirds of the East-Slope of the Cascade Mountains in Oregon and Washington was published in June 2000 (Altman 2000). This document outlines conservation measures, goals and objectives for specific habitat types found on the east-slope of the Cascades and the focal species associated with each habitat type. See Table 8 for specific habitat types highlighted in that document, the habitat features needing conservation focus and the focal bird species for each.

Table 8: East-slope Cascade Mountain landbirds.

Habitat	Habitat Feature	Focal Species for Central Oregon
Ponderosa Pine	Large patches of old forest with large snags	White-headed woodpecker
	Large trees	Pygmy nuthatch
	Open understory with regenerating pines	Chipping sparrow
	Patches of burned old forest	Lewis' woodpecker
Mixed Conifer (Late-Successional)	Large trees	Brown creeper
	Large snags	Williamson's sapsucker
	Interspersion grassy openings and dense thickets	Flammulated owl
	Multi-layered/dense canopy	Hermit thrush
	Edges and openings created by wildfire	Olive-sided flycatcher

Lodgepole Pine	Old growth	Black-backed woodpecker
Whitebark Pine	Old-growth	Clark's nutcracker
Meadows	Wet/dry	Sandhill Crane
Aspen	Large trees with regeneration	Red-naped sapsucker
Subalpine fir	Patchy presence	Blue Grouse

Birds of Conservation Concern

In January 2001, President Clinton issued an executive order on migratory birds directing federal agencies to avoid or minimize the negative impact of their actions on migratory birds, and to take active steps to protect birds and their habitats. Federal agencies were required within two years to develop a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service to conserve migratory birds including taking steps to restore and enhance planning processes whenever possible. To meet this goal in part the U.S. Fish and Wildlife Service developed the Birds of Conservation Concern released in December 2002 (USFWS 2002) and an update to the original list was released in 2008 (USFWS 2008).

The "Birds of Conservation Concern 2008" (BCC) identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act (ESA) of 1973. Bird species considered for inclusion on lists in this report include non-game birds, gamebirds without hunting seasons, subsistence-hunted non-game species in Alaska, landbirds, shorebirds, waterbirds, and Endangered Species Act candidate, proposed endangered or threatened, and recently delisted species. While all of the bird species included in BCC are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing. The goal is to conserve avian diversity in North America and includes preventing or removing the need for additional ESA bird listings by implementing proactive management and conservations actions (USFWS 2008). The 2008 lists were derived from three major bird conservation plans: the Partners in Flight North American Landbird Conservation Plan, the United States Shorebird Conservation Plan, and the North American Waterbird Conservation Plan. Conservation concerns stem from population declines, naturally or human-caused small ranges or population sizes, threats to habitat, or other factors.

Bird Conservation Regions (BCRs) were developed based on similar geographic parameters and are the basic units within which all bird conservation efforts should be planned and evaluated (USFWS 2008). One BCR encompasses the Designation of Wechee Butte RNA Project Area – BCR 9, Great Basin. See Table 9 for a list of the bird species of concern for the area, the preferred habitat for each species, and whether there is potential habitat for each species within the Wechee Butte project area.

Table 9: BCR 9 (Great Basin) BCC 2008 list.

Bird Species	Preferred Habitat	Habitat within the Project Area (Y or N)
Greater Sage Grouse (Columbia Basin DPS)	Sagebrush dominated Rangelands	N
Eared Grebe (non-breeding)	Open water intermixed with emergent vegetation	N
Bald Eagle	Lakeside with large trees	N
Ferruginous Hawk	Elevated Nest Sites in Open Country	N
Golden Eagle	Elevated Nest Sites in Open Country	N
Peregrine Falcon	Cliffs	N
Yellow Rail	Dense Marsh Habitat	N
Snowy Plover	Dry Sandy Beaches	N
Long-billed Curlew	Meadow/Marsh	N
Marbled Godwit	Marsh/Wet Meadows	N
Yellow-billed Cuckoo	Dense riparian/cottonwoods	N
Flammulated Owl	Ponderosa pine forests	Y
Black Swift	Cliffs associated with waterfalls	N
Calliope Hummingbird	Open mountain meadows, open forests, meadow edges, and riparian areas	N
Lewis's Woodpecker	Ponderosa pine forests	Y
Williamson's Sapsucker	Ponderosa pine forests	N
White-headed Woodpecker	Ponderosa pine forests	Y
Loggerhead Shrike	Open country with scattered trees or shrubs	N
Pinyon Jay	Juniper, juniper-ponderosa pine transition, and ponderosa pine edges	N
Sage Thrasher	Sagebrush	N
Virginia's Warbler	Scrubby vegetation within arid montane woodlands	N
Green-tailed Towhee	Open ponderosa pine with dense brush	Y
Brewer's Sparrow	Sagebrush clearings in coniferous forests/bitterbrush	N
Black-chinned Sparrow	Ceanothus and oak covered hillsides	N
Sage Sparrow	Unfragmented patches of sagebrush	N
Tricolored Blackbird	Cattails or Tules	N
Black Rosy Finch	Rock outcroppings and snowfields	N

Environmental Consequences

Direct and Indirect Impacts

There will be no change from the existing condition with the implementation of the proposed action. This is an administrative change from a proposed RNA to an established RNA. There will be no activities authorized other than the establishing the RNA. Therefore, there will be no direct or indirect effects to the above landbirds or Birds of Conservation Concern.

Cumulative Effects

Implementation of action alternative for the Designation of the Wechee Butte RNA will not result in any direct or indirect adverse effects and therefore, will not result in any cumulative effects for the above mentioned landbirds or birds of conservation concern and their habitats.

Cultural Resources

Two cultural resource sites or historic sites have been documented within the RNA (USDA Forest Service 2011). Establishing the RNA will have no impact to cultural resources and will not alter or limit existing Native American treaty rights. As per Section 106 of the National Historic Preservation Act, no ground disturbing activities will occur within the RNA without a cultural resources inventory.

Recreation

Recreation use in the area is minimal because there are no features or attractions for recreationists. There are no developed recreation facilities or trails within Wechee Butte RNA and none will be constructed. Potential recreational uses include light dispersed recreation such as hunting, off-highway vehicle use, automobile travel for pleasure on FS Road 1820 and horseback riding. Motor vehicle use, including use of all-terrain vehicles, is prohibited within the RNA. The Swamp Wells horse trail about 2 miles (3.2 kilometers) northwest of the RNA receives light use. No impacts of recreation use are evident in the RNA. Recreation use should not be encouraged, but will be permitted as long as it does not conflict with the purpose for establishing the RNA. Establishment of the RNA would not change recreation use.

Transportation

There are no roads within Wechee Butte RNA and none are planned to be built. The RNA will be closed to motor vehicles. With the boundary modified as described under the proposed action, there would be no roads or trails within the established RNA. Access is readily available by way of Forest Service Road 1820 and there is no known need for additional roads or trails, therefore the prohibition on new roads or trails would have no impact on access needs.

Invasive Plants

There are no known invasive plant sites within the RNA. In the event an invasive plant site is discovered, treatment of invasive plants is addressed in the Deschutes-Ochoco Invasive Plant Treatment Final EIS and Record of Decision (USDA Forest Service 2012).

Establishment of the RNA does not preclude continuation of treatment of existing invasive plant occurrences, nor would it prevent the practice of Early Detection Rapid Response (EDRR) to other invasive species, if detected within the RNA in the future. For these reasons, establishment

of the RNA is not anticipated to cause an increase in establishment or spread of invasive species.

Other Required Disclosures

Effects on Prime Farmland, Rangeland, and Forestland

There is no prime farmland, rangeland, or forestland in the proposed Wechee Butte RNA area.

Floodplains and Wetlands

Executive Order 11988 sets the direction of federal actions to avoid adverse impacts associated with the occupancy and modification of floodplains. Executive Order 11990 sets the direction of federal actions to avoid adverse impacts associated with destruction or modification of wetlands. The designation of the area as RNA is not expected to have any adverse impacts to floodplains or wetlands.

Potential or Unusual Expenditures of Energy

There would be no unusual expenditures of energy with this designation. The project does not involve any forms of energy expenditure.

Conflicts with Plans, Policies, or other Jurisdictions

There would be no conflicts with plans, policies, or other jurisdictions with either alternative. All overlapping plans and policies have been evaluated for consistency. The proposal to establish an RNA in this location was developed under consultation with regulatory agencies including the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, Oregon Department of Fish and Wildlife, and the State Historic Preservation Officer.

Environmental Justice

The proposed designation does not appear to have a disproportionately high or adverse effect on minority or low-income populations, or Native American tribes. No mitigation measures to offset or ameliorate adverse effects to these populations have been identified. All interested and affected parties would continue to be involved with the comment and decision-making process.

Consumers, Civil Rights, Minority Groups, and Women

The proposed designation does not appear to have a disproportionately high or adverse effect on consumers, minorities, or women. The project would not have any effect on civil rights of any human being.

Consistency with Deschutes LRMP, as Amended

Formally designating the RNA would require amending the Deschutes LRMP. The designation is consistent with all other Forest Plan standards and guidelines. The management direction listed in Chapter 2 lists the management area categories for the Forest Plan.

Chapter 4: Agencies and Persons Consulted

U.S. Fish and Wildlife Service

It was determined that there would be no effect to any Federally-listed wildlife species, therefore consultation with the U.S. Fish and Wildlife Service was not required.

State Historic Preservation Officer

Designating Wechee Butte area as an RNA would not affect any historic or pre-historic artifacts; therefore no consultation with the Oregon State Historic Preservation Officer is required.

On March 12, 2009 a scoping letter was sent to a mailing list of interested parties maintained in the project file at the Deschutes National Forest Supervisor's Office. The following list of individuals, organizations, and agencies are receiving notice of the availability of this environmental assessment for comment:

Individuals, Agencies, and Organizations

Luann Danforth
Dave Lynn
Chuck Tolboe
Matt Mahoney
Vera Riser
Steven J. McNulty, Gas Transmission NW Corp.
Ken Roadman
Wally Buckman
Lee Fischer
Gary Pankey
Larry McGlocklin
Flip Houston, Scott Logging Inc.
Scott Odgers, Central Oregon Flyfishers
Pat Schatz, Mickey Finn Guide Service
Craig Vaage, Bigfoot Guide Service
David Nissen, Wanderlust Tours
Larry Ulrich
Ed Duffy, Deschutes County 4-Wheelers
David H. Tjomsland
Robert Speik
Susan Jane Brown
Brad Chalfant, Deschutes Basin Land Trust
Jim King
Michael Krochta
Josh Laughlin, Cascadia Wildlands Project
Karen Coulter, Blue Mountains Biodiversity Project
Doug Heiken, Oregon Wild
Glen Ardt
Marilyn Miller
Stuart Garrett, MD
Scott Silver, Wild Wilderness
Matt Kern
Mike Morris
Libby Johnson, Bonneville Power Administration
Keenen Howard
Senator Ron Wyden
Sunriver Owners Association
Dick Artley
John Pindar
Dennis Krakow, Woodside Ranch Owners Association
Arlie Holm
Fred Tanis
Chuck Burley, Interfor
Gerald Keck, D.R. Johnson Lumber Co.
John Morgan, Ochoco Lumber
Shawn Gerdes, Arnold Irrigation District
Bend Metro Parks & Recreation
Dylan Darling, The Bulletin
Billy Toman
Rick Bozarth, Bozarth's Offroad Service Specialties
Gordon Baker
Bodie Dowding, Interfor
Peggy Spieger, Oregon State Snowmobile Association
Corey Heath, Oregon Department of Fish and Wildlife
Stuart Otto, Oregon Department of Forestry

John McKenzie, Sunriver Owners Association
Mark Dunaway, Pine Mountain Observatory, Univ. of Oregon
Dyarle Sharkey
Patti Gentiluomo
Wade N. Foss
Bruce Cunningham
Moon Country Snowmobilers
Scott O'Neill
June Ramey
Mark Davis
Scott McCaulou, Deschutes River Conservancy
Ryan Houston, Upper Deschutes Watershed Council
Lynne Breese, Eastern Oregon Forest Protection Association
Greg McClarren
Rick Williams, ODOT Region 4
Kate Lighthall, Project Wildfire
SROA
Northwest Environmental Defense Center
Vicki McConnell, Department of Geology and Mineral Industries
Andy Ingram
Dean Richardson
Vic Russell
Ed Keith, Deschutes County Forester
Patricia Moore
Jim Lowrie
Jim Wilson, JTS Animal Bedding
Pieter & Diane Van Gelderen
L. Ulven
Steve Johnson, Central Oregon Irrigation District
Jim Anderson
Loren Smith
Jim Larson, Upper Deschutes River Coalition
Gail Carbiener
Margie Gregory
David Pitts
Central Oregon Climate Alliance
Kreg Lindberg
Peter Geiser
Senator Jeff Merkley
Larry Pennington, Oregon Chapter, Sierra Club
Judy Meredith, East Cascades Audubon Society
Paul Bannick, Conservation Northwest
Don Franks
Lowell Franks
Matt Bales, Mule Deer Foundation
Rod Adams, Oregon Hunter's Association
Jeff Trant
Kenna Hoyser, Central Oregon Chapter, Oregon Equestrian Trails
John Zachem
Scott Walley
Lisa Clark, Central Oregon Fire Management Service
Congressman Greg Walden
George Wuethner
Steve Bigby
Sarah Peters, Wildlands CPR
Meriel Darzen, Oregon Ch., Sierra Club, Juniper Group
Paul Dewey, Central Oregon Landwatch
Confederated Tribes of the Warm Springs
Burns Paiute Tribe
The Klamath Tribes
USDI Fish & Wildlife Service

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