

**Crescent Ranger District
Deschutes National Forest**

**Environmental Assessment
Crescent Lake State Airport Improvements**

January 2002

USDA Forest Service
Crescent Ranger District
Deschutes National Forest
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TABLE OF CONTENTS

[SECTION 1 - INTRODUCTION & ISSUES](#)

Introduction and Background

Purpose of the Proposed Action

Need for the Proposed Action

Direction From the Forest Plan

Proposed Action

Scoping Summary and Issues

Decision to be Made

SECTION 2 - ALTERNATIVES

Alternatives Eliminated from Further Analysis

Alternatives Analyzed

Alternative 1 - No Action

Alternative 2 - Proposed Action

Mitigation and Project Design

SECTION 3 - ENVIRONMENTAL EFFECTS

Recreation Use and Wilderness Values

Proposed, Endangered, Threatened, or Sensitive Plants

Wildlife

Water Quality & Fisheries

Cultural Resources

Other Disclosures

SECTION 4 - CONSULTATION WITH OTHERS

Public Notification and Participation

List of Preparers

LIST OF FIGURES

[Figure 1](#) - State of Oregon with Project Location

[Figure 2](#) - Aerial View of the Crescent Lake State Airport Area

[EA as a pdf file](#)

[Figure 2 as a pdf file](#)

Section 1 - Purpose and Need

A. Introduction and Background

This document presents the environmental analysis conducted for expanding the clearing limits at the Crescent Lake State Airport as proposed by the State of Oregon's Department of Aviation. The airport is located on National Forest land about 15 miles northwest of Crescent, Oregon, in Township 23 S, Range 6 E, Section 36 ([Figure 1](#)).

A special use permit was originally issued to the State's Aeronautics Division in 1951 to construct a landing strip. Use of the landing strip began in the summer of 1952. It is a Category 5 ([see footnote 1](#)) airport that the Oregon Department of Aviation now considers to be part of their Core System of airports across the state. The Core System includes those airports that have a significant role in the statewide aviation system as well as Category 5 airports with significant community access or emergency use functions. The Crescent Ranger District administers the special use permit.

The Crescent Lake State Airport operates 5 to 6 months of the year. It is not cleared of snow, and therefore not usable by aircraft during the winter months. It was recently estimated to receive between 300 and 500 operations per year ([see footnote 2](#)).

The land around the Crescent Lake State Airport is a particularly high-use area for summer and winter recreation. A major state highway (Highway 58) provides access from the densely populated areas on the west side of the Cascade Mountains. The community of Crescent Lake Junction is a few hundred feet from the runway and provides services such as restaurants, lodging, and gas stations. The area is heavily used during the winter by snowmobiles, and a snowmobile racetrack and play area are located adjacent to the airport ([Figure 2](#)). Campgrounds and resorts are located nearby around Crescent and Odell Lakes. The Diamond Peak Wilderness boundary lies approximately 300 feet to the west of the runway and on the other side of the Southern Pacific Railroad.

A dry lodgepole plant association group surrounds the airport. The average tree diameter in the project is 6 inches; canopy cover and ground vegetation vary widely. There are no streams or riparian areas in or adjacent to the area.

1. The Purpose of the proposed action

The purpose of the project is to improve access and safety for the aircraft that use this airport. It will allow landings to be executed more safely. It will also help the Oregon Department of Aviation meet the obligations in their special use permit by bringing the airport's dimensions up to the basic minimum standards that are based on FAA standards. Maintenance of the improvements should also be economically feasible for the State of Oregon Department of Aviation.

2. The need for the proposed action

Crescent Lake State Airport is considered a "State Warning Airport." This means that it does not meet dimensional standards and has conditions that require specific pilot knowledge. It requires special techniques and procedures to use safely, and may not be usable by many aircraft. The project is needed because the tall trees (those around 50' tall) on either side of the runway cause very unpredictable wind currents under crosswind conditions. Also, the wind at treetop elevation can be very variable. The trees at the end of the runway require aircraft to make a steep approach angle when landing. It is expected that the proposed project will improve safety and accessibility for aircraft.

B. Direction from the Forest Plan

The 1990 Deschutes National Forest Land and Resource Management Plan (Forest Plan) as amended guides all natural resource management activities and provides standards and guidelines for the Deschutes National Forest.

The Crescent Lake State Airport is located within an area designated for Intensive Recreation by the Forest Plan. The goal for this Management Area is "to provide a wide variety of quality outdoor recreation opportunities within a Forest environment where the localized settings may be modified to accommodate large numbers of visitors." (Deschutes

National Forest LRMP 4-135).

The project also lies within the area covered by the Northwest Forest Plan (NWFP). Most of the area is allocated as Administratively Withdrawn, which means that management direction for these areas defaults to the Forest Plan for the existing standards and guidelines. About 1/3 of the runway is in an area allocated as Late Successional Reserve (LSR). It lies on the southwest boundary of the Davis LSR (Figure 2). The Davis Late Successional Reserve Assessment was completed in 1995 and provides site-specific recommendations for management of the LSR in addition to the standards and guidelines of the Northwest Forest Plan. The portion of the airstrip that is located in the Davis LSR is in the main area of frequent human use of the Davis LSR. Standards and Guidelines relating to developed facilities and special use permits within LSRs allow existing uses and maintenance activities to continue, consistent with other standards and guidelines, and as long as objectives of the LSR are being met.

C. Proposed Action

Trees that line the runway are to be cleared to a distance of 75 feet from each side of the existing runway. The total width of cleared area, including the existing runway would total approximately 300 feet. Trees in an area at the northwest end of the runway will also be cleared within about 600 feet (Figure 2). All trees would be cleared. They are all lodgepole pine, the average size being 6" diameter and about 40' tall, though some are larger and many are smaller. The Forest Service would facilitate removal of the trees through a timber sale.

D. Scoping Summary and Issues

Public involvement in the planning process began in October 2001 when notice of the project was published in the Schedule of Projects for the Ochoco and Deschutes National Forests. Notification of the proposed action was then sent to more than 200 individuals, agencies, and organizations. It was also posted to the Deschutes National Forest's web site.

A number of letters, phone calls, and e-mails were received during the scoping period. Some of the comments expressed support for the project. Many of the supportive comments were from people who operate aircraft and have experience with the Crescent Lake airport. Some comments expressed opposition to the project because they felt it would enable more use of the Diamond Peak Wilderness.

One commenter was concerned with the amount of money the Forest Service would be spending on the project. The State of Oregon's Department of Aviation is providing funding for this environmental analysis. The State also is responsible for the maintenance of the airport.

The following items and environmental components will be considered in the Effects section in Chapter 3, as a way to compare the alternatives:

- Recreation Use and Wilderness Values
- Proposed, Endangered, Threatened, or Sensitive Plants
- Wildlife
- Water Quality
- Cultural Resources

E. Decision to be Made

The Crescent District Ranger will decide whether or not to approve the Oregon Department of Aviation proposal for clearing trees around the runway. If the proposal is approved, the Ranger will also decide what conditions will apply during implementation. The decision will be based on information contained in this document and supporting information contained in the analysis file, such as the Biological Evaluation.

Figure 1 - State of Oregon with Project Location

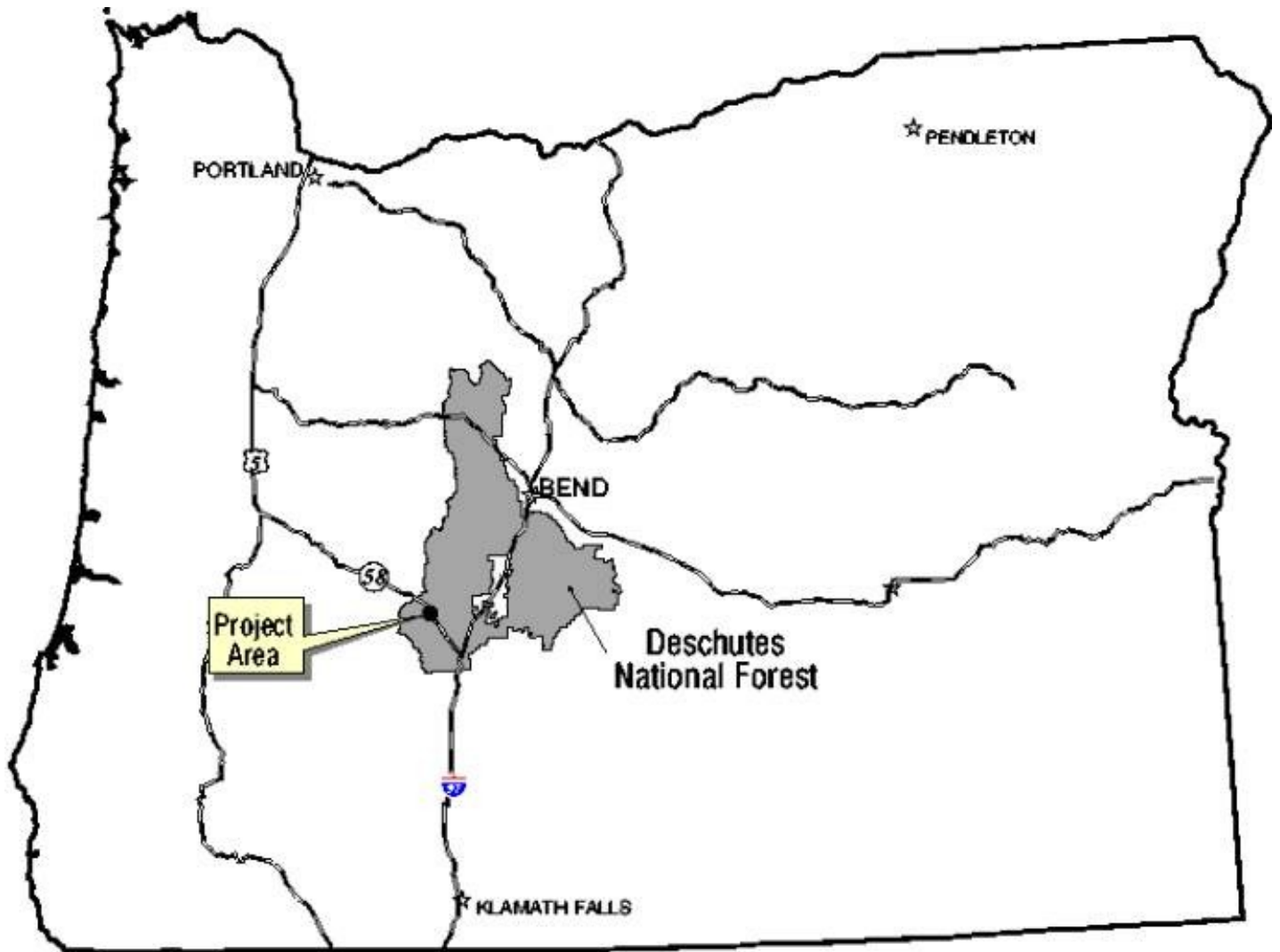
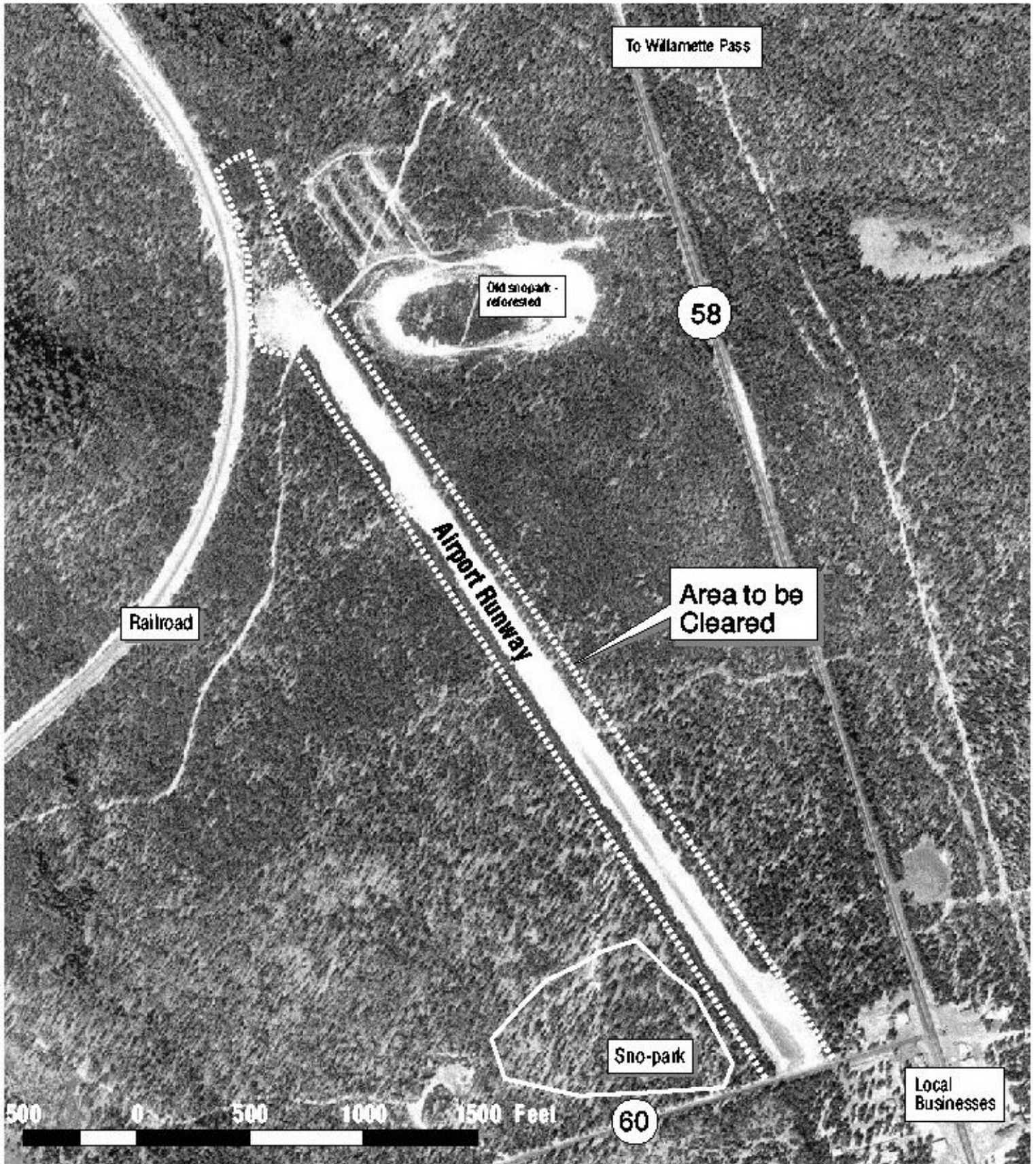


Figure 2 - Aerial View of the Crescent Lake State Airport Area

Crescent Lake State Airport Area



Section 2 - Alternatives

This chapter describes the alternatives that were developed by an interdisciplinary team to display management options that respond to the purpose and need listed in Section 1.

The Oregon Department of Aviation approached the Crescent Ranger District with a proposal to improve safety at the Crescent Lake State Airport. During analysis, no issues arose that called for development of an alternative to the proposed action to consider in detail.

A. Alternatives Eliminated from Further Analysis

The interdisciplinary team discussed what alternatives might be available for analysis. The following alternatives were looked at briefly, but eliminated from detailed study.

Thin trees along runway to 12-20' spacing, leaving smaller trees in place. Team members considered a proposal received from public comment to leave the smallest trees along the runway. By thinning, rather than clearing, dust could be less of a problem. This alternative would not provide benefits to any TES species, and because it would impose a maintenance obligation, it was not considered in detail.

Remove trees on ridge north of the railroad cut. This alternative was also received from public comment. It was suggested to remove trees on the ridge north of the railroad cut rather than at the end of the runway. The north end of the runway is located within the Davis LSR. The ridge to the north is about 800 feet from the end of the runway, and clearing trees there would be a considerable expansion of the existing development into the LSR. For that reason, it was not considered in detail.

B. Alternatives Analyzed

1. Alternative 1 (No Action)

As required by the National Environmental Policy Act, the No Action alternative forms a basis for describing and comparing the effects of the proposed action. In this case, no action means that no trees would be cleared along the sides or at the north end of the runway. The conditions of unpredictable wind currents would continue and the airport would not meet the basic minimum dimensional standards.

2. Alternative 2 (Proposed Action)

The proposed action includes the following specific activities:

- Clear trees that line either side of the runway back a distance of 75 feet from each side of the runway.
- Clear trees in an area approximately 600 feet long from the northwest end of the runway. This clearing would be bounded on the west by the railroad and cover approximately 5 acres. Most of this area was cleared in 1951, when the airstrip was originally constructed, and has since regenerated.
- These areas total approximately 20 acres.
- Slash will be piled on landings and burned.

a. Mitigation Measures and Project Design

The Proposed Action will meet all applicable Project Design Criteria required in the 2001-2003 Programmatic Biological Assessment prepared by the Forest Service and Bureau of Land Management. The following site-specific measure will protect owl habitat 0.5 miles to the west.

- For Slash Treatments that include burning, fire managers need to use smoke management forecasts in order to minimize smoke entering into spotted owl suitable habitat approximately 0.5 miles to the west and to ensure that dissipation would be adequate.

Because documented weed sites exist in close proximity to the proposed project area, the following recommendations are meant to minimize the risk of introduction of noxious weeds to the project area:

- Require a weed prevention and control provision in the operation and maintenance plan associated with the special-use authorization for this project.
- As part of the prevention and control of noxious weeds provision for this clearing project, require a clean equipment clause for activities associated with the project.
- To prevent the introduction and spread of weeds caused by moving infested, sand, grave, borrow, or fill material in Forest Service, contractor, or cooperator operations, inspect material sources on site and ensure that they are weed-free before use and transport. Treat weed-infested sources for eradication, and strip and stockpile contaminated material before any use of pit material. Inspect and document the area where material from treated weed infested sources is used, annually for at least three years after project completion, to ensure that any weeds transported to the site are promptly detected and controlled.

Section 3 - Environmental Effects

This section of the environmental analysis considers the environmental consequences of implementation of the two alternatives. The following issues and environmental components did not shape the range of alternative, but analyzing the effects to them is important for assessing how well the alternatives meet the purpose and need for the project and protect other resources.

Biological evaluations for threatened, endangered, and sensitive fish, wildlife, and plant species were documented. They appear in the Analysis File.

A. Recreation Use and Wilderness Values

The Crescent Lake State Airport lies in close proximity to the wilderness as well as numerous developed recreation opportunities ([see footnote 3](#)). By improving the accessibility of the airport, the proposed project will probably increase the number of operations (landings and take-offs) that take place there each year. This increase would be a relative minor portion of the overall increase that is expected in the area over time (Odell Watershed Analysis, 1999).

Alternative 1, the No Action Alternative, would have no effect to the level of use in the area and would cause no effects to the Wilderness.

Current use at the airport is estimated to be 300 to 500 operations per year. After completion of the proposed project, the airport would be more accessible because landing and taking off would be safer. An initial increase could be seen up to twice the current use. For the neighboring businesses in Crescent Lake Junction, and the resorts on National Forest Land, the increase in visitors is a positive effect and one that meets the goals and objectives of the Deschutes Forest Plan.

Estimated capacity for the Deschutes' portion of the Diamond Peak Wilderness is between 139 to 256 people at one time (PAOT), the exact number depending on the zone (i.e. Pristine, Primitive, Semi-Primitive, or Semi-Primitive Transition). A current estimate for the amount of use in the Wilderness is 16,250 Recreation Visitor Days (RVDs) per year ([see footnote 4](#)). It is not possible to make a precise estimate of the increase in visitors to the Diamond Peak Wilderness as a result of improvements to the airport. However, the number of people coming to the area by aircraft is a small fraction of the total number of visitors that come to the recreation resources (campgrounds, resorts, recreation residences, etc) of the area.

It can be assumed that some of the people who utilize the airstrip will visit the Wilderness, but because the small aircraft do not carry many passengers, they would not exceed the group limit in the Wilderness of 12 people. They are also not expected to exceed the carrying capacity of 139 to 256 people at one time (PAOT). There are no effects expected to the Diamond Peak Wilderness resources or values from Alternative 2.

B. Proposed, Endangered, Threatened, or Sensitive Plants; Survey & Manage Plants

Alternative 1 would have no effect to any proposed, endangered, threatened, or sensitive (PETS) plants. A survey conducted by a Forest Service botanist did not locate any PETS plants. There are also no expected direct, indirect, or cumulative effects to PETS plants from Alternative 2.

The project area was also surveyed for Survey and Manage plants per the Northwest Forst Plan. No Survey and Manage plants were found. There will be no effect from either alternative on Survey and Manage plants.

C. Wildlife

1. Proposed, Endangered, Threatened, or Sensitive Animals

The project area was evaluated to determine which species might occur based on the presence of required habitats and known locations. There have been no sightings of any PETS species in or immediately adjacent to the airport. The airport is between the railroad and state highway 58. There is no habitat for northern bald eagle, northern spotted owl, lynx or Oregon spotted frog in the project area. There is habitat for bald eagle and spotted owl adjacent to the project area.

The Proposed Action will meet all applicable Project Design Criteria required in the 2001-2003 Programmatic Biological Assessment prepared by the Forest Service and Bureau of Land Management

Alternative 1 would have no effect on any PETS species.

It is unlikely the area is used by eagles for foraging, as richer resources exist at Odell and Crescent Lakes. Alternative 2 would have no effect on bald eagles or bald eagle habitat.

The area would not be considered suitable habitat for spotted owl. The lodgepole is not capable of developing into or sustaining nesting, roosting, foraging (NRF) habitat. There is sufficient dispersal habitat to both the east and west of the airport connecting NRF or owl activity centers. Alternative 2 continued use, and maintenance of the airport would preclude development of dispersal habitat on that site. The actions may affect, not likely to adversely affect spotted owls. There would be no effect on spotted owl habitat.

The project area is not considered lynx habitat and is not within a designated lynx analysis unit. The Canada lynx project design criteria (PDCs) in the 2001-2003 Programmatic BA do not apply. Alternative 2 would have no effect on the Canada lynx or lynx habitat.

There is no habitat for any sensitive wildlife species adjacent to the runway. There would be no impact on any sensitive wildlife species with implementation of alternative 2.

2. Survey & Manage Animal Species

The project area was surveyed for potential habitat for a species of mollusks. No habitat was found. No potential habitat exists for Survey and Manage vertebrate species.

There will be no effect from either alternative on Survey and Manage animal species.

3. Management Indicator Species

Lodgepole pine habitats such as that found in the project area, provide for the following management indicator species (MIS): American marten, Black back woodpecker, and deer.

The amount of habitat impacted by the improvement project is very small. The project would reduce habitat by less than 20 acres. Tree habitat would be lost, as the area would be maintained as an opening. Ground vegetation, bitterbrush, grasses and forbs that would come in would provide forage for deer and elk.

4. LSR Habitat for Black Back Woodpecker

The Davis LSR Assessment identifies the black-back woodpecker as the emphasis species for lodgepole pine habitats. The Conservation Strategy for Landbirds of the East-Slope of the Cascade Mountains in Oregon and Washington also identifies the black back woodpecker as a focal species for old growth lodgepole pine. Both documents call for management of habitat blocks of 1,000 acres.

Alternative 1 would have no effect to the black-back woodpecker and would remove none of its habitat.

Alternative 2 would remove approximately 17 acres of black back woodpecker habitat. The project meets the objectives of the LSR Assessment because 1) opportunities to mitigate the impacts of existing non-neutral, non-beneficial aspects of the development have been completed (the snow mobile track adjacent to the airport within the LSR has been planted with lodgepole pine and is scheduled for thinning in the next couple of years); 2) it is not a new development; 3) it would not be practical to remove the airport because of the functions it serves.

D. Water Quality and Fisheries

The project is located in the Odell Creek (HUC #170703010103) and Crescent Lake (HUC #170703020504) subwatersheds. Odell Creek Watershed is a Tier 1 Key watershed and is identified in the 2001-2003 Programmatic Biological Assessment as primary bull trout habitat. The Crescent Lake watershed is listed as water quality limited by the Oregon Department of Environmental Quality (ODEQ). Crescent Creek does not meet the summer water temperature standard of 17.8°C established by ODEQ.

Alternative 1 will have no effect on water quality. Alternative 2, the proposed action, will not create any measurable type of disturbance that would degrade water quality in Crescent Creek. The distance from the project area to the stream or any of its tributaries ensures that there are no measurable adverse effects to water quality.

Proposed, Threatened, Endangered, or Sensitive species were considered in the evaluation. Bull Trout is a USFWS Threatened species in the Odell Creek watershed and redband trout, is a Sensitive species in the Crescent Lake watershed. Alternative 1 would have no impact on any of these species. Alternative 2 is not located within a riparian reserve. It would have no effect to bull trout in the Odell Creek watershed, and no impact to redband trout in the Odell Creek and Crescent Lake watersheds. There would be no measurable negative cumulative effects to either species.

E. Cultural Resources

A cultural resource survey was conducted at the project area. No potentially eligible cultural resources were found. There will be no effect on cultural resources from either alternative.

Other Disclosures

1. Wetlands and Floodplains

Executive Orders 11988 and 11990 direct Federal agencies to avoid, to the extent possible, both short-term and long-term adverse impacts associated with the modifications of floodplains and wetlands. No wetlands would be affected by the proposed project. The project is not located within a floodplain.

2. Civil Rights and Environmental Justice

Civil Rights legislation and Executive Order 12898 (Environmental Justice) direct an analysis of the proposed alternatives as they relate to specific subsets of the American population. The subsets of the general population include ethnic minorities, people with disabilities, and low-income groups. The project is not located in a minority community and would not affect residents of low or moderate income. Therefore the proposed action would not pose a disproportionately high or adverse effect to those populations.

In addition, the effects of this project on the social context of these protected groups are within those described in the Deschutes National Forest Plan. The benefits and risks associated with implementation of the proposed action are provided to all members of the public. Therefore, the project would not pose disproportionately high or adverse effects to minority communities or to low income groups.

3. Consumers

The action alternative would supply forest products to the purchaser and indirectly to the public at large. The impacts to consumers of these forest products would be minor because the products supplied by this project represent a very small fraction of the total forest products supplied to the consumers of this region.

4. Prime Lands (Farm, Range, and Forest)

There are no lands within the boundaries of the Deschutes National Forest that meet the definition of prime farmland, or are considered prime farmland as discussed in the Final Environmental Impact Statement, Deschutes National Forest Land and Resource Management Plan. National Forest Land is generally not considered "prime" forestland. This project, therefore, would not affect prime lands.

5. Reasonably Foreseeable Future Actions near the Project Area

The following projects are within the vicinity of the airport:

- In order to further improve the safe use of the Crescent Lake State Airport, the Department of Aviation is pursuing the possibility of clearing trees from an area at the south end of the airport's runway. The trees that need to be cleared are on private property across Highway 60. No decision has been made yet on this activity.
- Trees will be cleared in the vicinity for a section of snowmobile trail (Snopark EA 1996). The trail crosses the airport runway from the west and continues to State Highway 58 where it connects on the east side of the highway with the main snowmobile route. The trees from this trail construction will be part of the same timber sale as the trees from the airport clearing.

Chapter 4 - Consultation with Others

A. Public Notification & Participation

The public was first notified in October 2001 when notice of the project was published in the Schedule of Projects for the Ochoco and Deschutes National Forests. Over 200 citizens and groups on the Crescent Ranger District mailing list were notified of the proposed project on November 14, 2001 by letter.

During the preliminary scoping period, 15 comments were received by letter or e-mail. 10 were in favor of the project and 5 were opposed.

B. List of preparers and specialists consulted:

Beth Peer, Team Leader
Jerry Vroman, Special Uses Administrator
Carolyn Close, Botanist
Joan Kittrell, Wildlife Biologist
Brad Houslet, Fisheries Biologist
Leslie Hickerson, Archaeologist

Judith Parker, Recreation Program Manager

Jerry Eames, Manager Air Operations, Oregon State Department of Aviation

Dan Griffin, State Airports Manager, Oregon State Department of Aviation

FOOTNOTES

1. According to the Oregon Aviation Plan, Category 5 airports (Low Activity General Aviation) are located in communities and remote outlying areas with small or no population within their service area... Several Category 5 airports provide an important emergency function due to their location in areas of hazardous terrain or weather conditions. Many of these airports provide access to unique recreational attractions in remote areas of Oregon (Dept. of Aviation, 2000).
2. Jerry Eames, Safety and Operations Manager, Oregon Department of Aviation. E-mail Communication, December 2001.
3. At its closest point, the runway is approximately 300 feet from the Diamond Peak Wilderness boundary.
4. A Recreation Visitor Day is a 12-hour period that one person is present.

[Deschutes and Ochoco National Forests Website](http://www.fs.fed.us/centraloregon/manageinfo/nepa/documents/crescent/airport/airport-ea.html)

<http://www.fs.fed.us/centraloregon/manageinfo/nepa/documents/crescent/airport/airport-ea.html>

Last Update: 2/1/02

R.A. Jensen

