



United States Department of the Interior

BUREAU OF LAND MANAGEMENT

MEDFORD DISTRICT OFFICE



FINDING OF NO SIGNIFICANT IMPACT (FONSI)

for the

PLATEAU THIN FOREST MANAGEMENT PROJECT

(DOI-BLM-OR-M060-2010-0034-EA)

The Plateau Thin Forest Management Project involves harvesting trees in conifer forest stands on BLM-administered lands in the Upper Jenny Creek sub-watershed in the vicinity of Howard Prairie Reservoir. The Plateau Thin Forest Management Project Environmental Assessment documented environmental analysis conducted to estimate the effects of implementing an estimated 2,113 acres of silvicultural treatments involving commercial timber harvesting; an estimated 1,026 acres of pre-commercial thinning within commercial harvest units; follow-up treatments of harvest slash (activity fuels); the use and maintenance of about 26.5 miles of roads, and about 0.7 miles of temporary spur road construction/reconstruction.

This Finding of No Significant Impact documents my determination that the Plateau Thin Forest Management Project, with the application of mitigation as described in the EA (p. 2-22 to 2-27), will not have any significant adverse effects.

I have considered both context and intensity of the impacts anticipated from the Plateau Thin Forest Management Project. I have determined that my decision to implement the proposal, as described in this Decision and under the Plateau Thin Forest Management Project EA, will not have any significant adverse effects. I considered the following criteria, suggested by CEQ, for evaluating intensity or severity of the impact of the Plateau Thin Project.

The Plateau Thin Forest Management Project will:

1. *Not result in significant beneficial or adverse effects*

The Plateau Thin Forest Management Project EA documented the site-specific analysis of effects to the environment. Required project design features are an integral part of this forest management project, ensuring that any potential for adverse effects on resources are minimized to the extent possible. Based on the analysis documented in the EA (Chapter 3) there will be no significant adverse or beneficial effects as a result of implementing the Plateau Thin Project, in summary:

- Soil productivity would be protected by requiring designated skid trails and using existing skid trails to the extent practical, limiting compacted area to 12 percent of the harvested area (EA p. 3-61); consistent with Medford District RMP guidance (RMP Appendix D, p. and within the effects anticipated under the Proposed Resource Management Plan Environmental Impact Statement (PRMP/EIS p. 4-13; EA, p. 3-61).

- Soil disturbance would not result in a significant amount of soil leaving the site due to the application of required Project Design Features and the relatively gentle to flat terrain in the project area; erosion rates would return to near normal within about five years (EA, 3-61).
- With the implementation of the project design features, weed spread would be minimized and existing weed populations would be controlled within the project area (EA, 3-86).
- Implementing Alternative 2 would not affect streamflows in the analysis area as a result of:
 - little to no net change in soil compaction due to reusing old skid trails, designating skid trails, and limiting harvest to dry soil conditions or when there is a deep snow pack;
 - no change to overall road density or percent of area in roads.
 - the area at or below 30 percent canopy closure would not change in the Grizzly Soda Analysis Area and would only increase by 0.7 percent of forested lands in the Howard Prairie Analysis area; this is not significant because both analysis areas are below any threshold of concern for acreage below 30 percent canopy closure (EA p. 3-35 to 3-50).
 - This project is not in the rain-on-snow zone so timber harvest is not anticipated to affect peak flows (EA, 3-72).
- The implementation of Best Management Practices (BMPs), including Riparian Reserves, along with harvesting when there is no less than 24 inches of snow cover and on flat to rolling terrain, will result in very low potential for sediment to reach stream channels in the commercial harvest units (EA, 3-54).
- Under Alternative 2, actions would not result in the listing of streams as water quality limited. Any adverse effects of turbidity or sedimentation on water quality resulting from Alternative 2 would be within the scope of what was analyzed in the PRMP/EIS (EA, 3-54).
- Implementation of the Plateau Thin Forest Management Project would not directly affect aquatic habitat. No timber harvest treatments would occur in Riparian Reserves; hence there is no mechanism for disturbed soils to enter stream channels and no potential for reduced stream shade or increased stream temperatures as a result of timber harvest. Timber haul and road stream crossings could potentially result in some sediment delivery to streams; however, Project Design Features (see Chapter 2, Project Design Features) would minimize the potential for sediment transport into dry draws (potential mechanisms for sediment delivery) (EA, 3-72).
- Within the proposed project area, the distribution and numbers of individual species would change. However, with the required Project Design Features, adequate habitat would remain in the project area to support the full complement of species that are now present (EA, 3-94).
- There are no known goshawk nest sites in the project area. If nest sites are discovered they will be protected by a 30 acre no-treatment buffer per RMP guidelines (EA p.
- The project area is comprised of lands which are Visual Resource Management (VRM), Class II within the Hyatt-Howard Prairie Special Recreation Management Area (SRMA). The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Contrast rating worksheets were completed for the viewsheds found at the identified key observation points. Based on the proposed prescriptions and project design features for the units within the project area, the project will meet visual resource management objectives for VRM Class II (EA p. 104).
- Recreation users may experience short term effects, which are further reduced with the application of mitigation for the northern spotted owl, as the acreage treated is substantially

reduced. During the summer months when use is highest recreational users would encounter log trucks hauling timber, noise from machinery, and some traffic congestion during falling activities near roadways. However, to provide for public safety during harvest operations increased signage would be placed along major routes of travel and flaggers used where appropriate. In the long term, effects to recreational users are not anticipated (EA, 3-104). Required project design Feature is included to plow only half of Keno Access road when it is used for winter haul, which will maintain unplowed snow to provide for winter recreation use (primarily snowmobile use) on half the width of Keno Access road (EA p. 2-21).

- See criteria #9 for discussion of wildlife species listed or proposed to be listed as Federally Endangered or Threatened Species, or their designated critical habitat.

2. *Not result in significant impacts on public health or safety.*

No aspects of the Plateau Thin Forest Management Project have been identified as having the potential to significantly and adversely impact public health or safety (EA, 3-109).

The fuel and fire hazard reduction elements of the project are likely to have a beneficial impact on public health and safety. The fire resilience for the planning area as a whole is improved due to the overall reduction in fire hazard within units treated (EA, 3-29). The application of mitigation as described in the EA would reduce the benefits of fuels reduction at the landscape scale; however, benefits would still be achieved on 466 acres of the project area.

Prescribed burning operations will follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program, ensuring that smoke related impacts to public health and safety are mitigated (EA p. 3-107 to 3-108).

3. *Have no significant, adverse effects on unique characteristics of the geographic area.*

Unique characteristics are limited to those that have been designated by land use planning or other legislative, regulatory or planning processes. No wilderness areas, wilderness study areas, prime farmlands, wild and scenic rivers (or rivers suitable for wild and scenic designation), caves, parks, refuge lands, or areas of critical environmental concern exist in the Plateau Thin Project Area.

4. *Not have highly controversial environmental effects.*

“Highly controversial”, in the context of 40 CFR 1508.27(b) (4), refers to substantial disagreement within the scientific community about the environmental effects of a proposed action. It does not refer to expressions of opposition or expressions of preference among alternatives.

The 2005 Report *Logging to Control Insects: The Science and Myths Behind Managing Forest Insect “Pests”*, also known as the Black Report, was submitted by several commenters to support their opinion that substantial disagreement occurs in the scientific community concerning logging and its influence on insect and diseases. The Black Report, prepared by Scott Hoffman Black, was reviewed by Forest Health Protection Entomologists from Region 6 of the U.S. Forest Service in November 2005, who concluded that the report contained many erroneous statements that were not even supported by the report’s cited literature and included many citations taken out of their proper context. The Black Report was reviewed by BLM silviculturists who concurred with the findings reported by Region 6 Forest Service entomologists.

A recent paper, “*The effectiveness of vegetation management practices for prevention and control of bark beetle infestations in coniferous forests of western and southern United States*”¹, reviews tree and forest stand factors associated with bark beetle infestations and analyzes the effectiveness of vegetation management practices for mitigating the negative impacts of bark beetles on forests. The review draws from the examination of 498 scientific publications concerning the topic referenced above and other related topics. The report concludes that while gaps do exist in information available for some forest cover types and common bark beetle species, thinning as a preventive measure to reduce the amount of bark-beetle caused tree mortality and its effectiveness is supported by scientific literature for most forest cover types including ponderosa pine and Douglas fir forests, which are the primary focus of concern for bark beetle infestations in the Plateau Thin Forest Management Project (see Attached EA Addendum). This dispels the claim by some that scientific disagreement exists concerning the use of density management as a preventive measure to reduce bark beetle caused mortality.

The Plateau Thin Forest Management project is similar in nature to many other forest management projects that have been implemented within the scope of the Medford District Resource Management Plan across the Medford District. The anticipated effects of harvesting timber and post harvest fuels reduction, documented in the EA, are well known and no highly controversial effects have been identified.

5. Not have highly uncertain and potentially significant environmental effects or unique or unknown environmental risks.

The analysis does not show that this action will involve any unique or unknown risks outside of those addressed and anticipated in the Plateau Thin EA, the Medford District Resource Management Plan EIS, and the Northwest Forest Plan EIS. The silvicultural prescriptions and harvesting methods (crawler tractor) are the same methods used on a regular basis when harvesting commercially thinned timber sales. The anticipated effects of implementing the Plateau Thin Project are well supported with referenced literature throughout the EA, and are similar in nature to the effects estimated and observed for other timber sales implemented on the Medford BLM district.

6. Not establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.

The decision to implement the Plateau Thin Forest Management Project will not set any precedents for future actions with significant effects. The Plateau Thin Project will implement actions approved for forest management under the 1995 Medford District Resource Management Plan (which incorporated the Northwest Forest Plan) and analyzed under the Medford District Resource Management Plan Environmental Impact Statement. It is therefore consistent with the types of projects envisioned in the BLM Resource Management Plan and Northwest Forest Plan.

7. Not result in significant cumulative environmental effects.

¹ Fettig, C.J.; Klepzig, K.D.; Billings, R.F.; Munson, A.S.; Nebeker, T.E.; Negrón, J.F.; Nowak, J.T. 2007. The effectiveness of vegetation management practices for prevention and control of bark beetle outbreaks in coniferous forests of the Western and Southern United States. *Forest Ecology and Management*. 238: 24–53.

Effects analyses completed for the Plateau Thin project, describe indicators of importance along with the spatial and temporal scale of importance (analysis area) for determining the effects of multiple actions (past, current, and reasonably foreseeable) on affected resources (EA, Chapter 3, Affected Environment & Environmental Consequences). As discussed above, the current condition assessed for each affected resource inherently includes the effects of past actions. Each resource analysis discusses reasonably foreseeable actions relevant to the analysis of cumulative effects for that particular resource (EA, 3-2).

The CEQ stated in this guidance that “[g]enerally, agencies can conduct an adequate cumulative effects analysis by focusing on the current aggregate effects of past actions without delving into the historical details of individual past actions.” This is because a description of the current state of the environment inherently includes the effects of past actions. The CEQ guidance specifies that the “CEQ regulations do not require the consideration of the individual effects of all past actions to determine the present effects of past actions.” The importance of “past actions” is to set the context for understanding the incremental effects of the proposed action. This context is determined by combining the current conditions with available information on the expected effects of other present and reasonably foreseeable future actions.

To establish current conditions for the Plateau Thin Project Area water and soil resources analysis areas, an inventory of past actions with harvest dates and units of treatments was made for the analysis area using past harvest records and photo interpretation. Timber harvest records in combination with the operations inventory data were used on land managed by the BLM. The past actions were digitized in Geographic Information Systems (GIS) layer and a corresponding database established (EA, p. 3-57). Other ongoing and reasonably foreseeable projects were identified in the analysis area and the resulting compaction and acreage below 30 percent canopy cover were estimated (key indicators for changes in peak stream flow). Road densities were also calculated for the analysis areas.

This information was then combined with the estimated area compacted, area below 30 percent canopy cover, and increased road density that would result from implementation of the Plateau Thin Forest Management Project. It was determined that the Plateau Thin Forest Management project would not contribute to significant cumulative effects due to increased risk in peak flow for the following reasons 1) permanent road density (only temporary roads for Plateau Thin and no new roads for Swinning Project) would not increase; 2) the project would only increase the acreage compacted by 0.3 percent in the Grizzly Soda Analysis Area (below the dam) and 1.3 percent in the Howard Prairie Analysis Area (above the dam); however, these numbers are expected to be much lower resulting in little to no net change in soil compaction due to reusing old skid trails, designating skid trails, and limiting harvest to dry soil conditions or when there is a deep snow pack; 3) the area at or below 30 percent canopy closure would not change in the Grizzly Soda Analysis Area and would only increase by 0.7 percent of forested lands in the Howard Prairie Analysis area; this is not significant because both analysis areas are below any threshold of concern for acreage below 30 percent canopy closure (EA p. 3-35 to 3-50).

There is little to no potential for adverse impacts to water quality; therefore, no potential for this project to contribute to significant adverse cumulative effects to water quality in the Jenny Creek Watershed.

- No timber harvest treatments would occur in Riparian Reserves; hence there is no mechanism for disturbed soils to enter stream channels; and
- no potential for reduced stream shade or increased stream temperatures as a result of timber harvest.

Within the proposed project area, the distribution and numbers of individual wildlife species would change. However, the nature of the project where silvicultural prescriptions maintain canopy cover at or

above 40 percent for the majority of the project (91 percent of the Plateau Thin Project) (EA p. 2-2 and 3-22), maintain species diversity including hardwoods and fire resilient incense cedar and pine species (EA, Chapter 3, Section B, Vegetation) and required Project Design Features that call for maintaining snags (a minimum of 3 snags above 17 inches diameter breast height, where they occur) and downed coarse woody material important to many species of wildlife, adequate habitat would remain in the project area to support the full complement of species that are now present (EA, 3-94).

See Number 9 below for discussion of northern spotted owl and pacific fisher.

8. *Have no significant effects on scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places.*

The Plateau Thin Project Area was reviewed for the potential for adverse impacts to cultural resources. The project area was surveyed for cultural resources. All known sites will be avoided; therefore, the Plateau Thin Forest Management Project, including the mitigated Swinning Timber Sale, will have no adverse impacts on cultural resources.

This project would not result in restricting access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites. No sites have been identified in the project area. Executive Order 13007 (Indian Sacred Sites) (EA, 3-109).

This project would have no effect on Indian Trust Resources as none exist in the project area. This project was determined to have no adverse effects on properties listed or eligible for listing on the National Register of Historic Places. This includes Native American religious or cultural sites, archaeological sites, or historic properties. The proposed project would have no adverse effects on known cultural resources (EA, 3-109).

9. *Have no significant adverse effects on species listed or proposed to be listed as Federally Endangered or Threatened Species, or their designated critical habitat.*

Under the Plateau Thin Project, as mitigated (Swinning Timber Sale), no northern spotted owl nesting, roosting, foraging or dispersal habitat would be downgraded within the home-range radius of owl sites with home ranges over-lapping the project area. This reduces the amount of northern spotted owl nesting, roosting, and foraging habitat that would have been downgraded under the original Plateau Thin Proposed Action from 1,090 acres to 318 acres (EA p. 3-94, and 3-96).

Because northern spotted owl habitat would still be downgraded, northern spotted owls would likely be adversely affected by the Plateau Thin/Swinning project. Pursuant to the Endangered Species Act (ESA), formal consultation was completed with the US Fish and Wildlife Service for the Swinning Timber Sale (resulting from the application of mitigation to Plateau Thin Project). The Service concluded in its Biological Opinion (# 13420-2010-F-0107) that the District's proposed action (including the Swinning Timber Sale) is *not likely to jeopardize* the continued existence of the spotted owl (USDI, 2010, p.64).

Implementing Alternative 2, as mitigated, will have no effect on botanical special status or survey and manage species. Previously, there had been no reported special status species within the project area; however, sites of a Bureau Sensitive and Survey and Manage Category E species, *Chaenotheca subroscida*, were located during 2010 surveys. These sites will be protected as noted in attached EA Addendum. Therefore, all federal/state-listed, bureau sensitive, and Survey and Manage plants requiring predisturbance surveys have been surveyed for and protected per existing

management recommendations and professional judgment. Due to required protection, this project will not trend these species towards listing under the ESA. (Attached EA Addendum).

Implementing the Plateau Thin Proposed Action (Alternative 2), including the Swinning Timber Sale, will have no effect on Coho Critical and Essential Fish Habitat (CCH/EFH) as there are no coho salmon within the analysis area and nearest CCH is approximately 15 miles downstream, and there is no EFH within the analysis area (EA, 3-62).

The Pacific fisher (*Martes pennanti*) was petitioned for listing as endangered or threatened under the Endangered Species Act on December 12, 2000. In 2003 the USFWS released their notice of 90-day petition finding and initiation of status review (68 Federal Register, No. 132, 41169-41174) and in 2004 published their Notice of 12-month petition finding, concluding that listing fishers as threatened was warranted, but was precluded by higher priority listing actions (Federal Register Vol. 69, No. 68, April 8, 2004, 18769-18792). The species remains a USFWS candidate species (USDI, USFWS 2004, 71 Fed. Reg. 53777, Sept. 12, 2006).

Forest carnivore surveys have detected one fisher within the Plateau Thin Project Area. The proposed action would not be expected to cause direct mortality to fishers. There would be disturbance from the action due to timber harvest and work activities, and loss of habitat due to regeneration harvest and pine site thinning operations. Fishers have been found to avoid recent forested stand with less than 40% canopy cover (EA, p. 3-98). Silvicultural prescriptions for regeneration and pine sites could lower canopy covers below 40 percent on about 183 acres (less than 9 percent of the total project acreage) under the Plateau Thin Proposed Action and only 81 acres (less than 4 percent of the project acreage) as mitigated for the northern spotted owl. The implementation of the Plateau Thin Forest Management Project, including the Swinning Timber Sale, would not significantly affect the amount of habitat available to Pacific Fisher in the Jenny Creek Watershed. Fisher have large home ranges and large areas (1,647 acres) in the Plateau Thin Project Area, which are not being treated due to the application of mitigation for the northern spotted owl would continue to provide habitat for fisher following the implementation of the Swinning Project. Because available owl habitat can be used to assess habitat available for Pacific Fisher (EA p. 3-89), using northern spotted owl habitat descriptions above, only 5 percent of habitat available to Pacific fisher in the Jenny Creek Watershed would be entered by the larger Plateau Thin Proposed Action (Alternative 2) and less than 1 percent would be reduced below 40 percent canopy closure (EA p. 2-2, 3-22, 3-89, and 3-98). Under the Swinning project, about 2 percent of the habitat available to Pacific fisher in the Jenny Creek Watershed would be entered, and only about 0.4 percent of this habitat would be reduced below 40 percent canopy closure (EA, p. 2-22, 3-22, 3-89, and 3-98).

10. Not Violate a Federal, State, Local, or Tribal law, regulation or policy imposed for the protection of the environment.

The Plateau Thin forest management proposal is designed to comply with the *1995 Medford District Record of Decision and Resource Management Plan* (RMP) (EA, 1-2 and 1-5). With implementation of required Project Design Features (PDFs), the proposed action, as mitigated, would not threaten a violation of any federal, state, or local environmental protection laws. PDFs include seasonal restrictions on many activities in order to minimize erosion and reduce disturbance to wildlife. PDFs also outline protective buffers for sensitive species, mandate the retention of snags, and delineate many measures for protecting Riparian Reserves throughout the project. (EA, 2-15). The required Project Design Features (including Riparian Reserves) incorporate the 1995 RMP Best Management Practices

and standard operating procedures, which are considered the primary mechanism for achieving Oregon Water Quality Standards (EA, p.2-15).

Prescribed burning operations will follow all requirements of the Oregon Smoke Management Plan and the Department of Environmental Quality Air Quality and Visibility Protection Program, ensuring that smoke related impacts to public health and safety are mitigated (EA p. 3-107 to 3-108).

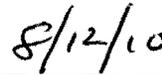
This project was reviewed for the potential for disproportionately high or adverse effects on minority or low income populations; no adverse impacts to minority or low income populations will occur (*Executive Order 12898 (Environmental Justice)* (EA, 3-109).

FINDING

I have determined the Plateau Thin Forest Management project does not constitute a major Federal action having a significant effect on the human environment; an environmental impact statement is not necessary and will not be prepared. This conclusion is based on my consideration of the Council on Environmental Quality's criteria for significance (40 CFR § 1508.27), with regard to context and intensity of the impacts described in the EA, my understanding of the project, review of project analysis, and review of public comments. The analysis of effects documented in the EA has been completed within the context of multiple spatial and temporal scales and within the context of the Medford District Resource Management Plan and the Northwest Forest Plan. The anticipated effects are within the scope, type, and magnitude of effects anticipated and analyzed in those plans.



John Gerritsma
Field Manager, Ashland Resource Area
Medford District, Bureau of Land Management



Date

REFERENCES

- United States Department of the Interior, Fish and Wildlife Service. 2010. Biological Opinion on the Summer 2010 Timber Harvest Activities Proposed by the Medford District of the Bureau of Land Management that are Likely to Adversely Affect the Northern Spotted Owl. FWS Reference Number 13420-2010-F-0107. On file Medford District BLM, Medford, OR.
- USDA Forest Service and USDI Bureau of Land Management. 1994a. Record of decision for amendments to Forest Service and Bureau of Land Management planning documents within the Range of the Northern Spotted Owl and standards and guidelines for management of habitat for late successional and old-growth forest related species within the range of the Northern Spotted Owl. Portland, OR.
- USDA, Forest Service and USDI, Bureau of Land Management. 1994b. Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional and Old Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, Oregon.
- USDA, Forest Service and USDI, Bureau of Land Management. 2001. Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer and other Mitigation Measures Standards and Guidelines. Government Printing Office. Portland, OR.
- U.S. Department of the Interior (USDI), Bureau of Land Management, Medford District. 1995. Medford District Record of Decision and Resource Management Plan. Medford, OR.
- U.S. Department of the Interior (USDI), Bureau of Land Management, Medford District. 1994. Medford District Proposed Resource Management Plan/Environmental Impact Statement. Medford, OR.

Attachment 1: Plateau Thin Forest Management Project EA Addendum

Compliance with 2001 Survey and Manage Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage, Protection Buffer, and other Mitigation Measures Standards and Guidelines

Units in the Swinning project area were initially surveyed for vascular and non-vascular botanical species from 2006 through 2008 for the proposed Plateau Thin timber sale. Additional surveys for Survey and Manage species were conducted by qualified botanists during the spring/summer of 2010 to ensure compliance with the 2001 Annual Species Review (ASR) survey list. Previously, there had been no reported special status species within the project area; however, sites of a Bureau Sensitive and Survey and Manage Category E species, *Chaenotheca subroscida*, were located during 2010 surveys. These sites will be protected as noted in Table 1, below. Therefore, all federal/state-listed, bureau sensitive, and Survey and Manage plants requiring predisturbance surveys have been surveyed for and protected per existing management recommendations and professional judgment. Due to required protection, this project will not trend these species towards listing under the ESA. The Swinning project is compliant with the 2001 Survey and Manage Record of Decision.

Table 1. Sensitive Status Plant Species In or Adjacent to Project Roads or Units.

Scientific Name	Common Name	Lifeform	2001 Survey & Manage Status*	2007 Heritage Rank**	ORNHIC List***	ODA Status+	2008 BLM Status	Sites
<i>Chaenotheca subroscida</i>	pin lichen	Lichen	E				SEN	6

*Survey and Manage: as determined by the 2001 amendment to the 1994 Northwest Forest Plan Record of Decision for Survey and Manage, Protection Buffers and related mitigation measures.

A= Rare, and all known sites are managed. Current and future known sites will be managed according to the Management Recommendation for the species. Minimize inadvertent loss of undiscovered sites. Pre-disturbance surveys are practical.

B= Rare, and all known sites are managed. Pre-disturbance surveys are not practical.

C = Uncommon, and not all known sites or populations are likely to be necessary for reasonable assurance of persistence, as indicated by several factors. Pre-disturbance surveys are practical.

D= Uncommon. Manage all known sites until high-priority sites can be determined. Pre-disturbance surveys are not practical or not necessary.

E=Rare, status undetermined. Manage all known sites while category assignment is being determined.

F= Uncommon, or Concern for Persistence Unknown. Management of known sites NOT required because species are uncommon, not rare. Until reassignment of species to a new category or removal from list occurs, inadvertent loss of some sites is not likely to change the level of rarity.

SEN = Sensitive (USDI Oregon State Director's List)

STR = Strategic (USDI Oregon State Director's List)

**Heritage Rank: an international system for ranking rare, threatened, and endangered species

G = Global Rank

S = State Rank

1 = Critically imperiled because of extreme rarity or because it is somehow especially vulnerable to extinction or extirpation, typically with 5 or fewer occurrence.

2 = Imperiled because of rarity or because other factors demonstrably make it very vulnerable to extinction (extirpation), typically with 6-20 occurrences.

3 = Rare, uncommon, or threatened but not immediately imperiled, typically with 21-100 occurrences.

4 = Not rare and apparently secure, but with cause for long-term concern, usually with more than 100 occurrences.

5 = Demonstrably widespread, abundant and secure.

? = Not yet ranked or assigned rank is uncertain.

***ORNHIC List: Oregon Natural Heritage Information Center maintains extensive databases of Oregon biodiversity, concentrating on rare and endangered plants, animals, and ecosystems.

1=taxa which are threatened or endangered throughout their range or which are presumed extinct.

2=taxa which are threatened, endangered, or possibly extirpated from Oregon but are stable or more common elsewhere.

3=taxa for which more information is needed before status can be determined, but which may be threatened or endangered in Oregon or throughout their range.

4=taxa which are very rare but are currently secure, as well as taxa which are declining in numbers or habitat but are still too common to be proposed as threatened or endangered.

+ODA Status: Oregon Department of Agriculture

C=Candidate for (State) listing as Threatened or Endangered by the ODA.

Chaenotheca subroscida, a type of pin lichen, is widely distributed in cool temperate and temperate areas of western North America and western Eurasia, occurring in the Pacific Northwest north to British Columbia. Typically, this species is found on the bark of late-seral conifers and occasionally wood, typically on sheltered locations protected from direct rainfall. Data shows that most occurrences are found on conifers older than 200 years. Its association with late-seral stands and a shady, humid microclimate indicates that the principle threat to this species is loss of habitat due to timber harvest or stand replacement fire (ISSSSP 2010). There are 6 known sites occurring within 100 feet of roads or 100 meters of project units, accounting for 100% of the total sites in the Swinning project area, and approximately 10% of the known and current sites on the Medford District.

Consideration of the 2005 Report Logging to Control Insects: The Science and Myths Behind Managing Forest Insect “Pests” or the Black Report

The 2005 Report *Logging to Control Insects: The Science and Myths Behind Managing Forest Insect “Pests”*, also known as the Black Report, was submitted by several commenters to support their opinion that there is no evidence that logging can control bark beetles or defoliators once an outbreak occurs and in the long run could increase the likelihood of epidemics. The Black Report was reviewed by Forest Health Protection Entomologists from Region 6 of the U.S. Forest Service in November 2005, who concluded that the report contained many erroneous statements that were not even supported by the report’s cited literature and included many citations taken out of their proper context. The Black Report was reviewed by BLM silviculturists who concur with the findings reported by Region 6 Forest Service entomologists. Many papers cited in the report support BLMs approach to managing forests to prevent bark beetle epidemics.

A recent paper, “*The effectiveness of vegetation management practices for prevention and control of bark beetle infestations in coniferous forests of western and southern United States*”¹, reviews tree and forest stand factors associated with bark beetle infestations and analyzes the effectiveness of vegetation management practices for mitigating the negative impacts of bark beetles on forests. The review draws from the examination of 498 scientific publications concerning the topic referenced above and other related topics. Fettig et al. reports that native tree-killing bark beetles are a natural component of forest ecosystems and periodic outbreaks will occur as long as susceptible forests and favorable climatic conditions exist. Recent epidemics of some native forest insects have exceeded historical records and management to reduce stand or landscape-level susceptibility must address factors related to tree density. Increased competition among trees for water, growing space, and nutrients causes trees to become stressed and compromises their resistance mechanisms, thus increasing their susceptibility to bark beetle attacks.

The report concludes that while gaps do exist in information available for some forest cover types and common bark beetle species, thinning as a preventive measure to reduce the amount of bark-beetle caused tree mortality and its effectiveness is supported by scientific literature for most forest cover types including ponderosa pine and Douglas fir forests which are the primary focus of concern for bark beetle infestations in the Plateau Thin Forest Management Project.

¹ Fettig, C.J.; Klepzig, K.D.; Billings, R.F.; Munson, A.S.; Nebeker, T.E.; Negrón, J.F.; Nowak, J.T. 2007. The effectiveness of vegetation management practices for prevention and control of bark beetle outbreaks in coniferous forests of the Western and Southern United States. *Forest Ecology and Management*. 238: 24–53.