

**EA Revision
Cedar Creek Subwatershed
EA No. OR125-99-19**

**Port-Orford-Cedar Risk Analysis
EA Project Area A**

March 28, 2005

Introduction

The Bureau of Land Management and the U.S. Forest Service recently published the 2004 Final Supplemental Environmental Impact Statement on Management of Port-Orford-Cedar in Southwest Oregon (“2004 POC FSEIS”). The 2004 POC FSEIS proposed to amend the land and resource management plans for the Coos Bay, Medford, and Roseburg BLM Districts and the Siskiyou National Forest by replacing existing management direction with direction in Alternative 2 of the FSEIS. On May 10, 2004, the Oregon State Director, BLM, signed the 2004 Record of Decision adopting Alternative 2 of the 2004 POC FSEIS. Alternative 2 includes a Risk Key that clarifies the environmental conditions at the 7th field watershed level that require the implementation of one or more site-specific disease-controlling management practices for POC.

Management of Port-Orford-cedar (POC) in the Cedar Creek subwatershed for Project Area A will be consistent with the direction proposed in Alternative 2 of the Final Supplemental Environmental Impact Statement (FSEIS) Management of POC in Southwest Oregon (USDA USDI January 2004) and Record of Decision and Resource Management Plan Amendment (USDI May 2004). This analysis is consistent with the Coos Bay District Record of Decision and Resource Management Plan (May 1995) in providing site-specific analysis of POC (p. 23). This analysis tiers to the FSEIS for the description of mid and long-term temporal effects and off-site cumulative effects expected for the action alternatives.

Overview

POC is a regional endemic species, occurring only in Southwest Oregon and Northern California. The northern limit of the species is the coastal dunes north of North Bend, within the Coos Watershed.

POC is affected by an exotic root pathogen, *Phytophthora lateralis* (PL), which is nearly always fatal to the trees it infects. Spread of the pathogen is linked, at least in part, to transport of spore-infested soil by human and other vectors, such as animals. The largest areas of contamination and most likely candidates for spreading the pathogen occur along roadsides and streams. The vast majority of POC and PL on Coos Bay District lands are

in the south half of the district, south of the North Fork Coquille and Coos River drainages.

POC and PL Infections Inventory

The Cedar Creek subwatershed, in the South Fork Coos River 5th field watershed, is 54.3 square miles, including all ownerships. Project Area A of the Analysis Area drains south-southeast into an unnamed tributary to Cedar Creek. Land ownership is approximately 90% private industrial forest lands and 10% scattered BLM ownership within the Cedar Creek subwatershed. Project Area A is approximately 16 acres within a 40 acre BLM parcel that is surrounded by private land. The closest BLM land in the Cedar Creek subwatershed is 2.5 miles to the south. POC is scattered throughout the basin and is only a minor component in the riparian habitats, while known infections of PL are primarily along roads. The spread of the disease is influenced by human activities, especially forest roads and tractor logging, and natural events. The natural events include saturated water flow, movement of animals, and movement of soils by natural erosion.

Low Risk for PL Infestation Sites on BLM Lands

“Areas not influenced by the wet conditions or periodic water flow that occurs in high-risk sites are low-risk sites. Cedars near streams or bodies of water whose roots do not extend below the high watermark for flooding are at low risk of infection. Riparian Reserve widths along a stream (as defined in the Northwest Forest Plan by site tree heights) often extend well beyond the high-risk widths for POC” (FSEIS p3&4-36).

Sites with low risk for PL infestation, those not near streams or roads, amount to approximately 80% of the analysis area for all ownerships in the Cedar Creek Subwatershed.

“This subwatershed is on the northeastern edge of the Port-Orford-cedar natural range. See the South Fork Coos Watershed Analysis (USDI BLM 1999) for discussion and historic stocking levels of Port-Orford-cedar. Port-Orford-cedar was noted in Project Areas A, B, and C on BLM land or adjacent private land, and is likely to be present in Project Areas D and E. Project Area F is least likely to have Port-Orford-cedar. (EA OR125-99-19).

“Overall Port-Orford-cedar population viability is not an issue. BLM ownership in the South Fork Coos Fifth Field watershed is about 20% and in the sixth Field Cedar Creek subwatershed about 10%. Port-Orford-cedar is known to be healthy and present on the surrounding private lands, even (it is assumed) without *Phytophthora lateralis* control measures” (EA OR125-99-19).

An inventory for green POC was done in the Low Risk PL areas of the Project Area A analysis area. This was done by looking for POC within the 16 acre timber stand of Project Area A and at timber cruise data from the adjacent 1978 BLM timber sale. Also, the plantation from the 1978 timber sale and adjacent private were field examined. In all inventories no POC was located in or adjacent to Project Area A.

An aerial photo survey of PL infections using the 1997 photos was completed in January, 1998 for the Cedar Creek subwatershed. This survey identifies all PL infections of two

or more groups of dead or dying POC as seen on the aerial photos. An actual count of dead or dying POC trees was made for each infection on BLM lands.

According to the FSEIS on page 2-41, the Coos Bay District is in the North Coast Risk Region.

“There is little spread of PL on low-risk sites even when the pathogen is already established nearby. It is estimated that on average, 0.1 percent of the cedars on low-risk sites are infested per year in infested drainage, with much of this likely being offset by regeneration and growth, at least in the smaller size classes. This low level of new infestations on low-risk sites even in the North Coast Risk Region support this conclusion. About 80 percent of the area in the northern coastal portion of POC range, 60 percent in the southern part of the range, and 40 percent in the inland portion of the range are in the low-risk sites” (FSEIS p3&4-45).

From the Cedar Creek Subwatershed EA:

“As *Phytophthora lateralis* spreads along roadsides and streams, fewer Port-Orford-cedar will be expected to survive. The primary exception to this being individuals that are disease resistant. Infection can spread away from roads and streams to lower risk areas by root grafting and downhill proximity. Other human or natural events can aid in the spread from high risk to low risk sites. However, the overall Port-Orford-cedar population viability is unlikely to be affected throughout the analysis area since Port-Orford-cedar is such a small percentage of the forest and so widely scattered” (EA p32).

High Risk for PL Infestation Sites on BLM Lands

PL infections that have occurred on BLM lands are the result of tractor logging in the 40's, 50's, and early 60's, bough cutting and road-side spread. Dying POC is sometimes found adjacent to big game trails.

There are no high risk sites identified in the Project Area A unit. As per the POC FSEIS definition on page 5-36, high risk sites are:

“Low-lying areas (infected or not) that are located down slope from already infected areas or below likely sites for future introductions, especially roads; they include streams, drainage ditches, gullies, swamps, seeps, ponds, lakes, and concave low-lying areas where water collects during rainy weather.”

The 16 acre Project Area A unit is located near a ridge top. The unit is planned to be harvested with a cable system from existing roads. No road construction will occur in the unit. There are no streams in the units. The stream to the west of the unit is buffered by a one site potential tree distance.

The planned haul route for Project Area A is easterly on the Weyerhaeuser 8400 road and the 8390 road (BLM Road 26-8-1.0). The 8390 road goes through a half section of BLM land in Section 1, T. 26 S., R. 8 W., before reaching the county road. Scattered uninfected POC has been found along this haul route. The 8390 road through the BLM half section is not located near a stream or low lying areas of high risk. Hundreds of

acres of private timber have been hauled down this route in the past with no evidence of PL infected POC.

PL Infections on Private Lands in the Basin

Uninfected POC has been noted along the Weyerhaeuser 8000 road, located adjacent to Cedar Creek, that leads up to Project Area A from the west. However, the 8000 road is not the planned haul route for the proposed Project Area A timber sale due to the high road use fees and a long distance to a utilization center. A survey from 1997 aerial photos indicated 5 infection sites on private land in Sections 8 and 9 of T. 26 S., R. 8 W. The closest PL infection area appears about 2 miles west of the unit along the 8000 road. A majority of the roads in the Cedar Creek watershed are infected with PL in scattered locations. A road is considered infected from the point of infection and onward along all roads that are tributary to that infection point. The largest and most numerous infections occur on private lands. It is possible that infection sites from Sections 8 and 9 could spread to four sections of BLM land located farther down the Weyerhaeuser mainline haul route.

No observations or evidence of ORV use has occurred in the Cedar Creek subwatershed on BLM lands near Project Area A primarily because Weyerhaeuser keeps the area containing Project Area A behind locked gates.

Other Inventory Information

As stated in the POC SEIS on page 3&4-35:

“Pacific yew is infected by PL on infrequent occasions (Kliejunas, 1994). Observations and laboratory trials show that Pacific yew is much less susceptible than POC. Where it has been found infected, Pacific yew was growing in close association with many previously infected POC (Murray and Hansen 1997).”

The EA states:

“Pacific yew is most likely in or nearby all Project Areas and is known to be in Project Areas B and F” (EA OR125-99-19).

No Pacific yew was observed in the proposed harvest unit, so there is no expected impact to Pacific yew trees under an action alternative.

Applicable General Direction Needed for POC Management (from FSEIS p. 2-15 to 17)

Bough cutting: There is no bough cutting proposed in the Cedar Creek subwatershed. All issuing of bough cutting permits was stopped on the BLM Coos Bay District as of October, 1993. This was one of the primary methods of dispersal of PL infections.

Eradication: There is no POC eradication project proposed in the Cedar Creek subwatershed.

Wildland Fire Operations: Due to the low fire return interval and the normally small fires that are predicted to occur in the Cedar Creek subwatershed, it is anticipated that no Clorox bleach would be used to kill waterborne spores in this basin. Vehicle, tool, and clothing washing are not anticipated for the routine fire suppression operations in the planning area.

Application of the Risk Key

1a. Are there uninfected POC within, near, or downstream of the activity area whose ecological, Tribal, or product use or function measurably contributes to meeting land and resource management plan objectives?

There are no POC within, near, or downstream of the Cedar Creek subwatershed whose ecological, Tribal, or product use or function measurably contributes to meeting the BLM Coos Bay District RMP objectives.

There are no POC trees that will be removed in the Cedar Creek subwatershed regeneration harvest unit for Project Area A.

Local tribal, Coquille and Coos Confederated, uses for POC include boughs in burial ceremonies and wood for bowls and dugouts. POC boughs ceremonially represent eternal life. There is no shortage of POC logs and bough material to accommodate these tribal uses in Coos County. BLM does not measurably provide a supply of this material. Therefore, there is nothing unique in the POC resources of Cedar Creek subwatershed or downstream that measurably contributes to local Tribal uses.

There are no uninfected POC within, near or downstream of the project area that would preclude meeting RMP objective for forest product uses.

1b. Are there uninfected POC within, near, or downstream of the activity area that, were they to become infected, would likely spread infections to trees whose ecological, Tribal, or product use or function measurably contributes to meeting land and resource management plan objectives?

POC has not been found in Project Area A. If uninfected POC is found and were to become infected those new PL infections would most likely be found along streams and roadsides. “PL primarily affects high-risk sites, especially in stream and riparian area (FSEIS p3&4-45).” Within the Cedar Creek subwatershed, part of the North Coast Risk Region,

“POC is distributed widely across the landscape. On average 20 percent of the area is comprised of high-risk sites. The pathogen has been present in this area for considerable time. Mapping and forest inventories indicate that about 15 percent of the area (or 75 percent of the 20 percent in

high-risk sites) is infested, and most drainages are at level *c* on the disease progression curve. Most originally-occurring cedars in infested high-risk sites have been killed (general estimate is 90 percent). There is chronic mortality of small cedars regenerating on high-risk sites that are infested. Low-risk sites (80 percent of the area) are little impacted” (FSEIS p3&4-44).

From Figure 3&4-1 of the FSEIS, level *c* on the disease progression curve shows a very slow rate of increase in the spread of POC root disease.

In the Cedar Creek subwatershed, potential new infections are most likely to occur along streams that currently show no signs of infection. As the remaining roads slowly become infected over time, they pose no additional risk of infection to other POC since the risk already exists over most of the area (FSEIS p2-19). While POC is a scattered minor component of streams in the Cedar Creek subwatershed, the potential loss of some of these trees being infected over time has no adverse effect to fish.

“The loss of POC...would have no detectable effect on fish in this region. POC lost to PL in riparian zones would be gradually replaced by those of other conifer species. ... Summer temperatures and large woody debris recruitment would be maintained within the natural range of variability in headwater streams and mid-drainage and valley streams” (FSIES p3&4-84).

Furthermore, a review of the POC resources that are near or downstream of the Cedar Creek subwatershed indicates that there are no POC that have ecological, Tribal, or product use or function that measurably contributes to meeting the BLM Coos Bay District RMP objectives.

1c. Is the activity area within an uninfested 7th field watershed as defined by Alternative 6 of the 2004 FSEIS?

There are no uninfested 7th field watersheds on the Coos Bay District.

Synthesis of Risk Key Results

Because the answers to all three of the preliminary questions of the Risk Key (FSEIS p. 2-18) are “no,” additional site-specific management measures for POC are not required for Project Area A. The Risk Key analysis above demonstrates that there is no risk to POC as a result of implementing Project Area A of the Cedar Creek subwatershed project.

Even though this analysis identified uninfected POC along the haul route, the finding that no site-specific management practices are needed is consistent with the predicted outcome on page 2-43 of the FSEIS for the North Coast Risk Region, in which the Coos Bay District and the Cedar Creek subwatershed is contained.

“If there are few uninfested areas nearby, or if those uninfested areas make no measurable contribution to the ecological, Tribal, or product use or function (use or function that is not equally met elsewhere or by other species), the key will not lead to the application of any project-specific management practices. This situation will likely occur more often than not in this risk region because most high-risk areas are already infested,

and because the terrestrial distribution of POC places 80 percent of its acres on low-risk sites.”

In the Cedar Creek subwatershed, the road network is the primary vector for additional disease spread. The roads within the Analysis Area for Project Area A that are proposed for timber haul and logging vehicle traffic are uninfected. The checkerboard ownership within this basin and the numerous reciprocal rights-of-way agreements makes some road management, such as closures, impracticable. The increased logging related road traffic with the proposed action will not add appreciable risk to the spread of POC root disease in the Cedar Creek subwatershed primarily because there is no presence of POC or infection within the project area or along the haul route. Risk to adjacent watersheds already exists because of the numerous other road uses already present.

Cumulative Effects

This revised analysis of POC resources in the Project Area A analysis area also tiers to the effects analysis of the 2004 POC FSEIS, including the cumulative effects analysis of the FSEIS. Any significant cumulative effects concerning POC within the range of POC, including the Coos Bay District and the area of the Cedar Creek subwatershed project, have already been considered in the FSEIS. The POC FSEIS discloses the cumulative effects to federal lands as a result of current POC management practices and timber harvest on non-federal lands (FSEIS p. 3&4-8 to 3&4-11) and also discloses the past harvest and mortality of POC on all lands, non-federal and federal (FSEIS p3&4-12). The FSEIS also discloses that according to the District’s GIS database, there are 82,410 acres that contain some presence of POC on the Coos Bay BLM District with 319 acres of non-roadside PL infestations and 2,391 acres of roadside considered infested, not including infestations on the intermingled private lands (FSEIS p3&4-23). The FSEIS discusses the cumulative effects of the Biscuit Fire relative to POC in risk regions within Oregon and California (FSEIS p3&4-30 to 3&4-31). The FSEIS also discusses cumulative effects of timber harvest activities generally, such as harvesting and transporting annual volume from federal forests, on the spread of *PL* (FSEIS p3&4-30 to 3&4-149).

With regard to specific cumulative effects discussion in the FSEIS relevant to the cumulative effects of *PL*-related mortality, the Cedar Creek subwatershed project, and other reasonably foreseeable timber harvest projects in the Cedar Creek subwatershed analysis area, the FSEIS discusses *PL*-related mortality and timber harvest in high-risk riparian areas, the concerns for the snag and down log requirements of wildlife, as well as concern over effects of timber harvest and POC mortality on genetic resources.

The FSEIS discussion of cumulative effects of *PL*-caused mortality and timber harvest relevant to wildlife, states that no wildlife species were identified that were exclusively linked to POC, and that cumulative effects to wildlife are better linked to loss of specific habitat components, such as snags and down wood (FSEIS p3&4-105). The FSEIS discloses that only those timber sales and other tree-removing activities that affect long-term snag recruitment would have a cumulative detrimental effect where *PL*-caused

mortality decreases the contribution of POC to snags and down log components over the long term. The FSEIS adds, however, that no harvest method reduces long-term snag availability because trees are a renewable resource and grow back after harvest (FSEIS p3&4-105).

The FSEIS also discloses the cumulative effect of timber harvest and *PL*-caused mortality on genetic resources and finds that, while timber harvest in the Matrix and other management activities may potentially affect a considerable acreage of POC in total, timber harvest will never remove enough POC in one place to be a genetic concern, even in conjunction with *PL*-related mortality (FSEIS p3&4-125). Proposed Project Area A timber sale does not have POC or include harvest of POC. Based on the above reasons, when the timber sale is viewed in light of other reasonably foreseeable future federal and non-federal timber harvest projects and past, present, and foreseeable *PL*-related mortality to POC on federal and non-federal lands, the sale will have no significant cumulative effects on the genetic resources of POC.

The proposed action in the Cedar Creek subwatershed EA does not produce any off-site cumulative impact at the mid and long-term temporal scale that was not identified in the FSEIS. Proposed Project Area A timber sale presents no direct effect or measurable additional risk to spread of *PL*; they contribute no incremental, cumulative effects to be disclosed or analyzed. Through application of the Risk Key of the 2004 POC FSEIS to Project Area A analysis area, no additional adverse impacts to POC were identified beyond those considered in the FSEIS. Because the Project Area A timber sale was determined to have no additional adverse impacts to POC, it will have no incremental, cumulative effect to POC in the Cedar Creek subwatershed analysis area described in the EA. Added to the other activities taking place in the Cedar Creek subwatershed and adjacent watersheds, there are no significant cumulative impacts to POC as a result of implementing the Project Area A timber sale.

List of Preparers

<u>Name</u>	<u>Title</u>
Terry Evans	Forester
Frank Price	Forest Ecologist
Jon Menten	Forest Manager