PORT - ORFORD - CEDAR ACTION PLAN

COORDINATING GROUP

REGION 5

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EXECUTIVE SUMMARY

Enclosed is the final report, with action plan, of the coordinating group you appointed to review the Port-Orford-cedar root disease situation and to develop a coordinated interregional best effort management program. The team has met and stratified our effort into four main areas. The four main areas of concern addressed show up in the action plan as follows:

1. Inventory and Monitoring
2. Research
3. Public Involvement and Education
4. Management Policy for the two Regions

The actions being recommended include time frames and responsibilities. The Regions need to make the assignments and, in some cases, provide the resources. The coordinating group plans on meeting twice a year to review progress and make further recommendations.

REPORT/ACTION PLAN

INTRODUCTION

The Port-Orford-cedar Coordinating Group was established by the Regional Foresters of Regions 5 & 6 out of a concern from within the Forest Service, and expressed by interest groups, that there be a coordinated effort to control the root disease that affects Port-Orford-cedar.

The establishment of this group has its origins in a previous task force that was commissioned by the Environmental Law Clinic at the University of Oregon in 1986. This task force included people from California and Oregon who were interested in the management of Port-Orford-cedar. The list of participants included timber industry, environmental organizations, educators, and others. The Forest Service was also invited to participate and provided representatives from each Region.

The group operated under the concensus approach and was able to agree on many recommendations. These recommendations form the basis for much of the work of the interregional coordinating group.

The coordinating group has divided the issue into four main areas of concern: (1) Inventory and Monitoring, (2) Research, (3) Public Involvement and Education, and (4) Management Policy.

CONCERN AREA #1 - INVENTORY AND MONITORING:

Current Situation

- There is no standard approach to how Forests or Regions identify areas that have Port-Orford-cedar or where the root disease is located.
- There is no systematic method of tracking the spread of the disease.
- There is no easy way to display for the public the Port-Orford-cedar and disease situation.

Goals

- Develop one standardized inventory and monitoring system for Regional use.

Action Items/Objectives

1. Inventory to establish current boundaries of the infection.
2. Monitor to establish the rate of spread locally and species-wide.
3. Evaluate the effects of the mitigation measures.

CONCERN AREA #2 - RESEARCH AND ADMINISTRATIVE STUDY

Current Situation

- There are a variety of research and administrative studies in progress.
- There is a critical need to do more research and conduct administrative studies.
- Sufficient funds are not available to accomplish desired research.

Goal

- Develop a coordinated and prioritized approach to the research and administrative study proposals that are responsive to the management of Port-Orford-cedar.

Action Items / Objectives

1. Develop methods to detect the pathogen in soil and water.
2. Test strategies of control for efficacy.
   Recommended control strategies, such as cleaning of equipment, need to be tested to determine if they actually eliminate the fungus from equipment or have any benefit in reducing the spread of the disease.
3. Determine the requirements of the pathogen for survival and dispersal.
   Determine the requirements of the pathogen for survival and dispersal at various stages of its life cycle, especially the influence of soil moisture and temperature in relation to measurable field conditions.
4. Study measures to eliminate the fungus from areas of incipient infection.
   Determine if the fungus can be successfully eradicated from areas of incipient infection (few trees infected at headwaters of

uninfested drainage, along roads/elsewhere outside of areas of general infestation, in RNAs/other areas set aside for protection) to prevent spread of the disease.

5. The existence of resistance to the pathogen within the range of Port-Orford-cedar needs to be thoroughly investigated. If host resistance to the disease is found, it could be exploited to help maintain the species on desirable sites.
6. The genetic variation of Port-Orford-cedar is not known. This information is needed so that appropriate management strategies can be developed to maintain any significant genetic variability within the species.

Summary

Regions 5 & 6 will encourage proposals for research and administrative studies. A four year research proposal, covering many of the listed action items, has been submitted by Oregon State University and funded by the Siskiyou National Forest through 1988. Funds for the remaining three years and funds for the isozyme analysis and the garden study have not been reserved. Sources of funding for these and other proposed research and administrative studies will be explored.

CONCERN AREA #3 - PUBLIC INVOLVEMENT AND EDUCATION

Current Situation

- There is a high degree of interest by many segments of the public and public agencies in how Port-Orford-cedar is managed.
- There is no agreement between the two Regions on how information should be disseminated.
- The public (groups, individuals and organizations) is looking for ways to involve themselves in managing Port-Orford-cedar.

Goals

- Develop a coordinated Regional effort to keep the public informed of the progress of managing Port-Orford-cedar.
- Develop a method for the public to involve themselves in the process.

Action Items / Objectives

1. Keep interested groups up-to-date on the progress of Port-Orford-cedar management.
2. Provide method for interested groups and individuals to contribute input to the coordinating team.
3. Develop information program to tell the public the Port-Orford-cedar story and to keep them informed of the progress made in managing the species.

CONCERN AREA #4 - MANAGEMENT

Current Situation

- There is a need for the two Regions to develop a “best effort” Port-Orford-cedar management program.
- Much work has already been done in developing control strategies to prevent or slow the spread of the disease.
- More work needs to be done to control the spread of the disease.
- Results of mitigation measures and other “State of the Art” control methods are not always shared in a timely manner.

Goals

- Develop an agreed upon and coordinated program to manage Port-Orford-cedar in the presence of the root disease.
- Develop criteria and mechanisms to determine the risk of spread.

Action Items / Objectives

1. Continue to refine and update risk assessment model used in evaluating projects.
2. Develop strategies for the management of the following activities:
   -Timber sales
   -Road construction and management

-Reforestation and stand management
-Other potentially earth-moving activities in stands where a significant component is Port- Orford-cedar.

3. Develop system or method for sharing information

CONTROL STRATEGY - PROJECT ANALYSIS AND IMPLEMENTATION

The following is an outline format to be used to complete a risk analysis for all projects in watersheds containing Port-Orford-cedar. Practices identified from experience, research, and the Region 5-Region 6 Port-Orford-cedar Action Plan will be applied on a site or drainage-specific basis to reduce the spread and severity of the disease.

THRESHOLD OF CONCERN

		RISK		
		LOW	MODERATE	HIGH
	% OF POC			
I	LOW	LOW	LOW	HIGH
M	0-5%	CONCERN	CONCERN	CONCERN
P				
A	MODERATE	LOW	HIGH	HIGH
C	5-20%	CONCERN	CONCERN	CONCERN
T				
	HIGH	HIGH	HIGH	HIGH
	>20%	CONCERN	CONCERN	CONCERN

Defining Risk

LOW — Below roads - No Port-Orford cedar within 500 feet. Above roads - No Port-Orford cedar within 50 feet.

MODERATE — Below roads - Port-Orford-cedar may be between 100 and 500 feet of the road. Above road - No Port-Orford-cedar within 50 feet.

HIGH — Below roads - Port-Orford-cedar within 100 feet. Above roads - Port-Orford-cedar within 50 feet.

Potential Project Objectives

OBJECTIVE A: Prevent the import of disease into uninfected areas. [Off site spores picked up and carried into uninfected project area.]

OBJECTIVE B: Prevent the export of disease to uninfected areas. [On site spores moved to off site uninfected area.]

OBJECTIVE C: Minimize increases in the level of inoculum or minimize the rate of spread in areas where the disease is endemic or infection is intermittent. If possible identify the probable mechanism of spread; whether by introduction of spores or by root grafting.

Threshold of Concern Assessment

The assessment will discuss the level of concern regarding the project, the causes for concern, specific areas of concern and possible treatments to reduce the level of risk. The following is a list of possible treatments, by resource area.

DISEASE CONTROL STRATEGIES

Engineering and Road Management [E]

E-1 Road locations should be made, when possible, below cedar areas or on opposite sides of ridges.

E-2 Control drainage from roads so that it is dispersed to the maximum extent feasible through outsloping and/or frequent ditch relief. Where not feasible, drainage should be concentrated into existing stream channels.

E-3 Locate and design waste areas so they do not spread infection spores.

E-4 Limit road construction to the dry season.

E-5 Machinery and vehicles working and traveling on road prior to establishment of final drainage need to be washed before entering project.

E-5A Machinery and vehicles working and traveling on road prior to establishment of final drainage need to be washed before entering project. Trucks end-hauling material to waste areas may be exempted provided no infected roads or sites are travelled btween the project and the waste area.

E-6 Wash equipment before leaving infected areas.

E-7 Close roads with guardrails, physical blockades or “putting to bed”. Maintenance and enforcement is included.

E-7A Close roads with guardrails, physical blockades or “putting to bed” in order to restrict product utilization and management activities to the dry season (June 1 thru Sept. 30). Maintenance and enforcement are included.

E-8 Avoid dust abatement with potentially infected water or treat water with chlorine.

E-8A Avoid dust abatement and compaction with potentially infected water or treat water with chlorine.

E-9 Maintenance activities should avoid spilling rock on outside or downslope side of the road. As needed, blading shall be kept to within 2 feet of the road edge to better achieve this.

E-10 Where conditions permit, inslope the road template and establish berm on the outside edge of road to prevent downslope flow of contaminated water.

E-10A For maintenance purposes, where conditions permit, establish berm on the outside edge of road to prevent downslope flow of contaminated water.

E-11 Establish road rules to prevent timber haul during periods when spores will be spread widely.

E-12 Dump fill and debris from infested culverts and ditches in safe areas to avoid spreading the fungus.

E-13 Establish road surface blading requirements to maintain a specified road template during maintenance operations.

Timber Harvest [T]

T-1 Limit the operating season of timber sale operations to the drier months.

T-1A Limit the operating season of timber sale operations to the drier months (June 1 to Sept.30) discontinue operations during periods of rain or wet weather (C6.315# - Limited operating season)

T-2 Wash logging equipment before operating away from landings and roads

T-3 Constrain timber haul so trucks do not travel from infected to uninfected areas, contaminating the latter. Harvest the units in priority order to minimize the spread of spores to uninfected areas.

T-4 When feasible, plan downhill logging to avoid road construction above an uninfected stand.

T-5 Use helicoptor logging to protect high value cedar stands.

T-6 Use service contracts to harvest timber with more control of activities.

T-7 Wash logging equipment working in infested sites before it is moved off site.

T-8 Wash logging equipment, other than log trucks, prior to entering sale area

T-9 Wash log trucks and other equipment when moving from infected to uninfected areas during wet weather.

Stand Management [S]

S-1 Identify low risk areas and emphasize maintaining and/or introducing Port-Orford-cedar into the species mix.

S-2 Plant POC singly or in groups at a wide spacing independent of other stocking.

S-3 Avoid planting POC within 50 feet of roads, streams or wet areas.

S-4 During precommercial thinning [PCT] thin POC at a 25 foot spacing, independent of other crop trees, or space POC in groups 100 feet apart where possible.

S-5 As part of PCT, remove POC from areas adjacent to roads, streams and other high risk areas.

S-6 To insure the presence of POC through the rotation, leave all thrifty cedar during commercial thinning.

S-7 Manage the cedar component of the stand on a longer rotation than the other associated conifers. Example: Carry cedar through two or three fir rotations.

S-8 Plant container grown POC until bare root stock can be certified disease free at the Nursery.

S-9 Indicate in stand records [TRI, etc.] that POC protection measures have been implemented.

S-10 Minimize management entries during wet weather. Wash vehicles when such entries are made. Must be associated with formal road closure.

S-11 Where possible coordinate prevention/control activities with adjacent private landowners.

Other [O]

O-1 Administrative closure orders.

O-2 Coordinate other products utilization with POC control needs and road closures. Examples: fuelwood cutting, cedar bough cutting.

POC CUMULATIVE EFFECTS ANALYSIS

Each project analysis will contain a discussion of potential cumulative effects. The assessment will use the following definitions and will use the analysis chart to help determine whether there are potential secondary or cumulative effects.

DEFINITIONS

Meaningful quantities of Port-Orford-cedar: Use 5 percent or greater cover. Consider and identify exceptional situations where less than 5 percent can be meaningful, such as small isolated stands near the edge of the species range.

Downslope/Downstream: Consider all the forest land areas between the analysis area and the first occurance of *Phytophthora lateralis*. If a proposed activity occurs on a ridgetop then analyze both drainages.

Introducing risk: Estimate the percent of the analysis area in which the risk of *Phytophthora lateralis* infection is increased as a result of the proposed management activity.

Meaningful levels of mortality: This is defined as a mortality rate of 25 percent of existing Port-Orford-cedar over the next 20 year period.

CUMULATIVE EFFECTS ANALYSIS CHART

Meaningful quantities of Port-Orford-cedar within or downslope/downstream of the analysis area	If No, then No Secondary or Cumulative Effect
If Yes, continue	
Will the proposed project introduce risk to this cedar?	If No, then No Secondary or Cumulative Effect
If Yes, continue	
Following mitigation, is *P. lateralis* likely to infect a major* amount of the analysis area? [Ref. 40 CFR 1508.27]	If No, then No Secondary or Cumulative Effects
If Yes, then there are Potential Secondary and Cumulative Effects	