

TITLE: Port-Orford-Cedar Mapping within the Biscuit Fire Area – Part 2

LOCATION: <Rogue River - Siskiyou National Forests>

DURATION: Year 1 of 1-year project **FUNDING SOURCE:** <Forest Health Monitoring / Base Evaluation Monitoring>

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PROJECT OBJECTIVES: <Complete assessment of post-fire status of Port-Orford-cedar populations within the perimeter of the Biscuit fire. >

JUSTIFICATION: <Port-Orford-cedar has a limited range in southwestern Oregon and Northern California. The Biscuit fire area covers a significant portion of the range of Port-Orford-cedar (POC) in Oregon and to a lesser extent in California. Pre-fire mapping showed approximately 89,880 acres with POC and 3,022 acres with *Phytophthora lateralis* (PL), the pathogen that causes POC root disease, within the Biscuit fire perimeter. This represented about 29 percent of all Federal acres with POC and PL. The Biscuit Fire burned with stand replacement intensity on about 46,000 acres occupied by healthy POC. This is about 48 percent of the healthy POC that existed in the Recovery Area. This compares with the percentage of severe burning that occurred in the entire Recovery Area, 44 percent.

The amounts and locations of Port-Orford-cedar that survived the fire are not completely known. In 2003, a project was initiated to map POC that survived the Biscuit fire. This mapping project is expected to be during October of this year. Preliminary results show POC acres post Biscuit fire at just over 21,000 and PL acres at just over 800 acres.

An important tool in this project was the immediate post fire aerial photos that showed the area of unburned forest. Due to budgetary and contract constraints, approximately 116 square miles within the Kalmiopsis wilderness was never flown and subsequently POC in this area was never mapped. In 2004, a new aerial photography project was initiated to provide coverage of the missing portion of the Biscuit fire. This coverage will be completed by November 2004. A service contract has already been awarded to the original contractor to complete the POC mapping for this portion of the Biscuit fire.

Information produced by this project will aid implementation of the Record of Decision and Land

and Resource Management Plan Amendment for Management of Port-Orford-Cedar in Southwest Oregon, Siskiyou National Forest.>

DESCRIPTION:

a. Background: <Port-Orford-cedar is affected over much of its range by PL, a virulent, non-native root pathogen that was introduced into the host's native range in the early 1950s. *Phytophthora lateralis* readily kills Port-Orford-cedar of all ages that are growing on sites favorable for disease development. Once an area becomes infested, it is difficult if not impossible to eradicate PL. The restricted range of Port-Orford-cedar, impact of the pathogen, plus the impact of the Biscuit fire raise concern over how much live Port-Orford-cedar remains within the perimeter of the Biscuit fire.

b. **Methods:** <Complete review of all existing databases for the fire area that would contain information identifying POC locations within the Kalmiopsis wilderness. This includes 1:12,000 scale true color aerial photo transparencies taken in the summer of 2004, 1992 Interregional Mapping Data Base of POC and its root disease, "Identification Of Port-Orford Cedar And Associated Species On Large Scale Color and Color-IR Aerial Photos" by Bill Ciesla (former Director R-6 Forest Pest Management) and Mike Hoppus of the USFS Nationwide Forestry Application Program, serpentine soil maps from the USDA Natural Resources Conservation Service (Oregon portion of fire), Continuous Forest Survey Plots containing POC, Ecology plots containing POC including location and coded plot data, maps of the Biscuit Fire Super Plant Association Groupings, 2003 orthophoto maps (Oregon).>

c. **Products:** <GIS maps by analytical watershed listing all polygons where POC was greater than 2% of the overstory. POC surviving the Biscuit will be categorized into one of the following crown closure classes: Class 1- 2 to 5% POC, Class 2- 6 to 20% POC, Class 3- 21 to 40% POC, Class 4- 40%+ POC. Surviving POC with a crown cover of less than 2% was not detectable on the aerial photos and not mapped except under special circumstances.

There is no minimum size polygon established. The smallest polygon mapped to date is 4 overstory trees. The largest is over 300 acres.

The final product will include total number of acres with Port-Orford-cedar and distribution. Analysis would include associated spreadsheets with the number of acres and distribution by analytical watershed and administrative unit.>

d. **Schedule of Activities:** <Winter 2004 / 2005: Review existing databases. Develop POC polygons from new air photo flight. Spring 2005: finalize GIS mapping and prepare final report.>

e. Progress/Accomplishments: < Mapping accomplished for 425,725 acres within the Biscuit fire perimeter. 1,948 polygons (1858 POC and 90 PL) mapped and attributed. GIS layer for these polygons currently being finalized.>

COSTS:

	Item	Requested FHM EM Funding	Other- Source Funding	Source
FY 2005				
Administration	Salary	0	0	
	Overhead	0		
	Travel			
Procurements	Contracting	5,278		
	Equipment	0	0	
	Supplies	0		