

Ecological site F006XY703OR East Crater Lake Gentle Pumice Slopes

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General information

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

Table 1. Dominant plant species

Tree	(1) <i>Pinus ponderosa</i>
Shrub	(1) <i>Symphoricarpos mollis</i>
Herbaceous	(1) <i>Carex inops</i>

Physiographic features

This site is found mostly on well drained, deep ashy or pumice soils with gentle slopes.

Table 2. Representative physiographic features

Landforms	(1) Ash flow
Flooding frequency	None
Ponding frequency	None
Elevation	1,220 – 1,830 m
Slope	0 – 100 %
Water table depth	150 cm
Aspect	Aspect is not a significant factor

Climatic features

Winter are long, cold and snowy. Snow makes up a large amount of the effective precipitation. Summers days are warm, and nights are cool. Summer precipitation comes as infreqesnt rain storms. Summer thunderstorms can drop moderately heavy amounts of rain, but only for a short period of time.

Table 3 Representative climatic features

Frost-free period (average)	80 days
Freeze-free period (average)	110 days
Precipitation total (average)	760 mm

Influencing water features

Soil features

This site is found on soils developed on pumice and ash flows in valleys and lava tablelands.

Table 4. Representative soil features

Surface texture	(1) Very gravelly loamy sand (2) Paragravelly loamy sand (3) Ashy loamy sand
Family particle size	(1) Sandy
Drainage class	Somewhat excessively drained to excessively drained
Permeability class	Rapid
Soil depth	150 cm
Surface fragment cover <=3"	10 – 50 %
Surface fragment cover >3"	0 – 20 %
Available water capacity (0-101.6cm)	9.14 – 18.03 cm
Calcium carbonate equivalent (0-101.6cm)	Not specified
Electrical conductivity (0-101.6cm)	Not specified

Sodium adsorption ratio (0-101.6cm)	Not specified
Soil reaction (1:1 water) (0-101.6cm)	5.6 – 7.3
Subsurface fragment volume <=3" (Depth not specified)	20 – 50 %
Subsurface fragment volume >3" (Depth not specified)	0 – 40 %

Ecological dynamics

Ponderosa pine is the predominant tree in the overstory on this site. White fir makes up a small percentage in areas where fire has not been frequent. Douglas-fir and Shasta red fir are occasionally present in the overstory.

Like other sites the fire return interval (approximately 10-40 years) benefited Ponderosa pine. Low and moderately severe fires would eliminate many of the fire intolerant trees allowing Ponderosa to regenerate.

The presence of some large White fir trees shows that some white fir was present in the historic climax plant community. These trees escaped the frequent fires that occurred in the area. But, much of the regeneration was killed by fire, leaving mostly the large trees.

Fire exclusion would favor White fir. White fir is very shade tolerant and will regenerate under shade as where Ponderosa pine will not. Over an extended period of time the fir will take of dominance of the canopy and the pine will decline.

State and transition model

Additional community tables

Table 5. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
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Table 6. Community 2.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
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Table 7. Community 3.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
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Recreational uses

Hiking, backpacking, bird watching

Wood products

sawlogs, poles, posts, firewood

Other products

mushrooms

Contributors

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Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. Number and extent of rills:

2. Presence of water flow patterns:

3. Number and height of erosional pedestals or terracettes:

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):

5. Number of gullies and erosion associated with gullies:

6. Extent of wind scoured, blowouts and/or depositional areas:

7. Amount of litter movement (describe size and distance expected to travel):

8. Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):

9. Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):

10. Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):

12. Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant:

Sub-dominant:

Other:

Additional:

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):

14. Average percent litter cover (%) and depth (in):

15. Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):

16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:

17. Perennial plant reproductive capability:
