

Ecological site R021XY425OR
JUNIPER-PINE LAVALANDS
10-12 PZ

Accessed: 08/18/2026

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	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

Table 2. Representative physiographic features

Landforms	(1) Lava plain
Flooding frequency	None
Ponding frequency	None
Elevation	1,220 – 1,590 m
Slope	0 – 50 %
Aspect	Aspect is not a significant factor

Climatic features

Summer thunderstorms and summer frosts may occur.

Table 3 Representative climatic features

Frost-free period (average)	60 days
-----------------------------	---------

Freeze-free period (average)	90 days
Precipitation total (average)	310 mm

Influencing water features

Soil features

Ecological dynamics

Juniper and curleaf mountain mahogany dominate the overstory as an open stand which is quite variable depending on soil and rock content.

Severe crown fires remove the overstory. Recovery after such fires can be very slow. Sites with more lava flow material are more likely to have limited burning of the overstory - lightning strikes may only affect individual trees. The post fire state is treeless, with rabbitbrush and bunchgrasses, a weedy forb/cheatgrass mix, and scattered remnant shrubs.

State and transition model

Additional community tables

Table 4. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production ()	Foliar Cover (%)
Grass/Grasslike					
1	Dominant deep rooted perennial grasses			202-252	
	Idaho fescue	FEID	<i>Festuca idahoensis</i>	101-127	–
	bluebunch wheatgrass	PSSPS	<i>Pseudoroegneria spicata ssp. spicata</i>	101-127	–
5	Other perennial grasses			6-26	
	mountain big sagebrush	ARTRV	<i>Artemisia tridentata ssp. vaseyana</i>	36-45	–
	curl-leaf mountain mahogany	CELE3	<i>Cercocarpus ledifolius</i>	9-18	–
	antelope bitterbrush	PUTR2	<i>Purshia tridentata</i>	3-6	–
	western needlegrass	ACOC3	<i>Achnatherum occidentale</i>	0-6	–
	Thurber's needlegrass	ACTH7	<i>Achnatherum thurberianum</i>	0-6	–
	Ross' sedge	CARO5	<i>Carex rossii</i>	0-6	–
	squirreltail	ELEL5	<i>Elymus elymoides</i>	0-6	–
	prairie Junegrass	KOMA	<i>Koeleria macrantha</i>	0-6	–
	Sandberg bluegrass	POSE	<i>Poa secunda</i>	0-6	–
	wax currant	RICE	<i>Ribes cereum</i>	2-3	–
	desert sweet	CHMI2	<i>Chamaebatiaria millefolium</i>	2-3	–
	rubber rabbitbrush	ERNAS	<i>Ericameria nauseosa ssp. nauseosa var. salicifolia</i>	0-2	–
	oceanspray	HODI	<i>Holodiscus discolor</i>	0-2	–
Forb					
7	Dominant perennial forbs			20-40	
	common yarrow	ACMI2	<i>Achillea millefolium</i>	6-10	–
	Wyoming Indian paintbrush	CALI4	<i>Castilleja linariifolia</i>	6-10	–
	beardtongue	PENST	<i>Penstemon</i>	6-10	–
	cinquefoil	POTEN	<i>Potentilla</i>	6-10	–

9	Other perennial forbs			6-10	
	phacelia	PHACE	Phacelia	0-6	–
	buttercup	RANUN	Ranunculus	0-6	–
	violet	VIOLA	Viola	0-6	–
Shrub/Vine					
11	Dominant evergreen shrubs			50-127	
	mountain big sagebrush	ARTRV	Artemisia tridentata ssp. vaseyana	50-127	–
13	Dominant deciduous (or 1/2 shrubs) shrubs			26-50	
	curl-leaf mountain mahogany	CELE3	Cercocarpus ledifolius	26-50	–
14	Sub-dominant deciduous (or 1/2 shrubs) shrubs			16-26	
	antelope bitterbrush	PUTR2	Purshia tridentata	10-16	–
	desert sweet	CHMI2	Chamaebatiaria millefolium	6-10	–
15	Other shrubs			6-16	
	rubber rabbitbrush	ERNA10	Ericameria nauseosa	0-6	–
	oceanspray	HODI	Holodiscus discolor	0-6	–
Tree					
16	Dominant evergreen trees			36-76	
	western juniper	JUOC	Juniperus occidentalis	26-50	–
	ponderosa pine	PIPO	Pinus ponderosa	10-26	–
19	Sub-dominant deciduous trees			6-10	
	quaking aspen	POTR5	Populus tremuloides	6-10	–

Type locality

Location 1: Lake County, OR	
General legal description	North edge of Fort Rock Valley (North of Devils Garden; also Derrick Cave area)

Contributors

Hickman
Kennedy, Repp

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:
