

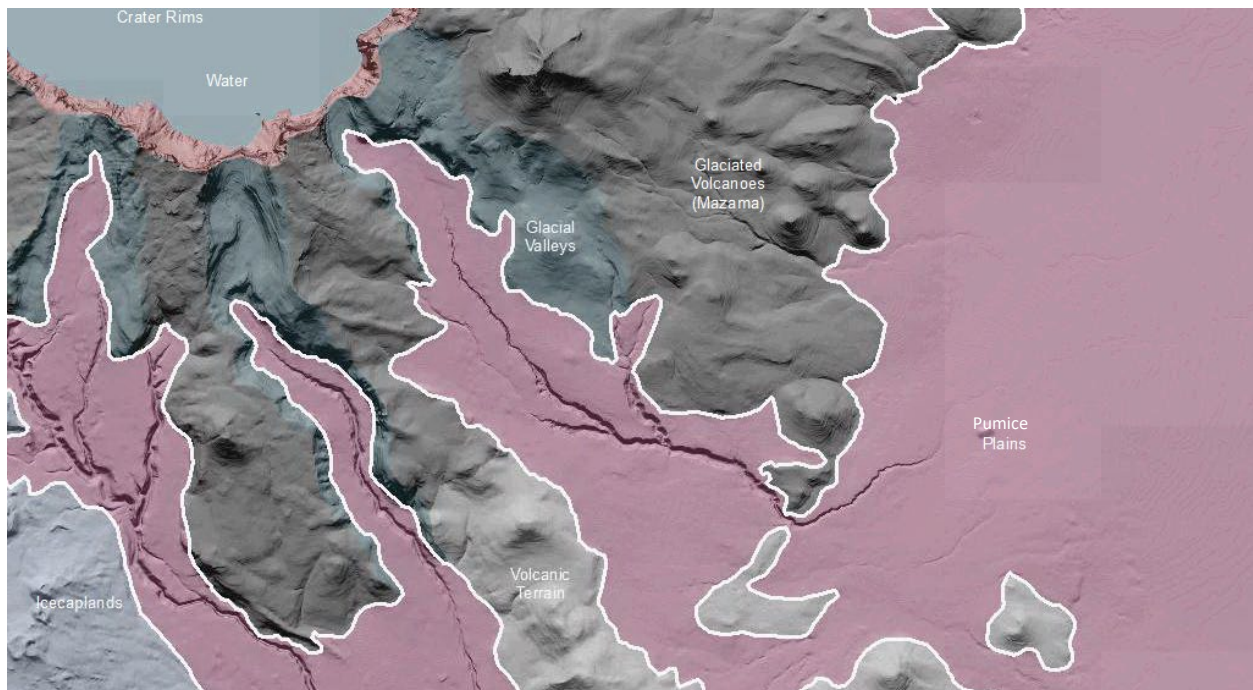
## Cascades Pumice Plains

### Overall Terrain:

**Plains** [Landscape Term] A general term referring to an extensive, lowland area that ranges from level to gently sloping or undulating. A plain has few or no prominent hills or valleys, and usually occurs at low elevation relative to surrounding areas. (Bates and Jackson, 1980)

### Landform Association:

#### Pumice Plains:



**Pumiced Plains** are smooth featureless plains surrounding the Crater Lake edifice that consists solely of pumiceous deposits derived from the eruption and collapse of Mt. Mazama during the middle Holocene. These deposits are hundreds of meters thick. Locally known as the “Pumice Desert”, these plains are barren save for localized tree islands. Soils are Andisols (Vitricryands) of about 2 meters in depth.

This Landform Association has a limited spatial extent on National Forest System Lands.

**Landtype Associations:** Landtype Associations are formed by intersecting vegetation series or groups of vegetation series with Landform Associations.

### Topography:

The following tables represent the average conditions for the Landform Association. Only lands within and adjacent to National Forest System Lands were mapped by this project. The entire EPA Level III Ecoregion is not covered by this mapping.

The percent of Landform Association (% of LfA) in bold in the table below refers to the percent of the Ecoregion represented by that Landform Association. The (% of LfA) numbers not in bold in the table below refer to the percent of each Landtype Association within the Landform Association.

Landform Association/Landtype Association	% of LfA	Mean % Slope	Minimum Elevation (m)	Maximum Elevation (m)	Mean Elevation (m)	% Northerly Aspect (226° - 134°)	% Southerly Aspect (135° - 225°)
<b>Pumiced Plains</b>	<b>0.6%</b>	<b>12</b>	<b>1269</b>	<b>1500</b>	<b>1383</b>	<b>75%</b>	<b>25%</b>
Pumiced Plains, Developed	0.1%	9	1266	1288	1272	85%	15%
Pumiced Plains, Grand Fir-White Fir	14.1%	12	1225	1470	1354	63%	37%
Pumiced Plains, Grand Fir-White Fir - Mountain Hemlock	1.1%	7	1238	1398	1309	55%	45%
Pumiced Plains, Grand Fir-White Fir - Western Hemlock	19.3%	10	1071	1363	1199	67%	33%
Pumiced Plains, Mountain Hemlock	41.4%	13	1338	1785	1575	78%	22%
Pumiced Plains, Pacific Silver Fir - Grand Fir-White Fir	0.9%	16	1172	1414	1342	87%	13%
Pumiced Plains, Pacific Silver Fir - Mountain Hemlock	3.2%	14	1210	1367	1267	71%	29%
Pumiced Plains, Parkland	0.6%	4	1580	1670	1607	82%	18%
Pumiced Plains, Ponderosa Pine	5.3%	4	1411	1596	1494	88%	12%
Pumiced Plains, Ponderosa Pine - Grand Fir-White Fir	1.1%	4	1468	1583	1550	78%	22%
Pumiced Plains, Ponderosa Pine - Shasta Red Fir	0.4%	5	1558	1641	1620	73%	27%
Pumiced Plains, Shasta Red Fir	0.1%	6	1635	1666	1656	100%	0%
Pumiced Plains, Shasta Red Fir - Grand Fir-White Fir	0.1%	29	1568	1655	1628	100%	0%
Pumiced Plains, Western Hemlock	3.9%	14	1081	1240	1148	75%	25%
Pumiced Plains, Western Hemlock - Grand Fir-White Fir	1.0%	32	1179	1464	1301	79%	21%
Pumiced Plains, Western Hemlock - Mountain Hemlock - mix	7.6%	17	1067	1329	1147	81%	19%

### Climate:

Landform Association/Landtype Association	Mean Annual Precipitation (mm)	Mean Annual Temperature °C	AET/PET Ratio July, Aug, Sept
<b>Pumiced Plains</b>	<b>1283</b>	<b>7</b>	<b>0.40</b>
Pumiced Plains, Developed	1012	7	0.37
Pumiced Plains, Grand Fir-White Fir	1272	7	0.44
Pumiced Plains, Grand Fir-White Fir - Mountain Hemlock - mix	1421	8	0.47
Pumiced Plains, Grand Fir-White Fir - Western Hemlock	1378	8	0.50
Pumiced Plains, Mountain Hemlock	1403	6	0.34
Pumiced Plains, Pacific Silver Fir - Grand Fir-White Fir	1404	8	0.46
Pumiced Plains, Pacific Silver Fir - Mountain Hemlock	1384	7	0.47
Pumiced Plains, Parkland	1023	6	0.22
Pumiced Plains, Ponderosa Pine	895	6	0.28
Pumiced Plains, Ponderosa Pine - Grand Fir-White Fir	983	6	0.28
Pumiced Plains, Ponderosa Pine - Shasta Red Fir	1107	6	0.29
Pumiced Plains, Shasta Red Fir	1105	6	0.19
Pumiced Plains, Shasta Red Fir - Grand Fir-White Fir	1102	6	0.18
Pumiced Plains, Western Hemlock	1378	8	0.53
Pumiced Plains, Western Hemlock - Grand Fir-White Fir	1363	8	0.50
Pumiced Plains, Western Hemlock - Mountain Hemlock	1394	8	0.49

The ratio of Actual Evapotranspiration to Potential Evapotranspiration (AET/PET) is used as a broad-scale indicator of potential drought stress. We obtained modeled actual and potential evapotranspiration datasets from the Numerical Terradynamic Simulation Group at the University of Montana (<http://www.ntsg.umt.edu/project/mod16>) for a 30 year climate average. AET/PET ratio in the table above is based on a scale of zero to one. A value closer to 1 means the vegetation is transpiring close to its potential. A value farther from 1 means that the Actual Evapotranspiration is below potential based on this climatic zone (Ringo, et. al. 2016 in draft).