

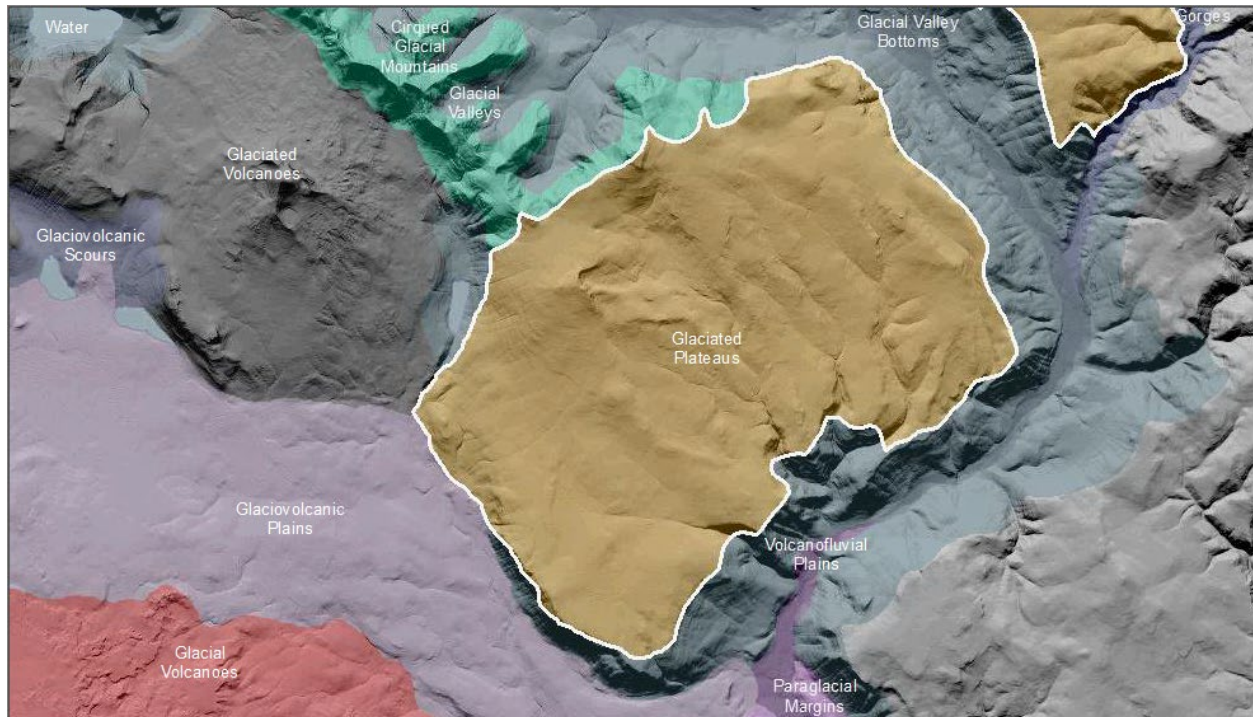
Eastern Cascades Glaciated Plateaus

Overall Terrain:

Plateaus in the Pacific Northwest are predominantly underlain by stacked flows of the Columbia River Basalts and form extensive elevated plains bounded on one or more sides by steep slopes hundreds of feet above adjoining areas. Plateaus are differentiated from each other by the most-evident surficial processes of alteration.

Landform Association:

Glaciated Plateaus:



Glaciated Plateaus are Plateaus with masked glaciation or nivation features from past alpine glacial activity moving across an existing plateau landscape. Nivation features, including shallow bowls and arcuate headwalls were created by erosion of the ground beneath and around snowbanks and permanent ice fields mainly as a result of freeze-thaw and ice plucking. Much of the signature of glaciation is masked as a result of erosional and weathering processes over time.

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°)
Glaciated Plateaus	0.4%	18	1493	1825	1674	89%	11%
Glaciated Plateaus, Grand Fir	14.5%	30	1034	1493	1267	82%	18%
Glaciated Plateaus, Grand Fir-White Fir	58.7%	15	1733	2303	2043	84%	16%
Glaciated Plateaus, Mountain Hemlock	15.3%	15	1205	1830	1576	96%	4%
Glaciated Plateaus, Ponderosa Pine	1.3%	6	1886	2002	1969	86%	14%
Glaciated Plateaus, Ponderosa Pine - Grand Fir-White Fir	0.9%	6	1958	2037	1996	79%	21%
Glaciated Plateaus, Ponderosa Pine - Shrub-Steppe	1.7%	4	1927	1997	1972	89%	11%
Glaciated Plateaus, Shrub-Steppe	0.3%	5	1994	2021	2010	94%	6%
Glaciated Plateaus, Western Hemlock	3.2%	18	1065	1458	1302	97%	3%
Glaciated Plateaus, Western Hemlock - Pacific Silver Fir	4.1%	45	1089	1616	1340	99%	1%

Climate:

Landform Association/Landtype Association	Mean Annual Temperature °C	AET/PET Ratio July, Aug, Sept
Glaciated Plateaus	5	0.26
Glaciated Plateaus, Grand Fir	6	0.40
Glaciated Plateaus, Grand Fir-White Fir	6	0.15
Glaciated Plateaus, Mountain Hemlock	4	0.36
Glaciated Plateaus, Ponderosa Pine	6	0.11
Glaciated Plateaus, Ponderosa Pine - Grand Fir-White Fir	6	0.13
Glaciated Plateaus, Ponderosa Pine - Shrub-Steppe	6	0.12
Glaciated Plateaus, Shrub-Steppe	6	0.14
Glaciated Plateaus, Western Hemlock	5	0.43
Glaciated Plateaus, Western Hemlock - Pacific Silver Fir	5	0.40

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.ntsug.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).