Klamath Mountains Dissected Mountains

Terrain Class: Mountains - No one process responsible for construction of mountains. They can be uplifted, tectonic, subduction of plates, folding, uplift, up and down warping of the mantle, inflation of molten lower crustal (batholiths), etc. Erosion of mountain systems occurs over time. The rate of erosion is dependent on the geomorphic process, the underlying rock structure, and the climate, including both freeze thaw and the amount and intensity of precipitation and runoff. Mountains are further defined and distinguished based on morphology, including the pattern and density of drainages, depth of drainages, overall morphology of the area between the drainages, evidence of a strong imprint of a surficial process such as glaciation, and presence of visible underlying rock structure.

Mountains have simple to very complex forms that have arisen due to inherited rock structure, rock history, and are the net result of local to regional spatial scales of competing rates of upbuilding/uplift and downgrading/erosion. Mountains will have an inherited history from weathering and degradation of the underlying stack of earth materials that forms them. Vegetation, habitat, water interception, collection and transport will share a similar history in the same type of uplift and rock.

Landform Association: Dissected Mountains

Dissected Mountains are mountainous areas with a high degree of dissection. Fluvial erosion and mass wasting over time has resulted in a highly dissected landscape with deep V-shaped valley walls, planar in form, that are contiguous from ridge-top to valley bottom. It is no longer evident what the landscape was like previously. Some slope angles are greater than repose and are bare rock or outcroppings. Thickest soils gather in valley bottoms and collect in tributary gullies.

This Landform Association has a common 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°)**
Dissected Mountains	**23.4%**	**46**	**596**	**1160**	**871**	**74%**	**26%**
Dissected Mountains, Developed	0.7%	12	387	649	488	87%	13%
Dissected Mountains, Developed - Ponderosa Pine	0.1%	33	440	769	536	73%	27%
Dissected Mountains, Douglas-Fir	43.3%	35	648	1288	891	72%	28%
Dissected Mountains, Douglas-Fir - Grand Fir-White Fir	0.3%	37	828	1221	1026	73%	27%
Dissected Mountains, Douglas-Fir - Grasslands / Meadows - mix	0.2%	44	655	1195	875	30%	70%
Dissected Mountains, Douglas-Fir - Port Orford-cedar	0.5%	40	669	1067	855	76%	24%
Dissected Mountains, Douglas-Fir - Tanoak	1.6%	42	683	1121	897	64%	36%
Dissected Mountains, Douglas-Fir - Western Hemlock	0.3%	34	505	890	671	70%	30%
Dissected Mountains, Douglas-Fir - Western Hemlock - mix	0.4%	43	244	840	558	75%	25%
Dissected Mountains, Grand Fir-White Fir	7.7%	45	751	1418	1117	80%	20%
Dissected Mountains, Grand Fir-White Fir - Douglas-Fir	12.4%	48	663	1343	1044	76%	24%
Dissected Mountains, Grand Fir-White Fir - Tanoak	1.2%	48	773	1342	1048	80%	20%
Dissected Mountains, Grand Fir-White Fir - Western Red-cedar	0.1%	51	661	1102	947	65%	35%
Dissected Mountains, Jeffrey Pine - Western Hemlock - mix	0.5%	46	355	1003	635	64%	36%
Dissected Mountains, Port Orford-cedar	0.1%	53	659	1142	896	85%	15%
Dissected Mountains, Port Orford-cedar - Douglas-Fir	1.1%	44	575	1116	845	75%	25%
Dissected Mountains, Port Orford-cedar - Douglas-Fir - mix	0.3%	40	646	1094	893	78%	22%
Dissected Mountains, Port Orford-cedar - Grand Fir-White Fir	1.0%	56	579	1169	920	85%	15%
Dissected Mountains, Port Orford-cedar - Western Hemlock	0.1%	70	579	1117	825	88%	12%
Dissected Mountains, Port Orford-cedar - Western Hemlock - mix	0.2%	67	513	1224	772	71%	29%
Dissected Mountains, Tanoak	23.3%	51	410	1134	751	69%	31%
Dissected Mountains, Tanoak - Douglas-Fir	0.9%	50	615	1208	911	68%	32%
Dissected Mountains, Tanoak - Douglas-Fir - mix	0.1%	52	703	1278	1010	65%	35%
Dissected Mountains, Tanoak - Grand Fir-White Fir	0.4%	59	707	1361	1013	88%	12%
Dissected Mountains, Tanoak - Grand Fir-White Fir - mix	0.7%	46	698	1274	962	66%	34%
Dissected Mountains, Tanoak - Port Orford-cedar	0.5%	43	660	1058	855	67%	33%
Dissected Mountains, Tanoak - Western Hemlock	0.7%	58	397	1177	766	75%	25%
Dissected Mountains, Western Hemlock - Douglas-Fir	0.5%	47	367	798	542	84%	16%
Dissected Mountains, Western Hemlock - Port Orford-cedar	0.6%	45	507	1070	772	73%	27%
Dissected Mountains, Western Hemlock - Port Orford-cedar - mix	0.2%	60	360	1310	783	77%	23%

Climate:

Landtype Assocation	Mean Annual Precipitation (mm)	Mean Annual Temperature °C	AET/PET Ratio July, Aug, Sept
Dissected Mountains	**1896**	**11**	**0.35**
Dissected Mountains, Developed	557	12	0.25
Dissected Mountains, Developed - Ponderosa Pine	594	12	0.25
Dissected Mountains, Douglas-Fir	1090	11	0.41
Dissected Mountains, Douglas-Fir - Grand Fir-White Fir	1505	10	0.35
Dissected Mountains, Douglas-Fir - Grasslands / Meadows - mix	829	10	0.24
Dissected Mountains, Douglas-Fir - Port Orford-cedar	2546	11	0.31
Dissected Mountains, Douglas-Fir - Tanoak	1544	11	0.39
Dissected Mountains, Douglas-Fir - Western Hemlock	1314	11	0.41
Dissected Mountains, Douglas-Fir - Western Hemlock - mix	2656	12	0.15
Dissected Mountains, Grand Fir-White Fir	1347	10	0.37
Dissected Mountains, Grand Fir-White Fir - Douglas-Fir	1800	10	0.36
Dissected Mountains, Grand Fir-White Fir - Tanoak	1329	10	0.41
Dissected Mountains, Grand Fir-White Fir - Western Red-cedar	1218	11	0.56
Dissected Mountains, Jeffrey Pine - Western Hemlock - mix	2736	11	0.19
Dissected Mountains, Port Orford-cedar	3399	11	0.24
Dissected Mountains, Port Orford-cedar - Douglas-Fir	2959	11	0.26
Dissected Mountains, Port Orford-cedar - Douglas-Fir - mix	2329	11	0.50
Dissected Mountains, Port Orford-cedar - Grand Fir-White Fir	3086	11	0.26
Dissected Mountains, Port Orford-cedar - Western Hemlock	1852	11	0.23
Dissected Mountains, Port Orford-cedar - Western Hemlock - mix	3240	11	0.27
Dissected Mountains, Tanoak	1949	11	0.37
Dissected Mountains, Tanoak - Douglas-Fir	1233	11	0.41
Dissected Mountains, Tanoak - Douglas-Fir - mix	1307	10	0.55
Dissected Mountains, Tanoak - Grand Fir-White Fir	877	11	0.48
Dissected Mountains, Tanoak - Grand Fir-White Fir - mix	1698	10	0.32
Dissected Mountains, Tanoak - Port Orford-cedar	2975	11	0.25
Dissected Mountains, Tanoak - Western Hemlock	1971	11	0.25
Dissected Mountains, Western Hemlock - Douglas-Fir	1583	12	0.42
Dissected Mountains, Western Hemlock - Port Orford-cedar	2057	11	0.33
Dissected Mountains, Western Hemlock - Port Orford-cedar - mix	2371	11	0.25

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 1means that the Actual Evapotranspiration is below potential based on this climatic zone (Ringo, et. al. 2016 in draft).