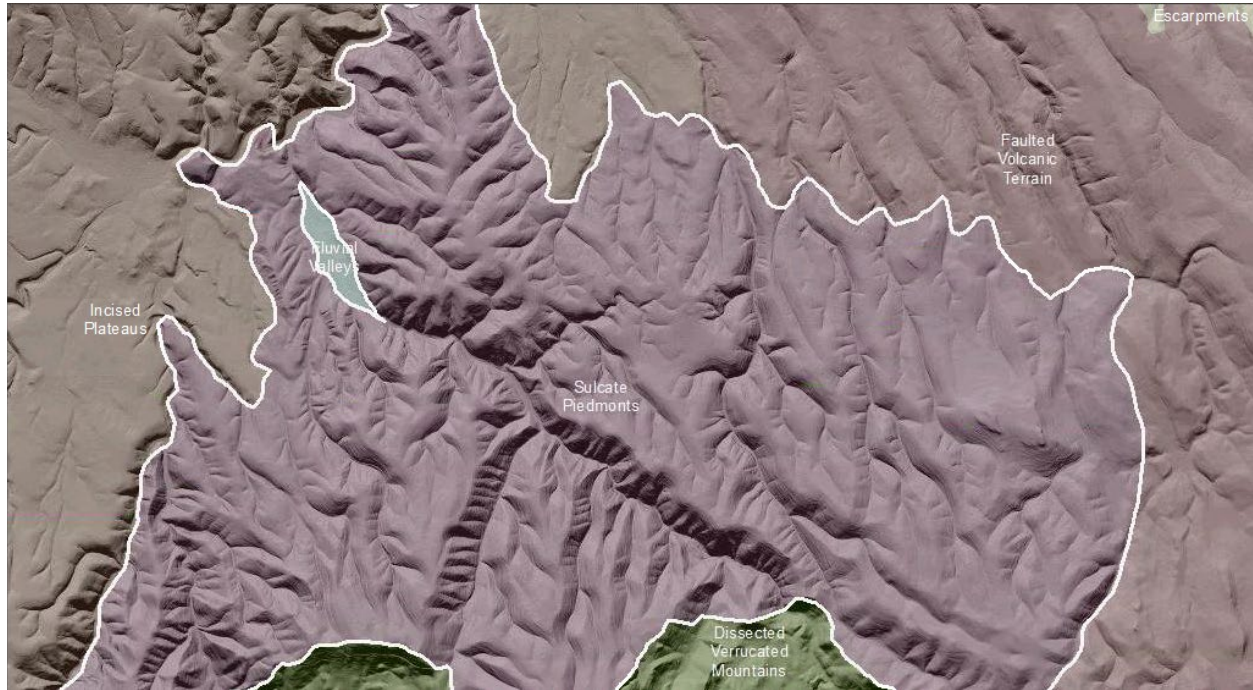


## Blue Mountain Sulcate Piedmonts

**Plain** [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:

#### Sulcate Piedmonts:



**Sulcate Piedmonts** are an advanced weathering and degradation phase of Piedmonts. They are characterized by surfaces with longitudinal furrows with crests that are smoothly convex and swales that are v-shaped. Drainage sideslopes are planar convex. Sulcate Piedmonts have repeating landform patterns of accordant ridges and swales. Unlike Piedmonts, the accordant ridges of this map unit are of unknown depth of erosion beneath the presumed original surface of the parent surface.

Soils on ridgetops tend to be rich in patterned ground, do-called biscuit scabland or mima mound microtopography. The pattern ground or scabs tend to elongate on the backslopes forming stony stripes that virtually feed accumulation piles of stones at the toeslope position. Soil taxa vary from Ultisols in the west to Mollisols in the east.

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>Sulcate Piedmonts</b>	<b>2.7%</b>	<b>23</b>	<b>1037</b>	<b>1403</b>	<b>1205</b>	<b>89%</b>	<b>11%</b>
Sulcate Piedmonts, Developed	4.9%	6	638	795	707	90%	10%
Sulcate Piedmonts, Developed - Shrub-Steppe	0.2%	6	751	826	785	98%	2%
Sulcate Piedmonts, Douglas-Fir	9.6%	28	1336	1800	1527	92%	8%
Sulcate Piedmonts, Douglas-Fir - Grand Fir-White Fir	0.5%	27	945	1171	1051	77%	23%
Sulcate Piedmonts, Douglas-Fir - Grand Fir-White Fir - mix	0.1%	21	902	1063	995	59%	41%
Sulcate Piedmonts, Douglas-Fir - Ponderosa Pine	0.2%	28	1245	1589	1435	86%	14%
Sulcate Piedmonts, Douglas-Fir - Shrub-Steppe	0.3%	21	1185	1418	1292	88%	12%
Sulcate Piedmonts, Grand Fir-White Fir	29.6%	29	1247	1975	1557	85%	15%
Sulcate Piedmonts, Grasslands / Meadows	0.3%	9	686	778	743	99%	1%
Sulcate Piedmonts, Grasslands / Meadows - Developed	0.2%	6	780	901	819	69%	31%
Sulcate Piedmonts, Grasslands / Meadows - Shrub-Steppe	0.5%	9	755	841	811	85%	15%
Sulcate Piedmonts, Ponderosa Pine	14.4%	31	1145	1631	1365	87%	13%
Sulcate Piedmonts, Ponderosa Pine - Douglas-Fir	0.7%	29	991	1343	1179	87%	13%
Sulcate Piedmonts, Shrub-Steppe	1.9%	10	705	822	764	94%	6%
Sulcate Piedmonts, Shrub-Steppe - Developed	0.1%	6	758	826	786	99%	1%
Sulcate Piedmonts, Shrub-Steppe - Grasslands / Meadows	0.2%	23	1122	1340	1263	94%	6%
Sulcate Piedmonts, Subalpine Fir	4.6%	35	1457	1981	1753	97%	3%
Sulcate Piedmonts, Western Juniper	31.1%	20	793	1233	961	84%	16%
Sulcate Piedmonts, Western Juniper - Ponderosa Pine	0.2%	26	1122	1410	1253	89%	11%
Sulcate Piedmonts, Western Juniper - Shrub-Steppe	0.4%	12	778	868	820	97%	3%

## Climate:

Landform Association/Landtype Association	Mean Annual Precipitation (mm)	Mean Annual Temperature °C	AET/PET Ratio July, Aug, Sept
<b>Sulcate Piedmonts</b>	<b>454</b>	<b>8</b>	<b>0.14</b>
Sulcate Piedmonts, Developed	278	10	0.17
Sulcate Piedmonts, Developed - Shrub-Steppe	278	9	0.12
Sulcate Piedmonts, Douglas-Fir	481	6	0.15
Sulcate Piedmonts, Douglas-Fir - Grand Fir-White Fir	578	8	0.17
Sulcate Piedmonts, Douglas-Fir - Grand Fir-White Fir - mix	502	8	0.17
Sulcate Piedmonts, Douglas-Fir - Ponderosa Pine	362	8	0.21
Sulcate Piedmonts, Douglas-Fir - Shrub-Steppe	542	8	0.12
Sulcate Piedmonts, Grand Fir-White Fir	627	6	0.23
Sulcate Piedmonts, Grasslands / Meadows	282	10	0.07
Sulcate Piedmonts, Grasslands / Meadows - Developed	275	9	0.08
Sulcate Piedmonts, Grasslands / Meadows - Shrub-Steppe	279	9	0.09
Sulcate Piedmonts, Ponderosa Pine	449	7	0.13
Sulcate Piedmonts, Ponderosa Pine - Douglas-Fir	644	8	0.15
Sulcate Piedmonts, Shrub-Steppe	281	9	0.07
Sulcate Piedmonts, Shrub-Steppe - Developed	278	9	0.06
Sulcate Piedmonts, Shrub-Steppe - Grasslands / Meadows	332	8	0.08
Sulcate Piedmonts, Subalpine Fir	809	5	0.28
Sulcate Piedmonts, Western Juniper	322	9	0.08
Sulcate Piedmonts, Western Juniper - Ponderosa Pine	334	8	0.15
Sulcate Piedmonts, Western Juniper - Shrub-Steppe	279	9	0.08

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).