

MAP LEGEND

Area of Interest (AOI) Area of Interest (AOI) Soils Soil Map Units Soil Ratings High Moderate Low None Not rated or not available **Political Features** Municipalities 0 Cities **Urban Areas Water Features** Oceans Streams and Canals Transportation +++ Rails Roads Interstate Highways **US Routes** State Highways Local Roads Other Roads

MAP INFORMATION

Original soil survey map sheets were prepared at publication scale. Viewing scale and printing scale, however, may vary from the original. Please rely on the bar scale on each map sheet for proper map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: UTM Zone 10N

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Tahoe Basin Area, California and Nevada Survey Area Data: Version 8, Feb 14, 2008

Date(s) aerial images were photographed: 8/25/1998; 8/26/1998; 9/19/1998

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Frost Action

Frost Action— Summary by Map Unit — Tahoe Basin Area, California and Nevada						
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI		
7011	Beaches	Low	73.1	0.8%		
7031	Pits and dumps		2.7	0.0%		
7041	Tahoe complex, 0 to 2 percent slopes	High	211.3	2.3%		
7042	Tahoe complex, 0 to 5 percent slopes, gravelly	High	80.4	0.9%		
7071	Watah peat, 0 to 2 percent slopes	High	108.1	1.2%		
7191	Rock outcrop, volcanic		47.7	0.5%		
7413	Cagwin Rock outcrop complex, 30 to 50 percent slopes, extremely stony	Low	93.3	1.0%		
7414	Cagwin-Rock outcrop complex, 50 to 70 percent slopes, extremely stony	Low	10.0	0.1%		
7421	Cassenai gravelly loamy coarse sand, 5 to 15 percent slopes, very stony	Low	11.5	0.1%		
7422	Cassenai gravelly loamy coarse sand, 15 to 30 percent slopes, very stony	Low	24.0	0.3%		
7423	Cassenai gravelly loamy coarse sand, 30 to 50 percent slopes, very stony	Low	14.0	0.2%		
7424	Cassenai gravelly loamy coarse sand, 50 to 70 percent slopes, very stony	Low	40.8	0.5%		
7426	Cassenai cobbly loamy coarse sand, moist, 15 to 30 percent slopes, very bouldery	Low	27.1	0.3%		
7427	Cassenai cobbly loamy coarse sand, moist, 30 to 50 percent slopes, very bouldery	Low	26.4	0.3%		
7428	Cassenai cobbly loamy coarse sand, moist, 50 to 70 percent slopes, very bouldery	Low	15.5	0.2%		

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7451	Gefo gravelly loamy coarse sand, 2 to 9 percent slopes	Low	41.3	0.5%
7452	Gefo gravelly loamy coarse sand, 9 to 30 percent slopes	Low	129.3	1.4%
7471	Marla loamy coarse sand, 0 to 5 percent slopes	Moderate	24.7	0.3%
7484	Meeks gravelly loamy coarse sand, 5 to 15 percent slopes, extremely bouldery	Low	301.7	3.4%
7485	Meeks gravelly loamy coarse sand, 15 to 30 percent slopes, extremenly bouldery	Low	376.0	4.2%
7486	Meeks gravelly loamy coarse sand, 30 to 70 percent slopes, extremely bouldery	Low	807.1	9.0%
7487	Meeks gravelly loamy coarse sand, 5 to 15 percent slopes, rubbly	Low	42.3	0.5%
7488	Meeks gravelly loamy coarse sand, 15 to 30 percent slopes, rubbly	Low	230.2	2.6%
7489	Meeks gravelly loamy coarse sand, 30 to 70 percent slopes, rubbly	Low	554.4	6.2%
7500	Rock outcrop, granitic		477.1	5.3%
7501	Rock Outcrop- Rockbound complex, 5 to 30 percent slopes		225.8	2.5%
7502	Rock Outcrop- Rockbound complex, 30 to 70 percent slopes		813.6	9.0%
7521	Tallac gravelly coarse sandy loam, 5 to 15 percent slopes, very stony	Moderate	231.1	2.6%
7522	Tallac gravelly coarse sandy loam, 15 to 30 percent slopes, very stony	Moderate	82.7	0.9%
7523	Tallac gravelly coarse sandy loam, 30 to 70 percent slopes, very stony	Moderate	21.1	0.2%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7524	Tallac gravelly coarse sandy loam, moderately well drained, 0 to 5 percent slopes	Moderate	739.5	8.2%
7525	Tallac gravelly coarse sandy loam, moderately well drained, 5 to 9 percent slopes	Moderate	476.1	5.3%
7531	Toem-Rock outcrop complex, 9 to 30 percent slopes	Low	2.5	0.0%
7533	Toem-Rock outcrop complex, 50 to 70 percent slopes	Low	61.5	0.7%
9001	Bidart complex, 0 to 2 percent slopes	High	15.4	0.2%
9404	Dagget very gravelly loamy coarse sand, moist, 5 to 15 percent slopes, rubbly	Low	9.1	0.1%
9405	Dagget very gravelly loamy coarse sand, moist, 15 to 30 percent slopes, rubbly	Low	34.6	0.4%
9406	Dagget very gravelly loamy coarse sand, moist, 30 to 70 percent slopes, rubbly	Low	194.9	2.2%
9407	Dagget-Rock outcrop complex, moist, 30 to 70 percent slopes	Low	17.6	0.2%
9421	Jobsis-Whittell-Rock outcrop complex, cool, 8 to 30 percent slopes	Low	17.2	0.2%
9442	Temo-Witefels complex, 15 to 30 percent slopes	Low	40.7	0.5%
9443	Temo-Witefels complex, 30 to 50 percent slopes	Low	77.1	0.9%
9444	Temo-Witefels complex, 50 to 70 percent slopes	Low	335.9	3.7%
9461	Whittell-Jobsis-Rock outcrop complex, cool, 30 to 75 percent slopes	Low	78.4	0.9%
W	Water		1,759.0	19.5%

Description

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, saturated hydraulic conductivity (Ksat), content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher