





## MAP LEGEND

### Area of Interest (AOI)





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### Background





 Aerial Photography

### Soils





#### Soil Rating Polygons

-  High
-  Moderate
-  Low
-  Not rated or not available


#### Soil Rating Lines

-  High
-  Moderate
-  Low
-  Not rated or not available

#### Soil Rating Points

-  High
-  Moderate
-  Low
-  Not rated or not available

### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:20,000 to 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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

Soil Survey Area: Intermountain Area, Parts of Lassen, Modoc, Shasta, and Siskiyou Counties, California

Survey Area Data: Version 13, Sep 16, 2019

Soil Survey Area: Shasta County Area, California

Survey Area Data: Version 14, Sep 16, 2019

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 21, 2015—Oct 25, 2017

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.

## Corrosion of Concrete

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
139	Danhunt gravelly sandy loam, 15 to 30 percent slopes	Moderate	293.5	0.5%
140	Danhunt gravelly sandy loam, 30 to 50 percent slopes	Moderate	1,409.9	2.3%
141	Danhunt gravelly sandy loam, 50 to 75 percent slopes	Moderate	881.3	1.4%
169	Gardens-Jacksback complex, 0 to 2 percent slopes	Low	142.3	0.2%
172	Gasper-Scarface complex, moist, 2 to 15 percent slopes	Low	670.8	1.1%
173	Gasper-Scarface complex, moist, 15 to 30 percent slopes	Low	1,050.5	1.7%
174	Gasper-Scarface complex, moist, 30 to 50 percent slopes	Low	681.2	1.1%
178	Goulder gravelly sandy loam, 2 to 15 percent slopes	Moderate	1,360.6	2.2%
179	Goulder gravelly sandy loam, 15 to 30 percent slopes	Moderate	2,091.3	3.4%
180	Goulder gravelly sandy loam, 30 to 50 percent slopes	Moderate	428.0	0.7%
190	Jacksback loam, 2 to 9 percent slopes	Low	219.8	0.4%
192	Jadpor very gravelly sandy loam, 0 to 5 percent slopes	Low	17.8	0.0%
266	Obie-Mounthat complex, 5 to 15 percent slopes	Moderate	469.0	0.8%
268	Obie-Mounthat complex, 30 to 50 percent slopes	Moderate	758.7	1.2%
300	Riverwash		24.6	0.0%
312	Stacher gravelly coarse sandy loam, 15 to 30 percent	Moderate	645.5	1.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
313	Stacher gravelly coarse sandy loam, 2 to 15 percent slopes	Moderate	89.1	0.1%
314	Stacher very gravelly coarse sandy loam, 30 to 50 percent slopes	Moderate	827.5	1.3%
316	Stukel complex, 15 to 30 percent slopes	Low	27.9	0.0%
397	Water		12.0	0.0%
<b>Subtotals for Soil Survey Area</b>			<b>12,101.6</b>	<b>19.7%</b>
<b>Totals for Area of Interest</b>			<b>61,503.1</b>	<b>100.0%</b>

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
139im	Danhunt gravelly sandy loam, 15 to 30 percent slopes	Moderate	45.1	0.1%
140im	Danhunt gravelly sandy loam, 30 to 50 percent slopes	Moderate	808.1	1.3%
141im	Danhunt gravelly sandy loam, 50 to 75 percent slopes	Moderate	70.9	0.1%
169im	Gardens-Jacksback complex, 0 to 2 percent slopes	Low	52.6	0.1%
172im	Gasper-Scarface complex, moist, 2 to 15 percent slopes	Low	496.7	0.8%
173im	Gasper-Scarface complex, moist, 15 to 30 percent slopes	Low	3,510.0	5.7%
174im	Gasper-Scarface complex, moist, 30 to 50 percent slopes	Low	1,206.5	2.0%
178im	Goulder gravelly sandy loam, 2 to 15 percent slopes	Moderate	332.5	0.5%
179im	Goulder gravelly sandy loam, 15 to 30 percent slopes	Moderate	1,756.4	2.9%
190im	Jacksback loam, 2 to 9 percent slopes	Low	198.4	0.3%
266im	Obie-Mounthat complex, 5 to 15 percent slopes	Moderate	10.4	0.0%
268im	Obie-Mounthat complex, 30 to 50 percent slopes	Moderate	28.7	0.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
312im	Stacher gravelly coarse sandy loam, 15 to 30 percent	Moderate	34.2	0.1%
314im	Stacher very gravelly coarse sandy loam, 30 to 50 percent slopes	Moderate	1,300.2	2.1%
316im	Stukel complex, 15 to 30 percent slopes	Low	17.7	0.0%
AaC	Aiken loam, 8 to 15 percent slopes	Moderate	15.5	0.0%
AbD	Aiken stony loam, 15 to 30 percent	Moderate	389.7	0.6%
CID	Cohasset loam, 0 to 30 percent slopes	Moderate	646.6	1.1%
CmD	Cohasset stony loam, 0 to 30 percent slopes	Moderate	5,387.5	8.8%
CmE	Cohasset stony loam, 10 to 50 percent slopes, MLRA 22B	Moderate	5,063.1	8.2%
CoE	Cohasset very stony loam, moderately deep, 8 to 50 percent slopes	Moderate	196.5	0.3%
CrD	Cohasset-McCarthy complex, 0 to 30 percent slopes	Moderate	563.7	0.9%
CrE	Cohasset-McCarthy complex, 30 to 50 percent slopes	Moderate	88.8	0.1%
CrG	Cohasset-McCarthy complex, 50 to 70 percent slopes	Moderate	273.0	0.4%
CsF	Colluvial land		320.6	0.5%
CuD	Cone stony loam, 3 to 30 percent slopes	Low	136.6	0.2%
CvE	Cone very stony loam, 30 to 50 percent slopes	Low	226.9	0.4%
CwF	Cone very stony loam, moderately deep, 15 to 60 percent slopes	Low	227.4	0.4%
JbD	Josephine gravelly loam, 10 to 30 percent slopes	Moderate	188.1	0.3%
JbE	Josephine gravelly loam, 30 to 50 percent slopes	Moderate	137.5	0.2%
JbF	Josephine gravelly loam, 50 to 70 percent slopes	Moderate	244.6	0.4%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
JdD	Josephine gravelly loam, moderately deep, 10 to 30 percent slopes	Moderate	7.9	0.0%
JdE	Josephine gravelly loam, moderately deep, 30 to 50 percent slopes	Moderate	207.2	0.3%
KhC	Kilarc sandy clay loam, 2 to 15 percent slopes	High	11.9	0.0%
KhD	Kilarc sandy clay loam, 15 to 30 percent slopes	High	212.3	0.3%
KhE	Kilarc sandy clay loam, 30 to 50 percent slopes	High	76.6	0.1%
KID	Kilarc very stony sandy clay loam, 10 to 30 percent slopes	High	13.1	0.0%
KsD	Kilarc-Sites complex, 8 to 30 percent slopes	High	1.1	0.0%
LgE	Lyonsville-Jiggs complex, 10 to 50 percent slopes	High	995.1	1.6%
LhE	Lyonsville-Jiggs complex, deep, 10 to 50 percent slopes	High	4,274.6	7.0%
LkF	Lyonsville-Jiggs soils, 50 to 70 percent slopes	High	506.8	0.8%
MbG2	Maymen very stony loam, 30 to 80 percent slopes, eroded	Moderate	27.9	0.0%
NaB	Nanny gravelly sandy loam, 0 to 8 percent slopes	Moderate	443.3	0.7%
NbB	Nanny stony sandy loam, 0 to 8 percent slopes	Moderate	573.8	0.9%
RxF	Rockland		465.3	0.8%
RyF	Rubble land		1,634.5	2.7%
ShB	Shingletown clay loam, 0 to 8 percent slopes	Low	80.4	0.1%
SnC	Sites loam, 5 to 15 percent slopes	Moderate	83.1	0.1%
SnD	Sites loam, 15 to 30 percent slopes, low ffd	High	295.3	0.5%
SoD	Sites stony loam, 8 to 30 percent slopes	Moderate	3.6	0.0%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
SpE	Sites very rocky loam, 30 to 50 percent slopes	Moderate	4.7	0.0%
TcE	Toomes very rocky loam, 0 to 50 percent slopes	Low	357.0	0.6%
W	Water		68.9	0.1%
WeD	Windy and McCarthy stony sandy loams, 0 to 30 percent slopes	Moderate	8,160.0	13.3%
WfE	Windy and McCarthy very stony sandy loams, 30 to 50 percent slopes	Moderate	4,074.8	6.6%
WfG	Windy and McCarthy very stony sandy loams, 50 to 75 percent slopes	Moderate	1,915.8	3.1%
WgE	Windy and McCarthy very rocky sandy loams, 8 to 50 percent slopes	Moderate	931.7	1.5%
<b>Subtotals for Soil Survey Area</b>			<b>49,401.6</b>	<b>80.3%</b>
<b>Totals for Area of Interest</b>			<b>61,503.1</b>	<b>100.0%</b>

## Description

"Risk of corrosion" pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens concrete. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the concrete in installations that are entirely within one kind of soil or within one soil layer.

The risk of corrosion is expressed as "low," "moderate," or "high."

## Rating Options

*Aggregation Method:* Dominant Condition

Aggregation is the process by which a set of component attribute values is reduced to a single value that represents the map unit as a whole.

A map unit is typically composed of one or more "components". A component is either some type of soil or some nonsoil entity, e.g., rock outcrop. For the attribute being aggregated, the first step of the aggregation process is to derive one attribute value for each of a map unit's components. From this set of component attributes, the next step of the aggregation process derives a single value that represents the map unit as a whole. Once a single value for each map unit is derived, a thematic map for soil map units can be rendered. Aggregation must be done because, on any soil map, map units are delineated but components are not.

For each of a map unit's components, a corresponding percent composition is recorded. A percent composition of 60 indicates that the corresponding component typically makes up approximately 60% of the map unit. Percent composition is a critical factor in some, but not all, aggregation methods.

The aggregation method "Dominant Condition" first groups like attribute values for the components in a map unit. For each group, percent composition is set to the sum of the percent composition of all components participating in that group. These groups now represent "conditions" rather than components. The attribute value associated with the group with the highest cumulative percent composition is returned. If more than one group shares the highest cumulative percent composition, the corresponding "tie-break" rule determines which value should be returned. The "tie-break" rule indicates whether the lower or higher group value should be returned in the case of a percent composition tie. The result returned by this aggregation method represents the dominant condition throughout the map unit only when no tie has occurred.

*Component Percent Cutoff: None Specified*

Components whose percent composition is below the cutoff value will not be considered. If no cutoff value is specified, all components in the database will be considered. The data for some contrasting soils of minor extent may not be in the database, and therefore are not considered.

*Tie-break Rule: Higher*

The tie-break rule indicates which value should be selected from a set of multiple candidate values, or which value should be selected in the event of a percent composition tie.