

# Ecological site group R019XG912CA

## Sandy Fan

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### Key Characteristics

- located on alluvial fans
- sandy texture

Provisional. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

### Physiography

This ESG encompasses a broad variety of grass-shrub types that are found on alluvial fans with loamy soils. Elevations in the valleys and foothills range from 100 to 3000 feet, and in the mountains above 3000 feet. Slopes range from 0 to 50%, but much of the concept is under 15% slopes.

### Climate

The average annual precipitation covers a diverse landscape of valleys and mountains and can range anywhere from 8 to 53 inches (215 to 1,354 millimeters), increasing with elevation. Most of the rainfall occurs as low- or moderate-intensity, Pacific frontal storms during winter. Rain can turn to snow at the higher elevations. A little snow may fall in winter, but it does not last. Summers are dry, but fog provides some moisture along the coast. The average annual temperature is 38 to 67 degrees F (3 to 19 degrees C). The freeze-free period averages 310 days in the valleys, 245 days in the mountains, and ranges from 125 to 365 days along the coast. It decreases in length with elevation. The longest freeze-free period occurs at the lower elevations along the western edge of the area.

### Soil features

The soils in the lower elevations range from coarse sandy loams, sandy loams, very fine sandy loams and loams that are mostly moderately deep to very deep over bedrock. Some of the soils are gravelly or stony or are intermixed with rock outcrop. The bulk of the soils are moderately well to somewhat excessively well drained and have a moderate to high water holding capacity. Soils in the above 3000 ft elevations are similar with coarse sandy loams, fine sandy loams, sandy loams and loams that are mostly moderately deep to very deep. Some are gravelly, cobbly, or stony or intermixed with rock outcrops. The bulk of the soils are moderately well to somewhat excessively well drained and have a moderately low to high water holding capacity.

### Vegetation dynamics

The vegetation that dominates this ESG below 3000 ft. is generally a mix of non-native annual grasslands or scattered to dense shrubs (chamise, ceanothus, California sagebrush, black sage, and/or Eastern Mojave buckwheat). And above 3000 ft. tends to be more of a dynamic of non-native annual grasslands, a shrub (chamise, ceanothus, etc.) community and an open tree (pines or oaks) community.

### Major Land Resource Area

MLRA 019X  
Southern California Coastal Plains and Mountains

### Subclasses

- R019XD012CA–SANDY
- R019XD026CA–SANDY WEST
- R019XD027CA–SANDY EAST
- R019XD029CA–LOAMY
- R019XD030CA–WET MEADOW
- R019XD033CA–LOAMY UPLANDS
- R019XD035CA–SANDY
- R019XD060CA–SHALLOW LOAMY
- R019XD061CA–CLAYPAN
- R019XD065CA–SANDY 9-20"
- R019XD069CA–SANDY ALLUVIAL
- R019XD070CA–SANDY BASIN
- R019XD925CA–LOAMY EAST
- R019XD935CA–COARSE SANDY
- R019XD964CA–LOAMY 9-20"
- R019XE003CA–COARSE LOAMY
- R019XE024CA–LOAMY 9-20"
- R019XG912CA–Sandy Fan
- R019XI105CA–Deep slopes 13-24" p.z.

### **Correlated Map Unit Components**

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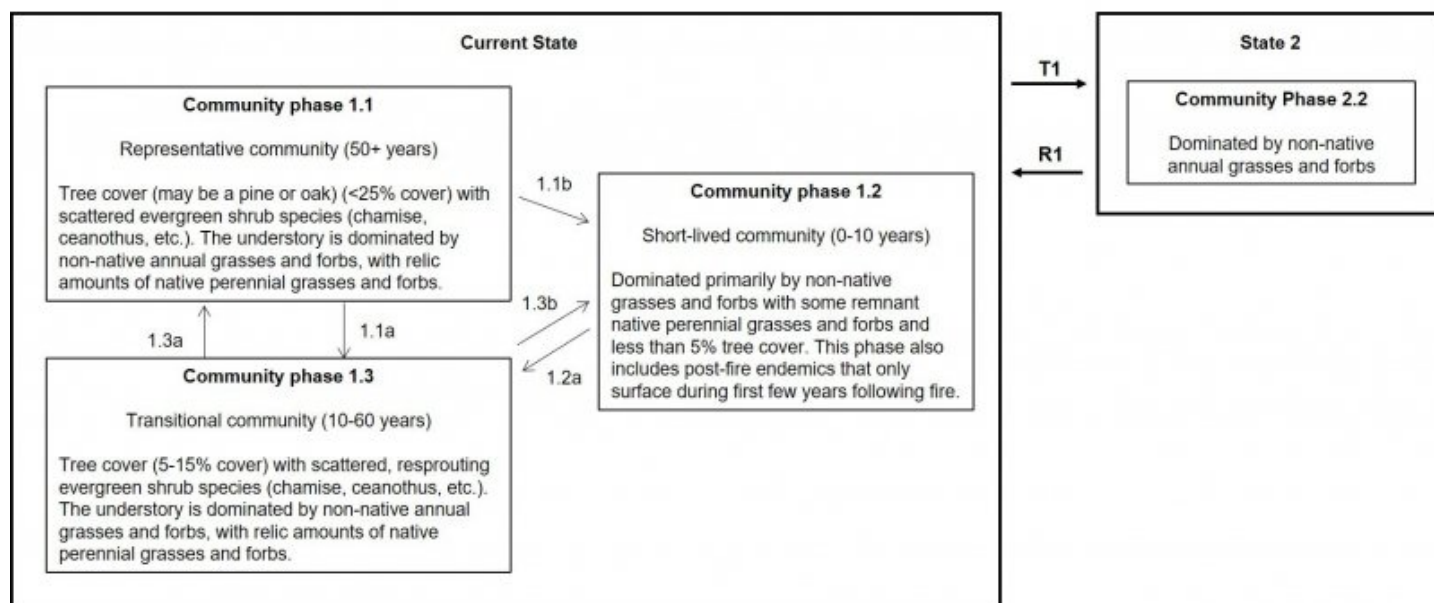
### **Stage**

Provisional

### **Contributors**

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### **State and transition model**



#### Reference State Community Pathways (Natural disturbance regime only – no management scenarios)

Community Phase 1.1 – Tree cover (pines or oaks) (<25% cover) with scattered evergreen shrub species (chamise, ceanothus, etc.). The understory is dominated by non-native annual grasses and forbs, with limited amounts of native grasses and forbs.

Community Pathway 1.1a: The historical fire regime is approximately 70 to 200 years, with lightning being the primary ignition source. Low severity, surface fires are most typical with severity of the fire increasing with the density of shrubs in the understory. Fires result in a decrease in mostly small or young trees, most shrubs and all herbaceous cover.

Community Pathway 1.1b: Fires become more frequent (less than 10-year intervals).

Community Phase 1.2 - Dominated primarily by non-native grasses and forbs with some remnant native herbs and less than 5% tree cover. This phase also includes post-fire endemics that only surface during first few years following fire.

Community Pathway 1.2a: The shift occurs as the oaks and evergreen shrubs regenerate and begin to shade out the herbaceous species.

Community Phase 1.3 – tree cover (5-15% cover) with scattered, re-sprouting evergreen shrub species (chamise, ceanothus, etc.). The understory is dominated by non-native annual grasses and forbs, with limited amounts of native grasses and forbs.

Community Pathway 1.3a: This occurs as the coast live oak and other species becomes taller and older.

Community Pathway 1.3b: This occurs when a fire takes place before the coast live oak and other species have time to create a more dense, closed canopy.

#### State 2

Community Phase 2.1 - This community phase represents all the varied land uses that significantly alter this ecological site, typically removing the tree cover but not always. This is an extremely varied community phase that includes all types of alterations that so significantly alter the ecological site that it is permanently changed and no longer has typical or even representative ecological dynamics.

#### Transitions

T1 This transition is caused by repeated fires that have removed most to all of the trees and evergreen shrub seed sources and/or significant human alterations that force this ecological site over a threshold and change the function and structure of this site in extensive ways that serve mostly intensive agriculture or urban/housing developments.

R1 This restoration pathway occurs only when significant time and money inputs are focused on returning ecological function and native seed source to the site.

## Citations