

# CALAVERAS COUNTY SOIL - VEGETATION HANDBOOK



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*This publication is dedicated to the Calaveras County Board of Supervisors for their interest in land use and stewardship of our soil resources. Through their leadership and full cooperation, this County Soil-Vegetation Handbook is available for your use.*

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### Soil-Vegetation Survey in Calaveras County

In this publication we have put together a countywide handbook of useful information to assist you in using the available data and information from the Calaveras County Soil-Vegetation Survey.

Soil-Vegetation surveys are designed to produce useful information and maps that are valuable to everyone concerned with soils, land use and resource management. This information is in considerable detail and is readily available for direct application or interpretation. Our soils are a finite, non-renewable, easily destroyed resource that serves as a primary base for the county's economic and social well being.

From 1965 to 1972, the State Cooperative Soil-Vegetation Staff surveyed and mapped more than 580,000 acres of land in Calaveras County. Cooperators with this Soil-Vegetation Survey were the California Department of Forestry, Pacific Southwest Forest and Range Experiment Station, University of California and individual private landowners.

At present, there are 25 Soil-Vegetation base maps covering 580,000 acres in the county. Each base map is supplemented with a publication of tables and important details that are used to interpret mapping symbols for basic soil and vegetation information. These maps and their legend publications are available at a cost of \$1.00 each from the Department of Forestry, 1416 9th Street, Sacramento, California 95814.

Basic information about soils and vegetation (their characteristics, location, extent, and relationships) is especially useful to the resource manager. It provides a foundation for understanding and managing the ecological community that includes soils, vegetation, animals, climate, and man. By applying an ecological approach, more efficient and productive use of the land and its resources can be made. Management procedures that have proved successful in areas of known soils and vegetation can be applied to other areas with the same characteristics.

Soil-Vegetation surveys provide useful maps and information. The data are useful to the land manager as well as to the general public. In land management, accurate knowledge is necessary for success. If the vegetation is to be modified, the information from such surveys is useful to estimate probable results.

The Soil-Vegetation maps were prepared by the California State Cooperative Soil-Vegetation Survey Project. The project is financed through appropriations of the California Legislature to the Resources Agency of California. Cooperating organizations in the Soil-Vegetation Survey are the Department of Forestry; University of California Department of Agronomy and Range Science, Department of Soils and Plant Nutrition, Department of Forestry and Conservation, and the Pacific Southwest Forest and Range Experiment Station, United States Forest Service, at Berkeley.

Soil-Vegetation Maps Have Many Uses:

In the Calaveras County Farm Advisor's Office, countywide sets of maps have been color coded and developed, with the help of CETA and county support staff, to collect specific information for the following subjects:

1. Lands with soil depths in average foot depths to a rooting depth of 4 feet and deeper.

2. Lands with soil slopes less than 30% to slopes in excess of 70%.
3. Potential irrigable agricultural areas and acres using soil depth, slope and other correlated edaphic variables.
4. Estimated suitability areas for commercial timber production.
5. Vegetation type identification of grassland, brushland, mixed grass, oak and timber areas.

There are many other developmental uses from the basic data presented in these maps. Descriptive tables, detailed soil series descriptions and soils management publications are available for supplemental or reference use upon request from the County Cooperative Extension and Farm Advisor's Office.

The Soil-Vegetation Survey for Calaveras County is now complete. Publication of the three remaining maps covering the Milton, Jenny Lind and Wallace areas are expected to soon be completed and available.

This Handbook will serve a useful purpose when used to interpret information from specific sites from Soil-Vegetation Quadrangle Maps. From these maps and their accompanying Tables, a very large amount of valuable information is made available. This Handbook is designed, as a treasure map, to help you locate and develop our soil resources of Calaveras County. It's not an easy task, nor is it impossible. You will find that learning to use Soil-Vegetation information is well worth the effort.

## LEGEND TO THE MAPS

### Base Maps

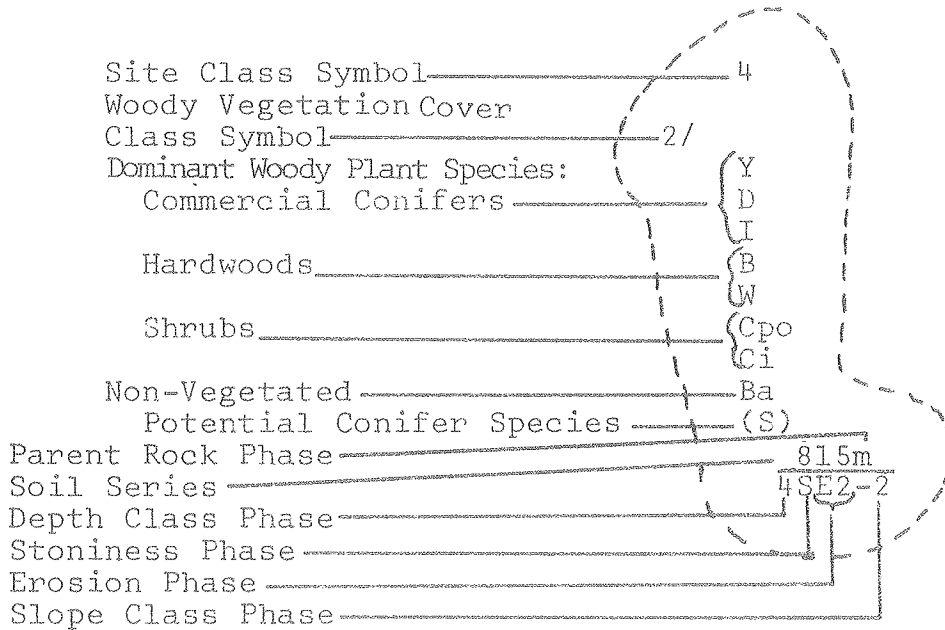
Base maps used for the Soil-Vegetation maps were specially prepared by the Pacific Southwest Forest and Range Experiment Station, mostly from published sources. Each of the original Soil-Vegetation maps consist of a standard 7½ minute quadrangle unit at the scale of 2 inches = 1 mile.

Every effort has been made to fit the soil and vegetation boundaries to the topography of the base map. Land subdivisions have been positioned as accurately as source information and map control points permit. If a precise fit of the data to land subdivisions for small areas is required, ground checks against known corner locations, fence boundaries, or other features should be carried out, preferably by using aerial photographs.

Contour lines, minor roads, small drainages, and other map details are not shown on the maps so as not to obliterate other data. If such map detail is required, refer to U. S. Geological Survey topographic maps, which are used as sources for the base information. The base maps are listed in the lower right corner of each quadrangle map.

Symbols Shown on the Maps

All soil and vegetation information for each mapping area is shown by coded symbols on the map as in the example below. Following this example are detailed explanations of the symbols.



Soil Symbols

Soils are mapped by soil series and phases (depth class, slope class, and certain other soil phases). The Soil Survey Manual (Soil Survey Staff 1951) has been used as a general standard of reference for terminology and concepts. Soil information is coded in the form of a numerical fraction, e.g.:

<u>815m</u>	<u>Soil Series/soil series modifier</u>
4SE-1	Depth class/other phases/-slope class

Soil series are coded in three categories defined as follows:

- (1) Soil series names are designated by numbers of three or four digits in the numerator of the fraction, e.g. 815, the Josephine Series.
- (2) Soil series variants are soils of limited extent which are distinctly different (color, texture, parent material, pH, etc.), but similar and closely related to a known soil series. They are designated by the symbol "V" following the soil series symbol, e.g. 815V, Josephine Variant.
- (3) Soils of limited extent which are distinctly different from and unrelated to a known soil series are indicated by an "X", "Y" or "Z" instead of the final numeral in the soil series symbol, e.g. 75X.

Soil series modifiers give additional information about the soil series or indicate a variation from the normal characteristic of the series. They have special symbols and examples as defined below:

- (1) Parent rock or parent material modifiers are designated by a lower case letter following the soil series number, e.g. 815m.

