

## Appendix A. Santa Barbara County Oak Monitoring and Assessment Database

Variable	Explanation
Owimp4-ID	Unique number assigned to each soil polygon or assessment unit (either whole or a portion of original soil polygon)
Soil_type	The 3 or 4 letter code for the soil type (from USDA Soil Conservation Service, 1972. Soil Survey of Northern Santa Barbara Area, California).
Area	Area of the polygon in square meters
Anderson	Anderson Class II land use type code. See below for description. (from Anderson, J.R., E.E. Hardy, J.T. Roakchy, and R.E. Witmer, 1976. A land use and land cover classification system for use with remote sensor data. USGS Prof. Paper 964. 28pp.)
Sawyer	Land cover series code. This is the dominant plant community type. See below for description. (from Sawyer, J.O., and T. Keeler-Wolf, 1995. A manual of California vegetation. California Native Plant Society. Sacramento, CA, and Federal Geographic Data Committee, 1997. National Vegetation Classification Standard. FGDC-STD-005.
Landform	Two letter code for the dominant terrain type for the polygon. See below for explanation. (from USDA Forest Service)
<b>The next 4 rows refer to VTM data. VTM or Vegetation Type Mapping was done by survey crews in the 1930s. Presence/absence as well as distribution of species was recorded and mapped on a rough scale. (from Wieslander, A. E. 1946. Forest areas, timber volumes and vegetation types in California. California Forest and Range Experiment Station, Forest Survey Release No. 4., Berkeley, 66 pp.)</b>	
VTM_Ql	y = VTM crews recorded valley oaks somewhere within the boundaries of the assessment unit; n = valley oak not present.
VTM_Qa	y = VTM crews recorded coast live oaks somewhere within the boundaries of the assessment unit; n = coast live oak not present.
VTM_Qd	y = VTM crews recorded blue oaks somewhere within the boundaries of the assessment unit; n = blue oak not present.
VTM_other	listed are all other species recorded as present somewhere within the boundaries of the assessment unit (see below for species codes).
<b>The next 9 rows concern density, calculated cover and estimated cover of the three oak species. An entry of -1 indicates no trees present.</b>	
Ql-DENS	The density of valley oaks within the polygon (#trees/hectare).
Ql-COV	The cover of valley oaks within the polygon. This is the percentage of polygon area covered by tree canopy.
Ql-covc	The cover class of valley oaks within the assessment unit; this is a visual estimation of the percentage tree cover within the polygon. See below for explanation of codes. (from Mayer, K. E., and W. F. Laudenslayer, Jr. 1988. A Guide to Wildlife Habitats of California. Sacramento, CA: California Department of Forestry and Fire Protection.)
Qa-DENS	The density of coast live oaks within the polygon (#trees/hectare).
Qa-COV	The cover of coast live oaks within the polygon. This is the percentage of polygon area covered by tree canopy.
Qa-covc	Visually estimated cover class for coast live oaks.
Qd-DENS	The density of blue oaks within the polygon (#trees/hectare).
Qd-COV	The cover of blue oaks within the polygon. This is the percentage of polygon area covered by tree canopy.
Qd-covc	Visually estimated cover class for blue oaks.
Photo	Number of photo used for interpretation. Photo numbers were last 3 digits. E.g. photo PW-SB-10304 is photo #304 in the Pacific Western, Santa Barbara, series 10 set.

NOTES	Notes pertaining to assessment unit.
<b>Anderson land use type codes</b>	
<b>Code</b>	<b>Land Use Type</b>
16	Mixed Urban or Built-up Land
21	Cropland and Pasture ( high intensity/density cattle or crops – usu. in rows)
22	Orchards, Groves, Vineyards, Nurseries, and Ornamental Horticultural Areas
23	Confined Feeding Operations (e.g. feedlots)
24	Other Agricultural Land (farmsteads, corrals)
31	Herbaceous Rangeland (grazing lands of bunchgrass or introduced grasses & herbs)
32	Shrub and Brush Rangeland (dominated by shrub and brush species)
33	Mixed Rangeland (with >1/3 cover of herbaceous or shrub and brush species)
41	Deciduous Forest Land (cover is at least 10% trees)
42	Evergreen Forest Land (cover is at least 10% trees)
43	Mixed Forest Land (cover is at least 10% trees)
51	Streams and Canals
52	Lakes
53	Reservoirs (include stock ponds here)
73	Sandy Areas other than Beaches
74	Bare Exposed Rock
75	Strip Mines, Quarries, and Gravel Pits
76	Transitional Bare Areas
77	Mixed Barren Land
<b>Sawyer Land Cover Series</b>	
<b>Code</b>	<b>Sawyer Series</b>
	<i>Blue Oak Series</i>
bow	Blue oak woodland (25-60% blue oak cover)
bof	Blue oak forest (>60% blue oak cover)
	<i>Coast Live Oak Series</i>
clow	Coast live oak woodland (25-60% coast live oak cover)
clof	Coast live oak forest (>60% coast live oak cover)
	<i>Valley Oak Series</i>
vow	Valley oak woodland (25-60% valley oak cover)
	<i>Mixed Oak Series</i>
mow	Mixed oak woodland (25-60% total oak canopy cover)
mof	Mixed oak forest (>60% total oak canopy cover)
aw	Arroyo Willow Series
cs	California Sagebrush Series
ps	Purple Sage Series
ch	Chamise Series
c	Ceanothus Series
cag	California Annual Grassland Series
vp	Vernal pool
non	Non-native Type (includes all human land use types and all unvegetated types such as stock ponds)
	<b>Note:</b> A coast live oak woodland is a woodland (25-60% tree cover) dominated by coast live

	oak (only coast live oak has greater than 10% cover within the area) but which may also contain other species of oaks and other trees. A coast live oak forest is a forest (>60% tree cover) dominated by coast live oak (only coast live oak has greater than 10% cover within the area). The Blue oak and Valley oak series are similar. A mixed oak woodland is a woodland which has two or three oak species present and at least two with greater than 10% cover. A mixed oak forest is a forest which has two or three oak species present with at least two with greater than 10% cover. These standards are consistent with the Sawyer and Keeler-Wolf vegetation classification of California (Sawyer, J.O., and T. Keeler-Wolf, 1995. A manual of California vegetation. California Native Plant Society. Sacramento) and the national vegetation classification standard from the Federal Geographic Data Committee (Federal Geographic Data Committee, 1997. National Vegetation Classification Standard. FGDC-STD-005).

### **Landform code**

<b>Code</b>	<b>Landform</b>
fp	Flood Plain: plain built up by stream deposition
h	Hill or hilly: more than just rolling
k	Knoll: small round hill
l	Landslide
m	Mesa: isolated relatively flat-topped elevation less extensive than a plateau
mt	Mountain or mountainous
o	Other
p	Plain: an extensive area of level or rolling treeless country
pd	Pediment: gently sloping bedrock surface at base of steeper slope covered with gravel or sand
pt	Plateau
r	Ravine: small, narrow, steep-sided valley

### **VTM\_Other: all other species listed in the VTM survey maps**

<b>(Code: vegetation/species)</b>
Gr: Grassland
Cu: Cultivated land
Aan: <i>Arctostaphylos andersonii</i> (heartleaf manzanita)
Ac: <i>Artemisia californica</i> (California sagebrush)
Af: <i>Adenostoma fasciculatum</i> (chamise)
Ag: <i>Arctostaphylos glauca</i> (bigberry manzanita)
At: <i>Arctostaphylos tomentosa</i> (wooly manzanita)
Bp: <i>Baccharis pilularis</i> (coyote brush)
Cc: <i>Ceanothus cuneatus</i> (wedgeleaf ceanothus)
Da: <i>Mimulus aurantiacus</i> (bush monkeyflower)
Dp: <i>Pinus sabiniana</i> (foothill pine)
Ec: <i>Eriodictyon californicum</i> (California yerba santa)
Ee: <i>Ericameria ericoides</i> (mock heather)
Ef: <i>Eriogonum fasciculatum</i> (buckwheat)
Enc: <i>Encelia californica</i> (California encelia)
Ep: <i>Eriogonum parvifolium</i> (small-leaf buckwheat)
Lal: <i>Lupinus albicaulis</i> (lupine)
Lc: <i>Leptodactylon californicum</i> (prickly phlox)
Lpx: <i>Lupinus</i> spp. (lupines)

	Ls: Lotus scoparius (deerweed)
	Op: Opuntia prolifera (prickly pear, cholla)
	Qa: Quercus agrifolia shrub form
	Ro: Rhus ovata (sugar bush)
	Sa: Salvia apiana (white sage)
	Sc: Lepechinia calycina (pitcher sage)
	Se: Salvia eremostachya (desert sage)
	Sl: Salvia leucophylla (purple sage)
	Sm: Salvia mellifera (black sage)
	Sp: Salvia palermi (?)
	Sx: Salix spp (willows)
<b>Tree cover class</b>	
<b>Code</b>	<b>Percentage range</b>
0	<10% (but >0)
1	10-24%
2	25-39%
3	40-59%
4	60-100%