

## CWHR Classification System

CALVEG Def: Classification and Assessment with LANDSAT™ of Visible Ecological Groupings

### ***Habitat Type:***

The California Wildlife Habitat Relationships System (CWHR classifies existing vegetation types important to wildlife. This system was developed to recognize and logically categorize major vegetative complexes at a scale sufficient to predict wildlife-habitat relationships. Table 1 outlines the wildlife habitat types used in the CWHR system.

**Table 1  
CWHR Habitat Type Classes**

CWHR TYPE	CWHR NAME
ADS	Alpine-Dwarf Shrub
AGR	Agriculture
AGS	Annual Grassland
ASC	Alkali Desert Scrub
ASP	Aspen
BAR	Barren
BBR	Bitterbrush
BOP	Blue Oak-Foothill Pine
BOW	Blue Oak Woodland
CHP	Unknown Shrub Type
CON	Unknown Conifer Type
COW	Coastal Oak Woodland
CPC	Closed-Cone Pine-Cypress
CRC	Chamise-Redshank Chaparral
CRP	Cropland
CSC	Coastal Scrub
DFR	Douglas-Fir
DGR	Dryland Grain Crops
<u>DOR</u>	Deciduous Orchard
DRI	Desert Riparian
DRY	Dry Lake Bed
DSC	Desert Scrub
DSS	Desert Succulent Shrub
<u>DSW</u>	Desert Wash
EOR	Evergreen Orchard
EPN	Eastside Pine
<u>EST</u>	Estuarine
EUC	Eucalyptus
FEW	Freshwater Emergent Wetland
FWT	Forested Wetland
GRS	Unknown Grass Type
HDW	Hardwood
IGR	Irrigated Grain Crops
IRF	Irrigated Row and Field Crops
IRH	Irrigated Hayfield

JPN	Jeffrey Pine
JST	Joshua Tree
JUN	Juniper
KMC	Klamath Mixed Conifer
LAC	Lacustrine
LPN	Lodgepole Pine
LSG	Low Sage
MAR	Marine
MCH	Mixed Chaparral
MCN	Mixed Conifer
MCP	Montane Chaparral
MHC	Montane Hardwood-Conifer
MHW	Montane Hardwood
MRI	Montane Riparian
NWT	Nonforested Wetland
OVN	Orchard and Vineyard
PAS	Pasture
PGS	Perennial Grassland
PJN	Pinyon-Juniper
POS	Palm Oasis
PPN	Ponderosa Pine
RDW	Redwood
RFR	Red Fir
RIV	Riverine
ROG	Redwood Oldgrowth
RSP	Residential-Park
RYG	Redwood Secondgrowth
SCN	Subalpine Conifer
SEW	Saline Emergent Wetland
SGB	Sagebrush
SMC	Sierran Mixed Conifer
UAG	Urban-Agriculture
URB	Urban
VFH	Valley-Foothill Woodland
VHC	Valley-Foothill Hardwood-Conifer
VIN	Vineyard
VOW	Valley Oak Woodland
VRI	Valley Foothill Riparian
WAT	Water
WFR	White Fir
WTM	Wet Meadow
XXX	Not Determined

***Tree Canopy:***

Trees provide cover and food for California’s terrestrial wildlife. The amount and extent of tree canopies are used in the CWHR system to help predict which wildlife species may be supported by these ecosystems. Table 2 outlines the tree canopy closure classes used in CWHR.

**Table 2  
CWHR Tree Canopy Closure Classes**

<b>Tree Canopy</b>	<b>Description (% Canopy Closure)</b>
<b>S</b>	<b>10 to 24%</b>
<b>P</b>	<b>25 to 39%</b>
<b>M</b>	<b>40 to 59%</b>
<b>D</b>	<b>60 to 100%</b>
	<b>Not Determined</b>

***Tree Size:***

Tree size also helps biologists determine which wildlife species may be supported by a particular ecosystem. Table 3 outlines the tree size classes used in CWHR.

**Table 3  
CWHR Tree Size Class Descriptions**

<b>CWHR Size</b>	<b>Description</b>	<b>Diameter at Breast Height</b>
<b>1</b>	<b>Seedling</b>	<b>Less Than 1 inch</b>
<b>2</b>	<b>Sapling</b>	<b>1 to 6 inches</b>
<b>3</b>	<b>Pole</b>	<b>6 to 11 inches</b>
<b>4</b>	<b>Small Tree</b>	<b>11 to 24 inches</b>
<b>5</b>	<b>Medium/Large</b>	<b>Tree Greater Than 24 inches</b>
<b>6</b>	<b>Multi Layered</b>	<b>Size 5 Over Size 4 Or 3; Total Tree Crown Closure Greater Than 60%</b>

***Shrub Canopy:***

Shrub canopy closure is also used in the CWHR system to predict wildlife species distribution. Shrub canopy classes are identical to the tree canopy class measures. Table 4 outlines the shrub canopy closure classes used in CWHR.

**Table 4  
CWHR Shrub Canopy Class Descriptions**

<b>CWHR Shrub Canopy</b>	<b>Description (% Canopy Closure)</b>
<b>S</b>	<b>10 to 24%</b>
<b>P</b>	<b>25 to 39%</b>
<b>M</b>	<b>40 to 59%</b>
<b>D</b>	<b>60 to 100%</b>
	<b>Not Determined</b>

**Shrub Size:**

CWHR shrub size class descriptions differ from tree size attribute descriptions in that they are measures of age and/or degree of crown decadence. Table 5 outlines the CWHR size class measures used for non-desert shrub types.

**Table 5**  
**CWHR Shrub Size Class Descriptions**

<b>WHR Shrub Size Class</b>	<b>Description</b>	<b>WHR Shrub Crown Decadence</b>
1	Seedling Shrub	Seedlings or sprouts < 3 years
2	Young Shrub	None
3	Mature Shrub	1 – 25%
4	Decadent Shrub	> 25%