

**National Wetlands Inventory Map Report  
for  
Sacramento NE**

**Project ID:** Sacramento NE

**Project Title or Area:** Sacramento NE 1:100,000

**Project area covers the following 31 USGS 7.5 minute quadrangles contained within the Sacramento 1;100,000 quadrangle:**

Aukum
Bear River Reservoir
Caldor
Camino
Caples Lake
Coloma
Devil Peak
Echo Lake
Emerald Bay
Fiddletown
Garden Valley
Georgetown
Greenwood
Kyburz
Latrobe
Leek Spring Hill
Loon Lake
Mokelumne Peak
Omo Ranch
Peddler Hill
Placerville
Pyramid Peak
Riverton
Robbs Peak
Rockbound Valley
Shingle Springs
Slate Mountain
Sly Park
Stump Spring
Tragedy Spring
Tunnel Hill

**Source Imagery:**

Type: CIR for all quadrangles  
Scale: 1:58,000 for all quadrangles  
Date: See table below:

<b>USGS Quadrangle</b>	<b>Photo Date(s)</b>
Aukum	6/84
Bear River Reservoir	8/84
Caldor	6/84
Camino	6/84
Caples Lake	8/84, 9/84
Coloma	6/84
Devil Peak	6/84
Echo Lake	8/84
Emerald Bay	8/84
Fiddletown	6/84
Garden Valley	6/84
Georgetown	6/84
Greenwood	6/84
Kyburz	8/84
Latrobe	6/84
Leek Spring Hill	8/84
Loon Lake	9/84
Mokelumne Peak	9/84
Omo Ranch	6/84
Peddler Hill	9/84
Placerville	6/84
Pyramid Peak	9/84
Riverton	9/84
Robbs Peak	9/84
Rockbound Valley	9/84
Shingle Springs	6/84
Slate Mountain	6/84
Sly Park	6/84
Stump Spring	9/84
Tragedy Spring	8/84
Tunnel Hill	6/84

**Collateral Data:**

- USGS 1:24,000 topographic quadrangles
- USDA Soil Surveys of Amador Area, El Dorado Area, El Dorado National Forest, Tahoe Basin Area, and Placer County, Western Part.

- Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979)
- Bailey's Description of the Ecoregions of the United States
- Ecological Subregions of California
- Hydric Soils of the United States
- National List of Plant Species That Occur in Wetlands: California (Region 0)

**Inventory Method:** The delineations were done by manual interpretation of 1984 aerial photographs. The interpretation was supplemented with field investigations in order to correlate varying signatures found on the photography to actual ground conditions. Vegetation, soils, and hydrologic conditions were examined at field sites. The delineations were transferred to 1:24,000 scale USGS quadrangle base maps using a Zoom Transfer Scope in 1989. The final maps were published in 1995 and converted to a digital format in 2005.

**Data Limitations:** The user of the maps is cautioned that, due to the limitation of mapping primarily through aerial photo interpretation, a small percentage of wetlands may have gone unidentified. Since the photography was taken during a particular time and season, there may be discrepancies between the map and current field conditions. Changes in landscape which occurred after the photography was taken would also result in discrepancies.

**Classification:** The wetland and deepwater habitat classifications that appear on the Sacramento NE quadrangles are in accordance with the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979). All other areas are classified as upland.

### **General Description of the Project Area:**

The project area covers thirty-one 1:24,000 USGS quadrangles in Northern California. Placerville, the largest town in the project area, is located approximately 45 miles SW of Lake Tahoe. Most of the area is located in El Dorado County. Smaller parts of the project area are in Amador, Alpine and Placer Counties.

Most of the project area is within the **Sierra Nevada Ecological Section** (USDA 1997). This section is the temperate to very cold parts of the Sierra Nevada, which is a north-northwest aligned mountain range that is much steeper on the east than on the west side. General descriptions of the soils, vegetation, fauna, and climate follow:

**Soil Taxa.** Alfisols, Andisols, Aridisols, Entisols, Inceptisols, Mollisols and Ultisols in combination with mesic, frigid or cryic soil temperature regimes and xeric, udic, aridic or aquic soil moisture regimes.

**Vegetation.** Predominant potential natural communities include the Mixed conifer series, Ponderosa pine series, Jeffrey pine series, White fir series, Red fir series, Lodgepole pine series, Huckleberry oak series, Western Juniper series, Aspen series, Big sagebrush series, Mixed subalpine forest series, Mountain hemlock series, Whitebark pine series and Giant sequoia series.

The following series are found throughout the section and are not restricted to or extensive in any subsection. Series dominated by exotic plants are not listed under subsections unless they are extensive and stable.

***Series dominated by exotic plants:***

Broom series, California annual grassland series, Cheatgrass series, Introduced perennial grassland series, Kentucky bluegrass series and Tamarisk series.

***Series that can occur in all subsections, but are not extensive:***

Bulrush series, Bulrush - cattail series, Bur-reed series, Common reed series, Cattail series, Creeping ryegrass series, Ditch-grass series, Duckweed series, Holodiscus series, Mosquito fern series, One-sided bluegrass series, Pondweeds with floating leaves series, Pondweeds with submerged leaves series, Quillwort series, Saltgrass series, Sedge series, Spikerush series, Tufted hairgrass series and Yellow pond-lily series.

***Series restricted to riparian settings:***

Black cottonwood series, Mixed willow series, Montane wetland shrub habitat, Mountain alder series, Narrowleaf willow series, Pacific willow series, and Red willow series.

**Fauna.** Mammals include black-tail and mule deer, black bear, mountain lion, coyote, bobcat, red and gray fox, ringtail, weasels, skunks, badger, mountain sheep, yellow-bellied marmot, marten, fisher, wolverine and porcupine. Grizzly bear, native to the western slope became extinct in 1924. Birds include eagles, hawks, owls, woodpeckers, falcons, osprey, stellar jay, herons, quail, kingfisher, goshawk and blue grouse. Species of concern include the California spotted owl. Introduced species include turkey and beaver.

**Climate.** In Placerville, the average total annual precipitation was 38.41 in. (1971-2000). Approximately half of the total came in the January through March 3-month period. The average annual daily maximum temperature was 71.7°F, and the average annual daily minimum was 44.3°F. The average daily maximum temperature in July was 91.4°F. In December, the average daily minimum was 33°F.

Precipitation at higher elevations is significantly greater. At Pacific House, the average total annual precipitation was 52.22 in. (1971-2000). Average annual snowfall was 53.1 inches.

The southeast corner of the project area is located in the **Sierra Nevada Foothills Ecological Section, Lower Foothills Metamorphic Belt Subsection** (USDA 1997). General descriptions of the soils, vegetation, fauna, and climate for this region follow:

**Soils.** The soils are mostly Lithic and Ruptic - Lithic Xerochrepts; Mollic and Ultic Haploxeralfs; and Lithic Xerorthents. Those on ultramafic rocks are mostly Mollic Haploxeralfs and Lithic Argixerolls. The soils are well drained. Bicarbonate weathering and leaching and accumulation of clay in subsoils are the main pedogenic processes. Soil temperature regimes are mostly thermic. Soil moisture regimes are xeric.

**Vegetation.** The predominant natural plant community is Blue oak series. Also, there are some Needlegrass grasslands, Chamise series on shallow and rocky soils, and Valley oak series in valleys.

***Characteristic series by lifeform include:***

***Vernal pools:*** Northern claypan vernal pools.

***Grasslands:*** California annual grassland series.

***Shrublands:*** Chamise series, Chamise - wedgeleaf ceanothus series, Interior live oak shrub series, Scrub oak series, Wedgeleaf ceanothus series, White manzanita series.

***Forests and woodlands:*** Birchleaf mountain-mahogany series, Black oak series, Blue oak series, Foothill pine series, Interior live oak series, Ione manzanita series, Mixed oak series, Valley oak series.

**Fauna.** Former inhabitants include grizzly bear and pronghorn antelope. Mammals include black-tailed and mule deer, coyotes, ground squirrels, cottontails, jack rabbits and kangaroo rats. Common birds include turkey vultures, falcons, eagles, hawks, owls, quail, mourning dove, mockingbird, scrub jay, herons, ravens, western meadow lark, finches and sparrows. Introduced species include turkeys and chukars.

**Climate.** The mean annual precipitation is about 20 to 40 inches. It is practically all rain. Mean annual temperature is about 52° to 62° F. The mean freeze-free period is about 225 to 300 days.

**Description of Wetland Habitats:** The Lacustrine, Riverine, and Palustrine systems are represented in the subject area. Deepwater habitats include perennial rivers such as American River and lakes and reservoirs such as Lake Tahoe and Union Valley Reservoir.

Wetlands in the project area include wet meadows in grasslands; seeps near the base of hills, ponds and wet depressions in glaciated areas; high-elevation forested wetlands dominated by lodgepole pine; fens; narrow forested and shrub dominated zones on banks and benches along streams; and broader floodplain areas that are seasonally flooded and usually dominated by trees. Many small wetlands have been created or modified by human activity (e.g., excavation) such as farm ponds and impoundments.

**Description of wetland habitats by Cowardin (1979) classification:**

L1UBH	Permanently flooded, deepwater habitat greater than 20 acres in size (e.g., natural lake).
L1UBHh	Permanently flooded, deepwater habitat greater than 20 acres in size that is created by an impoundment (e.g., reservoir).
L2USC	Seasonally flooded, unconsolidated shore along lake or reservoir margins.
L2ABF	Semi-permanently flooded aquatic beds (e.g., <i>Nuphar luteum</i> ) in shallow water of lake systems.
L2ABH	Permanently flooded aquatic beds (e.g., <i>Nuphar luteum</i> ) in shallow water of lake systems.
R2UBH	Permanently flooded lower perennial rivers.
R2USC	Seasonally flooded unconsolidated substrate (e.g., sand bars) associated with lower perennial riverine systems.
R3UBH	Permanently flooded upper perennial rivers.
R3USC	Seasonally flooded unconsolidated substrate (e.g., sand bars) associated with lower perennial riverine systems.
R4SBC	Seasonally flooded riverine channels.
R4SBF	Semi-permanently flooded riverine channels.
PABF	Semi-permanently flooded ponds vegetated with aquatic beds (e.g., <i>Potamogeton</i> spp.).
PABH	Permanently flooded ponds vegetated with aquatic beds (e.g., <i>Potamogeton</i> spp.).
PEMA	Temporarily flooded wetlands (e.g., wet meadows) dominated by persistent herbaceous vegetation. Common plants include <i>Juncus</i> spp., <i>Rumex</i> spp., and grasses.
PEMB	Saturated emergent wetland usually found in seep areas, montane meadows, or on organic soils (e.g., fens and bogs). Species may include <i>Carex exsiccate</i> , <i>Deschampsia cespitosa</i> , and <i>Juncus balticus</i> .
PEMC	Seasonally flooded wetlands dominated by persistent herbaceous vegetation. Common plants include <i>Juncus</i> spp., <i>Carex</i> spp., <i>Eleocharis</i> spp., and <i>Ranunculus</i> spp.
PEMF	Semi-permanently flooded depressions comprised of erect, rooted, herbaceous vegetation (e.g., <i>Scirpus</i> spp., <i>Polygonum hydropiperoides</i> , and <i>Typha</i> spp.).

PEMH	Permanently flooded depressions comprised of erect, rooted, herbaceous vegetation such as <i>Scirpus</i> spp., <i>Alisma</i> spp., and <i>Sparganium</i> spp..
PRBK	Man-made ponds with rock bottom substrate. The amount and duration of flooding is controlled by pumps in combination with dikes or dams.
PSSA	Temporarily flooded scrub-shrub wetland typically found in drainages, along streams, and on the floodplains of rivers. Willow ( <i>Salix</i> spp.), <i>Alnus rhombifolia</i> , and <i>Ribes</i> spp. are common in these wetland areas.
PSSB	Saturated scrub-shrub wetland found in seep areas or on organic soils such as fens or bogs.
PSSC	Seasonally flooded scrub-shrub wetland typically found in drainages, along streams, and on the floodplains of rivers. Willow ( <i>Salix</i> spp.) and alder ( <i>Alnus</i> spp.) are common in these wetland areas.
PSSF	Semi-permanently flooded scrub-shrub wetland often associated with beaver activity (i.e., PSSFb)
PFOA	Temporarily flooded forested wetland found along streams and on river floodplains. Cottonwood ( <i>Populus</i> spp.) is common in these wetland areas.
PFOB	Saturated forested wetland usually found in seep areas or on the periphery of fens or bogs. <i>Pinus contorta</i> is common in these areas.
PFOC	Seasonally flooded forested wetland found along streams and on river floodplains. Cottonwood ( <i>Populus</i> spp.) is common in these wetland areas.
PFO1A	Temporarily flooded, broad-leaved deciduous forested wetland usually found along streams and on river floodplains. Cottonwood ( <i>Populus</i> spp.) and alder ( <i>Alnus</i> spp.) are common in these wetland areas.
PFO1C	Seasonally flooded, broad-leaved deciduous forested wetland usually found along streams and on river floodplains. Cottonwood ( <i>Populus</i> spp.) and alder ( <i>Alnus</i> spp.) are common in these wetland areas.
PUSC	Seasonally flooded basins with little or no vegetation.
PUBF	Semi-permanently flooded ponds.
PUBH	Permanently flooded ponds.

**Note: Some attributes for wetland polygons may show a mix of wetland classes. For example, a seasonally flooded wetland containing a mix of scrub-shrub and emergent vegetation will be labeled PEM/SSC.**

The codes listed above may be followed by a special modifier described below:

SPECIAL MODIFIER	DESCRIPTION
<b>b</b>	Beaver - Wetland is created, modified or supported by the action of beavers. The beaver modifier is used on all delineations where visible hydrologic changes have occurred due to beaver activity.
<b>d</b>	Partially Drained - The water level has been artificially lowered, but the area is still classified as wetland because soil moisture is sufficient to support hydrophytes. This modifier is also used to indicate extensive ditch networks in wetlands where, due to the complexity or narrow width of the ditches, individual delineation is not possible.
<b>f</b>	Farmed - The soil surface has been mechanically or physically altered for production of crops, but hydrophytes will become re-established if farming is discontinued.
<b>h</b>	Diked/Impounded - Created or modified by a man-made barrier or dam which obstructs the inflow or outflow of water.
<b>r</b>	Artificial - Substrates classified as Rock Bottom, Unconsolidated Bottom, Rocky Shore and Unconsolidated Shore that were emplaced by man using natural or synthetic materials.
<b>x</b>	Excavated - Lies within a basin or channel excavated by man.

**References:**

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. Laroe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. United States Department of the Interior, Fish and Wildlife Service, FWS/PBS 79/81, Washington, D.C.

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U.S. Fish and Wildlife Service. 1988. *National List of Plant Species that Occur in Wetlands: California (Region 0)*. United States Department of the Interior, Fish and Wildlife Service, Washington, D.C.

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