

41. Home Camp Creek (Jensen 1992)

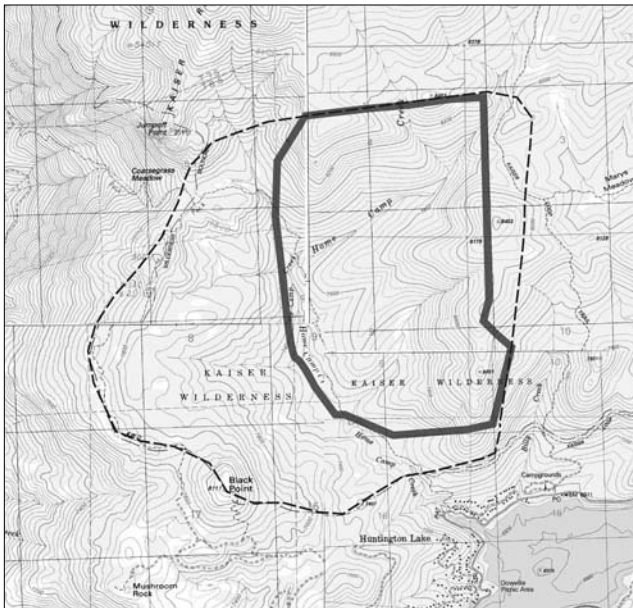


Figure 85—Home Camp Creek pRNA

Dashed line =
Ecological study area;
Solid gray line = RNA
Boundary

Location

This proposed RNA is on the Sierra National Forest in Fresno County, approximately 50 miles (81 km) NE. of Fresno and directly NW. of the W. end of Huntington Lake. The survey area includes all or a portion of sections 3, 4, 5, 8, 9, 10, 16, and 17 of T8S, R25E MDM (37°15'N., 119°15'W.), USGS Musick Mountain, Huntington Lake, Kaiser Peak, and Mammoth Pool Dam quads (fig. 85). It lies within the Kaiser Wilderness Area of the Pineridge Ranger District. Ecological subsection – Upper Batholith (M261Eq).

Target Element

Although red fir (*Abies magnifica*) is more abundant than white fir in the pRNA, white fir (*Abies concolor*) has been identified as a target element in the area due to rare late-seral white fir populations.

Distinctive Features

The white fir stand in this pRNA seems to be a localized climax species and ranges from seedlings to trees more than 100 years old. Red fir and white fir ecotones are present at several places in the E. portion of the pRNA and would serve as important research sites.

In addition to the white fir and red fir locales, an array of different environments is found within the pRNA. These include wet meadows, dry ridges, and rocky outcrops, all within a range of slope gradients.

Rare Vertebrates: The pRNA is a wintering area for the California spotted owl (*Strix occidentalis*). The great gray owl (*Strix nebulosa*), a State-listed endangered bird, and the wolverine (*Gulo gulo*), a State-listed threatened species, occur in the pRNA. Sensitive species that may occur in the pRNA include the northern goshawk (*Accipiter gentilis*), California species of special concern, Forest Service-listed sensitive species) and the marten (*Martes pennanti*).

Rare Plants: One small population of *Hulsea brevifolia* (CNPS list 4) occurs in the red fir forest above Home Camp Creek.

Fire History: The most recent fire (the Lake Fire) occurred in 1988 and was allowed to burn. This slow-burning ground fire covered approximately 175-200 acres (71-81 ha) and consumed several large trees. Many small white firs in section 4 were killed on the S.-facing slope above Home Camp Creek. However, most of the large white firs were spared. Additionally, old fire scars are found on some larger red firs, indicating a fire previous to 1988.

Physical Characteristics

The area covers 2450 acres (980 ha). Only about half of the survey area, 1200 acres (486 ha), is proposed as an RNA in the Forest Plan. The lower portion is composed of gentle to moderate forested slopes, while the upper portions

consist of steeper slopes and rocky outcrops. Elevations range from 7200 to 8100 ft (2194-2469 m). The area is nearly encircled by ridgelines that define the watershed. The pRNA encompasses the lower two-thirds of Home Camp Creek (San Joaquin River drainage), which flows into Huntington Lake on the S.

The rocks of the pRNA are quartz diorite of the Kaiser Peak Pluton, which is one of the oldest formations in the Huntington Lake area. A Tertiary trachy-basalt intrusion (Black Point) occurs at the S. boundary of the area and is one of four volcanic peaks in the Huntington Lake area. The pRNA is characterized by cold, young soils with coarse texture and high leach rates due to the granitic parent materials. Low to moderate slopes in the lower elevations (7000-8300 ft [2120-2520 m]) of sects. 4 and 9 are composed of a complex of two soils: Typic Cryumbrept and Dystric Cryochrept. Higher elevations (8000-9500 ft [2420-2880 m]) and steeper slopes are made up of a complex of dystric cryochrept and typic cryopsamment (cold, coarse-textured entisol). On even steeper slopes, to the W. of Home Camp Creek, soils are dystric xero- or cryopsamments of the Cagwin family. In the N. part of the pRNA, near Jump Off Point, rock outcrops dominate with lithic xeropsamment.

The climate is typical for mid- to high-elevation areas on the W. slope of the central Sierra Nevada. The growing season is short with cold, wet winters and warm, dry summers. Most precipitation falls during winter as snow, and in the high elevations, the snow often persists until June or September. Annual temperatures follow fairly consistent patterns, although year-to-year precipitation varies greatly.

Specific climate information is available only for nearby Huntington Lake, which is lower and, therefore, warmer and drier than the area encompassed by the pRNA. Climate information at the lake is as follows: The average temperature is 34 °F (1.1 °C) in January, and 61 °F (16.1 °C) in July. The average annual minimum temperature is 33 °F (0.6 °C). Freezing temperatures are possible during any month of the year, particularly from October to May. The average annual precipitation is 34.43 inches (87.45 cm), mostly falling in December through February as snow.

Association Types

Red Fir Forest (85310): 2042 acres (817 ha). This type occurs in a wide array of stand ages, densities, and under various ecological conditions. Most stands are nearly pure red fir, but other conifer species often share the canopy. Red fir intergrades with lodgepole pine (*Pinus murrayana*) forest along wet meadows and riparian areas. Along the dry ridge area of the W. boundary of the pRNA, mixed stands of red fir and white fir occur. Jeffrey Pine (*Pinus jeffreyi*) is present as a minor component along ridgelines and more arid sites (fig. 86). High elevation and rocky sites support western white pine (*Pinus monticola*). At lower elevational limits, white fir (*Abies concolor*) and sugar pine (*Pinus lambertiana*) are found.

Lower elevations and shallower slopes W. of Home Camp Creek contain both even- and uneven-aged stands of high-density (nearly 1000 trees/ha) small red fir (only 2 larger than 1 m dbh). Red fir seedlings comprise the majority of the herbaceous layer here.

In mature red fir forests, white fir comprises 22 percent of the individuals and 30 percent of the basal area. In other areas, white fir makes up 55-62 percent of the individuals in the stand. The density in these larger, matured forests is 136 trees/ha. Sixteen percent of the red fir has a dbh larger than 1 m, while the largest red fir measured in the sample transects is 2.22 m dbh. Basal area in the larger, mature stands is 68.15 m²/ha.

Understory cover is very low throughout this association, never reaching more than 5.85 percent. Characteristic species in the herbaceous layer are seedlings of *Abies magnifica*, *Viola purpurea*, *Pedicularis semibarbata*, and *Collinsia torreyi*.

White Fir Forest (84240): Two areas (located in sections 4 and 9). 128 acres (51.2 ha) total. White fir generally occurs at lower elevations and on more xeric sites than red fir. This association is found on S.-facing slopes at elevations below 8000 ft (2420 m). Section 9, the larger of the two stands, contains some Jeffrey pine and sugar pine. Section 4 contains a narrow band where white fir dominates within a red fir forest.

There is little evidence of significant regeneration (only 14 percent of individuals are in the smallest size class). Most trees are less than 1 m dbh, although one was measured at 1.76 m dbh. The density is 239 trees/ha, and the basal area is 48 m²/ha.

The association is characterized as having an open-stand structure. Understory vegetation is more abundant than in red fir stands. Average shrub cover is 14 percent. Average herb cover is 4 percent. The understory species composition is distinct from that of the red fir forest mostly due to the shrub composition of the white fir forest, of which *Ceanothus leucodermis* and *Chrysolepis sempervirens* are most common.

Lodgepole Pine Forest (86100): This type is found in cool, moist areas around meadow margins and streams (sects. 5 and 16). The stands are mainly even-aged and intergrade with the surrounding red fir forest as the soils become drier. The understory is often composed of *Ledum glandulosum* or dense meadow vegetation.

Western White Pine Forest (Mixed Subalpine Coniferous Forest) (86200): 79 acres (32 ha). Western white pine is restricted to a small area on the rocky outcrops in the SE. quarter of sect. 4. The stand is fairly open, with a significant component of red fir. Shrub species such as *Arctostaphylos nevadensis*, *Chrysolepis sempervirens*, and *Holodiscus microphyllus* are interspersed with herbaceous species such as *Monardella odoratissima*, *Sitanion hystrix*, *Brodiaea lutea*, *Silene montana*, and *Erysimum perenne*.

Montane Meadow (45100): Total acreage for five separate meadow areas is 88 acres (35 ha). This association type is the most floristically rich area in the pRNA. Some of the meadows are bordered by lodgepole pine forest; others are bordered by red fir forest. Common meadow species include: *Carex nebrascensis*, *Danthonia intermedia*, *Deschampsia elongata*, *Aster alpigenus* ssp. *andersonii*, *Hypericum anagalloides*, *Ranunculus alsimaeifolius*, and *Mimulus primuloides*. Narrow stringer meadows exist along streams and include plant species such as *Angelica breweri*, *Castilleja miniata*, *Arnica longifolia*, *Habenaria dilatata*, *H. sparsiflora*, *Mertensia ciliata*, and *Mimulus guttatus*.

Rocky Outcrop (no Holland equivalent): 19 acres (8 ha). No specific data was included in the ecological survey for this association.

Plant Diversity

One hundred fifty-four species of vascular plants are listed.

Conflicting Impacts

Nellie Lake (a popular camping and day-hiking destination) forms the headwaters of Home Camp Creek and is located approximately 0.5 mile (0.8 km) N. of the N. boundary of the pRNA.

The hiking trail along Home Camp Creek receives moderate use from numerous visitors to Huntington Lake, but there appears to be little evidence of adverse impacts resulting from this use. Kaiser Wilderness currently has a quota system to help manage recreational use.

Livestock grazing occurs within the survey area. There is evidence of grazing on some of the higher meadows and signs of cattle use in other forested areas within the pRNA. Continuance of existing grazing permits could conflict with maintaining the natural values of the montane meadows.



Figure 86—Home Camp Creek, open, mixed stand of Jeffrey pine, white fir and red fir on ridge which forms western boundary of Home Camp Creek RNA. (1990)