

1 **A.36 AMERICAN PEREGRINE FALCON** (*Falco*  
2 *peregrinus anatum*)

Species photo (to come)

3 **A.36.1 Legal and Other Status**

4 The American peregrine falcon (*Falco peregrinus anatum*) is  
5 listed as an endangered species under the California  
6 Endangered Species Act. The species was listed by the  
7 California Fish and Game Commission in 1971. To date, it  
8 remains a state-listed endangered species. The peregrine  
9 falcon is also designated as a state Fully Protected species.

10 The peregrine falcon was initially listed under the precursor  
11 to the federal Endangered Species Act in 1970 (35 FR 16047). Due to its recovery, the species  
12 was federally delisted by the U.S. Fish and Wildlife Service on August 25, 1999 (64 FR 46541). A  
13 post-delisting monitoring plan was implemented in 2003 (68 FR 67697), which requires  
14 monitoring every 3 years between 2003 and 2015 (USFWS 2003a).

15 **A.36.2 Species Distribution and Status**

16 ***Range and Status***

17 The peregrine falcon has the most extensive natural distribution of any bird in the world,  
18 limited primarily by high elevations and extreme temperatures. It is found on all continents  
19 except Antarctica. There are three  
20 subspecies nesting in North America:

21 The Arctic peregrine falcon (*F. p.*  
22 *tundrius*) nests on the north slope of  
23 Alaska east across northern Canada to  
24 Greenland, and winters in Latin America.  
25 The Peale's peregrine falcon (*F. p. pealei*)  
26 is a year-round resident on the coasts of  
27 Washington, British Columbia, and  
28 Alaska north to the Aleutian Islands. The  
29 American peregrine falcon nests in  
30 southern Alaska, Canada, the United  
31 States and northern Mexico (White et al.  
32 2002, USFWS 1999) and is the only  
33 subspecies that breeds in California  
34 (Wheeler 2003).

Species Range in California

35 The American peregrine falcon occurs  
36 throughout much of North America, from  
37 the subarctic boreal forests of Alaska and  
38 Canada south to Mexico. It nests from  
39 central Alaska, central Yukon Territory,

1 and northern Alberta and Saskatchewan, east to the Maritime Provinces, and south (excluding  
2 coastal areas north of the Columbia River in Washington and British Columbia) throughout western  
3 Canada and the United States to Baja California, Sonora, and the highlands of central Mexico  
4 (USFWS 1999). While distributed widely, it nests in low densities with an estimated historical  
5 population of approximately 4,000 breeding pairs (White et al. 2002, USFWS 1999).

6 The species declined precipitously in North America following World War II, a decline  
7 attributed largely to organochlorine pesticides, mainly DDT, applied in the United States,  
8 Canada, and Mexico. During the 1940s, 1950s, and 1960s, eggshell thinning and nesting failures  
9 (a result of ingesting prey contaminated with DDE, a metabolite of DDT, which prevents  
10 normal calcium deposition during eggshell formation) were widespread in Peregrine falcons,  
11 and in some areas, successful reproduction virtually ceased. As a result, there was a slow but  
12 drastic decline in the number of peregrine falcons in most areas of its range in North America.  
13 By 1975, there was no reported breeding in the eastern population and only 324 known nesting  
14 pairs in the west (Wheeler 2003, White et al. 2002, USFWS 1999).

15 As a result of this decline, the species was listed as endangered on June 2, 1970, under the precursor  
16 of the Endangered Species Act (35 FR 16047). Following restrictions on organochlorine pesticides in  
17 the United States and Canada, and implementation of various management actions, including the  
18 release of approximately 6,000 captive-reared falcons, recovery goals were substantially exceeded in  
19 some areas, resulting in the federal delisting of the species in 1999 (64 FR 46541).

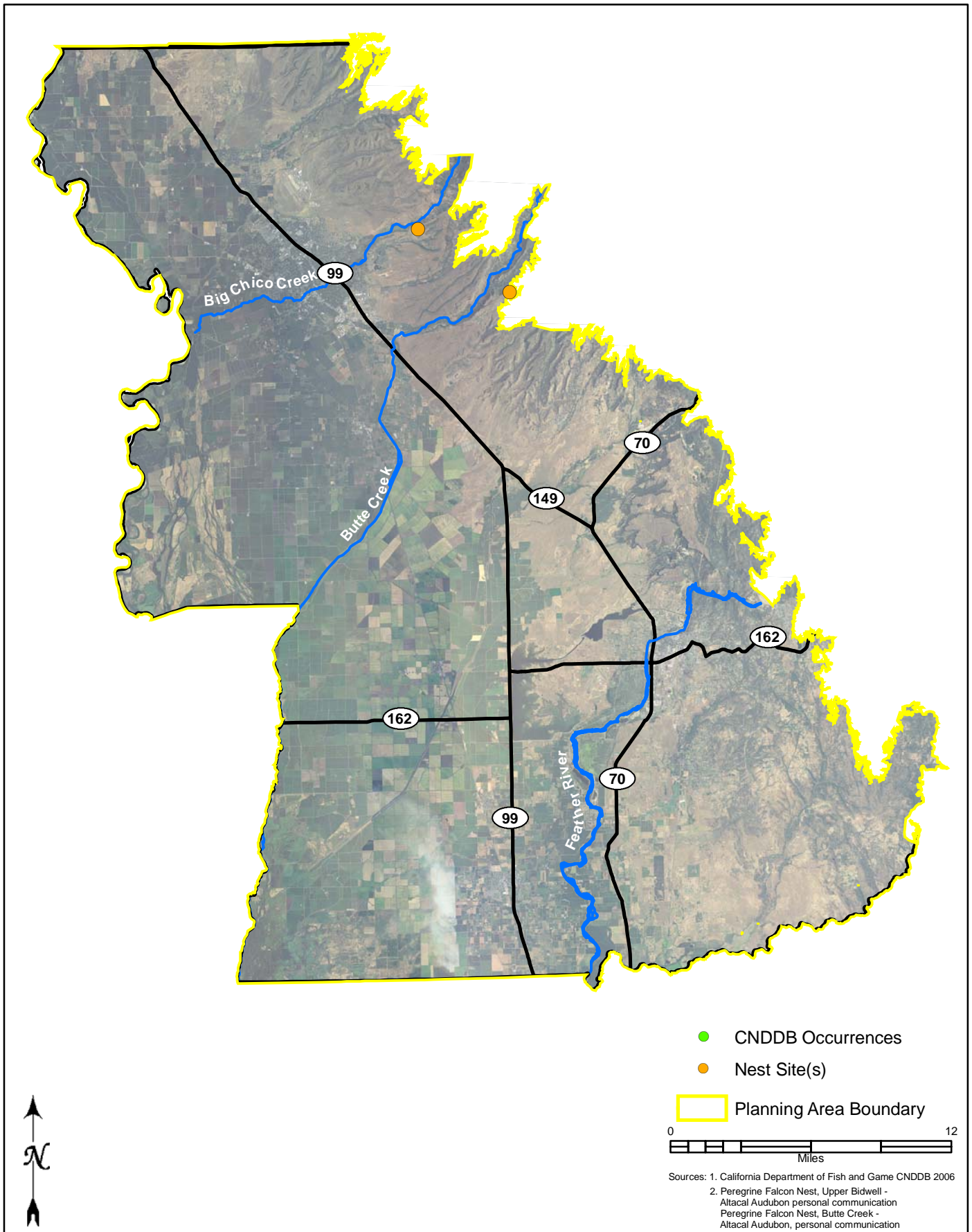
20 Post-delisting monitoring results continue to indicate recovery of the species. Estimates of territory  
21 occupancy, nest success, and productivity were above the target values that were set in the post-  
22 delisting monitoring plan for those nesting parameters (USFWS 2003a). Data collected during 2003  
23 indicate that there were 3,005 nesting pairs of American peregrine falcons in the United States,  
24 Canada, and Mexico in 2003, compared to approximately 1,750 pairs at the time of delisting.

25 Prior to the 1940s, approximately 200 breeding pairs were thought to occur in California;  
26 however, only limited accurate information was available. By the mid-1970s, only two pairs  
27 were known to breed in the state. Since the implementation of recovery efforts, 271 active  
28 breeding sites have been documented. Surveys conducted in 2006 by the Santa Cruz Predatory  
29 Research Group revealed that of the 236 sites visited, 167 had at least one adult present and 154  
30 were confirmed to have an active pair present ([www2.ucsc.edu/scpbrg/pefacensus.htm](http://www2.ucsc.edu/scpbrg/pefacensus.htm)).

### 31 *Distribution and Status in the Planning Area*

32 While there are no reports of peregrine falcon in Butte County in the California Natural  
33 Diversity Database (CNDDDB 2007; see Figure A.36), peregrine falcons are known to occur, and  
34 possibly breed, along the eastern edge or just east of the eastern planning area boundary. A  
35 relatively substantial amount of peregrine falcon activity has been reported by state agencies  
36 and local experts from within the planning area. Altacal Audubon Society reports a breeding  
37 pair in upper Butte Creek Canyon, as well as recent activity in the Upper Bidwell Park area and  
38 on a suspension bridge across Lake Oroville. The California Department of Fish and Game  
39 (CDFG) also reports a nest site along the southern bluffs of Upper Bidwell Park. CDFG also  
40 reports activity along the western bluffs of CDFG's Table Mountain Ecological Reserve. The  
41 California Department of Water Resources (DWR) reports nest sites on three of the four bridges

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**Figure A.36. American Peregrine Falcon: CNDDDB and Other Recorded Occurrences**

1 over Lake Oroville. These and other reports of peregrine falcon activity will be refined and  
2 updated through additional contact with local biologists.

### 3 **A.36.3 Habitat Requirements and Special Considerations**

#### 4 *Nesting*

5 Nesting habitat is variable throughout the species' range. Throughout the species range,  
6 including California, most traditional sites are associated with cliffs and generally open  
7 landscapes for foraging. Often associated with water, nests are often situated along rivers, lakes,  
8 or coastal shorelines. Cliff sites range from 26 to 1,312 feet (8 to 400 m) high with most between  
9 164 to 656 feet (50 to 200 m) (Bond 1946). A variety of nontypical sites in artificial habitats have  
10 been reported, particularly for reintroduced pairs since the 1970s, including towers, buildings,  
11 and bridges, sometimes in urban environments (Bell et al. 1996, Cade et al. 1996). Trees and  
12 abandoned nests of other raptors are also occasionally used. Nest sites have been reported to  
13 occur at more than 9,842 feet (3,000 m), but most are below 3,936 (1,200 m) (Wheeler 2003, White  
14 et al. 2002).

15 The placement and orientation of nests is variable depending on climactic and habitat features.  
16 Most cliff sites are nearly vertical and provide protection from mammalian predators. Cliff sites  
17 that offer updrafts are generally preferred, likely due to accessibility to and from the site.  
18 Thermoregulation may also be a key factor related to maximizing solar radiation while  
19 providing cover during extreme temperatures (Wheeler et al. 2003, White et al. 2002).

20 Cliff nests are typically on ledges and in small shallow caves. Eggs are laid in "scrapes," which  
21 are shallow indentations the adults scratch out with their talons in the soft earth on the floor of  
22 their nest site (USFWS 1999).

#### 23 *Foraging*

24 Nest sites are usually selected based on available foraging opportunities. Foraging habitat  
25 consists of open water (e.g., lakes, reservoirs, estuaries, rivers, and oceans), marshes, mudflats,  
26 and tidal zones where shorebirds and other water birds congregate, or pasturelands with potholes  
27 or vernal pools that provide habitat for waterfowl and other water birds. Urban nesting falcons  
28 may forage within the urban environment on rock doves or other urbanized species.

### 29 **A.36.4 Life History**

#### 30 *Seasonal Patterns*

31 American peregrine falcons that nest in subarctic areas generally winter in South America and  
32 may migrate through California during the fall and spring months. Those that nest at lower  
33 latitudes, including California, exhibit variable migratory behavior; some do not migrate. In  
34 northern California, some breeding pairs remain at or in the vicinity of the nest year-round,  
35 while others migrate locally to more favorable winter foraging habitats (Wheeler 2003, White et  
36 al. 2002).

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## 1 *Reproduction*

2 Peregrine falcons exhibit a high degree of mate and site fidelity. In northern California,  
3 courtship generally begins in February/March and eggs are typically laid in late April to early  
4 May. From three to five eggs are laid and incubated by the female and male for 33 to 37 days.  
5 Hatching occurs from late May to early June and fledging occurs 35 to 42 days after hatching.  
6 Fledglings usually remain dependent on the adults for an additional 6 to 15 weeks, at which  
7 time they become independent (White et al. 2002, Wheeler 2003).

## 8 *Foraging Behavior and Diet*

9 American peregrine falcon forages almost exclusively on birds. Hunting either aerially or from a  
10 perch, avian prey are mainly captured in flight, often using a long-distance high-speed pursuit  
11 with angled or vertical dives. The diet consists of birds ranging from small passerines to  
12 medium-sized waterfowl. In addition to shorebirds, grebes, ducks, and other water bird species,  
13 rock doves, starlings, other songbirds, bats, and occasionally other small mammals are taken  
14 (Wheeler 2003). The peregrine falcon is also known to take insects. In many areas, Columbiforms  
15 comprise the largest component of their diet (Sherrod 1978).

## 16 *Foraging Ranges*

17 Foraging range is largely a function of prey availability and is thus highly variable. CDFG  
18 (1989) reports that peregrine falcons in California have been reported to travel more than 12  
19 miles (19.3 km) from the nest to hunt. Enderson and Kirven (1983) reported an average  
20 foraging distance of 3 miles (5 km) in the northern California study area. Zeiner (1990) reports  
21 home range sizes in California averaging 125 square miles (324 sq km), which is generally  
22 consistent with Enderson and Craig (1997) who reported a range of 138 to 408 square miles (358  
23 to 1,058 km) in Colorado.

## 24 **A.36.5 Threats**

25 While the effects of organochlorides persist to some extent and may continue to pose reproductive  
26 problems, the risk is significantly reduced since the banning of DDT.

27 Other potential threats to nesting peregrine falcons include urbanization resulting in the loss of  
28 foraging habitats and disturbance to nest sites; illegal shooting, egg collecting, and falconry  
29 activities; and collision with vehicles, utility lines, and other structures.

30 While the extent of peregrine falcon activity reported from the planning area has certainly increased  
31 since the beginning of recovery efforts, development activities and land use changes could  
32 potentially pose a threat to this local population. Urbanization of bluffs and ridges could alter  
33 available habitat or increase levels of human disturbance. Loss of wetland habitats within the  
34 planning area and the resulting reduction of available waterbird prey could affect foraging  
35 opportunities for peregrine falcon.

## 36 **A.36.6 Relevant Conservation Efforts**

37 [[ To be prepared as additional information is gathered during the Butte Regional HCP/NCCP  
38 development process.]]

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