

Table 5-8. BRCP Covered Species Modeled Habitat Protection Targets (acres unless otherwise noted in the first column)

Covered Species Habitat Type	Total Existing in Plan Area	CAZ Habitat Protection Targets						Total Protection Target	Percent Protected by Target	Rationale for Distribution Among the CAZs
		Sierra Foothills	Cascade Foothills	Northern Orchards	Southern Orchards	Basin	Sacramento River			
<b>Tricolored Blackbird</b>										
Breeding and Foraging Habitat <sup>1</sup>	268,666	7,761	11,265	2,845	3,430	23,110	0	48,411	18.0%	Tricolored blackbird habitat occurs mainly in the Basin, Sacramento River, Cascade Foothills, and Sierra Foothills CAZs, and to a lesser extent in the Northern Orchards and Southern Orchards CAZs due to the predominance of unsuitable orchard-dominated agriculture. While the Basin CAZ supports the largest extent of agricultural foraging habitat, the rice-dominated agriculture provides less value during the spring and summer months when the rice fields are flooded than do the seasonal wetland, pasture, and grassland habitats that are found primarily in the Sacramento River, Cascades, and Sierra CAZs. This may also explain, in part, why there are no reported occurrences of breeding colonies within the Basin CAZ. However, the southern end of the Basin CAZ supports primarily wetland habitats, much of which may be available as both breeding and foraging habitat for tricolored blackbirds. Thus, tricolored blackbird conservation emphasizes the protection of modeled habitat in the Cascade and Sierra Foothills CAZs and the Basin CAZ, where the majority of currently unprotected habitat that historically supported breeding colonies is located.
Nesting Colonies (number)	7	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	3	Not applicable	
<b>Yellow-breasted Chat</b>										
Nesting and Foraging Habitat	6,972	1,185	1,450	200	0	0	0	2,835	40.7%	All known occupied yellow-breasted chat habitat and all potentially occupied chat habitat occurs along foothill streams along the eastern edge of the Plan Area, and in a few cases extends westward onto the valley floor in the vicinity of Chico. Thus, conservation for this species will focus on the Cascade and Sierra CAZs and to a lesser extent (due to the relatively small number of acres) in the Northern Orchard CAZ. A higher level of conservation is proposed for known occupied drainages in the Cascade CAZ.
Nesting and Foraging Habitat (Known Use Area)	302	0	185	0	0	0	0	185	61.2%	
<i>Subtotal</i>	7,275	1,185	1,635	200	0	0	0	3,020	41.5%	
<b>Bank Swallow</b>										
Nesting Habitat (linear miles of channel bank)	169	0-20	0-20	0-20	0	0	0	20	11.8%	Suitable habitat for bank swallows in the Plan Area is defined as banks along unveeved and unchanneled portions of the Sacramento and Feather Rivers and Big Chico and Butte Creeks and set-back levees associated with broad basins. Known occurrences are restricted to sites along the Sacramento and Feather Rivers. No conservation is proposed for the Sacramento River and Feather River because these rivers and channel banks are under the jurisdiction of State and Federal agencies. Thus, habitat protection is focused on Big Chico and Butte Creeks in the Sierra Foothills, Cascade Foothills, and Northern Orchards CAZs where these creeks are located.
Number of Known Nesting Colonies	27	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	All that are unprotected <sup>2</sup>	Not applicable	
<b>Western Burrowing Owl</b>										
Nesting and Foraging Habitat	165,511	13,705	18,903	1,950	1,380	250	200	36,388	22.0%	Known burrowing owl nesting and winter sites occur primarily in the eastern foothill grassland habitats in the Plan Area and to a lesser extent in agricultural habitats and other managed habitats with the exception of the Llano Seco area. Suitable nesting and foraging habitat is primarily grassland habitats; however, non-rice and non-orchard agricultural lands and edges of managed seasonal wetlands may also provide some value depending on site conditions (e.g., inundation potential, soil conditions, prey availability, etc.). Thus, conservation of burrowing owl habitat emphasizes the Cascade and Sierra CAZs due to the extent of open grassland habitats in those areas, and to a lesser extent all other CAZs that support less optimal and patchier habitat.
<b>Western Yellow-billed Cuckoo</b>										
Nesting Habitat	5,620	0	0	635	475	0	675	1,785	31.8%	Yellow-billed cuckoo habitat is associated with willow-cottonwood riparian forest. Known occurrences of this species in the Plan Area are associated primarily with the Sacramento River. Other potential habitat occurs along the Feather River and several smaller tributaries to the Sacramento River. Due to the rarity of the species, its need for large patches (>25 acres) of riparian forest, and the limited extent of suitable riparian forests, all potentially occupied habitats are considered important to sustain this species. Thus, conservation is focused on retaining high percentages of suitable riparian habitat in the Northern Orchards, Southern Orchards, and Sacramento River CAZs.
Nest Sites (number)	0	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	All that are unprotected <sup>3</sup>	Not applicable	
<b>Greater Sandhill Crane</b>										
Winter Roosting and Foraging Habitat	147,880	0	0	0	0	21,660	0	21,660	14.6%	Greater sandhill crane habitat exists predominantly within two CAZs: Basin CAZ and the Sacramento River CAZ. These contiguous areas include 90.1 percent of the rice lands (108,291.8 acres) and 87.3 percent of the managed and emergent wetland habitats (30,180.4 acres) in the Plan Area. These two CAZs also incorporate over 90 percent of the lands described by Pogsdon and Lindstadt (1991) as crane winter area. Since more than 90 percent of modeled crane habitat in the Sacramento River CAZ is already protected, conservation goals focus on the Basin CAZ. While there are relatively small amounts of habitat in the Northern Orchards, Cascade, Sierra, and Southern Orchard CAZs, conservation targets are not established for these areas.
Traditional Upland Use Area	2,814	0	0	0	0	500	0	500	17.8%	
<i>Subtotal</i>	150,694	0	0	0	0	22,160	0	22,160	14.7%	
<b>California Black Rail<sup>4</sup></b>										
	Not applicable	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	5 patches of occupied habitat	Not applicable	This species habitat is not modeled, but it is known to occupy small patches of wetland in the foothills of the Plan Area. Because this species potentially occur in any of the CAZs, no CAZ specific targets are established.
<b>American Peregrine Falcon</b>										
Nesting Habitat	64	10	25	0	0	0	0	35	55.0%	The only available nesting habitat for peregrine falcons within the Plan Area occurs on cliffs along the eastern edge of the Plan Area. There are two known nest sites within the Plan Area, one on the edge of the Plan Area, and two additional sites just east of the Plan Area. Thus, conservation of peregrine falcon nesting habitat is restricted to the Cascade and Sierra CAZs. Peregrine falcons are present year-round and forage mainly in wetlands, vernal pool grasslands, and ricelands that attract seasonal waterfowl and shorebird use. Conservation of foraging habitats emphasizes habitats that are nearest breeding areas, including the grasslands and vernal pool habitats within the Cascade and Sierra CAZs, and secondarily the agricultural and wetland habitats within the Basin, Sacramento River, and Northern and Southern Orchard CAZs that are likely used primarily during the non-breeding season.
Foraging Habitat (seasonal and year-round)	194,860	3,330	11,485	1,437	960	11,945	0	29,157	15.0%	
<i>Subtotal</i>	194,924	3,340	11,510	1,437	960	11,945	0	29,192	15.0%	
Nest Sites (number)	3	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	All that are unprotected <sup>3</sup>	Not applicable	
<b>Swainson's Hawk</b>										
Nesting Habitat	17,358	350	620	1,495	590	635	635	4,325	24.9%	The known and predicted distribution of nesting Swainson's hawks in the Plan Area indicates that most nests will occur in the western and central portions of the Plan Area. Of the 13 reported nest sites, six are along the Sacramento River, two along the Feather River, two along Butte Creek, and the remaining three are along smaller drainages. All are west of State Route 70/99. This is generally consistent with the predicted nesting distribution of the species in Butte County based on habitat associations and species preferences. Fewer are expected to occur in the open grassland and vernal pool grassland landscape east of State Route 70/99, which is consistent with known use patterns in grassland landscapes and the distribution of the species throughout the Central Valley. Significantly higher nesting densities occur in areas of irrigated cropland, particularly in association with riparian and other woodland nesting habitats. The preservation targets for Swainson's hawk habitat reflect these differences in predicted use patterns in the Plan Area. Planning units that occur in the western or central portions of the Plan Area (e.g., Northern and Southern Orchards, Basin, and Sacramento River CAZs) have higher nesting habitat preservation targets than do planning units in areas that are known and are predicted to support fewer nesting and foraging Swainson's hawks, but planning units with a relatively greater amount of foraging habitat (e.g., Cascade Foothills and Sierra Foothills) have greater foraging habitat targets since hawks are still expected to forage in these areas under their current and potentially expanded distribution due to BRCP conservation activities. Thus, while the combined total reflects the overall preservation target, the targets at the planning unit level are designed to ensure preservation occurs according to predicted relative use patterns. This ensures preservation of the highest value areas while spreading conservation across the Plan Area.
Nesting and Foraging Habitat	2,565	340	460	0	0	0	0	800	31.2%	
Foraging Habitat	130,239	3,475	9,540	3,705	430	730	0	17,880	13.7%	
<i>Subtotal</i>	150,163	4,165	10,620	5,200	1,020	1,365	635	23,005	15.3%	

Table 5-8. BRCP Covered Species Modeled Habitat Protection Targets (acres unless otherwise noted in the first column) (Continued)

<b>White-tailed Kite</b>										White-tailed kite habitat occurs mainly in the Basin, Cascades, and Sierra CAZs and to a lesser extent in the Northern Orchards and Southern Orchard CAZ due to the predominance of unsuitable orchard-dominated agriculture. The rice-dominated agriculture in the Basin CAZ is likely used primarily during the winter non-breeding season; however, the seasonal wetland habitats in the southern portion of the Basin CAZ are available year-round. Seasonal wetland and agricultural habitats also dominate the Sacramento River CAZ. Nesting habitat in these areas, as well as the Southern Orchard CAZ (Feather River) consists primarily of riparian woodland. Grassland foraging habitat and oak woodland nesting habitat form the primary white-tailed kite habitats in the Cascade and Sierra CAZs. Conservation targets for nesting habitat are proportionately higher on the valley floor (Basin, Sacramento River, and Northern and Southern Orchards CAZs) due to limited extent and importance of riparian nesting habitat for this species. Nesting habitat conservation targets are greater in the Sierra and Cascade CAZs due to the extent of available oak woodland nesting habitat in these areas. Breeding season foraging habitat is linked to the distribution of available nesting habitat and thus is key to sustaining nesting populations. Conservation targets are numerically lower but proportionally higher within each CAZ in valley floor CAZs (Basin, Sacramento River, and Northern and Southern Orchard CAZs) to reflect the importance of nesting/foraging habitats associated with riparian systems, and numerically higher but proportionally lower in the foothill CAZs (Sierra and Cascade) to reflect the greater abundance of available habitat in those areas. Year-round foraging habitat includes all other suitable foraging habitat that is not linked with available nesting habitat. These areas provide foraging value for both nesting and wintering kites. Conservation targets for this type reflect the relative abundance in each CAZ.
Nesting Habitat	32,571	1,590	2,225	560	415	335	600	5,725	17.6%	
Year-round Foraging Habitat	177,224	3,935	6,335	1,670	3,010	9,930	0	24,880	14.0%	
Breeding Season Foraging Habitat	94,526	6,711	7,435	1,420	480	9,590	0	25,636	27.1%	
<i>Subtotal</i>	<i>304,321</i>	<i>12,236</i>	<i>15,995</i>	<i>3,650</i>	<i>3,905</i>	<i>19,855</i>	<i>600</i>	<i>56,241</i>	<i>18.5%</i>	
<b>Bald Eagle</b>										Current bald eagle nesting distribution is restricted to the Feather River and Lake Oroville, as well as along Big Chico Creek in the eastern portion of the Plan Area. Other suitable nesting habitat occurs along the Sacramento River and foothill drainages. It is assumed that most breeding season foraging occurs in relatively close proximity to nesting habitats along the Feather River, Lake Oroville, and the forebay and afterbay. There also may be some use of flooded rice fields that are near nesting habitats. Potential breeding pairs along the Sacramento River would likely use the Sacramento River as primary foraging habitat. During winter, seasonal wetland and flooded rice habitats that support waterfowl are assumed to increase in use. Due to their current use and potential for future use, targets for nesting habitat protection emphasize the Big Chico and Butte Creek, Feather River, and Sacramento River areas within the Sierra and Cascade Foothills and the Sacramento River CAZs. Nesting habitat targets are also relatively high in the Sierra Foothills CAZ due to proximity to Lake Oroville and the afterbay/forebay foraging habitats. Nesting habitat targets are relatively high in the Cascade Foothills CAZ and seasonal foraging habitat targets are high in the Basin CAZ due to an abundance of potential habitat in these areas. Year-round foraging habitat is defined as open water lakes, reservoirs, and large rivers and creeks that are not subject to change from existing conditions. Thus, it is anticipated that 100 percent of this habitat type will be retained in all CAZs. Seasonal foraging habitat is defined as wetlands, vernal pools, and ricelands that are available only when these habitats are inundated. Total acreages reflect the habitat acres mapped, not acres that are actually suitable for bald eagle foraging in any given year. Conserved acres represent the number of acres of annually suitable habitat (inundated and with potential to support wintering waterfowl) assumed to be sufficient to support the existing and potentially expanding bald eagle population.
Nesting Habitat	23,827	1,700	1,070	200	630	160	675	4,435	18.6%	
Year-round Foraging Habitat	7,411	0	0	0	0	0	0	0	0.0%	
Seasonal Foraging Habitat <sup>d</sup>	182,018	815	3,935	530	915	15,000	0	21,195	11.6%	
<i>Subtotal</i>	<i>213,256</i>	<i>2,515</i>	<i>5,005</i>	<i>730</i>	<i>1,545</i>	<i>15,160</i>	<i>675</i>	<i>25,630</i>	<i>12.0%</i>	
Nest Sites (number)	Not applicable	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	All that are unprotected <sup>5</sup>	Not applicable	
Roost sites (number)	Not applicable	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Up to 4	Not applicable	
<b>Giant Garter Snake</b>										Giant garter snake occurrences in the Plan Area are closely associated with the riceland and wetland communities of the Butte Basin. GGS occur in stream and channel habitats, wetlands, and rice fields, and use upland grassland, agricultural land, and stream and levee banks as aestivation habitat. Giant garter snake habitat exists predominantly within two CAZs: Sacramento River and Basin. These contiguous areas include 90.1 percent of the rice lands (108,291.8 acres) and 87.3 percent of the managed and emergent wetland habitats (30,180.4 acres) in the Plan Area. In addition, all but one of the reported GGS sightings in CNDDDB occurs within these CAZs. Eric Hansen (pers. comm.) notes that few if any records occur east of Highway 99 in Butte County and that no definitive records occur east of Highway 70. Thus, conservation of GGS habitat emphasizes the Basin, Sacramento River, and Northern Orchard CAZs. While some suitable GGS habitat exists in the Southern Orchard, Cascade, and Sierra CAZs, these areas support a relatively small percentage of available habitat, have no documented occurrences, and are separated from the primary Butte Basin population by Highway 99/70. These areas are therefore excluded from the conservation strategy.
Breeding and Movement Habitat: Rice <sup>e</sup>	120,225	0	0	1,317	0	21,660	205	23,182	19.3%	
Breeding and Movement Habitat: Emergent Wetlands, Willow Scrub	32,883	0	0	185	0	400	0	585	1.8%	
Breeding and Movement Habitat: Adjoining Cropland <sup>d</sup>	14,008	0	0	796	2,534	250	200	3,780	27.0%	
<i>Subtotal (acreage)</i>	<i>167,116</i>	<i>0</i>	<i>0</i>	<i>2,298</i>	<i>2,534</i>	<i>22,310</i>	<i>405</i>	<i>27,547</i>	<i>16.5%</i>	
<b>Blainville's horned lizard<sup>d</sup></b>	Not applicable	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Up to 5 patches of occupied habitat	Not applicable	
<b>Western Pond Turtle</b>										Western pond turtles are distributed throughout most of the Plan Area, but are largely restricted to aquatic habitats (e.g., wetlands, ponds, and stream/channels) and adjacent upland habitats that are used for nesting. There are few reported occurrences in the Plan Area, but it is likely that this species is widely underreported. Reported occurrences include three of the small foothill streams west of State Route 99 and the wetland habitats of the Butte Basin. The species may occur along streams and constructed water conveyance corridors (e.g., Cherokee Canal), ponds, and other wetland areas (e.g., Llano Seco) in the Plan Area. However, because adjacent upland habitat (e.g., steep banks, terraces, grassland) is required for nesting, many agricultural landscapes, including rice- and orchard-dominated lands may not provide sufficient habitat to support this species. Western pond turtle habitat occurs mainly along streams and in wetlands within the Cascade, Sierra, and Sacramento River CAZs, and the southwestern corner of the Basin CAZ and thus conservation emphasizes these areas. While the Northern Orchard and Southern Orchard CAZs and the rice-dominated portion of the Basin CAZ support suitable aquatic habitats, they generally lack adjacent uplands. However, there are other exceptions including Butte Creek, Feather River, Cherokee Canal, and other larger watercourses that support steep banks or grassy terraces or a broader basin that may provide potential nesting habitat for western pond turtles. Aquatic habitat is defined as perennial streams and ponds. Aquatic, Nesting, and Movement Habitat is defined as wetland habitats that provide all necessary life requisites, and Upland Nesting and Movement Habitat is defined as grassland or agricultural edges of suitable aquatic habitat that is used for nesting and dispersal.
Aquatic Habitat: Emergent Wetland	4,440	495	0	100	0	100	0	695	15.7%	
Nesting and Movement Habitat	55,215	3,820	4,100	1,295	155	900	0	10,270	18.6%	
Aquatic, Nesting and Movement Habitat	25,486	0	0	0	0	0	0	0	0.0%	
<i>Subtotal (acreage)</i>	<i>59,656</i>	<i>4,315</i>	<i>4,100</i>	<i>1,395</i>	<i>155</i>	<i>1,000</i>	<i>0</i>	<i>10,965</i>	<i>18.4%</i>	
Aquatic Habitat-pond (number of ponds)	204.0	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	43	21.1%	
Aquatic Habitat-perennial streams (linear miles)	110.9	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	Not applicable <sup>l</sup>	20	18.0%	
<b>Foothill Yellow-legged Frog</b>										Foothill yellow-legged frog distribution is defined as perennial and intermittent streams above 300 feet mean sea level. Thus, potential habitat is restricted to the Cascade and Sierra CAZs. There is only one reported occurrence of this species in the Plan Area, with several others east of the Plan Area. Perennial habitats were considered to have a higher likelihood of occupancy and provide more optimal habitat conditions compared with intermittent streams. There is also substantially fewer perennial streams than potentially occupied intermittent streams within the Plan Area. Thus, conservation within the Cascade and Sierra CAZs emphasized perennial streams by recommending a larger proportion of conserved habitat relative
Habitat - within 130ft of Perennial Streams	2,113	245	580	0	0	0	0	825	39.1%	
Habitat - within 130ft of Intermittent Streams	8,918	1,200	0	0	0	0	0	1,200	13.5%	

50,516

Table 5-8. BRCP Covered Species Modeled Habitat Protection Targets (acres unless otherwise noted in the first column) (Continued)

<i>Subtotal (acreage)</i>	11,031	1,445	580	0	0	0	0	2,025	18.4%	intermittent streams.
<b>Western Spadefoot Toad</b>										
Breeding Habitat: Non-pond	2,211	225	0	0	0	0	0	225	10.2%	Western spadefoot toad is associated with grassland habitats that include aquatic breeding habitat such as vernal pools, ponds, and pools within intermittent streams. Occurrences of this species in the Plan Area are only from the grassland habitats in the Cascade and Sierra CAZs. Because it is impractical to identify each vernal pool as a potential breeding site, vernal pools were split from other breeding habitats and instead vernal pool grasslands were identified as breeding/upland habitat for this species. The breeding habitat category is mainly intermittent streams and the upland category is grassland habitats associated with the intermittent stream breeding habitat. Vernal pool grasslands are considered the optimal habitat for this species and proposed conservation is proportionately higher for this habitat category. Conservation is restricted to the Cascade, Sierra, and the vernal pool grassland portion of the Northern Orchard CAZ, with emphasis on the Cascade CAZ where the highest value vernal pool grasslands and the majority of the known occurrences of this species exist in the Plan Area.
Breeding and Upland Habitat	34,241	4,820	14,960	990	0	0	0	20,770	60.7%	
Upland Habitat	71,512	4,830	3,900	950	0	0	0	9,680	13.5%	
<i>Subtotal</i>	107,963	9,875	18,860	1,940	0	0	0	30,675	28.4%	
Breeding Habitat-pond (number of ponds)	195	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	31	15.9%	
Breeding Habitat-perennial/intermittent streams (linear miles)	380	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	32	8.4%	
<b>Central Valley Steelhead</b>										
Adult migration; juvenile rearing and migration habitat (linear miles) and adult spawning and migration; juvenile rearing and migration habitat	190.4	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	10.5%	Central Valley steelhead inhabit creeks within Butte County for four primary uses: adult migration, juvenile migration, spawning, and juvenile rearing (NMFS 2005). Because these uses overlap to some extent in many creeks, three categories of habitat types have been established (see Figure A.17 in Appendix A.17). Based on the habitat use by steelhead in each creek and the proportion of each habitat type in Butte County creeks that is currently not protected, these habitat acquisition targets have been established. Additional weighting was given to spawning habitat in the development of these acquisition targets.
Non-natal juvenile rearing habitat (linear miles)	6.7	0	0	0	0	0	0	0	0.0%	
<i>Subtotal</i>	197.1	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	10.1%	
<b>Central Valley Spring-run Chinook Salmon</b>										
Adult migration; juvenile rearing and migration habitat (linear miles) and adult spawning and migration; juvenile rearing and migration habitat	117.9	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	17.0%	Central Valley spring-run Chinook salmon inhabit creeks within Butte County for five primary uses: adult migration, juvenile migration, adult holding, spawning, and juvenile rearing (NMFS 2005). Because these uses overlap to some extent in many creeks, three categories of habitat types have been established (see Figure A.18 in Appendix A.18). Based on the habitat use by spring-run in each creek and the proportion of each habitat type in Butte County creeks that is currently not protected, these habitat acquisition targets have been established. Additional weighting was given to spawning habitat in the development of these acquisition targets.
Non-natal juvenile rearing habitat (linear miles)	33.0	0	0	0	0	0	0	0	0.0%	
<i>Subtotal</i>	151.0	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	13.2%	
<b>Central Valley Fall/Late Fall-run Chinook Salmon</b>										
Adult migration; juvenile rearing and migration habitat (linear miles) and adult spawning and migration; juvenile rearing and migration habitat	146.4	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	13.7%	Central Valley fall/late fall-run Chinook salmon inhabit creeks within Butte County for four primary uses: adult migration, juvenile migration, spawning, and juvenile rearing (NMFS 1999). Because these uses overlap to some extent in many creeks, three categories of habitat types have been established (see Figure A.18 in Appendix A.18). Based on the habitat use by spring-run in each creek and the proportion of each habitat type in Butte County creeks that is currently not protected, these habitat acquisition targets have been established. Additional weighting was given to spawning habitat in the development of these acquisition targets.
Non-natal juvenile rearing habitat (linear miles)	5.4	0	0	0	0	0	0	0	0.0%	
<i>Subtotal</i>	151.8	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	20	13.2%	
<b>Green Sturgeon</b>										
Adult migration and spawning; juvenile migration and rearing habitat (linear miles)	9.1	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable
Adult migration; juvenile migration and rearing habitat (linear miles)	20.1	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	
Adult migration and potential spawning habitat (linear miles)	22.0	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	
<i>Subtotal</i>	51.2	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	Not applicable <sup>7</sup>	
<b>Valley Elderberry Longhorn Beetle</b>										
Habitat	42,951	2,600	3,332	1,270	445	635	0	8,282	19.3%	Elderberry is common in Butte County, particularly along the Sacramento River and tributaries, as well as other natural and man-made drainages. The USFWS has stated an intent to delist the species, indicating stabilization of populations. Occurrence is associated with presence of elderberry shrubs, the majority of which are found along riparian corridors distributed throughout the Plan Area. Accordingly, conservation of valley elderberry habitat is distributed proportionately among the CAZs.
<b>Vernal Pool Tadpole Shrimp</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for vernal pool tadpole shrimp is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and the Vernal Pool Species Recovery Plan Recovery Core Areas for this species are located.
<b>Conservancy Fairy Shrimp<sup>4</sup></b>										
Habitat	Not applicable	0	150 <sup>8</sup>	0	0	0	0	150 <sup>8</sup>	Not applicable	The conservation approach for Conservancy fairy shrimp is to protect its habitat in the Cascade Foothill CAZ in which the Vernal Pool Species Recovery Plan Recovery Core Area for this species is located. This is the only CAZ known to support occupied Conservancy fairy shrimp habitat, which occur near and immediately on its western edge. Protection of the three currently unprotected occurrences of Conservancy fairy shrimp and five new occurrences that may be located in the Plan Area over the term of the BRCP will achieve the Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Protection of new occurrences would be accomplished by focusing any of the applicable natural community protection

**Table 5-8. BRCP Covered Species Modeled Habitat Protection Targets (acres unless otherwise noted in the first column) (Continued)**

Occurrences	3	Not applicable <sup>9</sup>	3 or more <sup>10</sup>	Not applicable <sup>9</sup>	Not applicable <sup>9</sup>	Not applicable <sup>9</sup>	Not applicable <sup>9</sup>	Up to 8 <sup>9</sup>	Not applicable	requirements at the time a new occurrence is located to protecting the occurrence. While there is no habitat model for conservancy fairy shrimp, the species protection target will be achieved by protecting known occurrences of conservancy fairy shrimp and protecting pools of sufficient size to support the shrimp and/or previously unknown occurrences.
<b>Vernal Pool Fairy Shrimp</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for vernal pool fairy shrimp is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and the Vernal Pool Species Recovery Plan Recovery Core Areas for this species are located.
<b>Ferris' Milkvetch</b>										
Habitat	2,208	0	150	400	0	100	0	650	29.4%	The conservation approach for Ferris' milkvetch is to protect its habitat distributed among the CAZs that support the majority of its habitat with a focus on protecting habitat in the Northern Orchards CAZ. Up to 5 unprotected occurrences of the species within the Plan Area will also be protected, should they be found.
No. of Occurrences	8	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 5	Not applicable	
<b>Lesser Saltscale<sup>4</sup></b>										
No. of Occurrences	2	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 5	Not applicable	The two known occurrences of lesser saltscale in the Plan Area are currently under protected status. Consequently, the conservation approach for lesser saltscale is to protect up to five currently unknown unprotected occurrences within the Plan Area that may be located over the term of the BRCP.
<b>Hoover's Spurge</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for Hoover's spurge is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and its Vernal Pool Species Recovery Plan Recovery Core Areas are located. Protection of habitat in the Northern Orchards CAZ will include protecting the one remaining unprotected known occurrence of the species in the Plan Area.
No. of Occurrences	4	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 5	Not applicable	
<b>Ahart's Dwarf Rush</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for Ahart's dwarf rush is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and its Vernal Pool Species Recovery Plan Recovery Core Area is located. Protection of habitat in the Sierra Foothills CAZ will include protecting the 15 currently known unprotected occurrences of the species in the Plan Area.
No. of Occurrences	17	15 or more <sup>12</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 20	Not applicable	
<b>Red Bluff Dwarf Rush</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for Red Bluff dwarf rush is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported. Protection of habitat in the Sierra Foothills CAZ will include protecting 10 of the currently known unprotected occurrences of the species in the Plan Area.
No. of Occurrences	32	10	0	0	0	0	0	10	31.3%	
<b>Butte County Meadowfoam</b>										
See Tables 5-19 and 5-29										
The rationale is provided in the Butte County meadowfoam biological objectives in Section 5.3.4.										
<b>Veiny Monardella<sup>4</sup></b>										
No. of Occurrences	8	Not applicable <sup>3</sup>	8 or more <sup>14</sup>	Not applicable <sup>3</sup>	Not applicable <sup>3</sup>	Not applicable <sup>3</sup>	Not applicable <sup>3</sup>	Up to 16 <sup>14</sup>	Not applicable	A habitat model has not been developed for veiny monardella and, consequently, specified habitat protection targets are not established for this species. The protection of grassland natural communities and other physical features that support its habitat with application of the conservation land assembly principles, however, is expected to protect any currently unknown occupied and patches of potentially suitable habitat for this species. Protection of natural communities in the Cascade Foothills CAZ will include protecting the only known population comprised of eight occurrence in the Plan Area.
<b>Hairy Orcutt Grass</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for hairy Orcutt grass is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and its Vernal Pool Species Recovery Plan Recovery Core Areas are located. All known occurrences in the Plan Area are under protected status.
No. of Occurrences	1	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 8	Not applicable	
<b>Slender Orcutt Grass</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for slender Orcutt grass is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and its Vernal Pool Species Recovery Plan Recovery Core Areas are located. Protection of habitat in the Sierra Foothills CAZ will include protecting the only known occurrences of the species in the Plan Area.
No. of Occurrences	2	2 or more <sup>15</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 10	Not applicable	
<b>Ahart's Paronychia</b>										
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	The conservation approach for Ahart's paronychia is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported. Protection of habitat in the Sierra Foothills CAZ will include protecting at least three currently unprotected occurrence of the species.
No. of Occurrences	5	3 or more <sup>16</sup>	1 or more <sup>16</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 9	Not applicable	
<b>California Beaked-rush<sup>12</sup></b>										
No. of Occurrences	7	4 or more <sup>17</sup>	3 or more <sup>17</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 12	Not applicable	A habitat model has not been developed for California beaked-rush and, consequently, specified habitat protection targets are not established for this species. The protection of natural communities supporting seeps and other physical features that support its habitat with application of the conservation land assembly principles, however, is expected to protect occupied and patches of potentially suitable habitat for this species. Protection of natural communities in the Sierra and Cascade Foothills CAZs will include protecting the remaining 7 unprotected known occurrences of the species in the Plan Area.
<b>Butte County Checkerbloom</b>										
Habitat	36,823	0	3,000	0	0	0	0	3,000	8.1%	The conservation approach for Butte County checkerbloom is to protect oak and adjacent natural communities that support its habitat in the Cascade Foothills CAZ, the only CAZ in which its habitat occurs.
No. of Occurrences	127	0	65-85 <sup>18</sup>	0	0	0	0	0	at least 51.2%	
<b>Butte County Golden Clover</b>										
The conservation approach for Butte County golden clover is to protect oak savanna, grassland, grassland swale complex, vernal pool, and altered vernal pool land cover types that										

**Table 5-8. BRCP Covered Species Modeled Habitat Protection Targets (acres unless otherwise noted in the first column) (Continued)**

Habitat	14,998	1,500	2,000	0	0	200	0	3,700	24.7%	support its habitat in each of the CAZs in which the preponderance of its modeled habitat is located. Protection of habitat in the Sierra and Cascade Foothills CAZs will include protection at least one and two currently unprotected occurrences of the species, respectively.
No. of Occurrences	18	1 or more <sup>19</sup>	2 or more <sup>19</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Not applicable <sup>11</sup>	Up to 8	Not applicable	
<b>Greene's Tuctoria</b>										The conservation approach for Greene's tuctoria is to protect grassland swale complex, vernal pool, and altered vernal pool land cover types that support its habitat in each of the CAZs in which these land cover types are supported and its Vernal Pool Species Recovery Plan Recovery Core Areas are located. Protection of habitat in the Cascades Foothills and Basin CAZs will include protecting the two currently known unprotected occurrences of the species in the Plan Area.
Habitat	34,241	4,820	14,960	990	0	630	0	21,400	62.5%	
No. of Occurrences	5	Not applicable <sup>1</sup>	1 or more <sup>20</sup>	Not applicable <sup>1</sup>	Not applicable <sup>1</sup>	1 or more <sup>20</sup>	Not applicable <sup>1</sup>	Up to 7	Not applicable	

<sup>1</sup>May be protected in any CAZ.

<sup>2</sup>All nesting colonies that are discovered over the term of the BRCP, except along the Sacramento River and Feather River, will be protected.

<sup>3</sup>All nesting sites that are discovered over the term of the BRCP will be protected.

<sup>4</sup>A habitat model has not been developed for this species.

<sup>5</sup>The acreage targets in these CAZs are for planning purposes only. The combined target acreage of giant garter snake rice habitat can be achieved through any combination of acreage between these three CAZs that are consistent with achieving the applicable biological goals and objectives.

<sup>6</sup>The acreage targets in these CAZs are for planning purposes only. The combined target acreage of giant garter snake adjoining cropland habitat can be achieved through any combination of acreage among these CAZs that are consistent with achieving the applicable biological goals and objectives.

<sup>7</sup>This species only occurs in the Sacramento River and/or the Feather River. These rivers are not under the jurisdiction of the Implementing Entity and, therefore, habitat protection targets are not established for these species.

<sup>8</sup>This species habitat is not modeled. This target is based on acquisition of grassland with vernal swale complex in this species USFWS designated Recovery Core Areas.

<sup>9</sup>Up to 5 currently unknown occurrences if discovered during implementation will also be protected. These occurrences may be protected in any CAZ in which they are discovered.

<sup>10</sup>At least 3 currently known occurrences will be protected in this CAZ.

<sup>11</sup>The total Plan Area target for protection of unknown occurrences may be achieved in any combination of CAZs.

<sup>12</sup>At least 15 currently known occurrences will be protected.

<sup>13</sup>Up to 8 currently unknown occurrences if discovered during implementation will also be protected. These occurrences may be protected in any CAZ in which they are discovered.

<sup>14</sup>At least 8 currently known occurrences will be protected.

<sup>15</sup>At least 2 currently known occurrences will be protected.

<sup>16</sup>At least 4 currently known occurrences will be protected.

<sup>17</sup>At least 7 currently known occurrences will be protected.

<sup>18</sup>Up to 20 currently unknown occurrences that are discovered over the term of the BRCP may be protected in addition to 65 known occurrences.

<sup>19</sup>At least three known occurrences will be protected.

<sup>20</sup>At least two known occurrences will be protected.