

**Table 5–6. Rationale for the Natural Community and Agricultural Conservation**

**Oak Woodland and Savanna Natural Community:** Protection of oak woodland and savanna is necessary to establish the North Plan Area, Central Plan Area, and South Plan Area ecological corridors (see Figure 5-4); to protect important deer winter range (see Figure 3-20); contribute to achieving habitat protection objectives for Swainson’s hawk and bald eagle (see Table 5-8); and to support ecological functions and biological diversity of the oak woodland and savanna community. Oak woodland and savanna would be protected in interconnected patches of at least 300 acres (see Table 5-15) to meet the patch size and movement requirements of deer herds in the Plan Area. This patch size would meet the minimum patch size requirements for all of oak woodland and savanna-associated covered species and other native wildlife species. Protection targets are only established for the Sierra Foothills and Cascade CAZs because oak woodland and savanna is not present in other CAZs. The protection targets for oak woodland and savanna were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological corridors, covered species habitat, and deer winter range.

**Grassland Natural Community:** The Grassland Natural Community is one of the most abundant natural communities of the Plan Area, and many covered species rely on this community for foraging or reproduction (e.g., Swainson’s hawk, western burrowing owl, western spadefoot toad, greater sandhill crane, tricolored blackbird, American peregrine falcon). Grassland habitats are important natural features of landscape linkages and corridors, permitting wildlife movements and providing habitat for migrating species. Grasslands provide the landscape matrix for vernal pool communities and thus functionally interact with vernal pools to provide habitat, nutrients and hydrological characteristics supporting covered vernal pool species. The protection of grasslands in the Plan Area is necessary to contribute to habitat protection objectives for Swainson’s hawk, white-tailed kite, western burrowing owl, western spadefoot toad, greater sandhill crane, tricolored blackbird, American peregrine falcon, and vernal pool species. Grassland patches must be sufficiently large and interconnected to provide the habitat functions and lifecycle requirements for these covered species and other native wildlife. Thus, the conservation of grasslands requires a minimum patch size of 400 acres (see Table 5-15) of any combination of grassland and grassland with vernal swale complex land cover types to ensure sufficient habitat patches to support all native species including wide-ranging wildlife. The protection targets for the grassland natural community were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological corridors and covered species habitat, and thereby contribute to the maintenance and support of populations of associated covered and other native species.

**Riparian Natural Community:** The riparian natural community in the Plan Area consists of cottonwood-willow riparian forest, valley oak riparian forest, willow scrub, herbaceous riparian and river bar, and dredger tailings with riparian. With minor exceptions, these riparian land cover types are associated with streams and rivers throughout the Plan Area, and as such provide important ecosystem zones of transitions connected via flows of energy, material and organisms between terrestrial and aquatic systems. Riparian functions also include important thermal characteristics by shading streams and preventing water temperature increases. The protection of riparian communities in the Plan Area will benefit a number of covered species, each requiring unique requisites provided by riparian habitats (e.g., Swainson’s hawk, white-tailed kite, bald eagle, western yellow-billed cuckoo, yellow-breasted chat, foothill yellow-legged frog, western pond turtle and native fish species). Minimum patch sizes for riparian communities are 25 acres for mature cottonwood stands and 10 acres for scrub willow patches (see Table 5-15) to ensure that the patch size requirements of each covered species are met. The protection targets are designed to be of sufficient size and distribution to sustain interconnecting ecological functions (e.g., movement corridors, ecotonal habitats) to maintain and increase their ecological functions in support of covered species and ecosystem services. The protection targets for the riparian natural community were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological corridors and covered species habitat, and thereby contribute to the maintenance and support of populations of associated covered and other native species.

**Table 5–6. Rationale for the Natural Community and Agricultural Habitat Protection Targets<sup>1</sup> (continued)**

<p><b>Wetland Natural Community:</b> The wetland natural community in the Plan area consists of three types: emergent wetland (commonly called marshes), managed wetlands, and managed seasonal wetlands. Wetlands provide crucial ecosystem functions, including food web support, filtering of pollutants, carbon storage, water flow regulation (e.g., flood abatement), nutrient cycling and groundwater recharge. They provide habitat for many wetland-obligate covered species, such as giant garter snake, western pond turtle, California black rail, western spadefoot toad, and greater sandhill crane. The protection targets are designed to be of sufficient size and distribution to contribute to the recovery of giant garter snake within the Plan Area while also providing for the conservation of other covered species that use wetlands. The BRCP provides for the protection of emergent wetlands in patches of 0.5-320 acres (see Table 5-15), which spans the range of patch sizes required by covered species and their importance as connectivity corridors and linkages for many wildlife species. The protection targets for the wetland natural community were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological corridors and covered species habitat, and thereby contribute to the maintenance and support of populations of covered and other native species.</p>
<p><b>Aquatic Natural Community:</b> The aquatic natural community in the Plan Area is comprised of open water, major canal, and pond land cover types, including natural channels such as Big Chico Creek, Little Chico Creek, Butte Creek, and Little Dry Creek. In the western portion of the Plan Area much of the aquatic habitat consists of agricultural drainage and irrigation canals, but natural creeks flowing from the northeast/east portion of the Plan Area also meet the Sacramento River here. The primary ecosystem function of aquatic communities is the transport and storage of nutrients, support of aquatic foodweb processes, and aquatic species habitat. The aquatic community provides habitat for all covered fish species, as well as the aquatic life history of many wetland-obligate covered species, such as giant garter snake, western pond turtle, western spadefoot toad, and foothill yellow-legged frog. The protection targets for stream channels are designed to be of sufficient size and distribution to provide movement corridors that will sustain migration of Chinook salmon and steelhead to and from spawning habitats and to provide juvenile salmonid rearing habitat. Protection of these channels will also protect channel bank with substrates suitable to support bank swallow nesting. The target for ponds, an artificial habitat, is to maintain a sufficient number of ponds to maintain a viable Plan Area population of western pond turtle and western spadefoot toad. The protection targets for the aquatic natural community were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological function and covered species habitat, and thereby contribute to the maintenance and support of populations of associated covered and other native species.</p>
<p><b>Agricultural Habitats:</b> Agricultural lands that support habitat for covered species include irrigated cropland (which combines all cultivated land that is periodically rotated), irrigated pasture, and rice. Typically occurring on lands that once supported wetland communities, rice agriculture functions as a surrogate wetland habitat for wildlife. Flooded rice fields and irrigation and drainage channels provide an important habitat for giant garter snake. During winter, harvested rice fields in the Butte Basin provide hibernation habitat for giant garter snake and an important food resource for greater sandhill cranes and wintering waterfowl. Irrigated croplands and irrigated pastures provide foraging habitat for Swainson’s hawks, peregrine falcon, white-tailed kite and other breeding and wintering raptors, and a variety of other birds and small mammals. Changes in agricultural land use patterns can affect the distribution and abundance of agriculture-dependent wildlife species, and thus the protection targets focus on protected and maintaining sufficient agricultural croplands, in combination with their native habitats, to provide for the conservation of covered species that use agricultural habitats. The protection targets for rice land focuses on sustaining sufficient rice and associated water conveyance infrastructure that includes and is connected to occupied habitat to provide for maintaining the Plan Area population of giant garter snake, which concurrently maintains sufficient foraging habitat to maintain the wintering population of greater sandhill cranes. The protection targets for the agricultural community were determined such that, in conjunction with application of the conservation land assembly principles, they will meet the BRCP biological objectives for ecological corridors and covered species habitat, and thereby contribute to the maintenance and support of populations of covered and other native species.</p>