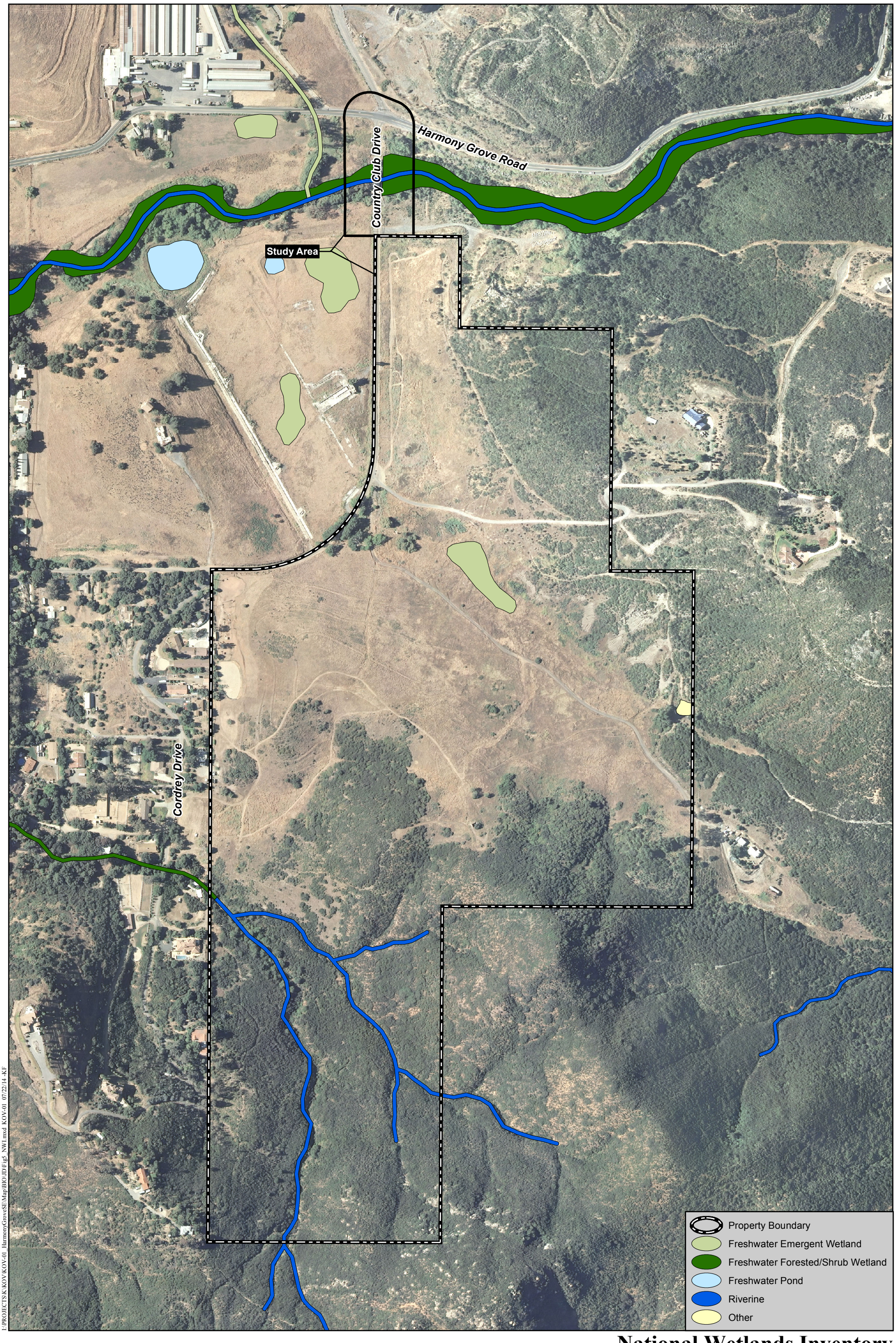

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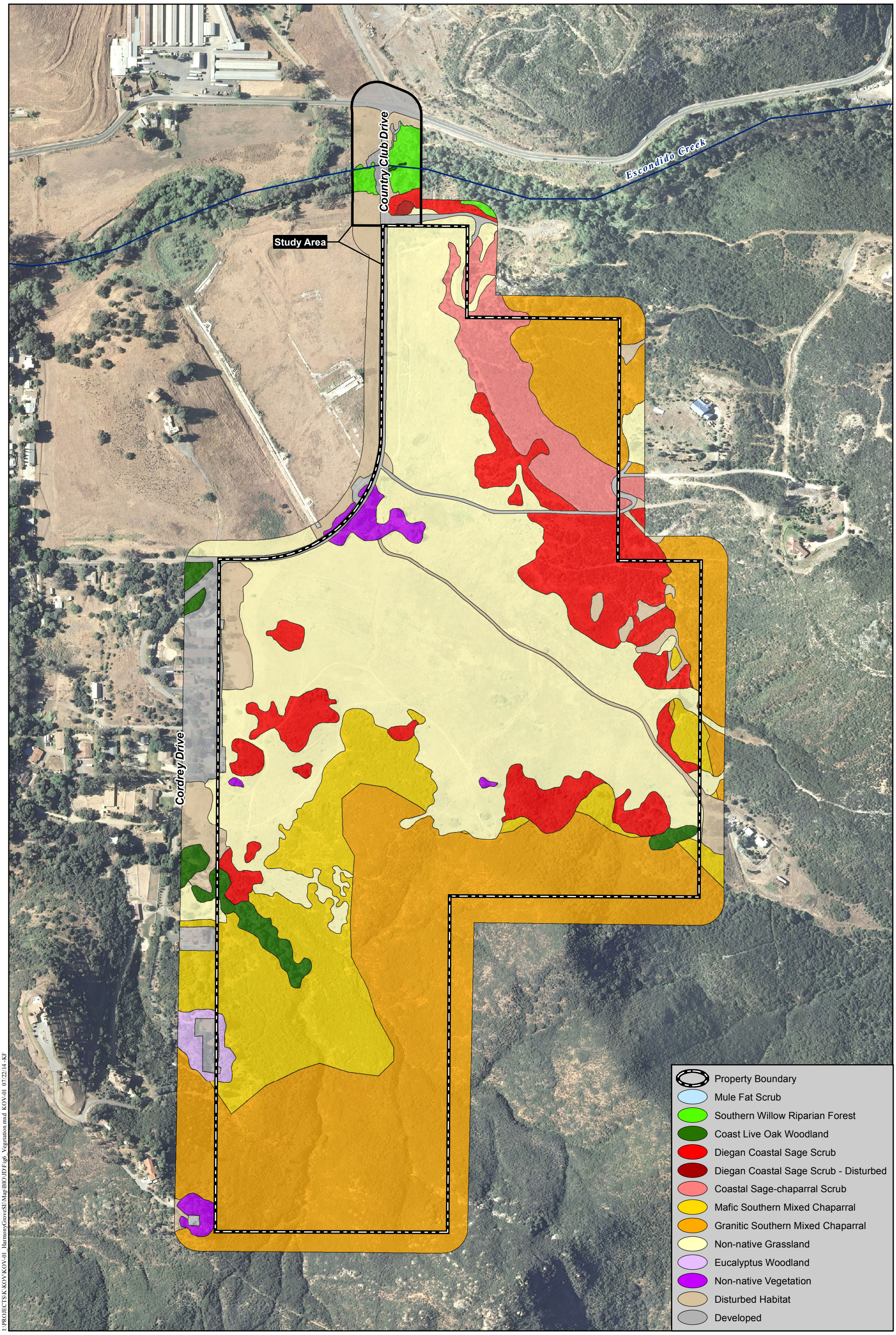
National Wetlands Inventory

HARMONY GROVE

HELIX Environmental Planning

0 350 Feet

Figure 5



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Vegetation

HARMONY GROVE

HELIX Environmental Planning

N 0 350 Feet

Figure 6

the annual, introduced species that comprise the majority of species and biomass within the non-native grassland originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. These grasslands are common throughout San Diego County. Within the study area, this vegetation community was dominated by common ripgut grass (Bromus diandrus) and oats (Avena sp.). A variety of other non-native grasses and forbs were present. Approximately 43.6 acres of non-native grassland occur within the study area (approximately 43.6 acres within the property and 0.05 acre off site).

Granitic Southern Mixed Chaparral. Granitic southern mixed chaparral is found on granitic soils and is composed of broad-leaved sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense, often nearly impenetrable, stands with poorly developed understories. Depending upon relative proximity to the coast, granitic southern mixed chaparral is dominated by chamise (*Adenostoma fasciculatum*), mission manzanita (*Xylococcus bicolor*), wart-stemmed ceanothus (*Ceanothus verrucosus*), Ramona lilac (*Ceanothus tomentosus*), white-stem wild-lilac (*Ceanothus leucodermis*), big-berry manzanita (*Arctostaphylos glauca*), and scrub oak (*Quercus dumosa*). Dominant species in this vegetation community within the study area include black sage (*Salvia mellifera*) and mountain mahogany (*Cercocarpus betuloides*). Other shrubs present included Ramona lilac, mission manzanita, sugar bush (*Rhus ovata*), toyon (*Heteromeles arbutifolia*), chamise, spiny redberry (*Rhamnus crocea*), scrub oak (*Quercus berberidifolia*), coast live oak (*Quercus agrifolia*), saw-toothed goldenbush (*Hazardia squarrosa* var. *grindelioides*), bushrue (*Cneoridium dumosum*), and San Diego honeysuckle (*Lonicera subspicata* var. *denudata*). Approximately 32.3 acres of granitic southern mixed chaparral occur within the study area, entirely within the property.

Mafic Southern Mixed Chaparral. Mafic southern mixed chaparral is found on mafic or metavolcanic soils. This chaparral community is dominated by chamise and Cleveland sage (*Salvia clevelandii*). It occupies relatively xeric exposures on south, west, or east aspects on gabbro soil (Oberbauer 2008). Within the study area, mafic southern mixed chaparral was dominated by wart-stemmed ceanothus. Other shrubs present included Ramona lilac, mission manzanita, sugar bush, holly-leaf redberry (*Rhamnus ilicifolia*), toyon, laurel sumac (*Malosma laurina*), chamise, and black sage. Approximately 14.1 acres of mafic southern mixed chaparral occur within the study area, entirely within the property.

Coastal Sage-Chaparral Scrub. Coastal sage-chaparral scrub is a mixture of sclerophyllous chaparral shrubs and drought-deciduous sage scrub species regarded as an ecotone (transition) between two vegetation communities. This singular community contains floristic elements of both communities including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum* ssp. *fasciculatum*), laurel sumac, chamise, scrub oak, and ceanothus (*Ceanothus* spp.). This community varies in species composition but always contains coastal sage and chaparral species. Dominant plant species in the coastal sage-chaparral scrub vegetation community within the study area include California buckwheat, black sage, California sagebrush, San Diego honeysuckle, and chamise. Approximately 4.5 acres of coastal sage-chaparral scrub occur within the study area, entirely within the property.

Diegan Coastal Sage Scrub (Including Disturbed). Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush, California buckwheat, laurel sumac, and black sage. Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub but is sparser and has a higher proportion of non-native annual species. Dominant species in this vegetation community within the study area include California buckwheat and black sage. Approximately 11.0 acres of Diegan coastal sage scrub occur within the study area (approximately 10.9 acres within the property and 0.2 acre off site). Additionally, approximately 0.1 acre of disturbed Diegan coastal sage scrub occurs off site.

Coast Live Oak Woodland. Coast live oak woodland is an open to dense evergreen woodland or forest community, dominated by coast live oak that may reach a height of 35 to 80 feet. The shrub layer consists of toyon, Mexican elderberry (*Sambucus mexicana*), spreading snowberry (*Symphoricarpus mollis*), fuchsia-flowered gooseberry (*Ribes speciosum*), and poison oak (*Toxicodendron diversilobum*). A dense herbaceous understory is dominated by miner's lettuce (*Claytonia perfoliata* var. *perfoliata*) and chickweed (*Stellaria media*). This community occurs along the coastal foothills of the Peninsular Ranges; typically, on north-facing slopes and shaded ravines (Holland 1986). Coast live oak woodland can be further described as either open (72261) or dense (72262). The differences between the coast live oak woodland and coast live oak forest (81310) are physiognomic rather than compositional. Approximately 1.16 acres of coast live oak woodland occur within the study area (approximately 1.15 acres within the property and 0.01 acre off site).

Southern Willow Riparian Forest. Southern riparian forests are composed of winter-deciduous trees that require water near the soil surface. Willow (*Salix* spp.), Fremont cottonwood (*Populus fremontii* ssp. *fremontii*.), and western sycamore (*Platanus racemosa*) form a dense medium height forest in moist canyons and drainage bottoms. Associated understory species include mule fat (*Baccharis salicifolia*), stinging nettle (*Urtica dioica* ssp. *holosericea*), and wild grape (*Vitis girdiana*). In riparian forests, the canopies of individual tree species overlap so that a canopy cover of 100 percent may occur in the upper tree stratum. Dominant species observed in the riparian forest habitat within the study area include red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), black willow (*Salix gooddingii*), and Fremont cottonwood. Some of the plant species present within this community are arroyo willow, red willow, mule fat, cattails (*Typha* sp.), great marsh evening-primrose (*Oenothera elata* ssp. *hookeri*), and southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*). Approximately 0.88 acre of southern riparian forest occurs within the off-site portion of the study area.

Mule Fat Scrub. Mule fat scrub is a depauperate, shrubby riparian scrub community dominated by mule fat and interspersed with small willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. This early seral community is maintained by frequent flooding, the absence of which would lead to a cottonwood or sycamore dominated riparian woodland or forest (Holland 1986). In some

environments, limited hydrology may favor the persistence of mule fat. In the study area, this community was dominated by mule fat. Approximately 0.01 acre of mule fat scrub occurs within the off-site portion of the study area.

Twenty plant species were observed in the sampling points (Table 2). The wetland rating for the observed species ranged from usually occurring in wetlands (FACW) to almost always occurring in uplands (UPL).

Table 2
PLANT SPECIES OBSERVED WITHIN SAMPLING POINTS

FAMILY	SPECIES	COMMON NAME	INDICATOR STATUS†
Asteraceae	*Artemisia douglasiana*	mugwort	FAC
	Baccharis salicifolia	mule fat	FAC
	Erigeron coulteri	Coulter's daisy	FACW
	*Sonchus asper**	prickly sow-thistle	FAC
Apiaceae	*Conium maculatum**	poison hemlock	FACW
	*Apium graveolens**	celery	FACW[ɣ]
Brassicaceae	*Brassica nigra**	black mustard	UPL
	Nasturtium officinale [*Rorippa nasturtium-aquaticum*]*	water cress	OBL
Datiscaceae	*Datisca glomerata*	durango root	FACW
Myrtaceae	*Eucalyptus camaldulensis**	red gum	FAC
Onagraceae	*Oenothera elata* ssp. *hookeri*	great marsh evening-primrose	FACW
Poaceae	*Arundo donax**	giant reed	FACW
	*Bromus diandrus**	common ripgut grass	UPL
	*Poa annua**	annual bluegrass	FACU
	*Stipa millacea**	Smilo grass	UPL
Plantaginaceae	*Plantago major**	common plantain	FAC
Platanaceae	*Platanus racemosa*	Western sycamore	FAC
Rubiaceae	*Galium aparine*	common bedstraw	FACU
Salicaceae	*Salix laevigata*	red willow	FACW
	Salix lasiolepis	arroyo willow	FACW

†OBL=obligate wetland species, FACW=facultative wetland species, FAC=facultative species, FACU=facultative upland species, UPL=obligate upland species, Also see Appendix A.
*Non-native species
[ɣ]Not listed in national wetland plant list (Lichvar 2014). Considered to be FACW by report author.

B. SAMPLING POINTS

Four wetland delineation points were sampled within the study area (Figure 7). A summary of these samples is provided below.

Sampling Point 1. This sampling point was taken on the first terrace above the unvegetated low-flow channel, along Escondido Creek west of Country Club Drive. The southern riparian forest at this location was dominated by 4 wetland plants, thus meeting the dominance test for wetland vegetation. The soil did not exhibit any of the hydric soil indicators, but is a candidate for a problematic hydric soil (i.e., sandy soils). Wetland hydrology was indicated by 2 primary and 2 secondary wetland hydrology indicators. The presence of wetland vegetation and hydrology at this location fulfills the requirements for concluding the soil at the sampling point is a problematic wetland soil. Therefore, this terrace was determined to support wetland waters of the U.S. It also supports waters of the State.

Sampling Point 2. This sampling point was located at the upper edge of the southern riparian forest, near to and approximately 6 feet above Sampling Point 1. The dominant species at this location was a wetland species, which met the dominance test for wetland vegetation. The soil did not meet any of the hydric soil indicators, but is a candidate for a problematic hydric soil (i.e., sandy soils). Wetland hydrology was indicated by two secondary wetland hydrology indicators, which were the FAC-neutral test and drift deposits (riverine). The presence of wetland vegetation and hydrology at this location fulfills the requirements for concluding the soil at the sampling point is a problematic wetland soil. Given the landscape position of this sampling point, which is high enough above the low-flow channel to preclude it from being inundated long enough to satisfy the definition of a wetland soil, it is not regarded as a wetland. It is further located well outside of the ordinary high water mark for Escondido Creek. Therefore, the sampling point was determined to not support waters of the U.S. It is, however, contained within areas identified as waters of the state.

Sampling Point 3. This sampling point was located east of Country Club Drive, approximately 5 feet above the water present in Escondido Creek and approximately 3 feet above the Country Club Drive. The southern riparian forest at this location was dominated by 3 wetland species, thus meeting the dominance test for wetland vegetation. The soil did not exhibit any hydric soil indicators and, with only 1 secondary wetland hydrology indicator, there were insufficient indicators of wetland hydrology. This location is not waters of the U.S., but is considered waters of the state.

Sampling Point 4. This sampling point was located east of Country Club Drive in southern riparian forest. This location was on the first terrace above the open water in Escondido Creek, but below the elevation of Country Club Drive. Two of three dominant species present were wetland plants, thus meeting the dominance test for wetland vegetation. No hydric soil indicators were present, but due to saturation present in the upper 12 inches of the soil profile, it appears to meet the National Technical Committee on Hydric Soil's definition for a wetland soil. Wetland hydrology was indicated by 1 primary and 2 secondary wetland hydrology indicators. This terrace was determined to support wetland waters of the U.S. and waters of the state.

C. JURISDICTIONAL AREAS SUMMARY

Jurisdictional areas within the study area consist of both wetland and non-wetland waters of the U.S. subject to the regulatory jurisdiction of the USACE (Figure 7), in addition to both vegetated and unvegetated streambed habitat subject to the regulatory jurisdiction of the CDFW (Figure 8).