This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from project implementation. This section is based in part on the following technical studies:

- *Delineation of Potential Jurisdictional Wetlands under Section 404 of the Clean Water Act, Con Agra Project Site, Yolo County, California* (Wetlands Research Associates, 2002),
- *Wetland Verification Letter* (United States Army Corps of Engineers, 2002), *Wetland Re-Verification Letter* (United States Army Corps of Engineers, 2008),
- *The Distribution, Abundance, and Habitat Associations of the Swainson's Hawk (Buteo swainsoni) in Yolo County* (Estep Environmental Consulting 2008),
- *Jurisdiction Delineation Report, Con Agra South Property* (Gibson and Skordal, 2011),
- *Special-Status Species Assessment, Con Agra Property* (Gibson and Skordal, 2011),
- *Nest Site and Listed Species Burrow Survey, North Con Agra Property* (Gibson and Skordal, 2011),
- *Nest and Burrow Survey for Special Status Species, Con Agra North Property* (Gibson and Skordal, 2011),
- *Special-Status Plant Survey, Con Agra, Yolo County* (Gibson and Skordal, 2011), *Special-Status Plant Survey, Con Agra, Yolo County* (Gibson and Skordal, 2012),
- *The Cannery Project Storm Drain Outfall Section 7 Consultation Information* (Gibson & Skordal, LLC, 2012),
- *Nationwide Permit 7 Pre-Construction Notification For The Cannery Project Storm Drain Outfall* (Gibson & Skordal, LLC, September 26, 2012), and
- *Jurisdictional Delineation Report for The Cannery Offsite Infrastructure* (Gibson and Skordal, LLC, August 2012).

Comments were received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: James Herota, Central Valley Flood Protection Board (April 2, 2012), Elizabeth M. Lee, P.E., Central Valley Regional Water Quality Control Board (April 6, 2012), Davis Neighbors, Inc. (April 9, 2012), and Pam Neiberg (April 11, 2012). Each of the comments related to this topic is addressed within this section.

3.4.1 ENVIRONMENTAL SETTING

REGIONAL SETTING

The project site is located within the southern portion of the Sacramento Valley bioregion, and just north of the Bay/Delta bioregion (See Figure 3.4-1 Bioregions). The Sacramento Valley bioregion is a watershed of the Sierra Nevada that encompasses the northern end of the great Central Valley, stretching from Redding to Yolo and Sacramento County. The bioregion is generally flat, and is rich in agriculture. The bioregion has a climate that is characterized by hot dry summers and cool wet winters. Historically, oak woodlands, riparian forests, vernal pools, freshwater marshes, and grasslands have been the major natural vegetation of the bioregion; however, much of the region has been converted to agricultural uses. This bioregion is the most prominent wintering area for waterfowl, attracting significant numbers of ducks and geese to its seasonal marshes along the Pacific Flyway. Species include northern pintails, snow geese, tundra swans, sandhill cranes,

mallards, grebes, peregrine falcons, heron, egrets, and hawks. Black-tailed deer, coyotes, river otters, muskrats, beavers, ospreys, bald eagles, salmon, steelhead, and swallowtail butterflies are some of the wildlife that are common in this bioregion.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

The California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

This region is considered to have low biological diversity due to the conversion of native habitat to agricultural and urban uses. The CWHRS shows the project site as having Urban and Annual Grassland habitats, and Agricultural habitat to the north of the project site (See Figure 3.4-2 Land Cover Types). Below is a brief description of these CWHRS habitats.

Agricultural land may be defined broadly as land used primarily for production of food and fiber. This habitat can generally be broken into the following categories: cropland, dryland grain crops, irrigated grain crops, irrigated hayfield, irrigated row and field crops, rice, orchard - vineyard, deciduous orchard, evergreen orchard, and vineyard. On satellite imagery, the chief indications of agricultural activity are distinctive geometric field and road patterns on the landscape and the traces produced by livestock or mechanized equipment. However, pasture and other lands where such equipment is used infrequently may not show as well-defined shapes as other areas. The number of building complexes is smaller and the density of the road and highway network is much lower in Agricultural land than in Urban land.

Urban habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species.

Annual Grassland habitat occurs mostly on flat plains to gently rolling foothills. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost free season averages 250 to 300 days (18 to 21 fortnights). Annual precipitation is highest in northern California.

LOCAL SETTING

The project site is approximately 100.1 acres located at 1111 East Covell Boulevard, within the incorporated boundary of the City of Davis. The project site is located in Section 3, Township 8

North, Range 2 East, Yolo County, California, MDB&M. The approximate parcel centroid can be found at UTM 609,874 M E; 4,268,871 M N (Zone 10 North) and is portrayed on the Davis, California USGS 7.5-Minute Series Topographic Quadrangle.

There are a limited number of offsite improvements that will be required for storm drainage, emergency access, and bicycle and pedestrian connections. A drainage outfall would be located near the northwestern boundary of the project site within the F Street Channel. The drainage outfall will consist of storm drain pipes extending west from the detention basin in the northwestern corner of the project site to the outfall in the F Street Channel. Additionally, two storm water monitoring gage stations are proposed to be located within the F Street Channel. Each gage station would be located within the banks of the F Street Channel, and would result in an area of disturbance of approximately 250 square feet each.

The emergency vehicle access (EVA) would be located near the western boundary of the project site near the intersection of F Street and Faro Avenue. The EVA would span the F Street Channel, cross the Union Pacific Railroad, and enter the western portion of the project site. There are a few bicycle path alternatives being considered and both alternatives would be located near the southwestern boundary of the project site. One alternative would span the UPRR tracks and F Street Channel and connect to an existing path near F Street. A second alternative would travel under East Covell Boulevard and connect to an existing path on the south side of East Covell Boulevard.

Project Site

The project site is located on relatively level terrain at a median elevation of approximately 45 feet. East Covell Boulevard and Southern Pacific Railroad tracks roughly mark the southern and western boundaries, respectively, while the lands to the south and west are occupied by residential housing developments. Agricultural fields abut the north and east sides of the project site, and a drainage ditch situated along the foot of the Southern Pacific Railroad line runs just outside the western edge of the project site.

The approximate northern half of the project site is undeveloped and contains no habitable structures. During the October 2011 site visits, the northernmost part was cultivated with tomatoes while the adjoining areas to the south were fallow and supported non-native annual grasslands with seasonal wetlands located along the eastern edge of the parcel, as shown in Figure 3.4-6. During the portion of the survey performed in May of 2012, the majority of this area (with the exception of the seasonal wetlands and its buffer) was cultivated in winter wheat. The majority of the winter wheat had been harvested prior to the May site visits.

The approximate southern half of the project site formerly housed the Hunt-Wesson tomato cannery, which has since been completely demolished and removed. No habitable structures are present and only the water tower, the concrete foundations of the cannery, access roads, and parking lots remain. The base of the cannery site is topographically higher by several feet than the undeveloped northern half of the project site.

Tree Inventory

There are 384 trees measuring five inches in diameter and larger measured at breast height within and/or overhanging the project site. Composition of the 384 inventoried trees included the following species and accompanying aggregate diameter inches:

TABLE 3.4-1: TREE SPECIES FOUND ON OR OVERHANGING THE PROJECT SITE

Almond = 9 trees (130 aggregate diameter inches)
American Elm = 2 trees (43 aggregate diameter inches)
Arizona Cypress = 10 trees (134 aggregate diameter inches)
Bailey Acacia = 1 tree (7 aggregate diameter inches)
Black Acacia = 88 trees (1065 aggregate diameter inches)
Black Locust = 1 tree (21 aggregate diameter inches)
Brazilian Pepper = 2 trees (22 aggregate diameter inches)
California Black Walnut = 3 trees (36 aggregate diameter inches)
Canary Island Pine = 4 trees (62 aggregate diameter inches)
Carob = 20 trees (555 aggregate diameter inches)
Chinese Pistache = 8 trees (136 aggregate diameter inches)
Chinese Hackberry = 1 tree (22 aggregate diameter inches)
Coast Live Oak = 4 trees (38 aggregate diameter inches)
Coast Redwood = 1 tree (16 aggregate diameter inches)
Cork Oak = 1 tree . (12 aggregate diameter inches)
Deodora Cedar = 11 trees (197 aggregate diameter inches)
Eucalyptus = 20 trees (555 aggregate diameter inches)
Evergreen Pear = 1 tree (10 aggregate diameter inches)
Flowering Plum = 3 trees (27 aggregate diameter inches)
Fruitless Mulberry = 65 trees (919 aggregate diameter inches)
Hollywood Juniper = 1 tree (14 aggregate diameter inches)
Modesto Ash = 2 trees (35 aggregate diameter inches)
Monterey Pine = 2 trees (43aggregate diameter inches)
Olive = 4 trees (43aggregate diameter inches)
Pacific Willow = 1. tree (11 aggregate diameter inches)
Privet = 1 tree (14 aggregate diameter inches)
Prunus sp = 2 trees (21 aggregate diameter inches)
Tree of Heaven = 1 tree (9 aggregate diameter inches)
Valley Oak = 111 trees (1486 aggregate diameter inches)

SOURCE: SIERRA NEVADA ARBORISTS 2012

Off-Site Improvements Site

The offsite improvements (storm drainage outfall, two storm water monitoring gage stations, emergency vehicle access, and bicycle and pedestrian connections) involve the UPRR railroad tracks, and the F Street Channel is a drainage ditch that flows from south to north immediately west of the project site. The F Street Channel possesses a bed and bank with an ordinary high water mark delineated by a rack line of debris and water marks on the trunks of trees. The F Street Channel flows north before merging with the Channel A drainage channel, which then merges with the Willow Slough Bypass. The Willow Slough Bypass flows east and empties into the Yolo Bypass, which empties into the navigable Sacramento River. The F Street Channel includes an overstory of native and exotic trees including black locust (*Robinia pseudoacacia*), privet (*Ligustrum* sp.), Chinese pistache (*Pistacia chinensis*), cork oak (*Quercus suber*), edible fig (*Ficus carica*), English walnut (*Juglans regia*), and valley oak (*Quercus lobata*).

SPECIAL-STATUS SPECIES

Special-status species are generally defined as: 1) species listed as a candidate, threatened, or endangered under the federal or state Endangered Species Act; 2) species considered rare or endangered under the California Environmental Quality Act; 3) plants considered “rare, threatened, or endangered in California” by the California Native Plant Society (Lists 1B and 2); 4) animal listed as "species of special concern" by the state; and 5) animals fully protected in California by the Fish and Game Code.

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society’s (CNPS) Inventory of Rare and Endangered Plants, the U.S. Fish and Wildlife Service’s (USFWS) endangered and threatened species lists, and observations from local experts. The background search was regional in scope and focused on the documented occurrences within a 10-mile radius of the project site.

The search revealed 40 special status species within the region: 15 plants, and 25 animals. Table 3.4-2 provides a list of special-status plant species that are documented in the region, their habitat, and current protective status. Table 3.4-3 provides a list of special-status wildlife species that are documented in the region, their habitat, and current protective status. Figures 3.4-3, 3.4-4 and 3.4-5 illustrate the general location of these records maintained by the CNDDB.

TABLE 3.4-2: SPECIAL STATUS PLANTS WITHIN 10-MILE RADIUS OF PROJECT SITE

SPECIES	*STATUS*	*HABITAT*	*BLOOMING PERIOD*	*POTENTIAL HABITAT WITHIN THE PROJECT AREA*
Plants				
Astragalus tener var. ferrisiae Ferris' milk-vetch	--;--;1B.2	Meadows, foothill and valley grasslands. Usually found in dry adobe soils.	April to May	Habitat is present.
Astragalus tener var. tener alkali milk-vetch	--;--;1B.2	Favors alkaline playas, valley and foothill grasslands, and vernal pools. Also occurs in open, alkaline and seasonally moist meadows from 0 to 200 feet.	March to June	Habitat is present.
Atriplex cordulata var. cordulata heartscale	--;--;1B.2	Grows in grasslands with sandy alkaline or saline soils.	May to October	Habitat is present.
Atriplex depressa brittlescale	--;--;1B.2	Prefers meadows or grasslands with alkaline or saline clay soils.	May to October	Habitat is present.
Atriplex joaquiniana San Joaquin spearscale	--;--;1B.2	Found in seasonal alkali wetlands or alkali sink scrub.	April to October	Habitat is present.
California macrophyllum round-leaved filaree	--;--;1B.1	Species found in cismontane woodlands, valley and foothill grassland with clay soils.	March to May	Habitat is present.
Chloropyron palmatum palmate-bracted bird's-beak	FE;CE;1B.1	Species is restricted to seasonally-flooded, saline-alkali soils in lowland plains/basins at elevations below 500 ft.	May to October	Habitat is present.
Fritillaria pluriflora adobe-lily	--;--;1B.2	Grows in chaparral, cismontane woodland, or foothill grasslands with clay or serpentine soils.	February to April	Habitat is present.
Lepidium latipes var. heckardii Heckard's pepper-grass	--;--;1B.2	This annual prefers valley and foothill grasslands with alkaline soils.	March to May	Habitat is present.
Lilaeopsis masonii Mason's lilaeopsis	--;--;1B.1	Prefers brackish or freshwater swamps, intertidal marshes, and riparian scrub at or below 35 feet.	April to November	Habitat not present.
Navarretia leucocephala ssp. bakeri Baker's navarretia	--;--;1B.1	This annual herb grows in vernal pools, cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grasslands.	April to July	Habitat is present.
Neostapfia colusana Colusa grass	FT;CE;1B.1	Vernal pools or other seasonal wetlands.	May to August	Habitat is present.
Plagiobothrys hystriculus bearded popcorn-flower	--;--;1B.1	Vernal pools or other seasonal wetlands.	April to May	Habitat is present.
Trifolium hydrophilum	--;--;1B.2	Grows in marshes, swamps, and vernal pools with alkaline soils.	April to June	Habitat is present.

SPECIES	STATUS	HABITAT	BLOOMING PERIOD	POTENTIAL HABITAT WITHIN THE PROJECT AREA
saline clover				
Tuctoria mucronata Crampton's tuctoria	FE;CE;1B.1	Vernal pools or other seasonal wetlands.	April to August	Habitat is present.

SOURCE: CDFW CNDDB RAREFIND 4 2012

Federal Lists
FE Federal Endangered
FT Federal Threatened
FC Federal Candidate
FPD Federal proposed for delisting
FPT Federal proposed threatened
FD Federal delisted

State Lists
CE California Endangered Species
CT California Threatened
CD California Delisted
CR California Rare (Protected by Native Plant Protection Act)
CSC CDFW Species of Special Concern
CC State candidate for listing

California Rare Plant Ranks (formerly CNPS Lists)
1B CNPS - Rare, Threatened, or Endangered
2 CNPS - Rare, Threatened, or Endangered in California, but more Common Elsewhere.

CNPS Threat Ranks
0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 Fairly threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
0.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

TABLE 3.4-3: SPECIAL STATUS ANIMALS WITHIN 10-MILE RADIUS OF PROJECT SITE

	STATE STATUS	HABITAT ASSOCIATION	POTENTIAL HABITAT
MAMMALS			
Antrozous pallidus pallid bat	--;CSC	Roosts in rock outcrops, hollow trees, abandoned mines, barns, and attics.	Foraging and roosting habitats are present.
Lasionycteris noctivagans silver-haired bat	--;CSC	Roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. It forages in open wooded areas near water features.	Foraging and roosting habitats are present.
Lasiurus cinereus hoary bat	--;CSC	Prefer older large leaf trees such as cottonwoods, willows, and fruit/nut trees for daytime roosts. Often found in association with riparian corridors. Need open spaces to forage.	Foraging and roosting habitats are present.
Taxidea taxus American badger	--;CSC	This species prefers dry open fields, grasslands, and pastures.	Increased urbanization makes it unlikely that the species is present.
BIRDS			
Agelaius tricolor tricolored blackbird	--;CSC	Colonial nester in cattails, bulrush, or blackberries associated with wetland or drainage habitats.	Foraging habitat is present.
Ardea alba great egret	--;CSC	Rivers, streams, lakes, marsh and other aquatic habitats.	Habitat not present.
Ardea herodias great blue heron	--;CSC	Rivers, streams, lakes, marsh and other aquatic habitats.	Habitat not present.

	STATE STATUS	*HABITAT ASSOCIATION*	*POTENTIAL HABITAT*
Athene cunicularia burrowing owl	--;CSC	Nests in abandoned ground squirrel burrows associated with open grassland habitats.	Foraging and nesting habitat is present.
Buteo Swainsoni Swainson's hawk	--;CT	Nests in tall cottonwoods, valley oaks or willows. Forages in fields, cropland, irrigated pasture, and grassland often near riparian corridors.	Foraging and nesting habitat is present.
Charadrius alexandrinus nivosus western snowy plover	FT;CSC	Sandy beaches, salt pond levees and shores of large alkali lakes with friable sandy or gravelly soils.	Habitat not present.
Charadrius montanus mountain plover	FPT;CSC	Species nests/breeds in the Great Basin and migrates to California in the winter. It prefers grasslands and farmlands were it forages for insects.	Foraging habitat is present.
Elanus leucurus white-tailed kite	--;FP	Nests in riparian corridors along streams and rivers, and forages in nearby grasslands and fields.	Foraging and nesting habitats are present.
Falco columbarius Merlin	--;--	It is not known to nest in California, but it is a winter transient throughout most of California with wintering populations in the Central Valley.	Foraging habitat is present.
Plegadis chihi white-faced ibis	--;CSC	Forages and nests in fresh-water marshes with heavy growths of tules.	Habitat not present.
AMPHIBIANS & REPTILES			
Ambystoma californiense California tiger salamander	FT;CT	Breeds in ponds or other deeply ponded wetlands, and uses gopher holes and ground squirrel burrows in adjacent grasslands for upland refugia/foraging.	Habitat not present.
Emys marmorata western pond turtle	--;CSC	Ponds, rivers, streams, wetlands, and irrigation ditches with associated marsh habitat.	Habitat not present.
Thamnophis gigas giant garter snake	FT;CT	Rivers, canals, irrigation ditches, rice fields, and other aquatic habitats with slow moving water and heavy emergent vegetation.	Habitat not present.
FISH			
Pogonichthys macrolepidotus Sacramento splittail	--;CSC	Adults migrate upstream from brackish areas to spawn in freshwater on submerged vegetation in temporarily flooded upland and riparian habitat in the lower reaches of rivers, bypasses, sloughs. The young remain in shallow, weedy areas inshore near spawning sites and move to deeper offshore habitat as they mature.	Habitat not present.
INVERTEBRATES			
Branchinecta conservatio Conservancy fairy shrimp	FE;--	Vernal pools or other seasonal wetlands.	Habitat is not present.
Branchinecta lynchi vernal pool fairy shrimp	FT;--	Vernal pools or other seasonal wetlands.	Habitat is not present.
Branchinecta mesovallensis midvalley fairy shrimp	--;--	Vernal pools or other seasonal wetlands.	Habitat is not present.
Cicindela hirticollis abrupta Sacramento Valley tiger beetle	--;--	Requires fine to medium sand terraced floodplains or low sandy water edge flats. Considered extinct by the U.S. Fish & Wildlife Service.	Habitat is not present.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT;--	Dependent upon elderberry plant (Sambucus mexicana) as primary host species	Habitat is not present.
Lepidurus packardi	FE;--	Vernal pools or other seasonal wetlands.	Habitat is not

	STATE STATUS	*HABITAT ASSOCIATION*	*POTENTIAL HABITAT*
vernal pool tadpole shrimp			present.
Linderiella occidentalis California linderiella	--;--	Vernal pools or other seasonal wetlands.	Habitat is not present.

SOURCE: CDFW CNDDB RAREFIND4 2012

Abbreviations:

Federal Lists

FE Federal Endangered
FT Federal Threatened
FC Federal Candidate
FSC USFWS Birds of Conservation Concern
FPD Federal proposed for delisting
FPT Federal proposed threatened
FD Federal delisted
MBTA Protected by Migratory Bird Treaty Act

State Lists

CE California Endangered Species
CT California Threatened
CD California Delisted
CSC CDFW Species of Special Concern/CDFW Special Animals
CC State candidate for listing
FP Fully Protected

Field Surveys

The project area has had multiple field surveys performed dating back to 2002. On June 4, 2002 the northern half of the project site was surveyed by Wetlands Research Associates, Inc. for potential jurisdictional wetland and waters. Wetland areas on the project site are shown on Figure 3.4-6. On August 13, 2002 the northern half of the project site was inspected by the Army Corps of Engineers as part of a wetland delineation verification. The southern half of the project site was surveyed by Gibson & Skordal, LLC for potential jurisdictional wetland and waters on February 28, 2011. The northern half of the project site was surveyed by Gibson & Skordal, LLC to determine the presence/absence of nest sites or burrows for any wildlife species listed in the CNDDB on May 20, 2011. Gibson & Skordal conducted a follow-up survey on August 1, 2011, to confirm that a duck nest located in May had been abandoned. A plant survey was performed on the entire project site by Gibson & Skordal, LLC on October 26, 2011, May 2, 2012, and May 4, 2012. A reconnaissance-level survey was performed by De Novo Planning Group on March 27, 2012.

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the CDFW, USFWS, USACE, and the National Marine Fisheries Service. These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, state and local regulations that are applicable to the proposed project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its

range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a "take" unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, posses, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provides regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Clean Water Act – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACE as "that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" [33 C.F.R. §328.3(e)].

The USACE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a federal implementation policy, which is intended to result in no net loss of wetlands.

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board. To obtain the water quality certification, the Regional Water Quality Control Board must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. Requires authorization from the Corps for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Wildlife Commission.

Fish and Game Code §1900-1913 California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Wildlife Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 - Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called “raptors,” are protected. The law indicates that it is unlawful to take, posses, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a "Streambed Alteration Agreement" from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Public Resources Code § 21000 - California Environmental Quality Act

The California Environmental Quality Act (CEQA) identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

Public Resources Code § 21083.4 - Oak woodlands conservation

In 2004, the California legislature enacted SB 1334, which added oak woodland conservation regulations to the Public Resources Code. This new law requires a County to determine whether a project, within its jurisdiction, may result in a conversion of oak woodlands that will have a significant effect on the environment. If a County determines that there may be a significant effect to oak woodlands, the County must require oak woodland mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining an appropriate number of replacement trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by the County.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act provides long-term protection of species and habitats through regional, multi-species planning before the special measures of the CESA become necessary.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes the SWRCB to regulate state water quality and protect beneficial uses.

LOCAL

Yolo County Joint Powers Agency

The Yolo County NCCP/HCP Joint Powers Agency ("JPA") was formed in August 2002 for the purposes of acquiring Swainson's hawk habitat conservation easements and to serve as the lead agency for the preparation of a county-wide Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP), now known as the Yolo Natural Heritage Program. The JPA governing Board is composed of representatives from member Agencies, which include two members of the Yolo County Board of Supervisors, one member each from the City Councils of Davis, Woodland, West Sacramento and Winters, and one ex-officio member from UC Davis. The JPA is currently responsible for managing two programs: the Yolo Natural Heritage Program and the Swainson's Hawk Interim Mitigation Fee Program.

Yolo Natural Heritage Program

The Yolo Natural Heritage Program is a county-wide Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the 653,820 acre planning area. The Yolo Natural Heritage Program is being developed to conserve the natural open space and agricultural landscapes that provide habitat for many special status and at-risk species found within the habitats and natural communities in Yolo County. The Yolo Natural Heritage Program will establish measures that will be undertaken to conserve important biological resources, obtain permits for urban growth and public infrastructure projects, and continue Yolo County's rich agricultural heritage.

The JPA established a Steering Advisory Committee and a Technical Advisory Committee, prepared a draft Ecological Baseline Report, developed a GIS data base, completed the Independent Science Advisors process, prepared a Draft HCP/NCCP, and has begun the CEQA/NEPA process.

Swainson's Hawk Interim Mitigation Fee Program

This program, established in 1993, utilizes mitigation fees to acquire conservation easements to protect Swainson's hawk habitat. Changes to the program in 2006 require project applicants with projects over 40 acres in size to mitigate directly by providing land for conservation. The program is administered by the Yolo County Joint Powers Agency.

City of Davis General Plan

CHAPTER 14. HABITAT, WILDLIFE, AND NATURAL AREAS

GOAL HAB 1. Identify, protect, restore, enhance and create natural habitats. Protect and improve biodiversity consistent with the natural biodiversity of the region.

Policy HAB 1.1 Protect existing natural habitat areas, including designated Natural Habitat Areas.

Policy HAB 1.2 Enhance and restore natural areas and create new wildlife habitat areas.

Policy HAB 1.3 Commit adequate City resources and staff time so as to protect habitat and other natural resources.

GOAL HAB 2. Increase public awareness of habitat, wildlife and sensitive species.

Policy HAB 2.1 Develop environmental educational programs and public access areas and programs to allow viewing of wildlife and habitat through controlled interactions of people with natural areas.

City of Davis Tree Ordinance

The City of Davis acknowledges the importance of trees to the community's health, safety, welfare, and tranquility. Trees increase property values, provide visual continuity, provide shade and cooling, decrease wind velocities, control erosion, conserve energy, reduce stormwater runoff, filter airborne pollutants, reduce noise, provide privacy, provide habitat and food value, and release oxygen. On December 4, 2002, the City Council adopted the Tree Ordinance, Chapter 37 of the Municipal Code, to ensure that the community forest would be prudently protected and managed so as to ensure these multiple civic benefits. The Tree Ordinance protects the following trees:

- **Landmark Trees:** Any tree which has been determined by resolution of the City Council to be of high value because of its species, size, age, form, historical significance, or some other professional criterion. The Landmark Tree List, available from the Public Works Department, lists and identifies these trees.

- **Trees of Significance:** Any tree which measures 5 inches or more in Diameter at Breast Height (4'-6" above ground height).
- **Street Trees:** Any tree planted and/or maintained by the City, or recorded as a street tree, adjacent to a street or within a city easement or right-of-way, on private property, within the street tree easement. The Public Works Department maintains a master list of street trees.
- **City Trees:** Any tree, other than a street tree, planted or maintained by the City within a City easement, right-of-way, park, greenbelt, public place or property owned or leased by the City.
- **Private Tree:** Any tree privately owned and growing on private property, which may include a tree designated as a landmark tree and/or tree of significance, as defined within the definitions section of the Tree Ordinance, Chapter 37.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

IMPACTS AND MITIGATION

Impact 3.4-1: Project implementation may result in direct or indirect effects on special-status invertebrate species (Less than Significant)

Special-status invertebrates that occur within ten miles of the project site and offsite improvements site include: vernal pool tadpole shrimp, vernal pool fairy shrimp, California

linderiella, Sacramento Valley tiger beetle, and valley elderberry longhorn beetle. Each of these is discussed below:

Vernal Pool Branchiopods: The record search lists several occurrences of the federally endangered vernal pool tadpole shrimp (*Lepidurus packardi*) and Conservancy fairy shrimp (*Branchinecta conservatio*), the threatened vernal pool fairy shrimp (*Branchinecta lynchi*), and the non-listed California linderiella (*Linderiella occidentalis*) and midvalley fairy shrimp (*Branchinecta mesovallensis*) as occurring within five miles of the project site and offsite improvements site. These species exclusively inhabit vernal pools or other seasonally ponded wetlands that sustain inundation during the winter before drying in the late spring. The CNDDB records a 1966 occurrence of vernal pool tadpole shrimp in or within very close proximity of the project site and offsite improvements site.

The project site and offsite improvements site does not provide suitable habitat for this species, nor were they encountered during the field survey.

Sacramento Valley Tiger Beetle: The Sacramento Valley tiger beetle (*Cicindela hirticollis abrupta*) is not a state or federal listed species; however, it has been assigned a State Ranking code of SH meaning that all elemental occurrences are historical. The U.S. Fish and Wildlife Service consider the species extinct. Its habitat consisted of fine to medium sand located on terraced flood plains.

The appropriate habitat is not present within the project site and offsite improvements site, nor were they encountered during the field survey.

Valley Elderberry Longhorn Beetle: The valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) is a federal threatened insect that is dependent upon the elderberry plant (*Sambucus* sp.) as a primary host species. Elderberry shrubs are a common component of riparian areas throughout the Sacramento Valley region. The CNDDB records the closest occurrences approximately 8.5 miles to the southwest.

The project site does not provide the necessary habitat to support the valley elderberry longhorn beetle. The offsite improvements site contains riparian habitat; however, it does not contain elderberry which is an essential host for this species. This species was not encountered during the field survey.

Conclusion: The project site and offsite improvements site is located in an area that is the fringe of urban development and agricultural development. There are five documented special status invertebrates located within a 10-mile radius of the project site and offsite improvements site. The project site and offsite improvements site do not provide the necessary habitat to support these special-status invertebrates. No special-status invertebrates were observed within the project site or offsite improvements site during field surveys. As such, implementation of the proposed project would have a **less than significant** impact on special status invertebrate species.

MITIGATION MEASURES

None required.

Impact 3.4-2: Project implementation may result in direct or indirect effects on special-status reptile and amphibian species (Less than Significant with Mitigation)

Special-status reptiles and amphibians that occur within ten miles of the project site and offsite improvements site include: California tiger salamander, western pond turtle, and Giant garter snake. Each of these is discussed below:

California Tiger Salamander: The California tiger salamander (*Ambystoma californiense*) is a federal and California threatened species. It typically breeds in fish-free seasonal or permanent ponds associated with grassland communities. California tiger salamander (CTS) may also breed in deeper ponded vernal pools, seasonal wetlands and/or other seasonal pools within swales or channels. CTS spends the majority of its life cycle below ground in ground squirrel or pocket gopher burrows in grasslands situated adjacent to potential breeding sites.

Forty-seven units of critical habitat, or habitat that has been deemed as essential to the survival and recovery of the CTS, were proposed by the USFWS on August 10, 2004. The 5,699-acre Unit 2 (Jepson Prairie Unit) is located approximately 19 miles southwest of the project site. The nearest CNDDB record is less than 2.5 miles to the west.

The necessary habitat is not present within the project site or offsite improvements site, nor were they encountered during the field survey.

Western Pond Turtle: The western pond turtle (*Emys marmorata*) is a California species of special concern. Its favored habitats include streams, large rivers and canals with slow-moving water, aquatic vegetation, and open basking sites. Although the turtles must live near water, they can tolerate drought by burrowing into the muddy beds of dried drainages. This species feeds mainly on invertebrates such as insects and worms, but will also consume small fish, frogs, mammals and some plants.

Western pond turtle predators include raccoons, coyotes, raptors, weasels, large fish, and bullfrogs. This species breeds from mid to late spring in adjacent open grasslands or sandy banks.

The necessary habitat is not present within the project site. There is limited habitat on the offsite improvement site within the F Street Channel. This species was not encountered during the field survey.

Giant Garter Snake: Giant garter snake (*Thamnophis gigas*) is designated as a federal threatened and state threatened species afforded special protection by FWS and CDFW. The giant garter snake is generally associated with larger canals, irrigation ditches, and other semi-permanent to permanent aquatic sites with slow moving water and an abundance of emergent vegetation. The closest record is a 1987 occurrence located approximately 2.6 miles to the northeast of the project site.

The necessary habitat is not present within the project site, nor were they encountered during the field survey.

Gibson & Skordal, LLC (2012) concluded that the F Street Channel (offsite improvements site) provides potential giant garter snake habitat and does carry water during the summer, but that the steep banks, heavy riparian tree cover, and lack of emergent vegetation make it unlikely that giant garter snake would occur in the F Street Channel. Gibson & Skordal, LLC (2012) indicated that if giant garter snake were present in the F Street Channel, they could be directly impacted by construction activities, specifically, the placement of rock rip rap and associated backfill, the construction of the concrete cutoff wall and outfall, and the construction of the two storm drainage monitoring gauges.

The proposed project would impact approximately 500 sq. ft. of potential aquatic habitat for giant garter snake. Although the USFWS typically considers upland habitat within 200 feet of giant garter snake aquatic habitat to be potentially occupied by giant garter snake, Gibson & Skordal, LLC (2012) stated that if giant garter snake were present it would not utilize the adjacent upland areas based on the heavy riparian tree cover along the banks of the F Street Channel, as well as the presence of F Street immediately to the west of the Channel and the Union Pacific Railroad tracks immediately to the east of the Channel.

Conclusion: The project site and offsite improvements site are located in an area that is the fringe of urban development and agricultural development. There are three documented special status reptiles/amphibians located within a 10-mile radius of the project site and offsite improvements site. The project site does not provide the necessary habitat to support these special-status reptiles/amphibians. No special-status reptiles/amphibians were observed within the project site during field surveys. The offsite improvements site provides limited habitat within the F Street Channel for western pond turtle and giant garter snake. Neither species was encountered during the field survey. Nevertheless, the proposed project would impact approximately 500 sq. ft. of potential aquatic habitat for these species. This is a potentially significant impact. Implementation of the following mitigation measures would ensure that the proposed project would have a **less than significant** impact on these species.

MITIGATION MEASURES

Mitigation Measure 3.4-1: *The project proponent shall implement the following measures to protect western pond turtle:*

- *A qualified biologist shall monitor construction activities within and immediately adjacent to F Street Channel. If a western pond turtle is found within the construction area, the qualified biologist shall halt construction and immediately report the occurrence to the City. The qualified biologist shall relocate the western pond turtle to the nearest safe location as determined by the City staff and qualified biologist.*

- *Construction personnel performing activities within and immediately adjacent to the F Street Channel shall receive worker environmental awareness training from a qualified biologist to instruct workers to recognize western pond turtle, their habitats, and measures being implemented for its protection.*

- *Construction personnel shall observe a 15 mph speed limit on unpaved roads within and immediately adjacent to the F Street Channel.*

- *Before operating equipment within and immediately adjacent to the F Street Channel, workers shall check for western pond turtle underneath equipment that has remained in one location for 15 minutes. If a western pond turtle is found, the worker shall halt construction activities, and immediately report the occurrence to the qualified biologist and City staff. The qualified biologist shall relocate the western pond turtle to the nearest safe location as determined by the City staff and qualified biologist.*

Mitigation Measure 3.4-2: *The project proponent shall consult with the USFWS for a biological opinion regarding the potential for the project to impact giant garter snake habitat. If the USFWS determines that giant garter snake may be potentially affected by project construction, the project proponent shall obtain an incidental take permit from the USFWS and implement the minimization guidelines for giant garter snake as follows:*

- *Construction activity, including grading, earth movement, trenching, installation of underground utilities, pouring concrete, and paving, within and immediately adjacent to the F Street Channel shall be conducted between May 1 and October 1, the active period for giant garter snake.*

- *Movement of heavy equipment within and immediately adjacent to the F Street Channel shall be confined to the area requiring the improvements to the maximum extent possible. In accordance with Mitigation Measure 3.4-8, all areas within the F Street Channel that do not require improvements shall have orange construction barrier fencing at the limits of the area needed for construction improvements and the contractor shall take measures to ensure that the Contractor's forces do not enter or disturb the areas that do not require improvements.*

- *Construction personnel shall receive USFWS-approved worker environmental awareness training to instruct workers to recognize giant garter snake and their habitats.*

- *Within 24 hours prior to construction activities, the project area shall be surveyed for giant garter snake. The survey will be repeated if a lapse in construction activity of two weeks or greater has occurred. If a giant garter snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or it is determined by the qualified biologist and City staff, in coordination with the U.S. Fish and Wildlife Service and Department of Fish and Wildlife, that the giant garter snake will not be harmed. Any sightings or incidental take will be reported to the U.S. Fish and Wildlife Service and Department of Fish and Wildlife immediately.*

- *If flows are present in the F Street Channel at the time of construction, the portion of the channel affected by construction shall be dewatered for at least 15 consecutive days prior to the start of construction.*

Impact 3.4-3: Project implementation may result in direct or indirect effects on special-status fish species (No Impact)

Special-status fish that occur within ten miles of the project site and offsite improvements site include: Sacramento splittail. This species is discussed below:

Sacramento Splittail: Sacramento splittail (*Pogonichthys macrolepidotus*) is a California species of special concern that was recently de-listed by the USFWS. Adults migrate upstream from brackish areas to spawn in freshwater on submerged vegetation in temporarily flooded upland and riparian habitats. It usually prefers the lower reaches of rivers, bypasses, and sloughs. The young remain in shallow, vegetated areas near spawning sites and eventually migrate to deeper offshore habitat upon maturation.

The necessary habitat is not present within the project site or offsite improvements site, nor were they encountered during the field survey.

Conclusion: The project site and offsite improvements site is located in an area that is the fringe of urban development and agricultural development. There is one documented special status fish located within a 10-mile radius of the project site and offsite improvements site. The project site does not provide the necessary habitat to support this special-status fish. The F Street Channel located within the offsite improvements site contains aquatic habitat for this species; however, it is considered to be beyond the optimal reach of a waterway for this species. No special-status fish were documented in the F Street Channel, nor were any observed during field surveys. As such, implementation of the proposed project would have **no impact** on special status fish species.

MITIGATION MEASURES

None required.

Impact 3.4-4: Project implementation may result in direct or indirect effects on special-status bird species (Less than Significant with Mitigation)

Special-status birds that occur within ten miles of the project site and offsite improvements site include: tricolored blackbird, great egret, great blue heron, burrowing owl, Swainson's hawk, western snowy plover, mountain plover, white-tailed kite, merlin, and white-faced ibis. These species are discussed below:

Tricolored Blackbird: Tricolored blackbirds (*Agelaius tricolor*) are listed by CDFW as a species of special concern due to declining populations in the region. They are colonial nesters that favor dense stands of cattails and/or bulrush, but they also commonly utilize blackberry thickets associated with drainages, ditches, and canals. The closest recorded nesting colony is approximately 2.5 miles to the northeast.

The project site and offsite improvements site contains foraging habitat. This species was not encountered during the field survey.

Great Egret: The great egret (*Ardea alba*) is listed by CDFW as a special animal. This bird usually forages alone in shallow open water and wetlands for fish, amphibians, and aquatic invertebrates. The species has recovered from historic persecution by plume hunters, but destruction of wetlands, especially in the West where colonies are few and widely scattered, poses a current threat. Great egrets prefer breeding habitat in or near open waters and wetlands.

The necessary habitat is not present within the project site. There is limited habitat on the offsite improvement site. This species was not encountered during the field survey.

Great Blue Heron: The great blue heron (*Ardea herodias*) is listed by CDFW as a special animal. This wading bird forages in wetlands and shallow open waters for fish, aquatic invertebrates, small mammals, and amphibians. It usually nests in rookeries that are situated in wetlands or near open waters.

The necessary habitat is not present within the project site. There is limited habitat on the offsite improvement site. This species was not encountered during the field survey.

Burrowing Owl: Burrowing owl (*Athene cunicularia*) is a ground nesting raptor species that is afforded protection by CDFW as a species of special concern due to declining populations in the Great Central Valley of California. They typically inhabit open grasslands and nest in abandoned ground squirrel burrows, cavities associated with raised mounds, levees, or soft berm features. The nearest CNDDB occurrence is located approximately 0.7 mile west of the project site and offsite improvements site.

The project site contains foraging and nesting habitat. The offsite improvements site does not contain foraging or nesting habitat.

Swainson's Hawk: Swainson's hawk (*Buteo swainsoni*) is a raptor species currently listed as threatened in California by the CDFW. Breeding pairs typically nest in tall cottonwoods, valley oaks, or willows associated with riparian corridors, grassland, irrigated pasture, and cropland with a high density of rodents. The Central Valley populations breed and nest in the late spring through early summer before migrating to Central and South America for the winter. Numerous occurrences of Swainson’s hawk nesting sites are located within ten miles of the project site and offsite improvements site including one less than 0.2 mile to the west.

The project site and offsite improvements site contains foraging and nesting habitat.

Western Snowy Plover: The western snowy plover (*Charadrius alexandrinus nivosus*) is a federally threatened bird listed by CDFW as a species of special concern. This ground nester is associated with beaches, salt pond levees and shores of large alkali lakes with friable sandy or gravelly soils. The closest CNDDB record is a 1963 occurrence located approximately 8.5 miles north of the project site at the Davis sewage treatment ponds. This occurrence is classified as “presumed extant.”

The necessary habitat is not present within the project site or offsite improvements site, nor were they encountered during the field survey.

Mountain Plover: The mountain plover (*Charadrius montanus*) is a federally proposed threatened bird listed by CDFW as a species of special concern. This ground nester is considered a shorebird, but it prefers to live in drier areas away from water. It breeds in the Great Basin and migrates to California in the winter where its life cycle is poorly understood. It forages in California grasslands, pastures, and farmlands for insects which make up the majority of its diet. The closest CNDDB record is approximately 8.5 miles north of the project site and is based on surveys performed in 1971. Subsequent 1991 surveys did not observe any specimens, and the CNDDB classifies this occurrence as "possibly extirpated."

Suitable foraging habitat is present for this species within the project site. The offsite improvements site does not contain foraging or nesting habitat.

White-Tailed Kite: White-tailed kite (*Elanus leucurus*) is a CDFW fully protected species. This non-migrating bird typically attains a wingspan of approximately 40 inches and feeds primarily on insects, small mammals, reptiles, and amphibians, which it forages from open grasslands. It builds a platform-like nest of sticks in trees or shrubs and lays 3 to 5 eggs, but may brood a second clutch if prey is abundant. The kite's distinct style of hunting includes hovering before diving onto its target.

Foraging and nesting habitats are present within the project site and offsite improvements site.

Merlin: The Merlin (*Falco columbarius*) is a CDFW species of special concern that has never been observed nesting in California. Though it is a transient throughout most of the state, wintering populations are known to occur in the Central Valley and along the coast.

Foraging habitat is present within the project site offsite improvements site.

White-Faced Ibis: White-faced ibis (*Plegadis chihi*) is listed by CDFW as a special animal. If favors marsh habitats where it forages for a variety of invertebrates. It is a colonial nester and prefers thick marshes or low-growing trees for its nest site.

The necessary habitat is not present within the project site. There is limited habitat on the offsite improvement site. This species was not encountered during the field survey.

Surveys: There are ten documented special status birds located within a 10-mile radius of the project site and offsite improvements site. The project site and offsite improvements side provides habitat (foraging, nesting, or both) to support these species.

A records search was performed to establish the potential for presence of these special status species within a 10-mile radius of the project site. A field survey was performed on May 20, 2011 to establish the presence or absence of nest sites or burrows on the project site and offsite improvements site. This survey found the following:

- Numerous potentially appropriate burrows located throughout the project site, most of which were located at the base of milk thistle copses. All burrows lacked the presence of whitewash (owl excrement), prey pellets, or molted feathers usually associated with burrowing owls. Most of the observed burrows had entrances "sealed off" by spider webs.

No burrowing owls or signs of burrowing owls were observed within or near the survey area.

- A mallard nest containing six eggs was located approximately 400 feet north of the former processing plant, which is generally in the middle of the project site. A female mallard was observed on the nest.
- A large nest was located in a pine tree on the northern end of the former processing plant. The nest appeared to be empty, and no raptors or other large bird species were observed within the immediate proximity.

A subsequent field survey was conducted on August 1, 2011. This survey found the following:

- The burrows lacked any of sign of burrowing owl activity and entrances were "sealed off" by spider webs. No burrowing owls or signs of burrowing owls were observed within or near the survey area.
- The mallard nest had been abandoned with no sign of adult or young.
- The large nest located in a pine tree on the northern end of the former processing plant remained empty, and no raptors or other large bird species were observed within the immediate proximity.

Conclusion: The project site and offsite improvements site is located in an area that is the fringe of urban development and agricultural development. The northern portion of the project site (48.6 acres) provides appropriate ground nesting habitat for a variety of birds, including burrowing owl. The southern half of the project site (former processing plant) does not provide appropriate ground nesting habitat. The offsite improvements site provides appropriate nesting and foraging habitat for a variety of birds, excluding burrowing owl. Field surveys identified burrows on the project site that could be used by the borrowing owls; however, there was no evidence of burrowing owls nesting or other activity on the project site. There is a possibility that the unoccupied burrows become occupied in any given year as long as they are undisturbed and a food base remains intact. The proposed project would require permanent disturbance to the burrows. This is a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

The project site and offsite improvements site contains trees of various sizes, most of which are on the offsite improvements site and the southern half of the project site. These trees provide nesting opportunities for a variety of birds, including: Swainson's hawk and white-tailed kite, among other protected bird species. The merlin, however, is not known to nest in the region. There is evidence of a large nest in a pine tree located on the project site. During field surveys there was no evidence of nesting; however, the abandoned nest could be reused by raptors or other birds in future breeding cycles. The proposed project would require permanent disturbance to trees, including the abandoned nest. This is a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

The offsite improvements site provides some potential nesting habitat for Swainson's hawk, but lacks foraging habitat. The northern portion of the project site (48.6 acres) provides appropriate foraging habitat for a variety of special status birds, including Swainson's hawk. The southern half

of the project site (former processing plant) does not provide appropriate foraging habitat for special status birds. The proposed project would require permanent disturbance to the foraging habitat. This would indirectly affect the State listed Swainson's hawk, among other birds. The project proponent will be required to consult with the Department of Fish and Wildlife to determine if the project would result in incidental take of Swainson's hawk (thereby requiring CESA take authorization). Additionally, the Yolo County NCCP/HCP Joint Powers Agency (JPA), which includes the City of Davis, requires compensatory mitigation for the loss of Swainson's hawk foraging habitat at a 1:1 ratio. Because the foraging habitat disturbed exceeds 40 acres, the project proponent would be required to provide the compensatory mitigation directly. Implementation of the following mitigation measures would ensure that this impact is reduced to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-3: *No less than 14 days prior to initiating ground disturbance activities, the project proponent shall complete an initial take avoidance survey using the recommended methods described in the Detection Surveys section of the March 7, 2012 Department of Fish and Wildlife "Staff Report on Burrowing Owl Mitigation." Implementation of avoidance and minimization measures (as presented in the March 7, 2012 Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation) would be triggered if the initial take avoidance survey results in positive owl presence on the project site where project activities will occur. If needed, the development of avoidance and minimization approaches shall be developed in coordination with the California Department of Fish and Wildlife.*

The project proponent shall provide compensatory mitigation for the permanent loss of 48.6 acres of burrowing owl habitat. The compensatory mitigation shall be fulfilled by permanently protecting land that is deemed burrowing owl habitat through a conservation easement deeded to a nonprofit conservation organization or public agency with a conservation mission, for the purpose of conserving burrowing owl habitat and prohibiting activities incompatible with burrowing owl use. The conservation easement, including the management of the burrowing owl habitat, is subject to the requirements outlined in the March 7, 2012 Department of Fish and Wildlife "Staff Report on Burrowing Owl Mitigation." Alternatively, the project proponent can purchase burrowing owl conservation bank credits from a California Department of Fish and Wildlife approved burrowing owl conservation bank as available.

Mitigation Measure 3.4-4: *No more than thirty days prior to the commencement of construction, the project proponent shall retain a qualified biologist to perform preconstruction surveys for nesting raptors. In the event that nesting raptors are found on the project site, offsite improvements site, or the immediate vicinity, the project proponent shall consult with the CDFW and obtain an incidental take permit from the CDFW pursuant to section 2081(b) of the Fish and Game Code.*

Mitigation Measure 3.4-5: *Prior to the commencement of construction, the project proponent shall provide compensatory mitigation for the permanent loss of 48.6 acres of Swainson's hawk foraging habitat to the Yolo County HCP/NCCP Joint Powers Agency's (JPA) in accordance with their*

Swainson's Hawk Interim Mitigation Program. This program currently requires compensation at a 1:1 ratio and projects over 40 acres are required to provide the conservation land directly. If the project is constructed after adoption of the Yolo Natural Heritage Program, the project proponent shall comply with all requirements of the Yolo Natural Heritage Program.

Impact 3.4-5: Project implementation may result in direct or indirect effects on special-status mammal species (Less than Significant with Mitigation)

Special-status mammals that occur within ten miles of the project site and offsite improvements site include: pallid bat, silver-haired bat, hoary bat, and American badger. These species are discussed below:

Pallid Bat: Pallid bat (*Antrozous pallidus*) is a listed CDFW species of special concern. It favors roosting sites in crevices in rock outcrops, caves, hollow trees, abandoned mines, and human-made structures such as barns, attics, and sheds. Though pallid bats are gregarious, they tend to group in small colonies of 10 to 100 individuals. It is a nocturnal hunter and captures prey in flight, but unlike most American bats, the species has been observed foraging for flightless insects, which it seizes after landing. The CNNDB records an occurrence of pallid bat within or within very close proximity to the project site and offsite improvements site. This record, which is classified as "presumed extant," is based on a specimen collected in 1964.

Foraging and roosting habitats are present.

Silver-Haired Bat: Silver-haired bat (*Lasionycteris noctivagans*) is a listed CDFW special animal. Primarily considered a coastal and montane forest species, the silver-haired bat roosts in abandoned woodpecker holes, under bark, and occasionally in rock crevices. This insectivore's favored foraging sites include open wooded areas near water features. The CNNDB records silver-hair bat within or within very close proximity to the project site and offsite improvements site. Though this record is based on an historic specimen collected in 1957, the CNDDB classifies this occurrence as "presumed extant."

Foraging and roosting habitats are present.

Hoary Bat: The hoary bat (*Lasiurus cinereus*) is a listed CDFW special animal. It is considered to be one of the most widespread of all American bats with a range extending from Canada to central Chile, Argentina, and Hawaii. Hoary bats prefer older large leaf species such as cottonwoods, willows, and fruit or nut trees for daytime roosts. The species is primarily crepuscular or nocturnal and requires open areas to hunt its main prey item, moths. The hoary bat is considered a forest/woodland species, and in California they are often associated with undisturbed riparian or stream corridors. Hoary bat is recorded as occurring within or within very close proximity to the project site and offsite improvements site. This occurrence, which is "presumed extant," is based on specimens collected in 1925, 1956, and 1991.

Foraging and roosting habitats are present.

American Badger: American badger (*Taxidea taxus*) is a listed CDFW species of special concern. This burrowing carnivorous mammal is solitary and very territorial preferring to feed on small mammals, lizards, snakes, insects, and carrion. It has no known natural enemies and inhabits dry, open fields, grasslands, and pastures. The CNDDB contains a record of American badger occurring within the project site. Though the record is classified as "presumed extant," very little information is provided. No date is associated with the specimen which was collected by UC Davis.

Though the open field provides appropriate foraging and burrowing habitat, it is unlikely that the species occupies the project site or offsite improvements site due to the encroaching urbanization of the surrounding area. Additionally, no sign of this species was observed during field surveys.

Conclusion: The project site and offsite improvements site is located in an area that is the fringe of urban development and agricultural development. There are four documented special status mammals located within a 10-mile radius of the project site and offsite improvements site. The project site and offsite improvements site provides foraging and roosting habitat for three special status bat species, although none were observed during field surveys. The proposed project would require permanent disturbance to the foraging and roosting habitat. This is a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

The project site and offsite improvements site provides foraging and burrowing habitat for American badger, although none were observed during field surveys. The proposed project would require permanent disturbance to the foraging, and burrowing habitat. This is a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-6: *No more than thirty days prior to the commencement of construction, the project proponent shall retain a qualified biologist to perform preconstruction surveys for protected mammals. In the event that protected mammals are found on the project site, offsite improvements site, or the immediate vicinity, the project proponent shall consult with the CDFW and obtain an authorization in accordance with the regulations protecting such species.*

Impact 3.4-6: Project implementation may result in direct or indirect effects on candidate, sensitive, or special-status plant species (Less than Significant)

The California Natural Diversity Data Base (CNDDB) search identified fifteen documented special-status plant species within a ten mile radius of the project site and offsite improvements site. These special status plants include: Ferris' milk-vetch (*Astragalus tener* var. *ferrisiae*), alkali milk-vetch (*Astragalus tener* var. *tener*), heartscale (*Atriplex cordulata* var. *cordulata*), brittlescale (*Atriplex depressa*), San Joaquin spearscale (*Atriplex joaquiniana*), round-leaved filaree (*California macrophyllum*), palmate-bracted bird's-beak (*Chloropyron palmatus*), adobe-lily (*Fritillaria pluriflora*), Heckard's pepper-grass (*Lepidium latipes* var. *heckardii*), Mason's lilaeopsis (*Lilaeopsis masonii*), Baker's navarretia (*Navarretia leucocephala* ssp. *bakeri*), Colusa grass (*Neostapfia*

colusana), bearded popcorn-flower (*Plagiobothrys hystriculus*), Crampton's tuctoria (*Tuctoria mucronata*), and saline clover (*Trifolium hydrophilum*).

Multiple site visits were conducted to coincide with the blooming periods of the target species. Field surveys were performed by Sam Garcia and Matt Hirkala on October 26, 2011, and by Matt Hirkala on May 2 and 4, 2012. Meandering transects (on approximately 50 foot centers) were performed throughout the project site and offsite improvements site on foot. Additionally, Robert Preston of ICF International was consulted to verify the correct taxonomic identification of observed *Atriplex* species. A complete list of plants observed on the project site and offsite improvements site is provided in Appendix O, Special Status Species Assessment.

A 1951 occurrence of alkali milk-vetch is documented within or within very close proximity of the project site; however, it is classified as "possibly extirpated."

Brittlescale and San Joaquin spearscale have been documented approximately 600 feet north of the project site on an adjacent agricultural parcel. Both the San Joaquin spearscale and the brittlescale are believed to be extirpated from that site.

A 1952 occurrence of heartscale is documented within very close proximity to the project site; however, it is categorized as "extirpated" by CDFW.

A 1994 occurrence of heartscale is noted in the general vicinity of the project site (within one mile).

A 1910 occurrence of Adobe lily is documented by Hallawell Seed Company approximately nine miles south of the project site; however, the CNDDB questions the identity of the specimen. The project site does not contain the habitat typically associated with this species.

Conclusion: The project site and offsite improvements site is located in an area that is the fringe of urban development and agricultural development. There are fifteen documented special status plants located within a 10-mile radius of the project site and offsite improvements site. A rare plant survey was performed on October 26, 2011; and May 2 and 4, 2012. No special-status plants were observed within the project site or offsite improvements site during field surveys. As such, implementation of the proposed project would have a ***less than significant*** impact on special status plant species.

MITIGATION MEASURES

None required.

Impact 3.4-7: Project implementation may result in direct or indirect adverse effects on riparian habitat or a sensitive natural community (Less than Significant with Mitigation)

The project site does not contain any sensitive natural communities or riparian habitat. The southern half of the project site is a remnant of a tomato processing plant, while the northern half of the project site is agricultural.

The offsite improvements site contains riparian habitat along the F Street Channel. Construction of the storm drainage outfall, two storm drainage monitoring gauges, EVA, and bike path will require temporary disturbance associated with vehicle and equipment access and permanent disturbance associated with the improvement. This is a potentially significant impact. Implementation of the following mitigation measures would ensure that the proposed project would have a **less than significant** impact on riparian habitat.

MITIGATION MEASURES

Mitigation Measure 3.4-7: *During the design of improvement plans, the project proponent shall design the offsite improvements to avoid and minimize riparian habitat to the extent possible. The project plans shall include provisions to restore riparian habitat in all areas of temporary disturbance upon completion of the offsite improvement. For areas that require permanent disturbance for the offsite improvement, the project applicant shall mitigate the loss by preparing a restoration plan, in coordination with the City of Davis and California Department of Fish and Wildlife, that includes restoring riparian habitat along F Street Channel (or another location if deemed appropriate by the City of Davis and the California Department of Fish and Wildlife) at a 3:1 ratio. The habitat restoration plans shall be approved by the California Department of Fish and Wildlife.*

Mitigation Measure 3.4-8: *Install orange construction barrier fencing at the limits of the area needed to construct improvements through the riparian habitat along F Street Channel to identify environmentally sensitive areas around the riparian habitat. Before construction, the contractor shall work with the Davis Department of Public Works and qualified biologist to identify the locations for the barrier fencing, and shall place stakes around the sensitive area to indicate these locations. The fencing shall be installed before construction activities are initiated and shall be maintained throughout the construction period. The following paragraph shall be included in the construction specifications:*

- *The Contractor's attention is directed to the areas designated as "environmentally sensitive areas." These areas are protected, and no entry by the Contractor for any purpose will be allowed unless specifically authorized in writing by the City of Davis. The Contractor shall take measures to ensure that Contractor's forces do not enter or disturb these areas, including giving written notice to employees and subcontractors.*

Temporary fences around the environmentally sensitive areas shall be installed as the first order of work. Temporary fences shall be furnished, constructed, maintained, and removed as shown on the plans, as specified in the special provisions, and as directed by the Resident Engineer. The fencing shall be commercial-quality woven polypropylene, orange in color, and at least 4 feet high (Tensor Polygrid or equivalent). The fencing shall be tightly strung on posts with a maximum 10-foot spacing.

Impact 3.4-8: Project implementation may result in effects on protected wetlands and jurisdictional waters (Less than Significant with Mitigation)

A wetland delineation for the northern half of the project site was prepared by Wetlands Research Associates, Inc. (WRA) in July 2002. Field surveys for the northern half of the project site occurred on June 4, 2002. The delineation was verified by the USACE on September 26, 2002 and was re-verified by the USACE on January 3, 2008. A wetland delineation for the southern half of the project site was prepared by Gibson & Skordal, LLC in March 2011. Field surveys for the southern half of the project site occurred on February 28, 2011. A jurisdictional delineation of the offsite improvements site was prepared by Gibson & Skordal, LLC in August 2012. Field surveys for the offsite improvements site occurred on August 8, 2012.

The discussion below presents the potential for the proposed project to affect protected wetlands and jurisdictional waters on the project site and the offsite improvements site. There is a separate impact conclusion for each site.

PROJECT SITE

Federal Jurisdiction: The WRA (2002) wetland delineation documented a potential jurisdictional wetland covering 1.24 acres in the eastern portion of the project site. The potential jurisdictional wetland was characterized as a degraded feature dominated by nonnative plant species that is regularly disturbed by the harvest of oat hay, and becomes increasingly drier at its southern end. WRA (2002) also noted that "the area north and east of the wetland boundary (including a dirt access road) is topographically higher than the wetland itself."

WRA (2002) concluded that "except under extraordinarily wet conditions, it appears very unlikely that a hydrologic connection between the wetland and the tailwater ditch occurs. Rather water likely collects in the depression and, due to the heavy clay soils, sits for prolonged periods during the rainy season and slowly dries out due to infiltration and evapotranspiration. The reduction in watershed size due to the tailwater ditch improvement will mean reduced water input to the wetland during subsequent rainy seasons, further reducing the possibility of a hydrologic connection between the wetland and the tailwater ditch. Therefore, it does not appear that the potential wetland is subject to Corps jurisdiction under Section 404 of the Clean Water Act as recently adjudicated by the US Supreme Court SWANCC decision."

The USACE reviewed the WRA (2002) wetland delineation and inspected the project site on August 13, 2002. Subsequently, the USACE provided a verification letter reflecting their concurrence with the WRA (2002) conclusion that the 1.24 acre wetland is isolated with no apparent interstate commerce connection. The USACE further stated that the 1.24-acre wetland is not currently regulated by the USACE under the Clean Water Act. The USACE provided a re-verification letter in January 2008, which restated their concurrence with the previous determination.

The Gibson & Skordal, LLC (2011) wetland delineation indicated that the southern half of the project site contains no water features, therefore, there are no areas within the project site regulated by the USACE under the Clean Water Act.

Based on the evidence presented above, the project site does not contain any federally protected wetlands or jurisdictional areas. Implementation of the proposed project would have a **less than significant** impact on federally protected wetlands or jurisdictional areas on the project site.

State Jurisdiction: The WRA (2002) wetland delineation documented a potential jurisdictional wetland covering 1.24 acres (54,014 sq.ft.) in the eastern portion of the project site. The potential jurisdictional wetland was determined to be isolated and not an area that is regulated by the USACE under the Clean Water Act. However, under the California Porter-Cologne Water Quality Control Act (Porter Cologne; Ca. Water Code, Div. 7, §13000 et seq.), discharges to wetlands and other "waters of the state" have been and remain subject to state regulation. On January 25, 2001, the Office of Chief Counsel of SWRCB released a legal memorandum confirming the State's jurisdiction over such waters. Under State law anybody discharging "waste" (including clean fill, riprap or other revetment, excavation sidecasting, dredge spoils, soil displaced while clearing vegetation, etc.) where it could affect waters of the State must first file a report with the appropriate Regional Water Quality Control Board (RWQCB), which will regulate the discharge as necessary to protect the beneficial uses of the waters. Discharging without filing the required report may result in civil penalties for each day the violation occurs, and the discharger may be also required to remove the discharged material and restore the condition of the waterbody.

The proposed project includes plans that would require discharge into the 1.24-acre wetland area. A portion of the 1.24-acres is proposed to be utilized as a storm drainage basin and a portion would be used for the Urban Agricultural area. The construction of the storm drainage basin within the boundary of the 1.24-acre wetland area would require grading activities, which would result in a discharge. Both activities are subject to regulation by the RWQCB for discharge into an isolated wetland. This is a potentially significant impact. Implementation of the following mitigation measure would ensure that the proposed project would have a **less than significant** impact on state protected wetlands or jurisdictional areas on the project site.

MITIGATION MEASURES

Mitigation Measure 3.4-9: *Prior to any activities that would result in discharge, fill, removal, or hydrologic interruption of the 1.24-acre wetland area located on the eastern side of the project site, the project proponent shall consult with RWQCB and the CDFW to determine if the activities are subject to their jurisdiction and permit requirements (i.e. RWQCB Waste Discharge Permit and CDFW Streambed and Lake Alteration). If the RWQCB and/or CDFW determine that the project activities are subject to their regulations, the project proponent shall secure an authorization of the activities through the appropriate regulatory permits.*

OFFSITE IMPROVEMENTS SITE

Federal Jurisdiction: The Gibson & Skordal, LLC (2012) Preconstruction Notification and Jurisdictional Delineation documented a potential jurisdictional water covering 180 square feet, or 0.004 acres at the storm drainage outfall site in F Street Channel. The F Street Channel has a bed and bank with an ordinary high water mark delineated by a rack line of debris and water marks on the trunks of trees. Construction and installation of the monitoring gage stations in the F Street

Channel would result in the disturbance of approximately 500 additional square feet of potential jurisdictional waters.

Construction of the outfall in the F Street Channel will include a concrete cut-off wall at the base of the outfall extending two feet on each side of the outfall pipe. A total of 15 cubic yards of rock rip rap will be placed on bank of the F Street Channel. The rip rap will be stabilized by backfilling with native soil. There may be a temporary disturbance to an additional 520 square feet of the F Street Channel due to equipment access; however, there will be no temporary fills in the F Street Channel.

Construction of the emergency vehicle access and the bike path do not directly impact the F Street Channel, therefore, there will be no fills associated with this construction activity.

The construction of the storm drainage outfall and the monitoring gage stations would have a potentially significant impact on federal jurisdictional waters. Implementation of the following mitigation measure would ensure that the proposed project would have a **less than significant** impact on federal jurisdictional areas on the offsite improvements site.

State Jurisdiction: The Gibson & Skordal, LLC (2012) Preconstruction Notification and Jurisdictional identified an impact to a potential jurisdictional water covering 180 square feet, or 0.004 acres at the storm drainage outfall site in F Street Channel. Construction and installation of the monitoring gage stations in the F Street Channel would result in the disturbance of approximately 500 additional square feet of potential jurisdictional waters. Under State law anybody discharging "waste" (including clean fill, riprap or other revetment, excavation sidecasting, dredge spoils, soil displaced while clearing vegetation, etc.) where it could affect waters of the State must first file a report with the appropriate Regional Water Quality Control Board (RWQCB), which will regulate the discharge as necessary to protect the beneficial uses of the waters. Discharging without filing the required report may result in civil penalties for each day the violation occurs, and the discharger may be also required to remove the discharged material and restore the condition of the waterbody.

Construction of the outfall in the F Street Channel will include a concrete cut-off wall at the base of the outfall extending two feet on each side of the outfall pipe. A total of 15 cubic yards of rock rip rap will be placed on bank of the F Street Channel. The rip rap will be stabilized by backfilling with native soil. There may be a temporary disturbance to an additional 520 square feet of the F Street Channel due to equipment access; however, there will be no temporary fills in the F Street Channel.

Construction of the emergency vehicle access and the bike path (including Alternative Alignment 2, as described in the Project Description) do not directly impact the F Street Channel. The channel would be bridged by these facilities and no construction or permanent structures would occur within the channel, and there would be no fills associated with this construction activity.

The construction of the storm drainage outfall and the monitoring gage stations would have a potentially significant impact on state jurisdictional waters. This is a potentially significant impact. Implementation of the following mitigation measure would ensure that the proposed project would have a **less than significant** impact on state protected jurisdictional areas on the offsite improvements site.

MITIGATION MEASURES

Mitigation Measure 3.4-10: *Prior to any activities that would result in discharge, fill, removal, or hydrologic interruption to F Street Channel located at the Storm Drain Outfall site, the project proponent shall obtain a jurisdictional determination from the USACE to determine if the activities are subject to their jurisdiction and permit requirements. If the USACE determines that the Storm Drain Outfall and monitoring gage stations project activities are subject to their jurisdiction, the project proponent shall secure an authorization of the activities. It is anticipated that the project will qualify for a Section 404 Nationwide Permit 7, which will require the project proponent to submit a Preconstruction Notification and comply will all Nationwide Permit General Conditions and Sacramento District Regional Conditions as applicable. Additionally, the project proponent will be required to obtain a Section 401 Water Quality Certification from the RWQCB.*

Mitigation Measure 3.4-11: *Prior to any activities that would result in discharge, fill, removal, or hydrologic interruption of the potential jurisdictional water located at the Storm Drain Outfall site and the monitoring gage stations sites (F Street Channel), the project proponent shall consult with RWQCB and the CDFW to determine if the activities are subject to their jurisdiction and permit requirements (i.e. RWQCB Waste Discharge Permit and CDFW Streambed and Lake Alteration). If the RWQCB and/or CDFW determine that the project activities are subject to their regulations, the project proponent shall secure an authorization of the activities through the appropriate regulatory permits.*

Impact 3.4-9: Project implementation may result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the project site or offsite improvements site. Furthermore, the field surveys did not reveal any wildlife corridors or wildlife nursery sites on or adjacent to the project site or offsite improvements site. Implementation of the proposed project would have a **less than significant** impact on this environmental issue.

MITIGATION MEASURES

None required.

Impact 3.4-10: Project implementation may result in conflicts with an adopted habitat conservation plan, natural community conservation plan, recovery plan, or local policies or ordinances protecting biological resources (Less than Significant with Mitigation)

Yolo Natural Heritage Program (YNHP): The Yolo Natural Heritage Program (YNHP) is a county-wide Natural Communities Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for a 653,820 acre planning area. When adopted, the YNHP will conserve the natural open space and agricultural landscapes that provide habitat for many special status and at-risk species found within the habitats and natural communities in Yolo County. The YNHP will describe the measures that will be undertaken to conserve important biological resources, obtain permits for urban growth and public infrastructure projects, and continue Yolo County's agricultural heritage.

The YNHP is not yet adopted. After the YNHP is adopted, projects would need to be coordinated with the YNHP administrator to ensure that the project does not conflict with the YNHP. Because the YNHP is not yet adopted, there is currently no potential for conflict with this document. However, it is possible that the YNHP is adopted within the planning/implementation horizon for the proposed project. Implementation of Mitigation Measure 3.4-5 would ensure that any potential for conflict is reduced to a **less than significant** level.

Swainson's Hawk Interim Mitigation Fee Program: The Swainson's Hawk Interim Mitigation Fee Program is currently in effect, but is not applicable to the proposed project. The Mitigation Fee Program is applicable to projects smaller than 40 acres in size. The proposed project is larger than 40 acres, and must provide compensatory land directly. This topic was previously discussed and mitigation is provided that ensures that the proposed project is consistent with applicable Swainson's Hawk mitigation requirements. Implementation of Mitigation Measure 3.4-5 would ensure that any potential for conflict is reduced to a **less than significant** level.

City of Davis Tree Preservation Ordinance (Davis Municipal Code, Chapter 37): The Initial Arborist Report and Tree Inventory Summary identified 384 trees located on or overhanging the project site. This certified arborist recommended removal of 65 of the inventoried trees due to the nature and extent of defects, compromised health and or structural instability noted at the time of field inventory efforts. The certified arborist noted that if these trees were retained they may be hazardous depending upon their proximity to planned development activities. The trees recommended for removal due to the severity of noted defects, compromised health and or structural instability are listed in Table 3.4-4 below.

TABLE 3.4-4: TREES RECOMMENDED FOR REMOVAL BY CERTIFIED ARBORIST

TREE#	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	STRUCTURE	VIGOR
1104	Black Acacia	*(Acacia melanoxylon)*		22	16	Poor	Fair
1105	Black Acacia	*(Acacia melanoxylon)*		17	19	Poor	Fair

TREE#	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)		
						STRUCTURE	VIGOR
1116	Fruitless Mulberry	*(Morus alba)*		9	8	Poor	Fair
1121	Eucalyptus sp	*(Eucalyptus sp)*		23	26	Poor	Fair
1130	Eucalyptus sp	*(Eucalyptus sp)*		28	24	Poor to fair	Fair
1135	Fruitless Mulberry	*(Morus alba)*		10	14	Poor	Fair
1156	Eucalyptus sp	*(Eucalyptus sp)*		18	18	Poor	Fair
1162	Black Acacia	*(Acacia melanoxylon)*		13	20	Poor	Fair
1168	Modesto Ash	*(Fraxinus velutina)*		18	16	Poor to fair	Poor
1174	Black Acacia	*(Acacia melanoxylon)*	6,9	15	18	Poor to fair	Fair
1179	Fruitless Mulberry	*(Morus alba)*		18	22	Poor	Fair
1180	Carob	*(Ceratonia silqua)*	3,4,5	12	16	Poor	Fair
1187	Fruitless Mulberry	*(Morus alba)*		19	25	Poor	Fair
1195	Valley Oak	*(Quercus lobata)*		10	17	Poor to fair	Fair
1198	Fruitless Mulberry	*(Morus alba)*	10,11,11	32	20	Poor to fair	Fair
1201	Fruitless Mulberry	*(Morus alba)*		19	21	Poor	Fair
1210	Plum	*(Prunus sp)*	2,3,5	10	8	Poor to fair	Fair
1212	Carob	*(Ceratonia siliqua)*	2,4	6	9	Poor	Fair
1215	Eucalyptus sp	*(Eucalyptus sp)*		19	16	Poor to fair	Poor
1218	Fruitless Mulberry	*(Morus alba)*		19	22	Poor to fair	Fair
1227	Black Acacia	*(Acacia melanoxylon)*		16	16	Poor to fair	Fair
1233	Evergreen Pear	*(Pyrus kawakami)*		10	9	Poor	Fair
1236	California Black Walnut	*(Juglans hindsii)*		19	16	Poor	Fair
1237	Black Acacia	*(Acacia melanoxylon)*		18	9	Poor	Fair
1241	Tree of Heaven	*(Alianthus altissima)*	2,3,4	9	8	Poor to fair	Fair
1250	American Elm	*(Ulmus americana)*		17	20	Poor to fair	Fair
1256	Brazillian Pepper	*(Schinus terebinthifolius)*	3,3,4,6	16	12	Poor to fair	Fair
1258	Valley Oak	*(Quercus lobata)*	5,5	10	10	Poor to fair	Fair
1260	Pacific Willow	*(Salix lasiandra)*	3,4,4	11	11	Poor to fair	Fair
1281	Chinese Pistache	*(Pistacia chinensis)*	4,4,5	13	12	Poor to fair	Fair
1301	Carob	*(Ceratonia siliqua)*	4,5,6,6,7, 7	35	18	Poor	Poor to fair
1302	Deodora Cedar	*(Cedrus deodora)*		11	12	Poor	Fair
1303	Black Acacia	*(Acacia melanoxylon)*	2,2,2,3	9	8	Poor to fair	Fair
1308	Carob	*(Ceratonia siliqua)*		10	20	Poor	Fair
1311	Carob	*(Ceratonia siliqua)*	9,10,11	30	16	Poor	Fair
1312	Carob	*(Ceratonia siliqua)*	9,15	24	12	Poor	Fair
1313	Carob	*(Ceratonia siliqua)*	9,11	20	15	Poor to fair	Poor to fair
1330	Valley Oak	*(Quercus lobata)*	2,3,3	8	7	Poor	Fair
1331	Black Acacia	*(Acacia melanoxylon)*	5,8	13	15	Poor	Fair
1332	Black Acacia	*(Acacia melanoxylon)*		13	20	Poor	Fair
1333	Black Acacia	*(Acacia melanoxylon)*	5,7,10	22	16	Poor	Fair
1348	Fruitless Mulberry	*(Morus alba)*		10	14	Poor to fair	Fair
1349	Fruitless Mulberry	*(Morus alba)*		9	7	Poor	Poor
1352	Fruitless Mulberry	*(Morus alba)*		13	20	Poor	Fair
1354	Fruitless Mulberry	*(Morus alba)*		20	17	Poor to fair	Fair
1360	Carob	*(Ceratonia siliqua)*	3,4,4,4	15	9	Poor	Fair
1369	Fruitless Mulberry	*(Morus alba)*		16	15	Poor	Fair

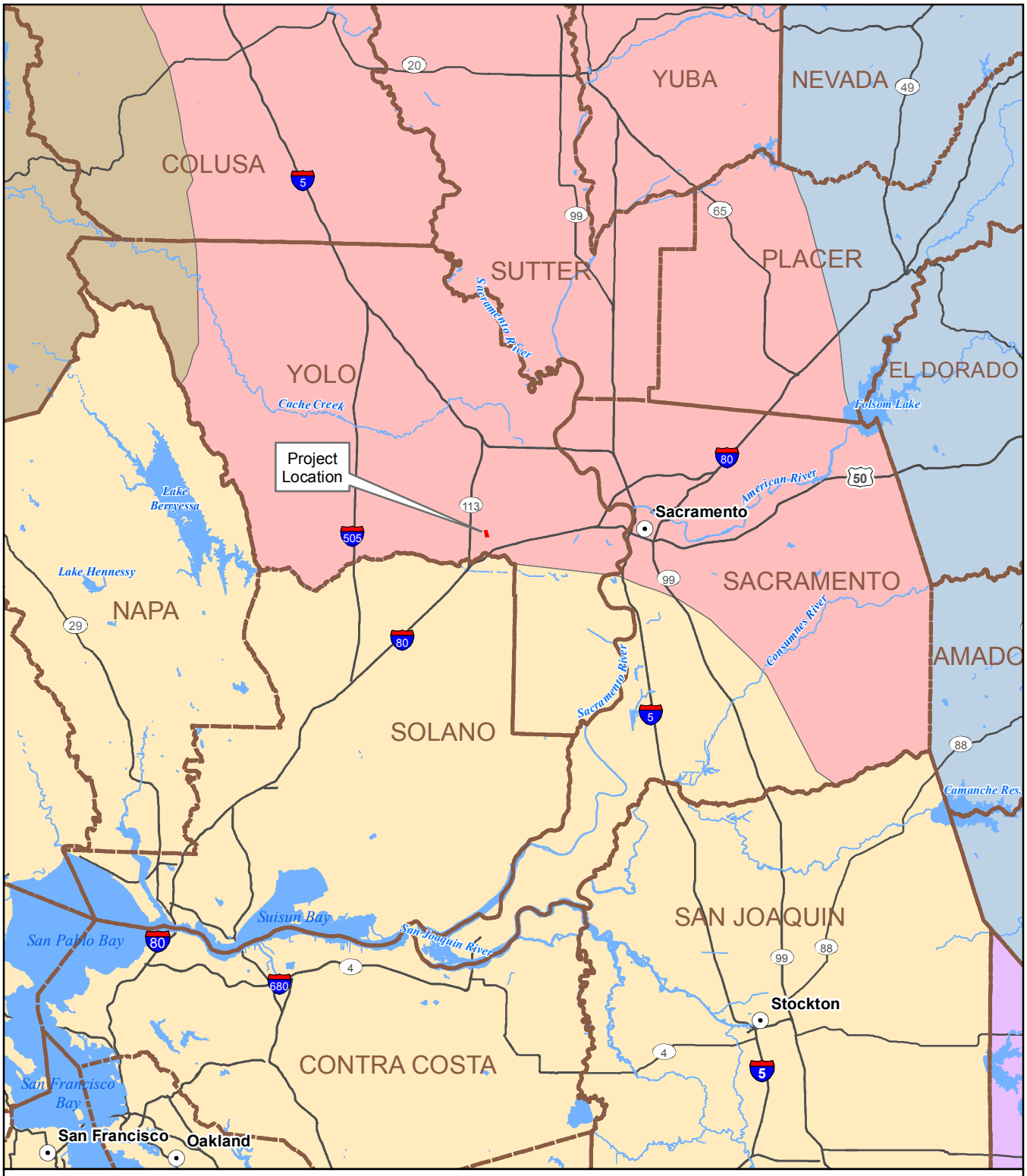
TREE#	COMMON NAME	SPECIES	MULTI-STEMS (inches)	TOTAL DBH (inches)	DLR (feet)	STRUCTURE	VIGOR
1373	Fruitless Mulberry	*(Morus alba)*		13	17	Poor to fair	Fair
1382	Fruitless Mulberry	*(Morus alba)*		11	10	Poor	Fair
1394	Black Acacia	*(Robinia pseudoacacia)*		23	21	Poor	Fair
1395	Black Acacia	*(Robinia pseudoacacia)*	5,7,8	20	8	Poor to fair	Fair
1401	Black Acacia	*(Acacia melanoxylon)*		7	12	Poor to fair	Fair
1404	Eucalyptus sp	*(Eucalyptus sp)*		19	20	Fair	Poor to fair
1406	Black Acacia	*(Acacia melanoxylon)*	7,7,10	24	16	Poor	Fair
1411	Black Acacia	*(Acacia melanoxylon)*	6,8	14	8	Poor to fair	Fair
1415	Carob	*(Ceratonia siliqua)*	11,12	33	14	Poor	Fair
1427	Valley Oak	*(Quercus lobata)*		28	17	Poor	Fair
1430	Black Acacia	*(Acacia melanoxylon)*		9	11	Poor	Fair
1436	Black Acacia	*(Acacia melanoxylon)*		8	7	Poor	Poor
1438	Black Acacia	*(Acacia melanoxylon)*		10	3	Poor	Poor
1439	Black Acacia	*(Acacia melanoxylon)*	6,10	16	9	Poor	Poor
1440	Black Acacia	*(Acacia melanoxylon)*		7	8	Poor	Poor
1445	Black Acacia	*(Acacia melanoxylon)*	7,10	17	16	Poor	Fair
1458	Black Acacia	*(Acacia melanoxylon)*		6	15	Poor	Fair
1482	Black Acacia	*(Acacia melanoxylon)*		12	12	Poor to fair	Fair

SOURCE: SIERRA NEVADA ARBORISTS 2012

The *Initial Arborist Report and Tree Inventory Summary* (Sierra Nevada Arborists 2012) provides a review of the species, size, and current structure and vigor of the trees within and/or overhanging the project site and offsite improvements site. However, the impacts on a specific root system and canopy on a tree-by-tree basis cannot be definitively assessed until the grading and improvement plans have been refined and finalized and data from the accompanying inventory summary (Le. tree numbers, dripline radius and root protection zones) is properly depicted on the plans. The City's Tree Ordinance defines five categories of protected trees. All of the 65 trees recommended for removal fall into a protected tree category. It is likely that grading, improvement, and building plans will require the removal of additional trees. Removal of any tree on the project site or offsite improvements site is subject to the Tree Ordinance. Implementation of the following mitigation measure would ensure that any potential for conflict is reduced to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-12: *Prior to the commencement of construction, the project proponent shall retain a qualified arborist to perform preconstruction surveys of the project site and offsite improvements site. The Initial Arborist Report and Tree Inventory (April 2012) shall be updated based on subdivision maps, grading plans, improvement plans, and building plans to detail the trees to be preserved and removed. The arborist shall include a Tree Protection Plan that illustrates the grading/improvement plans with the trees plotted on the plans. Compliance with the Tree Protection Plan shall be required before and during any site disturbance and construction activity and prior to issuance of building permits. A Tree Modification Permit shall be submitted to the City for any proposed removal of a tree. Fees shall be assessed by the City, and paid by the project proponent, in accordance with the Davis Municipal Code Chapter 37 Tree Planting, Preservation, and Protection.*



Bioregions

- Bay/Delta
- Klamath/North Coast
- Sacramento Valley
- San Joaquin Valley
- Sierra

City of Davis: The Cannery Project

Figure 3.4-1: Bioregions

N

0 2.5 5 10

Miles

Data sources: California Department of Forestry and Fire Protection- FRAP
California Bioregions (INACCregions04_1); City of Davis GIS, California
Spatial Information Library, ESRI's StreetMap North America. Map date: August 24, 2012.

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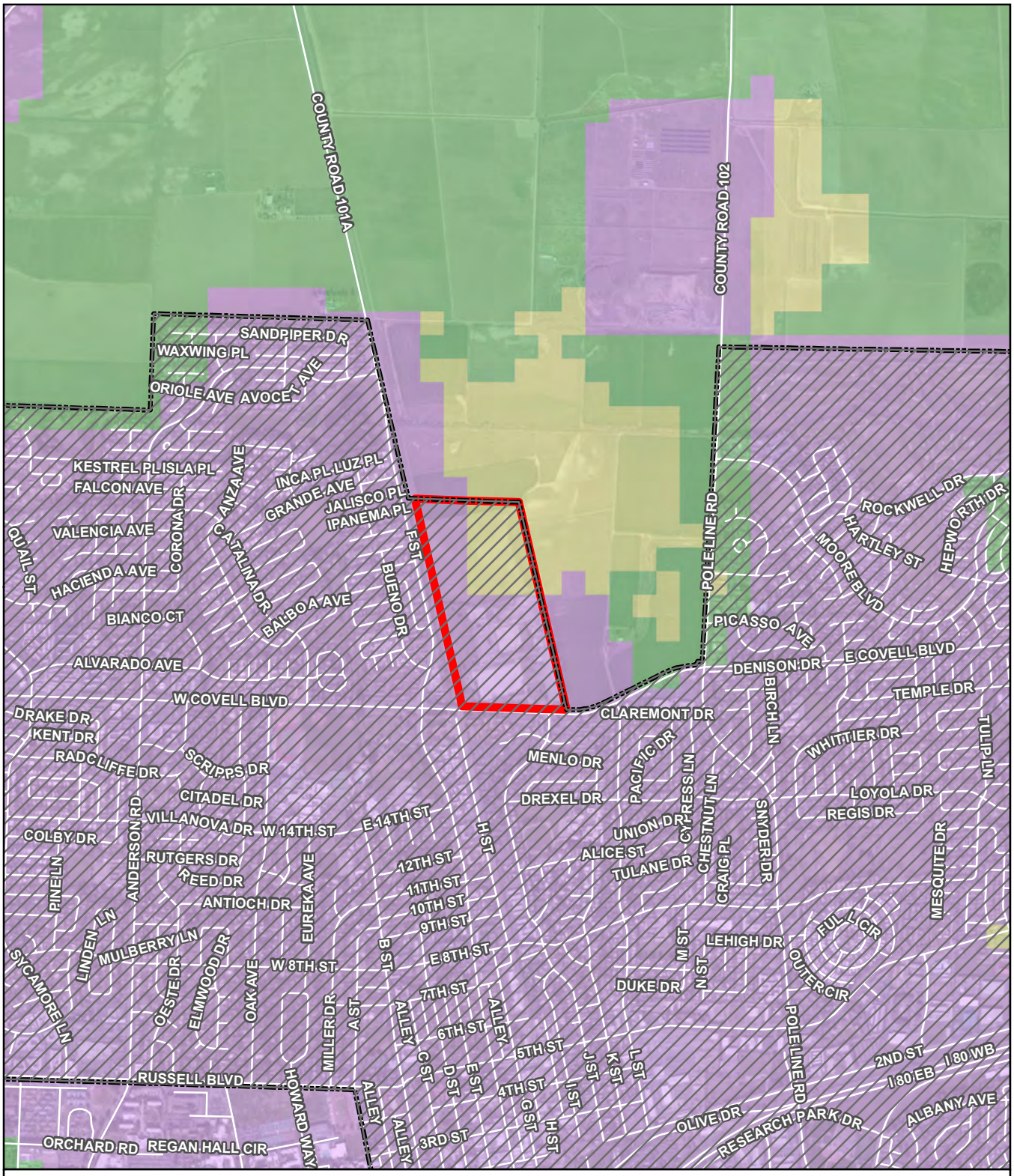

Land Cover Types

- Agriculture
- Annual Grassland
- Urban
- Project Site
- City of Davis

City of Davis: The Cannery Project

Figure 3.4-2: Land Cover Types

N

0 500 1,000

Feet

Data sources: California Department of Forestry and Fire Protection FRAP - Multi-Source Land Cover Data (v02_2), 2002; ArcGIS Online BING Aerials; City of Davis GIS; Yolo County GIS;
Map date: August 24, 2012.

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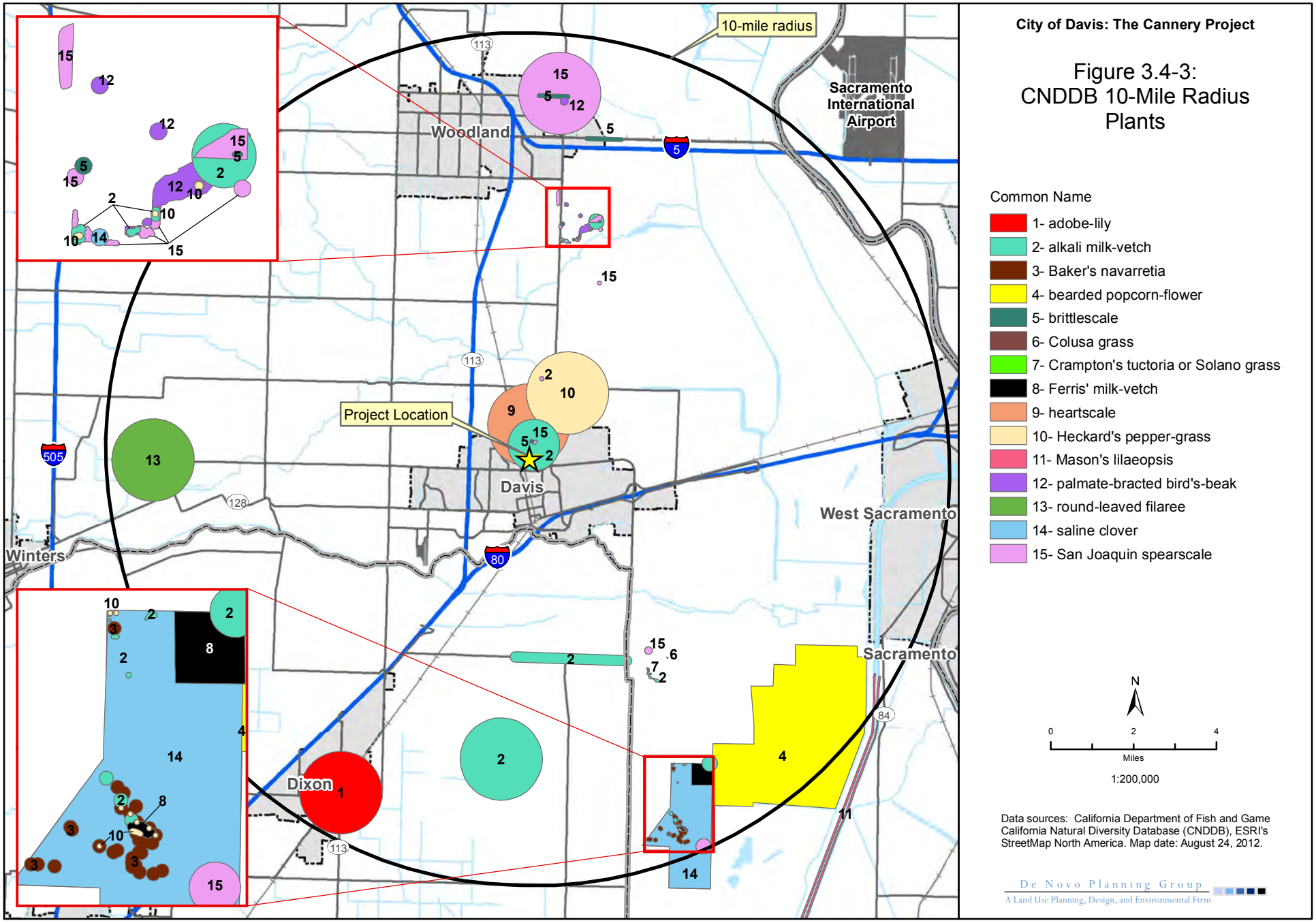
City of Davis: The Cannery Project
Figure 3.4-3:
CNDDB 10-Mile Radius
Plants
10-mile radius
Project Location
Woodland
Davis
West Sacramento
Sacramento
Winters
Dixon
Sacramento International Airport
Common Name
1- adobe-lily
2- alkali milk-vetch
3- Baker's navarretia
4- bearded popcorn-flower
5- brittlescale
6- Colusa grass
7- Crampton's tuctoria or Solano grass
8- Ferris' milk-vetch
9- heartscale
10- Heckard's pepper-grass
11- Mason's lilaeopsis
12- palmate-bracted bird's-beak
13- round-leaved filaree
14- saline clover
15- San Joaquin spearscale
N
0
2
4
Miles
1:200,000
Data sources: California Department of Fish and Game California Natural Diversity Database (CNDDB), ESRI's StreetMap North America. Map date: August 24, 2012.
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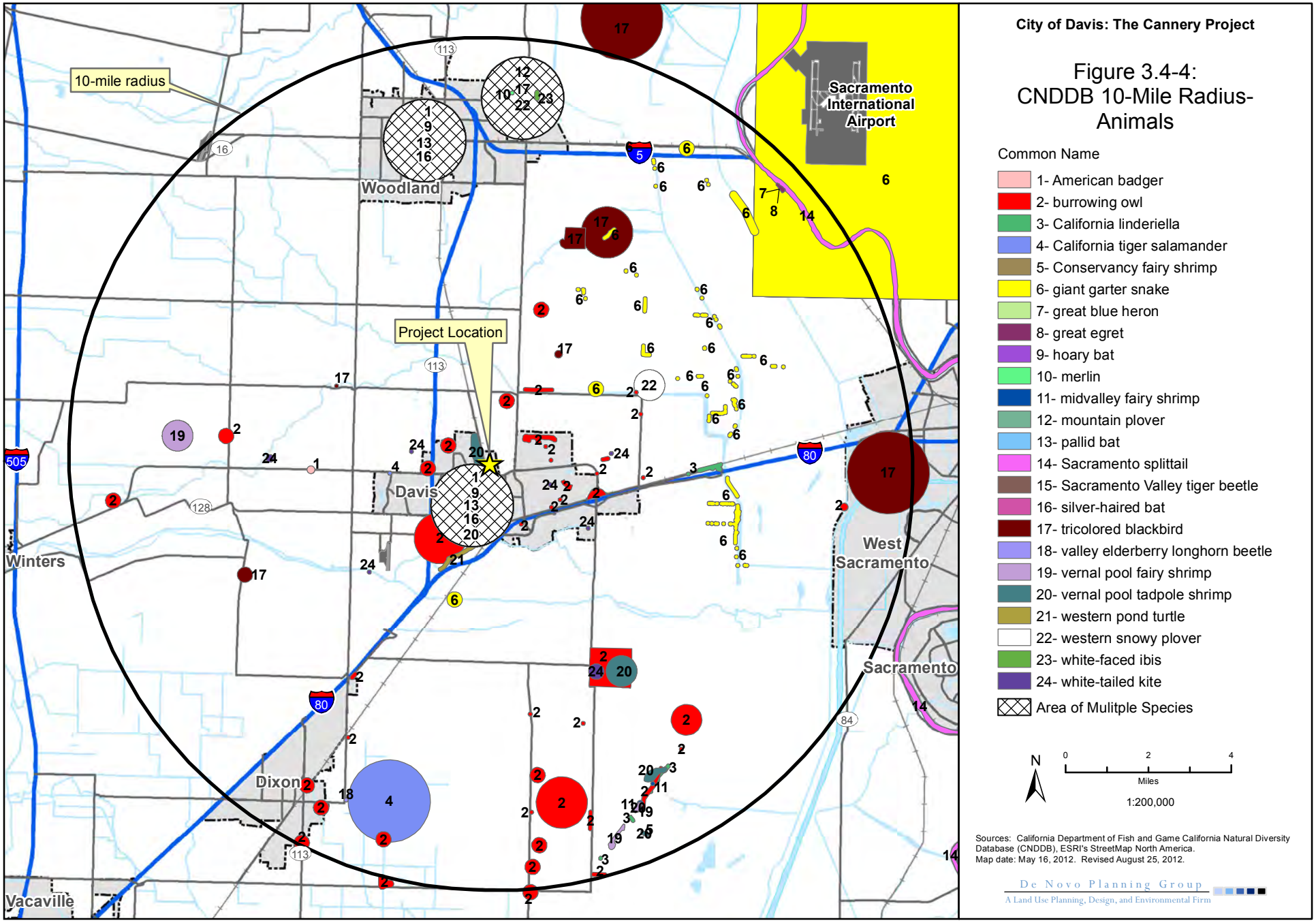
City of Davis: The Cannery Project
Figure 3.4-4:
CNDDB 10-Mile Radius-
Animals
Common Name
1- American badger
2- burrowing owl
3- California linderiella
4- California tiger salamander
5- Conservancy fairy shrimp
6- giant garter snake
7- great blue heron
8- great egret
9- hoary bat
10- merlin
11- midvalley fairy shrimp
12- mountain plover
13- pallid bat
14- Sacramento splittail
15- Sacramento Valley tiger beetle
16- silver-haired bat
17- tricolored blackbird
18- valley elderberry longhorn beetle
19- vernal pool fairy shrimp
20- vernal pool tadpole shrimp
21- western pond turtle
22- western snowy plover
23- white-faced ibis
24- white-tailed kite
Area of Mulitple Species
10-mile radius
Project Location
Sacramento International Airport
Woodland
Davis
Winters
West Sacramento
Sacramento
Dixon
Vacaville
N
0
2
4
Miles
1:200,000
Sources: California Department of Fish and Game California Natural Diversity Database (CNDDB), ESRI's StreetMap North America.
Map date: May 16, 2012. Revised August 25, 2012.
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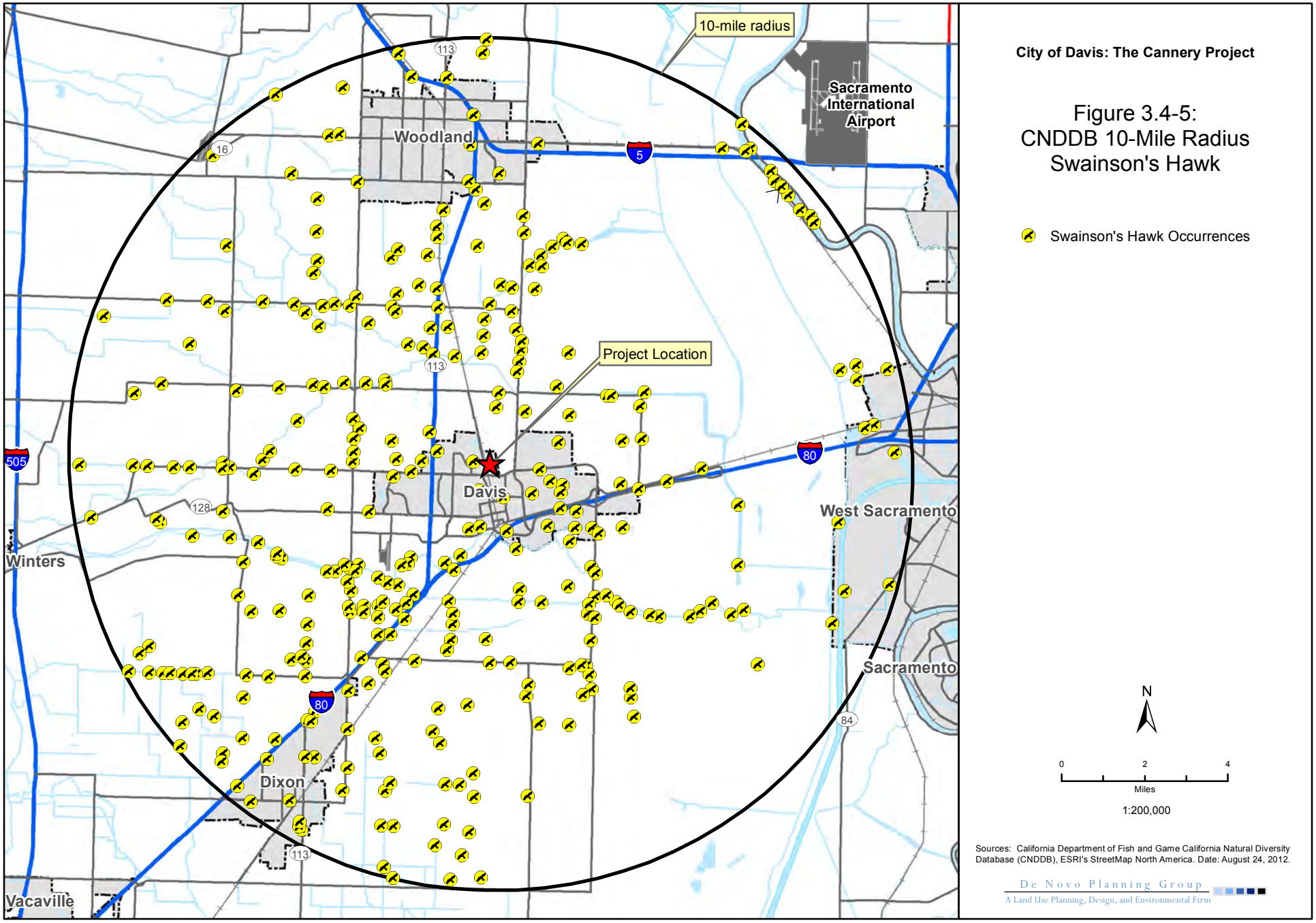

City of Davis: The Cannery Project

Figure 3.4-5: CNDDB 10-Mile Radius Swainson's Hawk

Swainson's Hawk Occurrences

N

0 2 4
Miles

1:200,000

Sources: California Department of Fish and Game California Natural Diversity Database (CNDDB), ESRI's StreetMap North America. Date: August 24, 2012.

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CITY OF DAVIS: THE CANNERY PROJECT

Figure 3.4-6: Onsite Wetlands

Study Area Boundary (52.8 acres)

Wetland (1.273 acres)

Data sources: Wetlands Research Associates (2002).
Map date: January 23, 2013.

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