

4.3 BIOLOGICAL RESOURCES

This section describes the existing biological resources on and in the vicinity of the proposed project site, including special-status species and/or species of special concern and sensitive habitats, such as wetlands. Potential impacts to biological resources associated with implementation of the proposed project are described, and mitigation measures are identified, where required. Information in this section is based on the *Biological Due Diligence Assessment*¹ (Biological Assessment) (provided in **Appendix C** of this EIR) and a reconnaissance-level biological survey of the site conducted by LSA on February 3, 2022.

4.3.1 Environmental Setting

4.3.1.1 Project Site and Surrounding Land Uses

The project site consists mostly of undeveloped land dominated by herbaceous and ruderal vegetation. The site is bordered to the north by residential development; to the northeast by the Fairfield Business Center and an access drive; to the south by Business Center Drive and a parcel currently being developed with a hotel; and to the southwest by a constructed drainage ditch and associated riparian corridor that follows the alignment of a historic tributary to Green Valley Creek. Historical imagery shows past mixed agriculture on the project site since at least 1968, and a history of semi-regular discing.² Additionally, significant disturbance, grading, and excavation activities occurred from 2002 to 2004 during construction of the Business Center Drive roadway and adjacent Fairfield Business Center to the northeast, and again in 2007 during the business center's expansion. Since 2008, the project site appears to have been maintained through regular discing and mowing activities. As a result of past disturbance and grading, the project site is mostly flat and open; however, long, slightly raised mounds and shallow depressions are present in the central portion of the project site, presumably as a result of previous earthwork that occurred on the site. A seasonal wetland exists in one of the linear depressions.

4.3.1.2 Project Site Surveys

Detailed field surveys of the project site were conducted by WRA for the preparation of the Biological Assessment and a reconnaissance-level survey was conducted by LSA to confirm the information presented in the Biological Assessment and document current site conditions.

Prior to conducting field surveys, background literature was reviewed to determine the potential presence of sensitive vegetation communities, aquatic communities, and special-status plant and wildlife species and their habitats. Resources reviewed for sensitive vegetation and aquatic features include aerial photography, mapped soil types, the California Native Plant Society (CNPS) Online Databases (2022) and the California Department of Fish and Wildlife's (CDFW) California Natural

¹ WRA Environmental Consultants (WRA). 2022. *Green Valley III Apartments Property - Biological Due Diligence Assessment*. March 22, 2022.

² Ibid.

Diversity Database.^{3,4} For databases queries the *Cordelia, Mt. George, Fairfield North, Fairfield South, Napa, Cuttings Wharf, Mare Island, Benicia, and Vine Hill* United States Geological Survey (USGS) 7.5-minute quadrangles were included as the focal search area.⁵

Surveys of the project site were conducted by WRA on March 30, 2021, June 10, 2021, and December 9, 2021, and by LSA on February 3, 2022. The March 30, 2021, survey by WRA and February 3, 2022, survey by LSA were conducted to evaluate the potential presence of sensitive vegetation communities and aquatic features, as well as the potential for the project site to support special-status plant and wildlife species. On June 10, 2021, a WRA plant biologist conducted a survey for special-status plants. A WRA wetland biologist evaluated the potential for on-site aquatic features to occur on the project site on December 9, 2021. The project site conditions were noted as they relate to habitat requirements of special-status plant and wildlife species known to occur in the vicinity, as determined by background literature research.

4.3.1.3 Existing Conditions and Land Cover Types

The project site consists mostly of undeveloped land dominated by herbaceous and ruderal vegetation, as reflected in **Figure 4.3-1: Land Cover Types** and **Table 4.3.A: Land Cover Types within the Project Site**. The majority of the project site is composed of non-native, annual grassland dominated by ruderal species including wild oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), Harding grass (*Phalaris aquatica*), riggut brome (*Bromus diandrus*), hairy vetch (*Vicia villosa* ssp. *villosa*), black mustard (*Brassica nigra*), and salsify (*Tragopogon porrifolius*). A small seasonal wetland has formed within one of the linear depressions on the project site, as described in further detail below. A paved parking lot is present along the northeast boundary of the project site. A narrow strip of landscaping vegetated with ornamental shrubs and mulching is present in the east corner of the project site by the Fairfield Business Center entrance.

Table 4.3.A: Land Cover Types within the Project Site

Land Cover Type	Area (acres)
Non-native Annual Grassland	4.62
Developed	0.43
Landscaped	0.09
Seasonal Wetland	0.11
Stream	0.13
Riparian	0.38
TOTAL ¹	5.77

Source: WRA (2022).

¹ The total acreage differs slightly from the sum of the acreages due to rounding.

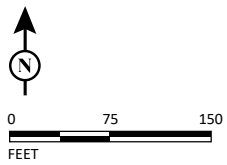
³ California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants of California. California Native Plant Society, Sacramento, CA. Website: <https://www.rareplants.cnps.org>. (accessed March 2022).

⁴ California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database. Wildlife and Habitat Data Analysis Branch, Sacramento, CA. Website: <https://wildlife.ca.gov/Data/CNDDDB> (accessed March 2022).

⁵ WRA. 2022. op cit.



FIGURE 4.3-1



SOURCE: WRA Environmental Consultants

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Green Valley 3 Apartments Project
Land Cover Types

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The project site includes an unnamed drainage and associated riparian corridor along the western boundary. The riparian corridor within the project site is dominated by a mixed oak/willow overstory and mixed scrub understory and a dense thicket of Himalayan blackberry (*Rubus armeniacus*). Dominant overstory vegetation in the mixed riparian areas include arroyo willow (*Salix lasiolepis*), coast live oak (*Quercus agrifolia*), and valley oak (*Q. lobata*). Dominant understory vegetation includes Himalayan blackberry, poison oak (*Toxicodendron diversilobum*), and valley sedge (*Carex barbarae*).

The project site contains a single, 0.11-acre seasonal wetland that is located in a depression that is the result of past anthropogenic disturbance (e.g., discing, grading, and excavation) in the southern portion of the project site. Dominant vegetation within the seasonal wetland includes Italian ryegrass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum ssp. gussoneanum*), and bird's-foot trefoil (*Lotus corniculatus*), all of which are facultative species. The seasonal wetland would likely be considered jurisdictional by the United States Army Corp of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) (see Regulatory Setting below).

The project site also includes an unnamed 0.13-acre (about 430 linear feet) intermittent drainage along the western boundary. The drainage is a manmade, earthen channel that appears to have been created to drain the adjacent off-site detention basin to the northwest, which itself was constructed at the same time as the adjacent residential development (circa 2004). The drainage connects to an old tributary to Green Valley Creek and continues to a culvert that drains under Business Center Drive. During WRA's site visits in March and June 2021, the drainage was saturated only and completely dry, respectively, indicating that while the drainage is not perennial, it appears to contain water for a duration longer than during or immediately after storm events. At the time of WRA's December 2021 site visit (following heavy precipitation events in October), the drainage was inundated but not flowing, suggesting that the downstream culvert at Business Center Drive may have been blocked. During the February 2022 LSA site visit, the drainage held ponded water with no flow. Based on these observations, the drainage is classified as intermittent. The channel was primarily unvegetated at the time of WRA's 2021 site visits. The drainage would be subject to USACE, RWQCB, and California Department of Fish and Wildlife (CDFW) jurisdictions (see Regulatory Setting below).

4.3.1.4 Wildlife Habitats

Wildlife expected to occur on the project site consist primarily of common, urban-adapted species. A complete list of species observed on the project site is provided in the Biological Assessment (**Appendix C**). Other species that were not observed but could occur on the project site include the California towhee (*Melospiza crissalis*) and house sparrow (*Passer domesticus*). Mammal species expected to use the site include Virginia opossum (*Didelphis virginiana*), house mouse (*Mus musculus*), and feral and/or free-ranging domestic cats (*Felis catus*). Some amphibian and reptile species such as garter snakes (*Thamnophis* spp.) and slender salamander (*Batrachoseps attenuatus*) could occur in the riparian corridor.

There is a low potential for ground-nesting birds to nest on the project site, due to its frequent disturbance and the presence of feral cats. Nesting by native and non-native bird species, including

migratory birds and birds of prey is more probable in the trees and shrubs on the edges of the project site and discussed below.

4.3.1.5 Special-Status Species

For the purpose of this analysis, special-status species are defined as follows:

- Species that are listed, formally proposed, or designated as candidates for listing as threatened or endangered under the federal Endangered Species Act (FESA);
- Species that are listed, or designated as candidates for listing, as rare, threatened, or endangered under the California Endangered Species Act (CESA);
- Plant species assigned to California Rare Plant Ranks (CRPR) 1A, 1B, and 2A and 2B;
- Wildlife species designated as Species of Special Concern or Fully Protected by CDFW;
- Species that meet the definition of rare, threatened, or endangered under Section 15380 of the California Environmental Quality Act (CEQA) guidelines; or
- Species considered a taxon of local concern by local agencies.

4.3.1.6 Special-Status Plant Species

The project site, which is regularly disced and mowed, is in a disturbed condition that is characterized by non-native species characteristic of disturbed areas. However, based on a review of the resource databases, as reflected in **Section 4.3.1.2** above and the species table included in Attachment C to the Biological Assessment, one plant species was initially determined to have a moderate potential to occur within the project site: pappose tarplant (*Centromadia parryi* ssp. *parryi*).⁶

Pappose tarplant; CRPR 1B.2. Pappose tarplant is an annual herb in the sunflower family (Asteraceae) that blooms from May to November. It typically occurs in vernal mesic, often alkaline areas in coastal prairie, meadow, seep, coastal salt marsh, and valley and foothill grassland habitat at elevations ranging from 5 to 1,380 feet. Known associated species include bristly ox-tongue (*Helminthotheca echioides*), wild radish (*Raphanus sativus*), foxtail fescue (*Festuca myuros*), willow leaf dock (*Rumex salicifolius*), toad rush (*Juncus bufonius*), Italian rye grass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum*), salt grass (*Distichlis spicata*), alkali heath (*Frankenia salina*), perennial pepperweed (*Lepidium latifolium*), yellow star thistle (*Centaurea solstitialis*), alkali mallow (*Malvella leprosa*), and alkali weed (*Cressa truxillensis*). Because there was potential for pappose tarplant to occur on the project site due to the existing site conditions and the presence of associated species, a focused survey was conducted by a plant biologist in June 2021. No pappose

⁶ WRA. 2022. op cit.

tarplant (or any candidate for this species) was observed during an appropriately timed survey, and thus this species is considered absent from the project site.⁷

4.3.1.7 Special-Status Wildlife Species

No special-status wildlife species were observed during the site surveys conducted by WRA or LSA. However, based on a review of the resource databases, as reflected in **Section 4.3.1.2** above, the species table included in Attachment C to the Biological Assessment, and LSA's in-house knowledge of the surrounding areas, the potential presence of the following seven special-status wildlife species on the project site was evaluated: Swainson's hawk (*Buteo swainsoni*), white-tailed kite (*Elanus leucurus*), burrowing owl (*Athene cunicularia*), valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), monarch butterfly (*Danaus plexippus*), California red-legged frog (*Rana draytonii*), western pond turtle (*Actinemys marmorata*), and steelhead (*Oncorhynchus mykiss irideus*) – Central California Coast Distinct Population Segment (DPS).⁸ All other species that were identified based on database searches are unlikely or have no potential to occur on the project site because of one or more of the following reasons: the project site is outside of the known or historical range of the species; the project site lacks suitable habitat (e.g., marsh, estuarine, perennial stream, seasonal wetlands/vernal pools with sufficient hydrology, chaparral, open forest, sufficient nesting/roosting substrates, etc.); and the project site lacks connectivity with suitable habitat in the region.⁹

Swainson's Hawk; State Threatened; Solano Multispecies Habitat Conservation Plan (Solano HCP) Focal Species. Swainson's hawk nesting has been documented approximately 1 mile from the project site in 2004 (California Natural Diversity Database [CNDDDB] Occurrence #1372).¹⁰ Although nesting records have not yet been published in CNDDDB, LSA conducted Swainson's hawk nesting surveys (2019 through 2021) for the City of Fairfield as part of Public Work's routine maintenance agreement with CDFW for the City's stream maintenance activities. LSA also participated in ongoing studies for several Caltrans maintenance projects along I-80 within the City of Fairfield in 2020 and 2021. Based on these protocol level surveys, two active Swainson's hawk nests are located approximately 1.8 and 2.5 miles to the east of the project site.

The project site is disturbed and at least semi-regularly disced, reducing potential prey base for the species. The site is immediately surrounded by hardscaped commercial and residential development, and is within a greater area of development with several undeveloped parcels interspersed, reducing the potential for regular occupation of the vicinity by Swainson's hawk. For these reasons, foraging by Swainson's hawk within the project site is unlikely overall but cannot be completely ruled out, as Swainson's hawks forage over broad areas (up to 10 miles or farther from a nest site). As such, the project site provides 5.78 acres of marginally suitable foraging habitat for Swainson's hawk.

⁷ WRA. 2022. op cit.

⁸ Ibid.

⁹ Ibid.

¹⁰ CDFW. 2022. op. cit.

White-tailed Kite; State Fully Protected Species. The white-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities. Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall. This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates. The nearest recorded nesting occurrence of this species is approximately 1.9 miles east of the project site from 2004 (CNDDDB Occurrence #97).¹¹The project site contains trees in the riparian corridor on the west and open grassland, providing potentially suitable year-round habitat for this species. No kites or nests were observed during the site visits. Because nesting territories often vary in location across years, nesting on or adjacent to the project site could occur in the future despite the lack of occurrences under baseline conditions.

Burrowing Owl; CDFW Species of Special Concern; Solano HCP Focal Species. Burrowing owl occurs in association with open, dry grasslands, deserts, agricultural areas, and rangeland throughout the Central Valley. The species often occurs where numerous burrowing mammals are present and frequently occupy California ground squirrel burrows. Burrowing owls may also use man-made structures such as debris piles, culverts, and cement piles for cover. The project site is highly disturbed and is regularly disced. No ground squirrels or suitable burrows were observed on the project site during the site visits conducted by WRA and LSA, and thus the project site is only marginally suitable foraging habitat for the burrowing owl. Furthermore, no burrowing owls have been documented within 3 miles of the project site based on CNDDDB and eBird records.^{12,13} Although burrowing owl is assessed as having a low potential to occur within the project site, the species is known to winter in the region and individuals could occasionally forage on the project site. Additionally, the project site is located within the Valley Floor Grassland Conservation Area of the proposed, but not yet adopted, Solano HCP. The Solano HCP proposes to require that projects mitigate for the loss of burrowing owl foraging habitat.

Valley Elderberry Longhorn Beetle; Federal Threatened; Solano HCP Focal Species. This beetle is found throughout the Central Valley in elderberry (*Sambucus* sp.) shrubs, on which it is completely dependent for larval development, and to a lesser degree, adult feeding. Typical habitat is characterized as large stands of mature elderberry shrubs in riparian or floodplain areas. As field surveys to determine presence/absence of the beetle may be difficult to perform effectively, a common approach is to simply avoid any elderberry shrubs present, or to transplant and/or mitigate for shrubs that cannot be avoided. Based on surveys conducted by WRA and LSA, although elderberry plants are present within the riparian habitat adjacent to and southeast of the project site, no elderberry shrubs were observed within the project site.¹⁴ As such, valley elderberry longhorn beetle is considered absent from the project site.

¹¹ CDFW. 2022. op. cit.

¹² Ibid.

¹³ eBird. 2022. Explore Data, eBird Records. Website: <https://ebird.org/ebird/explore>. Most recently accessed: March 2022.

¹⁴ WRA. 2022. op cit.

Monarch Butterfly, Federal Listing As Endangered Or Threatened Species Warranted But Precluded By Higher Priority Actions; Solano HCP Focal Species; State Winter Roosts Protected.¹⁵

Monarch butterflies are considered a habitat generalist, with a strong host plant specialization. Preferred breeding sites are typically thought to be open areas with a mix of nectar-rich resources for adults to feed along with milkweed (*Asclepias* spp.) for oviposition sites. Based on an analysis of winter roosts, the Biological Assessment concluded that the monarch is unlikely to occur on the project site.¹⁶ Solano County lies along an important monarch butterfly migration pathway and also provides important breeding habitat for monarch butterfly with at least 15 breeding records and over 1,300 individual life stages of monarch reported since 2017, including the Green Valley area (7 breeding records, 3 adult observations) in the vicinity of the project site.¹⁷ Although no milkweed has been identified on the project site by WRA or LSA, the project site and adjacent riparian area contain multiple suitable nectar plants.

California Red-Legged Frog; Federal Threatened, State Species of Special Concern. The California red-legged frog is mostly an aquatic species, but uses various aquatic systems, riparian, and upland habitats. Populations persist where a mosaic of habitat elements exists, embedded within a matrix of dispersal habitat. Adults are often associated with dense, shrubby riparian or emergent vegetation and areas with deep (greater than 28 inches) still or very slow-moving water; the largest summer densities of California red-legged frogs are associated with deep-water pools without predatory fish, with dense stands of overhanging willows and an intermixed fringe of cattails or tules. California red-legged frogs spend considerable time resting and feeding within dense riparian vegetation; the moisture and shelter provided by the riparian plant community provide good foraging habitat, and riparian vegetation provides cover during dispersal. Access to sheltering habitat is essential for the survival of California red-legged frogs within a watershed, and this can be a factor in limiting population numbers and distribution.

During periods of wet weather, starting with the first rains of fall, some individual California red-legged frogs may make long-distance overland excursions through upland habitats to reach breeding sites. Migrating frogs generally follow streams or riparian corridors, but individual frogs may travel up to 1.8 miles from water.¹⁸ However, most California red-legged frogs are non-migrating individuals and typically remain within 75 meters of their aquatic site of residence. Terrestrial movements are generally at night and during or after rain events. Without cover in the form of leaf litter, downed logs, large rocks, or burrows or other underground refuges, the frogs would rapidly dehydrate on land during dry weather. They would also be highly vulnerable to predation.

¹⁵ United States Fish and Wildlife Service (USFWS). 2020. Endangered and Threatened Wildlife and Plants; 12-Month Finding for the Monarch Butterfly. 85 FR 81813, Pages 81813-81822.

¹⁶ WRA. 2022. op cit.

¹⁷ Western Monarch and Milkweed Occurrence Database. 2022. Western Monarch Milkweed Mapper, a project by the Xerces Society, United States Fish and Wildlife Service, Idaho Department of Fish and Game, and Washington Department of Fish and Wildlife. Website: <https://www.monarchmilkweedmapper.org/> (accessed May 2022).

¹⁸ Bulger, J.B., Scott, N.J., and Seymour, R.B. 2003. Terrestrial activity and conservation of adult California red-legged frogs *Rana aurora draytonii* in coastal forests and grasslands. *Biological Conservation* 110:85–95.

The nearest CNDDDB occurrence for the species is a vegetated pond located approximately 1 mile west of the project site beyond Green Valley Road and the existing residential and commercial development areas.¹⁹ As described above, the project site is disturbed and nearly surrounded by development. It is separated from the nearest documented California red-legged frog occurrences by urban (hardscape) residential and commercial development as well as busy three/four lane roads (e.g., Business Center Drive and Green Valley Road), all of which presumably serve as partial or total barriers to movement. The intermittent, constructed drainage and tributary to Green Valley Creek within and adjacent to the project site, respectively, are not suitable breeding habitat and appear to have marginal direct hydrologic connectivity to the nearby Green Valley Creek. There are likely predatory fish in sections of Green Valley Creek that have water year-round. Given the historic disturbance within and adjacent to the project site, the marginal aquatic habitat present there, the dispersal barriers resulting from development, and lack of cover in the form of downed wood or burrows on the project site, California red-legged frogs are unlikely to occur on the project site.

Western Pond Turtle; State Species of Special Concern. Western pond turtles are primarily aquatic and are able to use a wide variety of water bodies including flowing rivers and streams, permanent lakes, ponds, reservoirs, ditches, water treatment ponds, marshes, and other wetlands. Females leave the water in the early summer to dig nests in friable soils and lay eggs. Nest sites are usually within 100 meters of a water body, although some have been reported up to 500 meters from water.²⁰ Soils at the nest site need to be loose enough to allow the female to excavate, and disturbance needs to be infrequent enough that nests are not disturbed.²¹ While on land, both males and female western pond turtles tend to stay concealed under leaf litter or pine needles.

The nearest CNDDDB occurrence for the species is a vegetated pond located approximately 1 mile west of the project site.²² Based on recent observations by LSA within the project site vicinity, there is suitable western pond turtle habitat in Green Valley Creek south of Business Center Drive, approximately 400 feet south of the project site at its nearest point.

Western pond turtles in the general area would likely occur in perennial or nearly perennial waters downstream and in ponds. As described above for California red-legged frog, extensive roads and other development form barriers to any turtles dispersing to the site. Human activity near and on the site and artificial lighting at night also make the project site less attractive to turtles. Because the project site is regularly mowed and/or disked, it would not be a suitable nesting site. Therefore, this species is unlikely to occur on the project site.

Steelhead – Central California Coast DPS; Federal Threatened. Steelhead are essentially native anadromous rainbow trout that migrate from marine waters to spawn in freshwater streams with suitable characteristics (e.g., cool, oxygenated water; cobble and gravel substrates). As per Leidy et

¹⁹ CDFW. 2022. op. cit.

²⁰ Thomson et al. 2016. California Amphibian and Reptile Species of Special Concern.

²¹ Ernst, C.H. and Lovich, J.E. 2009. Turtles of the United States and Canada. Johns Hopkins University Press, Baltimore, MD.

²² CDFW. 2022. op. cit.

al. (2005), Green Valley Creek, which drains into Cordelia Slough, supports a steelhead population.²³ As stated above, the intermittent drainage within the project site appears to have marginal hydrologic connectivity to Green Valley Creek, and it has a muddy bottom. It therefore does not provide any suitable movement, spawning or rearing habitat for steelhead. Therefore, this species is unlikely to occur on the project site.

4.3.2 Regulatory Setting

The following discusses applicable standards and policies related to biological resources, including those from federal, state, regional, and local agencies.

4.3.2.1 Federal Laws and Regulations

Federal Endangered Species Act. Under the FESA, the Secretary of the Interior and the Secretary of Commerce have joint authority to list a species as Threatened or Endangered (16 United States Code [USC] § 1533[c]). Pursuant to the requirements of the FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed or proposed species may be present in the project region, and whether the proposed project would result in a “take” of such species. The “take” provision of the FESA applies to actions that would result in injury, death, or harassment of a single member of a species protected under the Act. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under the FESA or result in the destruction or adverse modification of critical habitat for such species (16 USC § 1536[3][4]). If it is determined that a project may result in the “take” of a federally listed species, a permit from the United States Fish and Wildlife Service (USFWS) would be required under Section 7 or Section 10 of the FESA. Section 7 applies if there is a federal nexus (e.g., the project is on federal land, the lead agency is a federal entity, a permit is required from a federal agency, or federal funds are being used). Section 10 applies if there is no federal nexus.

Clean Water Act. The Federal Water Pollution Control Act of 1972, often referred to as the Clean Water Act, is the nation’s primary law for regulating discharges of pollutants into waters of the United States. The objective of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of the nation’s waters. The regulations adopted pursuant to the Act deal extensively with the permitting of actions in waters of the United States, including wetlands. The United States Environmental Protection Agency (USEPA) has primary authority under the Clean Water Act to set standards for water quality and for effluents, but the USACE has primary responsibility for permitting the discharge of dredge or fill materials into streams, rivers, wetlands, and other waters of the United States. Further, under Section 401 of the Clean Water Act, USACE must obtain a certification from the State (in this case, the RWQCB), to ensure that any permitted discharge of dredge or fill materials is protective of State water quality standards.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) (16 USC, Section 703, Supplement I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance

²³ Leidy, R.A., G.S. Becker, B.N. Harvey. 2005. Historical distribution and current status of steelhead/rainbow trout (*Oncorhynchus mykiss*) in streams of the San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, California.

with regulations prescribed by the Secretary of the Interior. The Act encompasses whole birds, parts of birds, and bird nests and eggs. With a few exceptions, most birds are considered migratory under the MBTA. Disturbances that cause nest abandonment and/or loss of reproductive effort or loss of habitat upon which these birds depend could be in violation of the MBTA. A December 2017 opinion from the Office of the Solicitor for the United States Department of the Interior concluded the MBTA restrictions apply only to affirmative and purposeful actions, such as hunting and poaching that reduce migratory birds and their nests and eggs, and not incidental taking. Guidance from the Principal Deputy Director of the USFWS, dated April 2018, provided further guidance on revisions to past policies and guidance regarding the MBTA, and concludes the MBTA's prohibitions on the take of migratory birds apply only when the purpose of the action is to take migratory birds, their eggs, or their nests. This was formalized as a final rule published on January 7, 2021. This rule was subsequently revoked on October 4, 2021. The USFWS has now returned to implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent and longstanding agency practice prior to 2017.

4.3.2.2 State Laws and Regulations

California Endangered Species Act. Under the CESA, the CDFW has the responsibility for maintaining a list of Threatened and Endangered species (California Fish and Game Code Section 2070). The CDFW also maintains a list of "candidate species," which are species formally under review for addition to either the list of endangered species or the list of threatened species. Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present on the project site and determine whether the proposed project could have a potentially significant impact on such species.

In addition, the CDFW maintains lists of "species of special concern" (SSC). This is an administrative designation and carries no formal legal status; however, SSCs should be considered during the CEQA process. Sections 15063 and 15065 of the *State CEQA Guidelines*, which address how an impact is identified as significant, are relevant to SSCs.

California Native Plant Protection Act. State listing of plant species began in 1977 with the passage of the California Native Plant Protection Act (NPPA), which directed the CDFW to carry out the legislature's intent to "preserve, protect, and enhance endangered plants in this state." 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 CESA expanded upon the original NPPA and enhanced legal protection for plants. There are three listing categories for plants in California: rare, threatened, and endangered.

The CNPS, a non-governmental conservation organization, has developed the CRPR system for species of concern. Vascular plants included on these lists are defined as follows:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere.
- **Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere.
- **Rank 2A:** Plants presumed extirpated in California, but common elsewhere.
- **Rank 2B:** Plants rare, threatened, or endangered in California, but more common elsewhere.

- **Rank 3:** Plants about which more information is needed—a review list.
- **Rank 4:** Plants of limited distribution—a watch list.

California Fish and Game Code. The California Fish and Game Code provides a variety of protections for species that are not federally or state-listed as Threatened, Endangered, or of special concern.

- Section 3503 protects all breeding native bird species in California by prohibiting the take, possession, or needless destruction of nests and eggs of any bird, with the exception of non-native English sparrows and European starlings (Section 3801).
- Section 3503.5 protects all birds of prey (in the orders Falconiformes and Strigiformes) by prohibiting the take, possession, or killing of raptors and owls, their nests, and their eggs.
- Section 3513 of the code prohibits the take or possession of migratory nongame birds as designated in the MBTA or any parts of such birds except in accordance with regulations prescribed by the Secretary of the Interior.
- Section 3800 of the code prohibits the taking of nongame birds, which are defined as birds occurring naturally in California that are not game birds or fully protected species.
- Section 3511 (birds), Section 5050 (reptiles and amphibians), and Section 4700 (mammals) designate certain wildlife species as fully protected in California.

CDFW also exerts jurisdiction over the bed and bank of watercourses according to the provisions of Sections 1601 to 1603 of the California Fish and Game Code. Fish and Game Code Section 1602 requires an entity to notify CDFW before commencing an activity that will substantially divert or obstruct the natural flow, or substantially change or use any material from the bed, channel or bank of any river, stream, or lake. CDFW requires a Lake or Streambed Alteration Agreement when a project activity may substantially adversely affect fish and wildlife resources.

Porter-Cologne Water Quality Control Act. The RWQCB is responsible for protecting surface, ground, and coastal waters within its boundaries, pursuant to the Porter-Cologne Water Quality Control Act of the California Water Code. As described above, the RWQCB has jurisdiction under Section 401 of the federal Clean Water Act for activities that could result in a discharge of dredged or fill material to a water body. Federal authority is exercised whenever a proposed project requires a Clean Water Act Section 404 permit from the USACE in the form of a Section 401 Water Quality Certification. When a proposed project is not subject to federal authority, State authority is exercised under the Porter-Cologne Water Quality Control Act in the form of a Notice of Coverage, Waiver of Waste Discharge Requirements. Many wetlands fall into RWQCB jurisdiction, including some wetlands and waters that are not subject to USACE jurisdiction. RWQCB jurisdiction of other waters, such as streams and lakes, extends to all areas below the ordinary high water mark. On April 2, 2019, the State Water Resources Control Board (SWRCB) adopted the *State Wetland Definition and Procedures for the Discharge of Dredged or Fill Material to Waters of the State* (procedures). The procedures became effective May 28, 2020. Applicants proposing to discharge dredged or fill material are required to comply with the procedures unless an exclusion applies, or the discharge qualifies for coverage under a General Order.

Under the Porter-Cologne Water Quality Control Act, the SWRCB and the nine RWQCBs also have the responsibility of granting Clean Water Act National Pollutant Discharge Elimination System (NPDES) permits and waste discharge requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

As stated above, any activities within the project site that impact waters of the United States or State will require 401 Certification and/or a Waste Discharge Requirement from the RWQCB.

4.3.2.3 Regional and Local Plans and Regulations

Solano Multispecies Habitat Conservation Plan. The project site is located within the Plan Area of the proposed Solano Multispecies Habitat Conservation Plan (Solano HCP). The Solano HCP is designed to establish a framework for complying with state and federal endangered species regulations while accommodating future urban growth, development of infrastructure, and ongoing operations and maintenance activities associated with flood control, irrigation facilities, and other public infrastructure undertaken by or under the permitting authority/control of the Plan Participants within Solano County and a small portion of Yolo County over a 30-year permit term. The administrative draft was finalized in 2012, but the Solano HCP is currently being revised and has not been adopted. However, some participating cities and agencies, including the City of Fairfield, are generally following the proposed mitigation guidelines set forth in the Draft HCP. Plan adoption is not anticipated until 2023 at the earliest. According to the Solano HCP, the majority of the project site is located within the boundaries of the Valley Floor Grassland and Vernal Pool Natural Community. The southwest portion of the project site is within the Riparian, Stream, and Freshwater Marsh Natural Community. For the purposes of the Solano HCP incidental take assessment, lands zoned or designated as agriculture or open space within the Plan Area are assumed to remain undeveloped. With respect to lands zoned for residential, industrial, commercial, active recreation, or similar designations, the Plan identifies those lands as planned for development. The proposed project site is located within an area identified for planned development under the Solano HCP (i.e., “Covered Activity Zone 1 – Urban Zone”).

City of Fairfield Municipal Code. The City has established specific standards, such as the Tree Preservation Ordinance (Fairfield Code, Chapter 25, Sections 25.36.1 through 25.36.11), that further implement the *State CEQA Guidelines*. The Tree Conservation Ordinance was created to improve public health and welfare by conserving tree resources, by protecting significant trees from unnecessary destruction or removal, encouraging the replacement of trees lost to disease, natural hazards, or human intervention. On undeveloped private properties, individuals of the following trees are considered “protected” by the City of Fairfield Tree Ordinance if they measure greater than 6 inches in diameter at 4.5 feet above the ground level of the tree: native oaks (*Quercus* spp.), bay laurel (*Umbellularia californica*), madrone (*Arbutus menziesii*), and buckeye (*Aesculus californicus*). Any person proposing to remove a protected tree on private land must apply for a tree removal permit with the City of Fairfield.

City of Fairfield General Plan. The following policies of the *City of Fairfield General Plan* pertaining to biological resources would be applicable to the proposed project:²⁴

Policy OS 7.1: Establish policies to protect indigenous wildlife and their habitats.

Policy OS 7.7: Continue promoting the preservation of existing mature trees and encourage the planting of appropriate shade trees in new developments.

Policy OS 9.10: Avoid or reduce the loss of riparian habitat to the extent feasible for each development site.

4.3.3 Significance Criteria

The significance criteria for biological resources impacts used in this analysis are consistent with Appendix G of the *State CEQA Guidelines*. The proposed project may be deemed to have a significant impact with respect to biological resources if it would:

- **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 state or federally protected wetlands (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.**

4.3.4 Methodology

The analysis below compares identified impacts to the standards of significance stated above and determines the impact's level of significance under CEQA. If the impact is determined to be

²⁴ City of Fairfield. 2013. *City of Fairfield General Plan*, Open Space, Conservation, and Recreation Element. August.

significant, the analysis identifies feasible mitigation measures to eliminate or reduce the impact to a less-than-significant level. If the impact cannot be reduced to a less-than-significant level after implementation of all feasible mitigation measures, then the impact is identified as significant and unavoidable.

4.3.5 Project Impacts

The following describes the potential impacts to biological resources that could result from implementation of the proposed project. As applicable, conditions of approval and mitigation measures are presented to reduce significant impacts.

4.3.5.1 Special-Status Species Impacts

For the reasons set forth in **Section 4.3.1.5** above, the following species are considered absent or unlikely to occur on the project site based on negative survey results and/or the lack of suitable habitat: pappose tarplant; valley elderberry longhorn beetle; California red-legged frog; western pond turtle; and steelhead, Central Coast DPS. As such, these species are not discussed further.

Impact BIO-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on Swainson's hawks.

There are no known Swainson's hawk nest sites within 0.25 mile of the project site, the distance at which audio and visual impacts to active nests may occur; however, there is documented nesting activity within the project vicinity, as discussed in **Section 4.3.1.7**, and the species could establish nests in the trees that are present in the riparian area to the southwest of the project site. Construction-related disturbance (e.g., noise, vehicle traffic, etc.) conducted during the nesting season for Swainson's hawk (March 1 to September 15) could indirectly impact this species by causing adults to abandon nests in nearby trees, resulting in nest failure and reduced reproductive potential. Developing the project site with buildings and paved surfaces would remove approximately 4 acres of marginal Swainson's hawk foraging habitat. Consistent with the Draft Solano HCP, compensatory mitigation for the loss of foraging habitat is not specified for infill developments with less than 5 acres of contiguous habitat on and off the parcel, that are surrounded by urban development on at least three sides, and where the project is likely to have no more than a minimal individual effect on the extent and quality of Swainson's hawk foraging habitat. Thus, compensatory mitigation for the loss of foraging habitat shall be implemented consistent with CDFW's 1994 *Staff Report Regarding Mitigation for Impacts to Swainson's Hawk in the Central Valley of California* consistent with the Open Space, Conservation, and Recreation Element of the City's General Plan. Implementation of **Mitigation Measures BIO-1 and BIO-2** would reduce potential direct impacts to Swainson's hawk to a less-than-significant level.

Level of Significance Prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measures would be implemented to reduce impacts to Swainson's hawk associated with the implementation of the proposed project.

MM BIO-1 If project construction activities are scheduled during the nesting season for Swainson’s hawks (March 1 to September 15), prior to commencement of construction, a qualified biologist shall conduct surveys according to the recommended timing and methodology for Swainson’s Hawk Nesting Surveys in California’s Central Valley, as defined by the Swainson’s Hawk Technical Advisory Committee. Survey methods should be closely followed by starting early in the nesting season (late March to early April) to maximize the likelihood of detecting an active nest. Surveys shall be conducted: (1) within a minimum 0.25-mile radius of the project site or a larger area if needed to identify potentially impacted active nests, and (2) for at least the two survey periods immediately prior to initiating project-related construction activities. Consistent with the Technical Advisory Committee Guidance, the recommended survey periods are March 20 to April 5, April 5 to April 20, and June 10 to July 30 (post-fledging). Surveys shall occur annually for the duration of the project. The qualified biologist shall have a minimum of 2 years of experience implementing the survey methodology resulting in detections. If active Swainson’s hawk nests are detected, the project shall implement a 0.25-mile construction avoidance buffer around the nest until the nest is no longer active as determined by a qualified biologist. If take of Swainson’s hawk cannot be avoided, the project applicant shall consult with the California Department of Fish and Wildlife (CDFW) pursuant to the California Endangered Species Act (CESA) and obtain an Incidental Take Permit (ITP).

MM BIO-2 To mitigate for the loss of Swainson’s hawk foraging habitat, the project applicant shall: (1) acquire suitable habitat land and permanently preserve foraging habitat through recording a conservation easement and implementing and funding a long-term management plan in perpetuity, or (2) acquire Swainson’s hawk foraging habitat mitigation credits from a mitigation bank approved by the CDFW prior to building permit issuance. Either mitigation option shall be consistent with CDFW’s 1994 *Staff Report Regarding Mitigation for Impacts to Swainson’s Hawk in the Central Valley of California*, which specifies that projects within 5 miles of an active nest tree but greater than 1 mile from the nest tree shall provide 0.75 acre of foraging habitat for each acre of urban development authorized (i.e., 0.75:1 ratio).

Level of Significance after Mitigation: Less than Significant

Impact BIO-2: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on burrowing owls.

As described above in **Section 4.3.1.7**, no evidence of burrowing owl nesting or wintering activity was found during any of WRA’s or LSA’s field surveys of the project site. However, it is possible that individual burrowing owls occasionally forage on the site during the nesting or wintering season. Construction of the proposed project would result in the loss of approximately 4 acres of suitable foraging habitat for this species. However, consistent with the Draft Solano HCP, compensatory mitigation for the loss of foraging habitat is not specified for infill developments with less than 5 acres of contiguous habitat on and off the parcel, that are surrounded by urban development on at

least three sides, and where the project would have negligible effects on the extent and quality of burrowing owl habitat. While the proposed project would be considered exempt from burrowing owl foraging habitat mitigation requirements under the Draft HCP, compensating for the loss of Swainson's hawk foraging habitat, as specified by **Mitigation Measure BIO-2** (set forth above), would also mitigate for the loss of burrowing owl foraging habitat. Implementation of **Mitigation Measures BIO-2 and BIO-3** below would ensure that potential direct impacts to burrowing owls would be reduced to less than significant.

Level of Significance Prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure, in conjunction with **Mitigation Measure BIO-2** above, will be implemented to reduce impacts to burrowing owls associated with the implementation of the proposed project.

MM BIO-3 Prior to project activities, a habitat assessment shall be performed following 'Habitat Assessment and Reporting Details' of the CDFW Staff Report on Burrowing Owl Mitigation. The habitat assessment shall extend at least 492 feet from the project site boundary or more where direct or indirect effects could potentially extend off site (up to 1,640 feet) and include burrows and burrow surrogates. If the habitat assessment identifies potentially suitable burrowing owl habitat, then a qualified biologist shall conduct surveys following the CDFW 2012 Staff Report survey methodology. Surveys shall encompass the project site and a sufficient buffer zone to detect owls nearby that may be impacted commensurate with the type of disturbance anticipated, as outlined in the CDFW 2012 Staff Report, and include burrow surrogates such as culverts, piles of concrete or rubble, and other non-natural features, in addition to burrows and mounds. Time lapses between surveys or project activities shall trigger subsequent surveys, as determined by a qualified biologist, including but not limited to a final survey within 24 hours prior to ground disturbance. The qualified biologist shall have a minimum of two years of experience implementing the CDFW 2012 Staff Report survey methodology resulting in detections. Detected nesting burrowing owls shall be avoided pursuant to the buffer zone prescribed in the CDFW 2012 Staff Report and any passive relocation plan for non-nesting owls shall be subject to CDFW review.

Level of Significance after Mitigation: Less than Significant

Impact BIO-3: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on raptors, nesting birds, or other birds protected under the California Fish and Game Code and MBTA.

Most native and migratory birds and their nests are protected under California Fish and Game Code (Sections 3503, 3503.5, and 3513) and the MBTA. While no riparian vegetation would be removed as part of the proposed project, construction would result in the removal of a single multi-trunk valley oak tree located in the northeastern portion of the project site as well as other vegetation (annual grassland) that could be used by nesting birds. If vegetation removal is conducted during the nesting

season (February 1 to August 31), project activities could directly impact nesting birds by removing the vegetation that support active nests. Grading and site preparation activities could also destroy or disturb nests on the ground (common ground-nesting bird species that may occur on the project site include California towhee, killdeer, and mourning dove). Construction-related disturbance (e.g., noise, vehicle traffic, personnel working adjacent to suitable nesting habitat) could also indirectly impact nesting passerine birds (i.e., songbirds) and raptors, including white-tailed kite, by causing adults to abandon nests in nearby trees and riparian vegetation, resulting in nest failure and reduced reproductive potential. Implementation of **Mitigation Measures BIO-1 through BIO-3** (set forth above) and **BIO-4** would reduce potential impacts to nesting birds to less than significant.

Level of Significance Prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts to nesting raptors and birds associated with the implementation of the proposed project.

MM BIO-4 To the extent feasible, initial grading and vegetation removal activities shall occur during the non-nesting season (September 1 to January 31). For any construction activities conducted during the nesting season, a qualified biologist (i.e., experienced in searching for passerine and raptor nests) shall conduct a preconstruction nest survey of all trees or other suitable nesting habitat in and within 250 feet of the limits of construction activities. The survey shall be conducted no more than 7 days prior to the start of work. If the survey indicates the presence of nesting birds, the biologist shall determine an appropriately sized buffer around the nest in which no work shall occur until the young have successfully fledged. The size of the nest buffer shall be determined by the biologist and shall be based on the nesting species and its sensitivity to disturbance. In general, buffer sizes of up to 250 feet for raptors and 50 feet for other birds should suffice to prevent substantial disturbance to nesting birds, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

Level of Significance after Mitigation: Less than Significant

Impact BIO-4: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on monarch butterfly.

Monarch butterflies have been documented to breed in the Green Valley area. Although milkweed, the obligate host plant that is used by monarch butterfly for breeding, has not been identified on the project site, other nectar plants that are used by the butterfly for feeding are present on the project site and in the riparian area to the southwest. Additionally, based on a review of monarch butterfly breeding records and milkweed observations within 1 mile of the project site, it is possible that milkweed could become established on the project site before project construction is

commenced.^{25,26} Grading and site preparation activities could disturb the butterflies feeding on the project site nectar plants and could disturb monarch butterfly breeding if milkweed establishes on the project site before project construction is commenced. Implementation of **Mitigation Measures BIO-5 and BIO-6** would reduce potential impacts to monarch butterfly to less than significant.

Level of Significance Prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts to monarch butterfly.

MM BIO-5 If project site ground clearing or vegetation removal activities for the proposed project are planned to occur between March 16 and October 31 (monarch breeding season), a preconstruction survey shall be conducted by a qualified biologist no more than 7 days prior to ground clearing or vegetation removal activities to determine if milkweed is present on the site and is being used for monarch breeding. The biologist will search for evidence of monarch eggs, caterpillars, chrysalises, and adults. If active monarch breeding is identified, the milkweed stand shall be avoided until the project applicant develops and implements a salvage and relocation plan that has been reviewed and approved by the City and the United States Fish and Wildlife Service (USFWS).

MM BIO-6 If monarch butterflies are found actively feeding on the project site nectar plants during the preconstruction survey in **Mitigation Measure BIO-5** or during site grading or vegetation clearing conducted between March 16 through October 31, work shall be halted in the areas of feeding activity and an appropriate buffer established, as determined by a qualified biologist, until the monarchs leave the site on their own.

Level of Significance after Mitigation: Less than Significant

4.3.5.2 Riparian Habitat and Sensitive Natural Community Impacts

Impact BIO-5: The project could result in a substantial adverse effect on riparian habitat from inadvertent disturbance during project construction.

Sensitive natural communities are communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. The only sensitive natural community on the project site is the riparian habitat associated with the unnamed drainage (approximately 0.38 acre), located within the western portion of the property. The remainder of the project site is in a disturbed condition, is regularly disced, and the herbaceous vegetation on the site is dominated by non-native grasses and weedy plant species.

²⁵ Western Monarch and Milkweed Occurrence Database. 2022. op. cit.

²⁶ Calflora. 2022. Calflora Database Web Application - *Asclepias fascicularis* (narrow leaf milkweed). Website: <https://www.calflora.org/> (accessed on May 10, 2022).

The project has been designed to fully avoid any direct and indirect impacts to the unnamed drainage and the associated riparian corridor. All project components, including the proposed dog run, walking path, and any utilities or storm water features, would be located outside of the existing riparian zone. Further, as discussed in **Section 4.8: Hydrology and Water Quality**, the project would comply with the requirements of the NPDES Construction General Permit, the *Fairfield-Suisun Urban Runoff Management Program Stormwater C.3 Guidebook*, and *City of Fairfield Municipal Code* Section 22B.130 pertaining to water quality regulations during project construction. Best Management Practices (BMPs), as prescribed by the project's Storm Water Pollution Prevention Plan (SWPPP), shall be installed to minimize any potential indirect effects (e.g., erosion, siltation, etc.) to the creek. The SWPPP shall also contain a Spill Response Plan with instructions and procedures for reporting spills, the use and location of spill containment equipment, and the use and location of spill collection materials. Implementation of the SWPPP would ensure that indirect water quality impacts to the drainage would be avoided. However, project construction activities adjacent to the riparian area have the potential to result in inadvertent disturbance during construction. Implementation of **Mitigation Measure BIO-7** would reduce potential impacts to riparian habitat to less than significant.

Level of Significance prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts to riparian habitat associated with the implementation of the proposed project.

MM BIO-7 The riparian habitat shall be fully avoided. Prior to initial ground disturbance, Environmentally Sensitive Area (ESA) fencing shall be placed along the limits of riparian vegetation to exclude construction activities from the avoided area. ESA fencing shall be maintained until construction is complete. No vegetation removal or ground-disturbing activities shall be permitted beyond the fencing. Vehicles and equipment shall not be operated or parked beyond the fencing. Materials shall not be stored or staged beyond or within 25 feet of the fencing.

Level of Significance after Mitigation: Less than Significant

4.3.5.3 Wetland Impacts

Impact BIO-6: The project would have a substantial adverse effect on state or federally protected wetlands through direct removal and filling.

As discussed in **Section 4.3.1.3** above, an approximately 0.11-acre seasonal wetland was mapped on the project site during a survey conducted by a wetland biologist on December 9, 2021. The seasonal wetland would likely be considered jurisdictional by the USACE and RWQCB. The proposed project would require the filling of the seasonal wetland as the wetland is located in a central location within the project site and cannot be avoided. Filling of the seasonal wetland would likely require a Nationwide Permit from the USACE and a Water Quality Certification and/or Waste Discharge Requirement from the RWQCB. Implementation of **Mitigation Measure BIO-8** would reduce potential impacts to State and federally-protected wetlands to be less than significant.

Level of Significance prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts to State and federally-protected wetlands associated with the implementation of the proposed project.

MM BIO-8 Prior to the issuance of a grading permit, a formal wetland delineation shall be completed for the project site by the project applicant and submitted to the United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB). The project applicant shall obtain the necessary permits or approvals from the USACE and RWQCB for any fill of jurisdictional areas. All terms of the permits shall be implemented as a condition of the project, including compensatory mitigation as required by the USACE and RWQCB under their “no net loss” policies. At a minimum, compensatory mitigation shall occur at a 1:1 mitigation ratio, taking into account function and value, distance, and seasonal wetland type.

Level of Significance after Mitigation: Less than Significant

4.3.5.4 Wildlife Movement and Nursery Site Impacts

Impact BIO-7: The proposed project would not 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.

Wildlife corridors are described as pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural barriers or manmade obstacles such as urbanization. Fragmentation of natural habitat creates isolated “islands” of habitat that may not provide sufficient area or resources to accommodate sustainable populations for a number of species, adversely affecting both genetic and species diversity. Often drainages, creeks, or riparian areas are used by wildlife as movement corridors as these features can provide cover and access across a landscape.

The project site is located in a developed area of Fairfield. Existing development, such as highways and arterial roadways, residential and commercial/office development, occur directly adjacent or a short distance to the north, south, and east of the project site and prevent connectivity with other off-site open space areas and the project site itself does not serve as a wildlife movement corridor. However, the unnamed drainage and the associated riparian habitat along the western boundary of the property provides a movement and dispersal corridor that connects with undeveloped areas to the north and south. As the creek and riparian corridor would be fully avoided, as reflected under **Impact BIO-5** above, development of the proposed project would not create any permanent barriers to terrestrial or aquatic wildlife movement. Regionally common wildlife species are expected to continue to use the riparian corridor to the west of the residential development area. Furthermore, there is no habitat on site that would serve as a wildlife nursery site (note that nesting birds are addressed under **Impact BIO-3** above). Given the above, the proposed project would not substantially interfere with the local or regional movement of wildlife species or affect wildlife nursery sites. The impact would be less than significant.

Level of Significance prior to Mitigation: Less than Significant

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Not Applicable

4.3.5.5 Local Biological Resource Policy Impacts

Impact BIO-8: The proposed project could conflict with local policies or ordinances adopted for the protection of biological resources, such as a tree preservation policy or ordinance.

City of Fairfield Municipal Code (Section 25.36.3) defines “protected” trees, which includes native oaks (caliper or diameter at breast height [DBH] greater than 6 inches). Two trees on the site were evaluated to determine whether they would meet the criteria for a protected tree under the *Fairfield Municipal Code*. One is a large willow on the western portion of the site along the edge of the riparian corridor. Willows are not a protected tree species under Section 25.36.3 of the *Fairfield Municipal Code*; however, given its location in the riparian corridor, it could be classified as a protected tree by the City under criterion D1: *Trees or groups of trees having one or more of the following characteristics, as determined by the City during project review or through special studies: (1) demonstrated habitat value; (2) historical or cultural value, as documented by published sources; (3) important aesthetic value; (4) uniqueness or rarity; or (5) unusual size or age.* The second is a smaller, multi-trunk valley oak in the northern corner of the site adjacent to the Fairfield Business Center parking lot. As all of the trunks are less than 6 inches in caliper or DBH, this oak tree would not meet the criteria for a protected tree under the *Fairfield Municipal Code*.

Except as authorized by a Tree Removal Permit as defined in Section 25.36.5 of the *Fairfield Municipal Code*, or unless authorized as part of discretionary project approval by the City, it is unlawful for any person or City department to remove, cut down, conduct excessive unnatural pruning, topping, or disfigurement of any protected tree, or perform any act which results in the premature death or decline of a protected tree. The mitigation requirements for the removal of a “protected” tree are detailed in Section 25.36.9 of the *Fairfield Municipal Code*. As the large willow on the project site located within the adjacent riparian corridor, is not proposed to be removed, and will be incorporated into the design of the project, the proposed project would not conflict with the City’s tree ordinance for this tree. However, unless precautions are taken, project construction activities could adversely affect this tree, and the impact would be potentially significant. The loss of the tree would also conflict with General Plan Policy OS 7.7. Implementation of **Mitigation Measures BIO-7** (set forth above) **and BIO-9** would reduce potential impacts to protected trees to less than significant.

Level of Significance prior to Mitigation: Potentially Significant

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts associated with potential conflicts with the City’s tree preservation ordinance.

MM BIO-9 The following tree protection measures shall be implemented during construction in the vicinity of the willow tree:

- All construction activity (grading, filling, paving, landscaping etc.) shall respect the root protection zone (RPZ) around the protected tree. The RPZ shall be a distance of 1.0 times the dripline radius measured from the trunk of the tree.
- Temporary protective fencing shall be installed around the dripline of the tree prior to commencement of any construction activity conducted within 25 feet of the tree canopy. The fence shall be clearly marked to prevent inadvertent encroachment by heavy machinery.
- Drainage shall not be allowed to pond around the base of the tree.
- An International Society of Arboriculture (ISA)-Certified Arborist or tree specialist shall be retained to perform any necessary pruning of the tree during construction activity.
- Roots exposed as a result of construction activities shall be covered with wet burlap to avoid desiccation and shall be buried as soon as practicable.
- Construction materials or heavy equipment shall not be stored within the RPZ.
- Only an ISA-Certified Arborist or tree specialist should make specific recommendations as to where the tree can safely tolerate some level of fill within the drip line.
- Trenches which are required within the RPZ of the protected tree shall be bored (tunneled) under the root(s) using an auger or drill, rather than trenched, to minimize root disturbance.
- Construction materials shall be properly stored away from the tree to avoid spillage or damage to the tree.

Level of Significance after Mitigation: Less than Significant

4.3.5.6 Conservation Plan Impacts

Impact BIO-9: The proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community plan, or other approved local, regional, or state habitat conservation plan.

The proposed project would be located in an area that is covered by the proposed Solano HCP. No other natural community plan or other habitat conservation plans are applicable to the project area.

As discussed above, the project site is located within an area identified for planned development in the Solano HCP (i.e., "Covered Activity Zone 1 – Urban Zone"). Once the HCP is adopted, all Covered Activities implemented under the authority/control of the Plan Participants, including the City of Fairfield, must be conducted in compliance with the HCP goals, objectives, and conservation measures, and avoidance, minimization, and mitigation measures. The HCP has not been adopted; it

is expected to be adopted in late 2022 at the earliest. Because the HCP is not yet adopted, the proposed project would not have any potentially significant impact under this significance threshold (and Appendix G), which only applies to “adopted” HCPs. However, participating agencies, including the City of Fairfield, are following the mitigation guidelines listed in the plan. As discussed above, the proposed project has the potential to result in direct impacts to Swainson’s hawk and burrowing owl, which are both species covered by the Solano HCP. **Mitigation Measures BIO-1 and BIO-3** are consistent with the requirements included in the conservation strategy section of the current draft Solano HCP. The white-tailed kite is a fully protected state species and impacts to the species would be avoided by the mitigation set forth under **Mitigation Measure BIO-4**. Furthermore, the unnamed drainage and the associated riparian corridor would be fully avoided by the proposed project and protected from indirect effects by the mitigation set forth under **Mitigation Measure BIO-7**. Thus, the proposed project would not conflict with the provisions of the proposed Solano HCP, and this impact is considered less than significant.

Level of Significance prior to Mitigation: Less than Significant

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Not Applicable

4.3.5.7 Cumulative Impacts

Cumulative Impact C-BIO-1: The proposed project, in conjunction with other past, present, and reasonably foreseeable future development in the region, would not result in significant cumulative impacts to biological resources.

The scope of the geographical cumulative context for impacts to biological resources varies because, depending on the resources being affected, affected species and/or habitats have minimum habitat size needs, ranges where they occur, sub-populations of interest within those ranges, and other species- or habitat-specific factors that are affected by the conditions present on a project site. In the case of the proposed project, the analyses above demonstrate that the only habitats present on the site include the highly disturbed annual grassland and an approximately 430-foot unnamed drainage and associated riparian habitat. The grassland is isolated, as it is not connected to other grassland habitats and is largely surrounded by urban development. The loss of the on-site grasslands will not affect the viability of other grasslands in the region; the intactness, size, and connectedness of other grasslands will be unaffected by loss of this isolated grassland area. Additionally, the creek and riparian corridor would be avoided, and the development of the proposed project would not create any permanent hydrological or wildlife movement barriers. For these reasons, the geographical cumulative context for the evaluation of cumulative impacts on biological resources has been limited to the City of Fairfield and its Sphere of Influence (SOI), as well as portions of Solano County that adjoin the city limits.

Past, present, and reasonably foreseeable future development in the City of Fairfield and its SOI as well as adjacent areas of unincorporated Solano County could result in individually significant impacts to biological resources, including impacts to special-status plant and wildlife species. Other approved and pending projects within the City and its SOI and in unincorporated Solano County

would result in the development of large greenfield sites and would have the potential to affect a variety of biological resources, including filling of wetlands and other waters of the United States and the State; loss of sensitive natural communities; direct impacts to special-status plant and wildlife species; and loss of breeding, foraging and movement habitat for special-status wildlife species. Development in the City of Fairfield would adhere to requirements set forth in the Solano HCP. In addition, each of the approved and pending projects is or has been subject to review under CEQA and required to obtain necessary permits and approvals from federal and state resource agencies. As a result of these processes, each project would be required to avoid, minimize and compensate for its impacts on sensitive biological resources, such that the cumulative impacts would be reduced, although they may not be completely eliminated.

However, the proposed project would not make a cumulatively considerable contribution to potential cumulative impacts to biological resources. As discussed above, the project site is largely isolated from other biologically productive lands, is already highly disturbed, and does not provide suitable habitat for many special-status plant and wildlife species that have been documented in the region. While the project site has the potential to provide marginal foraging and/or nesting habitat for special-status bird species, including Swainson's hawk, burrowing owl, and white-tailed kite, the project would implement **Mitigation Measures BIO-1 through BIO-4** to avoid any direct impacts to active bird nests and would establish and maintain adequate buffers to reduce potential impacts from construction noise to protect birds that may nest in trees near the project site. Also, the loss of Swainson's hawk and burrowing owl foraging habitats would be mitigated with the implementation of **Mitigation Measure BIO-2**. For these reasons, the proposed project would not make a cumulatively considerable contribution to any cumulative impact on biological resources, and the project's cumulative impact would be less than significant.

Level of Significance Prior to Mitigation: Less than Significant

Mitigation Measures: No mitigation measures are required.

Level of Significance after Mitigation: Not Applicable