
3.3 - Biological Resources

3.3.1 - Introduction

This section describes the existing biological setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analyses in this section are based on a site reconnaissance performed by a Senior Biologist from MBA on April 14, 2011, and review of background materials including the following:

- Site Assessment for California Red-legged Frog (Caltrans 2011)
- Solano Fairgrounds Existing Conditions (MacKay & Soms 2009)
- Biological & Environmental Report (EDAW 2009)
- USACE Wetland Delineation Verification Letter (USACE 2007)

3.3.2 - Environmental Setting

Information provided in this section is based primarily on the results of a reconnaissance survey conducted by MBA in April 2011 and the above-mentioned technical reports. Additional information was compiled through review of databases of sensitive biological resources, including the California Natural Diversity Database (CNDDDB 2011) and the online version of the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Vascular Plants of California (2011).

The Solano360 project site is located in the southwest portion of Solano County, approximately 5 miles east of San Pablo Bay; approximately 1 mile south of the southern boundary of the Napa County line; approximately 5 miles north of the Carquinez Bridge; and just west of Interstate 80 (I-80). The site is located within the Cordelia U.S. Geological Survey 7.5-minute Quadrangle; Section 5, Township 3 North, Range 3 West.

The Solano360 Specific Plan covers an area of 149.11 acres currently containing the Solano County Fairgrounds. The site is bordered by Central Rindler Creek and I-80 to the east, State Route 37 (SR-37) and Sage Street to the north, Fairgrounds Drive to the west, and South Rindler Creek and Coach Lane to the south and southwest. The site is located in the City of Vallejo, Solano County, California (Exhibit 2-1). Six Flags Discovery Kingdom and Lake Chabot are to the west of the project.

The entire project area was altered from its natural habitat in 1948, when the fairgrounds were first built. The fairgrounds have been in operation ever since.

Commercial and residential uses surround the property in all directions. Sulfur Springs Mountain and its surrounding open land lie to the north and east beyond the developed areas.

Biological Resources Character

The Solano360 project site has a relatively low biotic resource value mainly because of its long-term commercial use and the built up condition of the surrounding area. Nonetheless, the site supports a

number of ornamental trees that offer potential nesting and perching habitat for a variety of common bird species. A reach of Central Rindler Creek borders the site to the east, and reaches of South Rindler Creek and Blue Rock Creek border the site to the south and southwest. These features have been channelized into a feature known as the Fairgrounds channel, and are characterized as impacted urban creeks, which offer low quality habitat for common wildlife species adapted to urban creek systems.

Soils

According to a 2009 report completed by ENGEQ, exploration borings discovered “man-made” undocumented fills. Natural soil deposits of varying consistency exist under the man-made fill materials, and all are underlain by bedrock.

Climate

The project site and its surroundings experience a Mediterranean climate with hot dry summers and cool wet winters. Average temperatures in the vicinity of the site range from an average summer high of 87.4 degrees Fahrenheit (°F) to an average winter low of 38.5°F. Annual precipitation in the area averages 19.6 inches, nearly all of which falls in the form of rain generally between October and March. Stormwater runoff readily infiltrates the soils of the site and, when field capacities are reached, enter storm drains, accumulate in minor depressions in the southern portion of the site, and/or sheet flow to South Rindler Creek and Blue Rock Creek.

Vegetation Communities and Wildlife Habitats

Non-sensitive Biological Communities

The majority of the site is landscaped, supports buildings, an old horse racing facility, and a golf course. Vegetation of the site consists mainly of lawns, ornamental trees, and shrubs. Several small areas supporting non-native grasslands occur in the southern portion of the site.

This developed portion of the site (approximately 95 percent of the site) does not support appropriate habitat for any special-status plant species. There were no amphibian or reptilian species observed onsite during the April 2011 site visit, nor were any mentioned in EDAW’s 2009 Biological Constraints Analysis.

Avian species observed on the fairgrounds included rock dove (*Columba livia*), black phoebe (*Sayornis nigricans*), common raven (*Corvus corax*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*). Other avian species that could reasonably be expected to occur onsite include mourning dove (*Zenaida macroura*), Anna’s hummingbird (*Calypte anna*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), and Brewer’s blackbird (*Euphagus cyanocephalus*).

While no mammals were observed onsite, either by MBA in 2011 or EDAW in 2009, it is likely the grounds support Virginia opossum (*Didelphis virginiana*), house mouse (*Mus musculus*), California vole (*Microtus californicus*), and raccoon (*Procyon lotor*).

Sensitive Biological Communities

Central Rindler Creek, South Rindler Creek, and Blue Rock Spring Creek all represent sensitive biological communities. Wetlands are also considered sensitive biological communities. On August 20, 2007, the United States Army Corps of Engineers (USACE) claimed jurisdiction over 27 seasonal wetlands located in the southern portion of the project site (totaling approximately 0.51 acres).

Freshwater marsh vegetation occurs within the creek system, and species observed included water cress (*Rorippa nasturtium-aquaticum*), hard-stem bulrush (*Scirpus acutus*), and narrow-leaf cattail (*Typha angustifolia*). The banks of the creek support mainly willows (*Salix* sp.). In some areas, the willows are rather sparse and in other areas, such as the western portion of the creek system the willows are denser. The uplands to the east of the creek are dominated by non-native annual grasses.

Several species of wildlife were observed within the creek corridors and included crayfish (*Pacifastacus* sp.), and the same bird species as in the upland areas of the site. There is a row of Italian cypress (*Cupressus sempervirens*) between the golf course and Central Rindler Creek, and it is likely that common raptors such as red-tailed hawk (*Buteo jamaicensis*) perch in these trees from time to time. Other species that could occur in this habitat either as residents or occasional visitors include Pacific chorus frog (*Hyla regilla*), bullfrog (*Rana catesbeiana*), great blue heron (*Ardea herodias*), mallard (*Anas platyrhynchos*), and American crow (*Corvus brachyrhynchos*).

There are two special-status animal species that occur regionally that could potentially occur in the creek system, the California red-legged frog (*Rana draytonii*), which is a federally threatened and a California Department of Fish and Game (CDFG) species of special concern; and the Pacific pond turtle (*Actinemys = Emys marmorata*) which is a California species of special concern. These species will be discussed further in Section 3.3.6.

3.3.3 - Regulatory Framework

Federal

Federal Clean Water Act: Sections 404 and 401

Natural drainage channels and adjacent wetlands may be considered “Waters of the United States” (hereafter referred to as “jurisdictional waters”) subject to the jurisdiction of the USACE. The extent of jurisdiction is defined in the Code of Federal Regulations but has also been subject to interpretation by the federal courts. Jurisdictional waters generally include:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural

ponds, the use, degradation or destruction of which could affect interstate or foreign commerce;

- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters identified in paragraphs (a)(1)-(4) (i.e. the bulleted items above).

As determined by the United States Supreme Court in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (the SWANCC decision), channels, and wetlands isolated from other jurisdictional waters cannot be considered jurisdictional solely based on their use, hypothetical or observed, by migratory birds. However, the U.S. Supreme Court decisions *Rapanos v. United States* and *Carabell v. U.S. Army Corps of Engineers* (referred to jointly as the Rapanos decision) impose a “significant nexus” test for federal jurisdiction over wetlands. In June 2007, the USACE and Environmental Protection Agency (EPA) established guidelines for applying the significant nexus standard. This standard includes 1) a case-by-case analysis of the flow characteristics and functions of the tributary or wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters and 2) consideration of hydrologic and ecologic factors (EPA and USACE 2007).

The USACE regulates the filling or grading of such waters under the authority of Section 404 of the Clean Water Act. “Ordinary high water marks” on opposing channel banks define the extent of jurisdiction within drainage channels. Wetlands are habitats with soils that are intermittently or permanently saturated, or inundated. The resulting anaerobic conditions select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils saturated intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 Corps of Engineers Wetlands Delineation Manual (USACE 1987).

All activities that involve the discharge of fill into jurisdictional waters are subject to the permit requirements of the USACE (Wetland Training Institute, Inc. 1991). Such permits are typically issued on the condition that the applicant agrees to provide mitigation measures that result in no net loss of wetland functions or values. No permit can be issued until the Regional Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet State water quality standards. The RWQCB regulates the filling of isolated wetlands, over which the USACE has disclaimed jurisdiction (discussed further below). It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

Endangered Species Act (FESA)

The USFWS and National Marine Fisheries Service (NMFS) have jurisdiction over species formally listed as threatened or endangered under the federal Endangered Species Act (ESA). The federal ESA is a complex law enacted in 1973 to protect and recover plant and animal species in danger of becoming extinct and to conserve their ecosystems, with an ultimate goal being the recovery of a species to the point where it is no longer in need of protection. An endangered plant or animal species is one that is considered in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The USFWS also maintains a list of species proposed for listing as endangered or threatened, and a list of candidate species for which sufficient information is available to support issuance of a proposed listing rule. It is illegal to take any listed species without specific authorization. Any activity that could result in take of a federally listed species requires a Section 10 take permit authorization from the USFWS or NMFS. Should another federal agency be involved with permitting the project, such as the USACE under jurisdiction of the Clean Water Act, Section 7 of the ESA requires the federal lead agency to consult with the USFWS or NMFS before permitting any activity that may result in take of a listed species. Section 9 of the ESA and its applicable regulations restrict certain activities with respect to endangered and threatened plants. However, these restrictions are less stringent than those applicable to fish and wildlife species. The provisions prohibit the removal of, malicious damage to, or destruction of any listed plant species from areas under federal jurisdiction.

Migratory Bird Treaty Act (MBTA)

The Federal Migratory Bird Treaty Act (MBTA) provides for protection of migratory bird species, birds in danger of extinction, and their active nests. It is illegal to possess or take any bird protected under the act without a depredation permit from the USFWS, which includes protection of eggs, young, and nests in active use. The MBTA is typically applied as a mechanism to protect active nests of raptors and colonial nesting species through the breeding and nesting season, though it technically provides for protection of most bird species throughout the year.

The Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act of 1940 (16 U.S.C. 668, enacted by 54 Stat. 250) protects bald and golden eagles by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. Take of bald and golden eagles is defined as follows: “disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior” (72 FR 31132; 50 CFR 22.3).

State

California Endangered Species Act (CESA)

Signed into law in 1984, the California Endangered Species Act (CESA) prohibits the “take” of any species that the California Fish and Game Commission determines to be an endangered species or a threatened species. CESA defines a “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CDFG enforces CESA. The act allows for take incidental to otherwise lawful development projects. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project caused losses of listed species populations and their essential habitats.

Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFG.

Porter-Cologne Act

The Porter-Cologne Act established the California State Water Quality Resources Control Board and the Nine Regional Water Quality Control Boards (RWQCBs) in their current form. The RWQCBs regulate all activities, including dredging, filling, or discharge of materials into waters of the state that are not regulated by the USACE due to a lack of connectivity with a navigable water body and/or lack of an ordinary high water mark (OHWM).

CDFG Section 1600 Regulations

The Fish and Game Code of California mandates that “it is unlawful for any person to substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds, without first notifying the department of such activity.” CDFG’s jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) characterized by (1) the presence of hydrophytic vegetation; (2) the location of definable bed and banks; and (3) the presence of existing fish or wildlife resources.

Furthermore, CDFG jurisdiction is often extended to habitats adjacent to watercourses, such as oak woodlands in canyon bottoms or willow woodlands that function as part of the riparian system. Historic court cases have further extended CDFG jurisdiction to include watercourses that seemingly disappear, but re-emerge elsewhere. Under the CDFG definition, a watercourse need not exhibit evidence of an OHWM to be claimed as jurisdiction. However, CDFG does not regulate isolated wetlands; that is, those that are not associated with a river, stream, or lake.

Sections 2080 and 2081 of the State Fish and Game Code

Section 2080 of the State Fish and Game Code states that no person shall import into this state (California), export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission (State Fish and Game Commission) determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act, or the California Desert Native Plants Act. Under Section 2081 of the Code, the CDFG may authorize individuals or public agencies to import, export, take, or possess, any state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if (1) the take is incidental to an otherwise lawful activity, (2) impacts of the authorized take are minimized and fully mitigated, (3) the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and (4) the applicant ensures adequate funding to implement the measures required by CDFG. CDFG shall make this determination based on the best scientific and other information that is reasonably available and shall include consideration of the species' capability to survive and reproduce.

Section 3503 of the State Fish and Game Code

Section 3503 of the State Fish and Game Code states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

Native Plant Protection Act

The Native Plant Protection Act includes measures to preserve, protect, and enhance rare and endangered native plants. The definition of rare and endangered differs from those contained in CESA. However, the list of native plants afforded protection pursuant to this act includes those listed as rare and endangered under the CESA. The Native Plant Protection Act provides limitations on take as follows: "No person shall import into this state, or take, possess, or sell within this state" any rare or endangered native plant, except in compliance with provisions of the act. Individual landowners are required to notify the CDFG at least 10 days in advance of changing land uses to allow the CDFG to salvage any rare or endangered native plant material.

California Native Plant Society

The CNPS is a statewide resource conservation organization that has developed an inventory of California's special-status plant species. This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory consists of four lists. CNPS presumes that List 1A plant species are extinct in California because they have not been seen in the wild for many years. CNPS considers List 1B plants as rare, threatened, or endangered throughout their range. List 2 plant species are considered rare, threatened, or endangered in California, but more common in other states. Plant species on lists 1A, 1B, and 2 meet CDFG criteria for endangered, threatened, or rare listing. Plant species for which CNPS requires additional information to evaluate their status properly are included on List 3. List 4 plant species are

those of limited distribution in California whose susceptibility to threat is considered low at the current time. For the purposes of this report, we will focus on CNPS Lists 1A, 1B and 2.

California Environmental Quality Act (CEQA)

CEQA applies to projects proposed to be undertaken or requiring approval by state and local government agencies. “Projects” are public agency actions with potential to have a physical impact on the environment. Thresholds for significant effects on biological resources are addressed in the applicable parts of the Appendix G and Section 15065 of the CEQA Guidelines. Under these guidelines, a project would result in a significant impact to terrestrial 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 DFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by DFG or USFWS;
- 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, rivers, 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; or
- Substantially reduce the habitat of a fish and wildlife species; cause a fish or wildlife species to drop below self-sustaining levels; threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

CEQA directs public agencies not to approve projects as proposed if there are feasible alternatives available that would substantially lessen the significant environmental effects of such projects, or unless feasible mitigation measures are implemented to reduce effects to a less than significant level.

Local

City of Vallejo

The City of Vallejo’s General Plan outlines the following goals to protect valuable fish and wildlife habitats that pertain to the project.

General Plan

- **Fish and Wildlife Resources Goal:** To protect valuable fish and wildlife habitats.
- **Policy 1.** Cluster units so that more open space areas are left in their natural state.

3.3.4 - Methodology

MBA evaluates potential impacts on biological resources through visual reconnaissance, review of the Draft Solano360 Specific Plan (SWA, September 2012), the Redwood Parkway-Fairgrounds drive Improvement Project Site Assessment for California Red-Legged Frog (Caltrans May 2011), the Solano Fairgrounds Existing Conditions report (MacKay & Soms, May 2009), and the Vallejo General Plan (July 1999).

3.3.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to biological resources are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

- a) 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 Game or U.S. Fish and Wildlife Service?
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- c) 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?
- d) 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 wildlife nursery sites?
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.3.6 - Project Impacts and Mitigation Measures

Effect on Species

Impact BIO-1: **The project could 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 Game or U.S. Fish and Wildlife Service.**

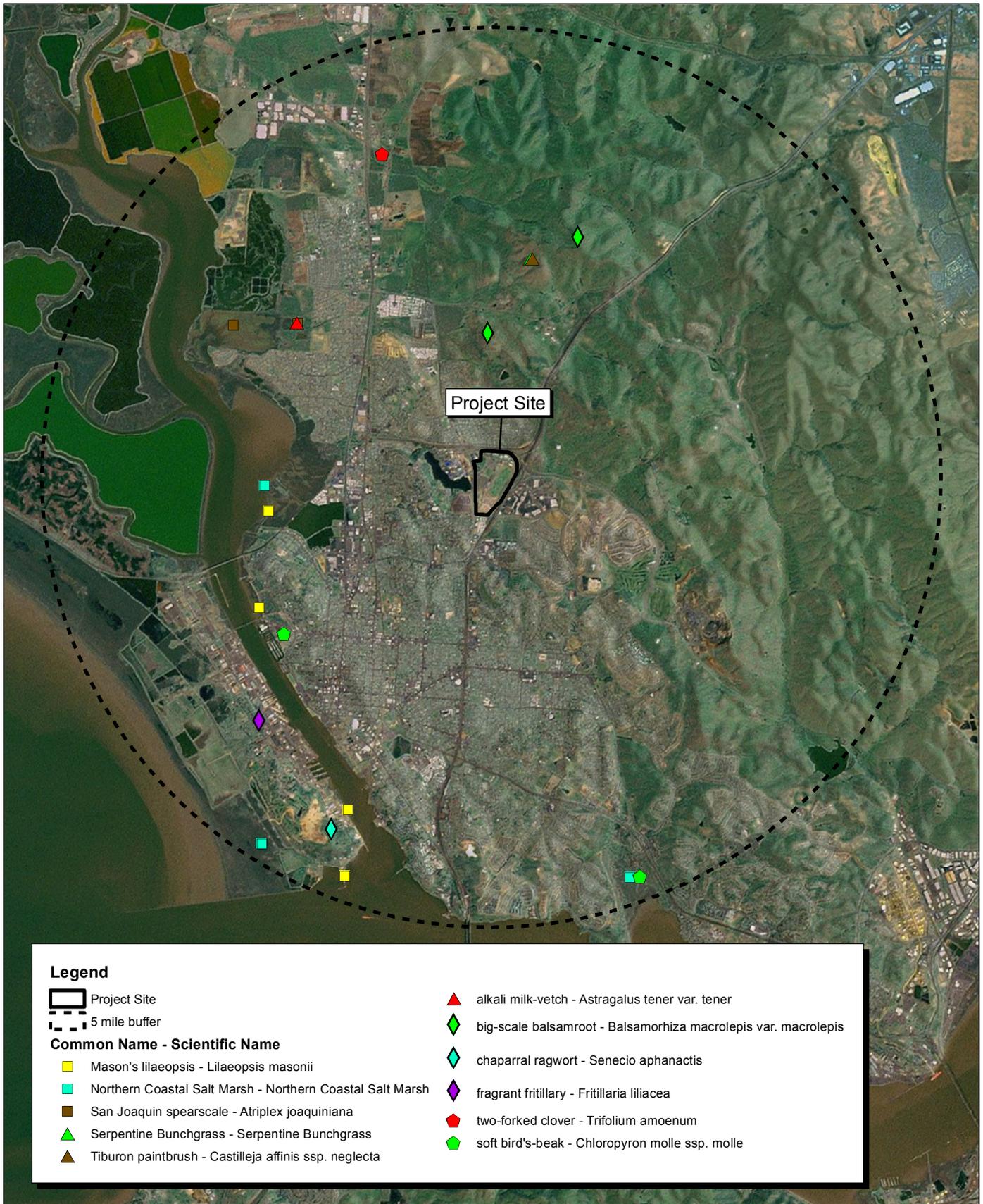
Impact Analysis

Special-status plant and wildlife species typically occur in undeveloped areas, although it is possible for them to occur within developed areas as well. As shown in Exhibit 3.3-1 and Exhibit 3.3-2, according to the CNDDDB, no special-status plant or wildlife species are recorded within the boundaries of the Solano360 project site. However, as noted above, a number of special-status species are known to occur within 5 miles of the site. Due to the history of land use and lack of suitable habitat, no special-status plants are expected to occur within the Fairgrounds property and no mitigation measures will be required for loss of individuals or habitat for rare plant species.

The reaches of Rindler Creek and Blue Rock Spring support suitable, albeit low quality, habitat for California red-legged frog and Pacific pond turtle; however, neither species was observed during MBA's reconnaissance survey or during other surveys conducted over the past several years. Onsite trees support potentially suitable habitat for tree-nesting birds and bats. However, no nests were observed in any of the onsite trees and there are no CNDDDB records of special-status species occurring within the boundaries of the site. The lawn areas of the site, including the golf course, did not appear to support suitable habitat for burrowing owl, as no burrows of appropriate size (e.g., ground squirrel burrows) were observed onsite during MBA's reconnaissance survey in April 2011. While no special-status animal species are expected to occur onsite, to be prudent, avoidance and minimization measures are recommended to ensure the project will not have any substantial adverse effects on such species, either directly or through habitat modifications.

Entertainment Area and Fairgrounds

The areas within the project having the highest potential to support special-status animal species are those areas along Rindler Creek and Blue Spring Creek, and their associated uplands. While no California red-legged frogs (CRLF) or Pacific pond turtles (PPT) were observed during the reconnaissance survey conducted by MBA, or during previous studies conducted on the site, those areas of the creeks that support pooled water could support breeding habitat for CRLF; and PPT could occur anywhere along the water features that offer grassy banks and basking opportunities. Furthermore, any of these species could use the waterways as movement corridors through the site to other areas of suitable habitat. Aestivation habitat for CRLF and nest sites for PPT are extremely limited along the creek reaches associated with the project.



Source: ESRI Aerial Imagery, CNDDB Data November, 2011.



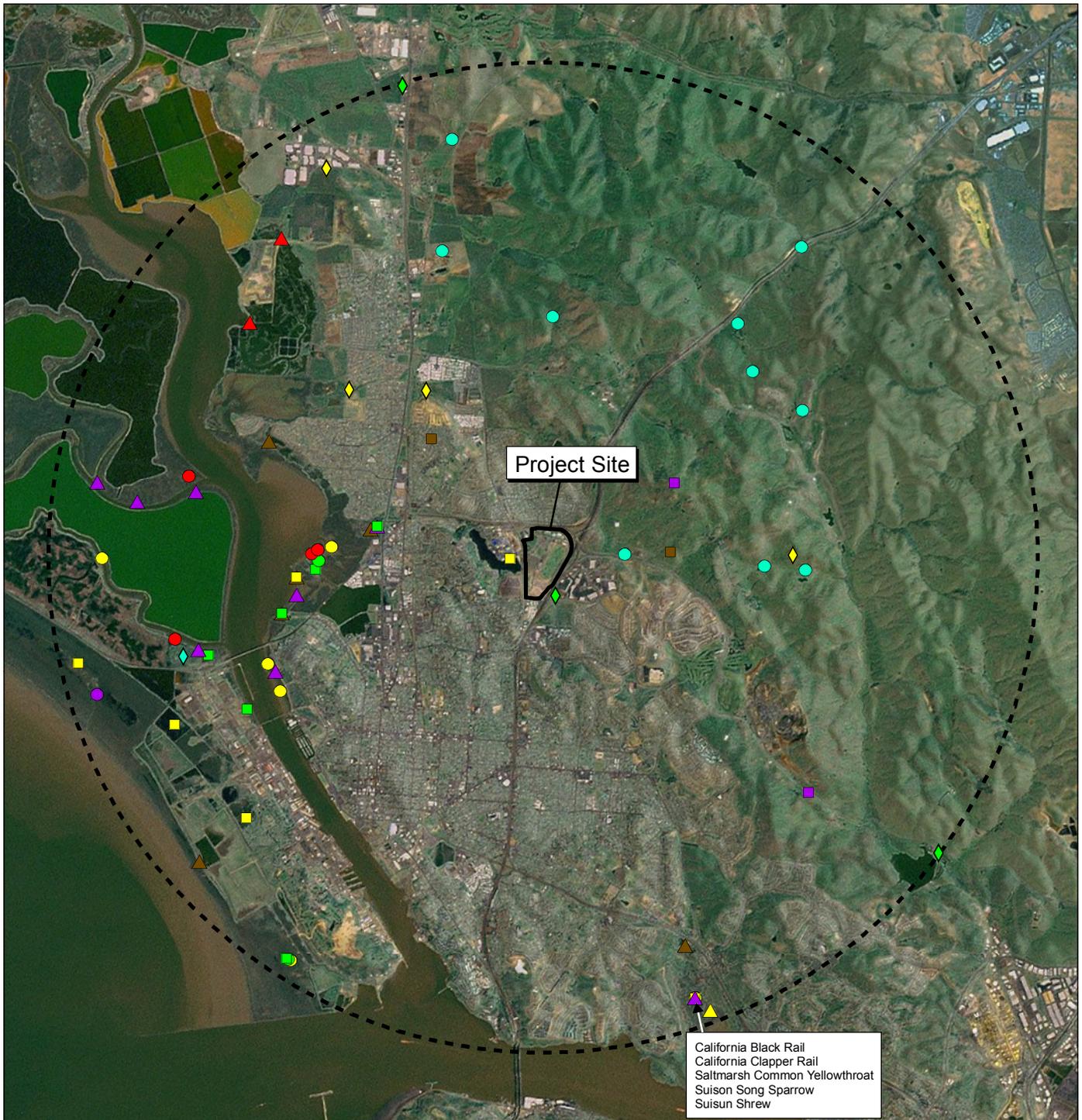
Michael Brandman Associates

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Exhibit 3.3-1 CNDDB Map of Plants within 5 Miles of the Project Site

COUNTY OF SOLANO • SOLANO 360
ENVIRONMENTAL IMPACT REPORT



California Black Rail
 California Clapper Rail
 Saltmarsh Common Yellowthroat
 Suisun Song Sparrow
 Suisun Shrew

Legend

Project Site
 5 mile buffer

Common Name - Scientific Name

- California black rail - *Laterallus jamaicensis coturniculus*
- California clapper rail - *Rallus longirostris obsoletus*
- California red-legged frog - *Rana draytonii*
- Delta smelt - *Hypomesus transpacificus*

- Sacramento splittail - *Pogonichthys macrolepidotus*
- San Pablo song sparrow - *Melospiza melodia samuelis*
- Suisun shrew - *Sorex ornatus sinuosus*
- Suisun song sparrow - *Melospiza melodia maxillaris*
- burrowing owl - *Athene cunicularia*
- golden eagle - *Aquila chrysaetos*
- northern harrier - *Circus cyaneus*

- salt-marsh harvest mouse - *Reithrodontomys raviventris*
- saltmarsh common yellowthroat - *Geothlypis trichas sinuosa*
- steelhead - central California coast DPS - *Oncorhynchus mykiss irideus*
- tricolored blackbird - *Agelaius tricolor*
- western pond turtle - *Actinemys marmorata*
- white-tailed kite - *Elanus leucurus*

Source: ESRI Aerial Imagery, CNDDDB Data November, 2011.



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Exhibit 3.3-2
 CNDDDB Map of Animals
 within 5 miles of the Project Site

COUNTY OF SOLANO • SOLANO360 SPECIFIC PLAN
 ENVIRONMENTAL IMPACT REPORT

The riparian areas along the waterways (those areas that support woody vegetation along the banks) offer suitable habitat for tree-nesting raptors and various bat species. Resident and migratory birds also use riparian areas for nesting and roosting.

The highest potential for impacts to these species and their habitat would come from retrofitting culverts or realigning the waterways (e.g., for flood control purposes).

While the project is not expected to have a negative impact on any special-status species, implementation of mitigation measures MM-BIO-1a, 1b, and 1c would render any impacts to sensitive species to a less than significant level.

Level of Significance Prior to Mitigation

Potentially significant impact.

Mitigation Measures

Entertainment Area and Fairgrounds

MM BIO-1a Species-specific surveys, following established protocol, shall be conducted during the appropriate season(s) to identify whether California red-legged frogs (CRLF) or Pacific pond turtles (PPT) are present within the reaches of the creeks associated with the site. Typically, the appropriate season for California red-legged frog surveys is from May 1 to November 1, which allow surveys to be conducted with minimal disturbance of breeding frogs, eggs, or tadpoles during a period when frogs can be reliably detected. The appropriate season for Pacific pond turtle surveys is from May to August. These surveys must be completed the year prior to work occurring within the bed or banks of the creeks.

Avoidance. To avoid impacts to CRLF and PPT, any construction conducted in or adjacent to the waterways shall be conducted after the breeding season for the species or construction may occur during the time when the creek contains its lowest flows (generally creek flows are lowest between August and October). To ensure no animals are present in the impact area, within 48-hours of construction beginning (e.g., trenching, water diversion, etc.), a qualified biologist shall conduct a pre-construction survey, and a biological monitor shall be present during construction within a water feature or within 50 feet of its banks if either species is determined to be present onsite.

Conduct Dewatering Surveys. The biological monitor will walk the creeks after dewatering looking for CRLF and PPT. If species are encountered, they will be moved upstream to a safe location. If CRLF are encountered, the USFWS will be notified within 3 working days.

Minimization. Fine mesh fencing shall be placed between construction areas and the creek to direct CRLF, and PPT (should any be present onsite) away from the construction zone.

All construction crews shall be trained (e.g., during a tailgate session) to ensure they are aware of any protective measures they must employ and to understand the purpose of such measures.

Prior to disturbing any habitat occupied by CRLF, the applicant shall enter into consultation with the USFWS and obtain an incidental take permit.

MM BIO-1b

Migratory Birds and Raptors: A qualified biologist shall conduct a pre-construction survey for nesting migratory birds and tree-nesting raptors in all trees occurring within 500 feet of construction areas. Pre-disturbance surveys shall also be conducted prior to tree trimming or tree removal. These surveys should be conducted within 30 days of initial ground disturbance activities within the project site, if such disturbance occurs during the breeding season (February 1 to August 31).

Avoidance. Conduct construction, tree trimming, and/or tree removal within areas supporting avian nesting habitat during the non-breeding season (September 1 to January 31).

Minimization. If protected birds (including raptors) are detected, a construction-free buffer (appropriately sized based on species) shall be established around each active nest and monitored by a qualified biologist for the duration of the breeding season or until it is determined the young have fledged. Pre-construction avian surveys are not required during the non-breeding season, as birds are expected to abandon their roosts if disturbed by construction, tree trimming, or tree removal.

MM BIO-1c

Bat Species: Presence of bat species is not always easy to determine, as absence of evidence does not necessarily equate to evidence of absence. Nonetheless, to be prudent, the following conditions shall be implemented:

- Do not remove snags or live trees without first having a qualified bat biologist conduct nighttime emergence surveys for roosting bats and develop suitable strategies for tree removal.
- If any trees must be removed, they shall only be removed during seasons when bats are active and young are volant (March 1 to April 15; and August 1 to October 15).
- Daytime surveys shall be conducted for all buildings prior to being removed. It is best to conduct surveys at least 6 to 8 months prior to demolition to best understand what measures will be necessary to ensure demolition occurs when

bats are active and young are volant (March 1 to April 15; and August 1 to October 15). Surveyor must have access to all parts of the structures.

- If bats are present, demolition of night roosts shall occur only during daylight hours. Demolition could occur between June 1 and October 15. If demolition is scheduled to occur between October 15 and March 1, 4-foot by 8-foot sections (number of sections to be determined at time of surveys) of the roof must be removed by October 15 (prior to start of hibernacula use).
- If bats are present, demolition of maternity roosts shall only occur after young are volant (usually by August 15) and before start of hibernacula use (by mid-October). Demolition of known maternity roost habitat shall be conducted as follows: passive eviction of bats by a qualified biologist if possible, and if not possible, removal of windows and doors or other appropriate portions of the structure, as determined by a qualified biologist, 7 to 10 days prior to demolition. Demolition must occur during daylight hours.

Level of Significance After Mitigation

Less than significant impact.

Riparian Habitat

Impact BIO-2: **The project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.**

Impact Analysis

Riparian habitats support vegetation that can draw water from beneath the water table and occur along the banks and adjacent to banks of naturally occurring rivers, streams and drainages.

The entire Rindler Creek system was altered from its natural path over the years along the reaches associated with the Solano360 project. North Rindler Creek was diverted into an underground pipe system that crosses under SR-37 and discharges into Lake Chabot; Central Rindler Creek was diverted into a combination of underground pipes and a manmade open channel. This pipe system crosses under I-80 near the north end of project site and discharges to an open channel (known as Fairgrounds Channel) on the property. The channel then flows south, west, and north until it crosses under Fairgrounds Drive and discharges into Lake Chabot. Blue Rock Spring is an open channel system that flows north through the Newell Mobile Home Park (located just south of the project) and discharges to Fairgrounds Channel near the middle of the southern Fairgrounds property boundary. The riparian vegetation that occurs along these reaches is relatively narrow, consisting of only 1-2 tree widths and is composed primarily of willows. As the creek reaches associated with the project are urban in nature, they lack the structural diversity found in robust riparian habitats. Historic photographs reveal that the reaches of the creeks associated with the project never supported structural diversity (i.e., they generally lacked a canopy).

The Solano360 Specific Plan calls for drainage improvements based on hydrology and hydraulic calculations documented in the Vallejo Sanitation and Flood Control District (VSFCD) Master Plan; improvements should lower the maximum hydraulic grade line to help alleviate flooding along Coach Lane and within the Newell Mobile Home Park. It is the goal of the project to make improvements to the creek system to alleviate flooding in the southern portion of the site. Proposed improvements to Rindler Creek are described in Section 2.0, Project Description.

While riparian systems are known to serve as dispersal corridors and islands of habitat for an estimated 83 percent of amphibians and 40 percent of reptiles in California (Brode and Bury 1984), the sparse reaches of riparian habitat within the Solano360 Project area offer only small islands of habitat in a sea of urban development. As such, these riparian areas support only low to moderate biotic value. Nonetheless, they offer marginally suitable breeding habitat for CRLF and WWP along with potential movement corridor habitat for these species; support habitat for resident and migratory bird species; and offer potential roosting habitat for several bat species.

Impacts to the riparian system associated with the project will be temporary in nature, and because the project plans to widen the channel, reducing erosion and flooding, the result will be a more highly functioning riparian system, with greater structural diversity and a higher biotic value.

Proposed improvements to these features (e.g., retrofitting culverts, removing woody vegetation, creek realignment, etc.) would require procurement of various permits from the USFWS, CDFG, and/or RWQCB. Based on previous permitting requirements, permanent impacts to riparian habitats typically require a 2:1 mitigation ratio. This is often negotiated during the permitting process and can vary depending on the quality of habitat. Higher-quality habitat is often mitigated at a 3:1 ratio or higher. Poor quality habitat can be mitigated at a 1:1 ratio or lower. Since the proposed plan is to widen the poor quality drainage feature for flood control purposes and create a higher quality habitat, the mitigation ratio is likely to be set at a 1:1 ratio, due to the poor quality habitat, but the amount of habitat will likely increase based on the proposed project improvements. Approximately 6 acres of drainage feature will be impacted during project construction. Therefore, a minimum of 6 acres replacement, restoration, and/or enhancement will be required within the improved Rindler Creek channel that flows around the project site. The riparian habitat mitigation will be specifically addressed in the permit process under Section 1600 of the CDFG code. This mitigation will also require a 5-year monitoring program to ensure that installation, revegetation, and other associated drainage feature improvements are successful.

The Best Management Practices (BMPs) described below apply to water diversion, in-stream construction, post-construction bank and channel stabilization, and sediment control. These BMPs may be modified as a result of the requirements of requisite permits issued by the regulatory agencies. The unique hydrologic conditions onsite must be considered when choosing the most appropriate BMPs to employ.

Entertainment Area and Fairgrounds

Proposed activities have the highest possibility of affecting riparian or other sensitive habitats onsite, because creek improvements are associated with this phase of construction.

Fairgrounds

Construction and operation of the Fairgrounds are not expected to have an adverse affect on riparian or other sensitive habitats (i.e., wetlands) onsite.

Level of Significance Prior to Mitigation

Potentially significant impact.

Mitigation Measures

Entertainment Area and Fairgrounds

MM BIO-2 Minimization. To minimize impacts to the riparian system associated with the Solano360 project, the following minimization measures shall be followed:

1. Conduct all in-channel construction activities during the regional “dry” period as approved by the RWQCB, typically from April to October. All efforts will be made to perform all channel work, potentially impacting surface waters, during periods when surface water flows are at their lowest point in the channel.
2. No diversion of surface water will occur during the season when California red-legged frog (CRLF) or Pacific pond turtle (PPT) are most active (i.e., March through November), if present.
3. In most years, portions of Rindler Creek may be perennial, and therefore it may not be possible to conduct work when no water is running in the creek. In this case, the following mitigation measures will be implemented during dewatering activities.
 - A. All water diversion-related pumps will be screened with an appropriate sized mesh (no larger than 0.25 inches). Pump capacity must be sufficient for design flow.
 - B. The removal of all temporary in-channel barriers will proceed in an upstream direction from a downstream location. Removal of temporary barriers should not cause flows to exceed more than two times the current flow in the construction area. Normal flows shall be restored to the affected stream immediately upon completion of work.
 - C. Safely stockpile sediments outside the riparian zone to dry before disposal. Saturated sediments set aside for drying shall be inspected for sensitive species by the onsite biologist before offsite transport.

- D. Wet sediments shall be stockpiled away from the creek channel to the extent feasible. No runoff from wet sediments shall flow back into the channel.
 - E. Properly size bypass pipes, if used, to prevent increases in temperature and decreases in dissolved oxygen. Bypass pipes may be avoided by creating a low-flow channel (such as sandbags or visqueen) or using other methods to isolate the work area. All bypass channels or flumes shall be sized to handle flows expected during the course of in-channel construction.
 - F. When bypass flows are reintroduced to dewatered construction areas, they will be reintroduced in a non-erosive manner.
 - G. Diversion and reintroduction of water shall be done at appropriate distances upstream and downstream of the work site to minimize habitat disruption.
 - H. A qualified biologist shall be present to mark sensitive areas, to monitor the impact of the construction activity, and to provide guidance on problem solving.
 - I. All stranded fish and native aquatic vertebrates will be relocated under the direction of a qualified biologist.
 - J. Implement surface water monitoring and reporting protocols identified in the USACE 404 permit and CDFG streambed alteration agreement will be required to confirm compliance with State and Federal water quality standards.
4. Bank stabilization after channel work is complete shall be completed. Such methods may include:
- A. Erosion Control Blankets and Mats - Erosion control blankets (ECBs) and soil stabilization mats (turf reinforcement mats TRMs) shall be applied to problem areas to supplement revegetation during its initial establishment. Blankets and matting surfaces temporarily stabilize and protect disturbed soil and enhance water infiltration, decrease compaction and soil crusting, and conserve soil moisture. These temporary surfaces also protect seeds from predators, and reduce desiccation and evaporation by insulating the soil and seed environment. ECBs and TRMs shall be used on drainage channels where water velocities between 3 and 6 feet per second (ft/sec) are likely to wash out new vegetation.

Some types of ECBs and TRMs are specifically designed to stabilize channelized flow areas. These blankets and mats shall aid in the establishment of vegetation in waterways and increase the maximum permissible velocity of the given channel by reinforcing the soil and vegetation to resist the forces of erosion during runoff events. Stems, roots, and rhizomes of the associated vegetation become intertwined with the mat, thereby reinforcing the vegetation and anchoring the mat. Conditions where ECBs and TRMs are appropriate may include:

- Slopes and disturbed soils where mulch must be anchored.
- Critical slopes adjacent to sensitive areas such as streams and wetlands.
- Disturbed soil areas where planting is likely to be slow in providing adequate protective cover.
- Channels with flow exceeding 2 to 4 ft/sec.
- In channels intended to be vegetated and where the design flow exceeds the permissible velocity. Allowable velocity, with turf reinforcement mats after vegetative establishment, is up to 10 ft/sec (3 m/sec).

B. Hydraulic planting techniques – A method of applying erosion control materials to bare soil and establishing erosion-resistant vegetation on disturbed areas and critical slopes. By using hydraulic equipment (hydroseeders and hydromulchers) seed, soil amendments, wood fiber mulch and tackifying agents, bonded fiber matrix and liquid co-polymers shall be uniformly broadcast, as a hydraulic slurry, onto the soil. These erosion and dust control materials shall often be applied in one operation.

Hydraulic planting techniques are expensive, but provide the most dependable results on steep critical slopes, with limited accessibility and on which mulch must be anchored and on shallow soils which restrict the use of erosion control blankets. Hydraulic machines today are used to spray seed, tack down straw, bind the soil, seal the soil, or apply blanket-like coats of bonded fiber matrix (BFM).

C. Mulching – The most common use of mulch or plant debris is to provide temporary stabilization of soil, usually until permanent-stabilizing vegetation is established. Where mulches are used to complement vegetation establishment, they should be designed and installed to maximize contact with the ground and last as long as it takes to establish vegetation. On steep slopes, greater than 2.5:1, or

where the mulch is susceptible to movement by wind or water, the material should be appropriately anchored. On small sites, where plant material is distributed by hand, it shall be anchored by hand punching it into the soil every 1 to 2 feet (0.3 to 0.6 meters) with a dull, round nosed shovel. Mulching effectively complements surface roughening applications.

- D. Fiber Rolls – Fiber rolls consist of straw that is wrapped in tubular black plastic netting. These rolls are used extensively in the construction industry due to their cost-effectiveness. If installed correctly, straw rolls will capture and keep sediment and minimize sheet and rill erosion until permanent vegetation can establish. Installed, straw rolls shorten the slope length, thereby interrupting the erosion processes. Organic matter and native seeds are trapped behind the rolls, which provide a stable medium for germination.

It is imperative, especially on steeper slopes, that a sufficient trench is constructed to place the roll in. Without it, the roll will not function properly, runoff will scour underneath it, and trees or shrubs planted behind the roll will not have a stable environment in which to become established. Straw rolls will last an average of one to two years and are a relatively low-cost solution to sheet and rill erosion problems. This is an important factor when planning the optimum length of time the slope or construction site will need mechanical stabilization. Fiber rolls shall be staked with willow stakes if site conditions warrant, and the moisture retained by the fiber roll will encourage willow establishment. Plastic netting will eventually photo-degrade, eliminating the need for retrieval of materials after the straw has broken down.

- E. Compost Blankets and Berms – Compost blankets are usually used on slopes of 2:1 or less, and shall be used on slopes up to 1:1, with consideration given to the length of slope and depth of application. Compost blankets should not be applied in areas of concentrated flow, and shall be used in conjunction with compost berms. Adding components such as a tackifier, or using compost blankets in conjunction with other techniques can increase the allowable steepness of the slope to be treated. Compost blankets should be extended 3 to 6 feet over the top shoulder of the slope to prevent water from getting underneath. Compost blankets can be more

effective than ECBs, because they come in better contact with the underlying soil, reducing the chance of rill formation.

5. Controlling Sedimentation. If treatment of the diverted flow or dewatered groundwater is determined necessary based on the flow present or other contributing factors, the installation and removal of temporary sediment control measures will be employed. The following is a range of measures that would be suitable for use to control sediments. These include temporary sediment basins, compost or continuous berms, and bioretention basins. The specific sediment control device shall be determined during the permit acquisition process with the appropriate regulatory agency (USACE, RWQCB, and/or CDFG). Also, sedimentation control devices may also be listed in the Storm Water Pollution Prevention Plan (SWPPP), which may also be required for this project prior to obtaining a grading permit from the County. Each of these sediment control measures are described more thoroughly below.

- A. Temporary Sediment Basins – A temporary sediment basin is a pond created by excavation in construction of an embankment and designed to retain or detain runoff sufficiently to allow excess sediment to settle. The temporary sediment basin is intended to collect and store sediment from sites that are cleared and/or graded during construction or for extended periods of time before permanent vegetation is re-established or before permanent drainage structures are completed. It is intended to trap sediment before it leaves the construction site. The basin is temporary, with a design life of 12 to 18 months, and is to be maintained until the site area is permanently stabilized.

Basins should be located at the stormwater outlet from the site, not in any natural or undisturbed stream. Use of temporary dikes, pipes, and/or channels may be necessary to divert runoff from disturbed areas into the basin and to divert runoff originating from undisturbed areas around the basin. Sediment basins can trap 70 to 80 percent of the sediment, which flows into them if designed and constructed appropriately. This design requires a runoff detention time of 24 to 40 hours and is only practically effective in removing sediment down to the medium silt size fraction. Sediment-laden runoff with smaller size fractions, fine silts and clay, will likely pass untreated through the basin. For this reason, basins modified with a “skimmer” device can increase efficiency and reduce turbidity by skimming relatively clear water from the top.

There are inherent problems associated with constructing basins large enough to pond all the sediment-laden runoff long enough to allow all of the fine soil particles to settle out. Therefore, sediment basins must be used in conjunction with other erosion control practices in order to increase effectiveness and trap efficiently.

These other concurrent practices include:

- Temporary seeding and/or mulching
- Minimizing disturbance
- Scheduling construction operations
- Diversions to reduce runoff into the basin
- Frequent use of other, smaller erosion control structures that will capture sediment upslope
- Frequent inspection and maintenance of all practices

- B. Compost/Continuous Berms – A compost filter berm is a trapezoidal berm that intercepts sheet flow and ponds runoff, allowing sediment to fall out of suspension, and often filtering sediment as well. Compost binds heavy metals and can break hydrocarbons down into carbon, salts, and other benign compounds. Compost is organic, biodegradable, renewable, and can be left onsite. This is particularly important near streams. Compost does not generally leach nutrients. Standard specifications for compost berms have been developed by the American Association of State Highway and Transportation Officials (AASHTO).

Compost berms are more cost-effective than many other erosion/sediment control methods. The invention of the blower truck makes compost an easy to install and reliable method of sediment and erosion control. Most municipal programs are now generating compost as municipal greenwaste programs, thus making it readily available in most areas.

- C. Bioretention Basins – Bioretention basins direct sheet flow across a grass buffer strip to a ponding area for infiltration. They utilize soils and both woody and herbaceous plants to remove pollutants from stormwater runoff (EPA, 1999). The ponding area generally consists of a surface layer containing organics such as mulch, trees, grasses and shrubs, a subsurface layer of planting soil, and a sand bed.

Bioretention areas are used to treat stormwater runoff from impervious surfaces in commercial, residential, and industrial developments, but can be just as effective in treating runoff from intensively managed open spaces, such as parks, golf courses, or gardens. Bioretention ponds shall be used to filter stormwater prior to discharge to a storm drain or sewer system or as an

infiltration device with no outflow. By virtue of the intended purpose (e.g. pollutant removal), the vegetative growth should be routinely maintained via mechanical treatments (e.g. mowed) to remove the various pollutants that have been assimilated by the plant mass. The plant debris should be properly disposed of at a local landfill.

Level of Significance After Mitigation

Less than significant impact.

Federally Protected Wetlands

Impact BIO-3: **The project could 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.**

Impact Analysis

A wetland delineation was conducted for the site by EDAW in 2005, and verified by the USACE on August 20, 2007, and the findings of the jurisdictional delineation will expire on August 20, 2012. The delineation was submitted before the Supreme Court decision, *Rapanos v. United States*, 126 S. Ct. 2208 (2006), and therefore, the USACE did not apply the decision’s guidance to the delineation. Therefore, it is recommended that current site conditions be analyzed and an updated wetland delineation be submitted to the USACE that will be reviewed using the guidance of the Rapanos decision. The Rapanos decision imposes a “significant nexus” test for federal jurisdiction over wetlands. The standards to determine a significant nexus includes 1) a case-by-case analysis of the flow characteristics and functions of the wetland to determine if they significantly affect the chemical, physical, and biological integrity of downstream navigable waters, and 2) consideration of hydrologic and ecologic factors. It is possible that isolated wetlands of the site would no longer be considered under the jurisdiction of the USACE.

Nonetheless, should wetland features remain on the property and be found jurisdictional, all activities that involve the discharge of fill in jurisdictional waters are subject to the permit requirements of the USACE.

The filling of isolated wetlands, over which the USACE has disclaimed jurisdiction, is regulated by the RWQCB. It is unlawful to fill isolated wetlands without filing a Notice of Intent with the RWQCB. The RWQCB is also responsible for enforcing National Pollution Discharge Elimination System (NPDES) permits, including the General Construction Activity Storm Water Permit. None of the wetland features identified in 2005 had defined beds or banks, and therefore wetlands on the site would not be under the jurisdiction of the CDFG. All projects requiring federal money must also comply with Executive Order 11990 (Protection of Wetlands).

Permits are typically issued on the condition that the applicant agrees to provide mitigation that results in no net loss of wetland functions or values. No permit can be issued until the Regional

Biological Resources

Water Quality Control Board (RWQCB) issues a certification (or waiver of such certification) that the proposed activity will meet state water quality standards.

Entertainment Area and Fairgrounds

Should impacts occur to federal waters, it would most likely occur in the Entertainment Area, because the previously identified wetland features of the site occur within these areas of the site plan.

Fairgrounds

Construction and operation of the Fairgrounds are not expected to have a negative affect on federal waters.

Level of Significance Prior to Mitigation

Potentially significant impact.

Mitigation Measures

Entertainment Area and Fairgrounds

MM BIO-3a Prior to the commencement of construction, the applicant shall obtain a Section 404 permit from the USACE for any areas under their jurisdiction. Loss of wetland habitat within the project boundaries shall be mitigated by the applicant’s purchase of credits at an agency-approved mitigation bank within the region, or similar available mitigation purchase or habitat creation. The requirements of the 404 permit will be incorporated into the project design. A typical mitigation requirement for impacts to wetland features is a no-net loss of wetlands, which is associated with a minimum of a 1:1 mitigation ratio. This again is similar to the discussion of riparian habitat mitigation mentioned above, is directly related to the habitat function and value of the wetlands that will be impacted. For higher quality habitat, a 2:1 or 3:1 mitigation ratio may be required. Ultimately, it is the regulatory agencies that make the final decision during the permitting process. The proposed project will likely restore the existing drainage features on site to accommodate more flows, allowing for an increase in wetland creation following project construction. Therefore, it is anticipated that project related wetlands will increase based on restoration efforts associated with the realignment and restoration of Rindler Creek.

MM BIO-3b Proposed project activities that affect jurisdictional features will require a Section 401 Water Quality Certification from the RWQCB. Requirements of the permit will be incorporated into the project design. Potential mitigation measures associated with the 401 Water Quality Certification often includes Best Management Practices that specifically target water quality issues both before and after project construction. Many of these measures are previously described in MM BIO-2. In addition to erosion control measures, the 401 Water Quality Certification also requires BMPs such as silt fence, slope breakers, straw bales, and other energy dissipating devices to reduce erosion and sediment transport to downstream areas. Also included in the 401

permit will be construction specific requirements for refueling, spill prevention, and other precautionary measures to reduce off-site pollution.

Level of Significance After Mitigation

Less than significant impact.

Wildlife Corridors and Nursery Sites

Impact BIO-4: **The project could interfere 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 wildlife nursery sites.**

Impact Analysis

The creeks associated with the project provide potential movement corridors for the various animal species that use them regularly, however, the waters downstream empty into Lake Chabot, which could act as a source sink for these species (e.g., California red-legged frog). While no formal corridor movement studies were carried out, it is clear the site does not constitute an important wildlife movement corridor (connecting two core habitat areas). The drainage feature associated with the project site contains poor-quality riparian habitat and enters the project from an underground culvert and exits the site in an underground culvert. Therefore, there is no direct connection of open undisturbed habitat between two larger areas of undeveloped habitat.

Build-out of the project would set back from the creeks an average of 50 feet (or as approved otherwise by the resource agencies during the permitting process), and no permanent structures are planned that would limit movement of resident wildlife species in these creeks; therefore, the project would not substantially interfere with wildlife movement on a local or regional scale. Furthermore, the Solano360 project is anticipated to improve the overall condition of the creek systems in the reaches associated with the project.

Wildlife nursery sites may occur within the project site; for example, songbirds adapted to urban settings likely nest in onsite trees, both ornamental and native that occur within the existing fairgrounds and along the reaches of the creeks associated with the project. Based on the reconnaissance-level surveys, the project site does not contain any documented nursery sites. Although individual birds may utilize the project site for nesting, a few residents or migratory birds do not constitute a nursery area.

Entertainment Area and Fairgrounds

Construction and operation are not expected to interfere with the movement of any native resident or migratory fish or wildlife species, other than temporarily during creek improvements. Construction and operation are not expected to interfere with important movement corridors, as none have been identified on the site. The project site is not used as a nursery site and none has been observed on site.

Level of Significance Prior to Mitigation

Less than significant impact.

Biological Resources

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

Local Policies or Ordinances Protecting Biological Resources

Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis

The City of Vallejo does not list any specific policies or ordinances that protect biological resources that occur onsite. The City’s Tree Ordinance (Municipal Code Chapter 10.12) does not contain a provision for the protection or preservation of ornamental trees on private property. No further review is necessary, and no mitigation measures are warranted.

Level of Significance Prior to Mitigation

Less than significant impact.

Conservation Plans

Impact BIO-6: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis

Neither the City of Vallejo nor Solano County have any adopted Habitat Conservation Plan or Natural Community Conservation Plan under Section 10 of the ESA. However, there is a proposed Solano MSHCP that has not been formally adopted and, therefore, is not legally binding. Nonetheless, for the purposes of disclosure, the proposed project’s consistency with the Solano MSHCP is analyzed in this section.

Solano MSHCP Figure 1-4 indicates that the project site is located within the Urban Zone (Zone 1). Within this zone, development activities that are consistent with those allowed under the “covered activities” of the urban zone as set forth in the Solano MSHCP are authorized to take endangered, threatened, rare, and other protected species and habitats. Allowable “covered activities” in the urban zone include the construction of new buildings and associated infrastructure. Therefore, both phases of the proposed project would be consistent with the proposed Solano MSHCP. Impacts would be less than significant.

Entertainment Area and Fairgrounds

There would be no conflict with any conservation policies within the Entertainment and Fairground areas. No further analysis is required.

Level of Significance Prior to Mitigation

Less than significant impact. No mitigation measures are required for conflicts to any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant impact.

3.3.7 - Residual Significant Impacts

None identified.

