

3.5 BIOLOGICAL RESOURCES

This section evaluates the potential effects of the implementation of the Orchard Park Redevelopment component of the 2018 LRDP to biological resources on and in the vicinity of the Orchard Park site. Biological resources include vegetation and habitat types, special-status plant and animal species, and otherwise sensitive plant communities that would be affected by implementation of the Orchard Park Redevelopment component.

In response to the NOP, comments were received regarding concerns about impacts to threatened and endangered species. As they pertain to implementation of the Orchard Park Redevelopment component of the 2018 LRDP, these impacts are described and addressed within this section.

3.5.1 Regulatory Setting

Plans, policies, regulations, and laws (applicable to and/or considered for the Orchard Park Redevelopment component) are provided in Volume 1 of this EIR. As the regulatory setting provided in Volume 1 considers potential development, including the Orchard Park Redevelopment component, within the entirety of the UC Davis campus as envisioned through the 2018 LRDP, no additional regulatory setting is provided for the Orchard Park Redevelopment component.

3.5.2 Environmental Setting

Section 3.5, “Biological Resources,” of Volume 1 includes the regional environmental setting for the UC Davis campus, including the Orchard Park site. A reconnaissance-level survey for biological resources was conducted on August 25, 2017. At the time of the survey, the Orchard Park Apartment Complex buildings, which ceased operation in 2014, were still present on site. Demotion of the buildings was approved, as a different project under separate CEQA review, in October 2017. Demolition was initiated in November 2017 and is largely complete (estimated completion in Spring 2018). The environmental setting for biological resources considers the site to be undeveloped.

The site contains urban landscaping, including many large trees (e.g., eucalyptus [*Eucalyptus* sp.], cork oak [*Quercus suber*], blue oak [*Q. douglasii*], interior live oak [*Q. wislizeni*], Canary Island pine [*Pinus canariensis*]), and ornamental trees and shrubs. The large trees within the Orchard Park site provide suitable habitat for nesting birds, including Swainson’s hawk and other raptors, as well as roosting bats. Additionally, the site supports trees meeting UC Davis standards for important trees; specifically, three Heritage Trees and three Specimen Trees.

The Orchard Park site also contains sparse ruderal grassland habitat along SR 113. This grassland habitat contains mostly eucalyptus trees, nonnative grasses, and nonnative forbs, such as yellow star thistle (*Centaurea solstitialis*). The area is disturbed, and contains mostly flat, non-friable dirt and gravel. This ruderal grassland habitat does not provide high quality habitat for species such as burrowing owl (*Athene cunicularia*).

Elderberry shrubs have not been observed within the Orchard Park site (UC Davis 2017) and the site does not contain suitable riparian or remnant riparian habitat for elderberry. Additionally, no agricultural ditches, emergent marshes, or jurisdictional wetland features were present on the Orchard Park site.

3.5.3 Environmental Impacts and Mitigation Measures

SIGNIFICANCE CRITERIA

Refer to Section 3.5, “Biological Resources,” in Volume 1 of the 2018 LRDP for a discussion of applicable Significance Criteria.

ANALYSIS METHODOLOGY

Refer to Section 3.5, “Biological Resources,” in Volume 1 for a discussion of applicable analytical methods. In addition, the 2017 UC Davis Orchard Park Demolition Project Initial Study/Negative Declaration (IS/ND) was reviewed and is incorporated here by reference (UC Davis 2017).

ISSUES NOT EVALUATED FURTHER

The following impacts were identified as part of the analysis of the 2018 LRDP, and are either (1) adequately evaluated at the program level of analysis of the 2018 LRDP, or (2) not applicable to the Orchard Park Redevelopment component.

Special-status Plants

The 2018 LRDP program-level analysis concluded that campus development including conversion of ruderal/annual grassland habitat could result in the loss of special-status plant species if they are present in disturbance areas (2018 LRDP Impact 3.5-1). Ruderal grassland habitat is present within the Orchard Park site (as observed during the August 2017 reconnaissance survey); however, the habitat is disturbed and unsuitable for the special-status plant species with potential to occur in the area. These species are unlikely to be adversely affected by implementation of the Orchard Park Redevelopment component; therefore, implementation of 2018 LRDP Mitigation Measures 3.5-1a through 3.5-1c is not required. No additional project-level analysis is necessary.

Swainson’s Hawk Foraging Habitat

As identified in Section 3.5, “Biological Resources,” in Volume 1, 2018 LRDP development would result in the conversion of approximately 270 acres of agricultural land and ruderal/annual grassland habitat that would be lost as general wildlife habitat, including Swainson’s hawk foraging habitat (2018 LRDP Impact 3.5-4). Ruderal grassland is present within the Orchard Park site (as observed during the August 2017 reconnaissance survey); however, this habitat is disturbed and does not present suitable foraging habitat for Swainson’s hawk or other special species raptors. The Orchard Park Redevelopment component would not contribute to this impact; therefore, implementation of 2018 LRDP Mitigation Measures 3.5-4a and 3.5-4b is not required. No additional project-level analysis is necessary.

Burrowing Owls

The 2018 LRDP program-level analysis concluded that campus development could result in the loss of burrowing owls and burrowing owl habitat because of conversion of grassland and agricultural habitat (2018 LRDP Impact 3.5-5). Ruderal grassland habitat is present within the Orchard Park site (as observed during the August 2017 reconnaissance survey); however, this habitat is low quality and unsuitable for burrowing owls. Burrowing owls are unlikely to be adversely affected by implementation of the Orchard Park Redevelopment component; therefore, implementation of 2018 LRDP Mitigation Measure 3.5-5 is not required. No additional project-level analysis is necessary.

Tricolored Blackbird

The 2018 LRDP program-level analysis concluded that campus development could result in the loss of tricolored blackbird and their nests because of conversion of riparian and agricultural habitat (2018 LRDP Impact 3.5-6). No suitable riparian or agricultural habitat were recorded during preparation of the 2017 IS/ND (UC Davis 2017) or observed during the August 2017 reconnaissance survey of the Orchard Park site, thus tricolored blackbirds are unlikely to be adversely affected by implementation of the Orchard Park Redevelopment component; therefore, implementation of 2018 LRDP Mitigation Measures 3.5-6 is not required. No additional project-level analysis is necessary.

Special-status Reptiles and Fish

The 2018 LRDP program-level analysis concluded that campus development could result in the loss of special-status reptile species (i.e., giant garter snake [*Thamnophis gigas*] and western pond turtle [*Actinemys marmorata*]; 2018 LRDP Impact 3.5-2) and Chinook salmon [*Oncorhynchus tshawytscha*] (2018 LRDP Impact 3.5-3) within Putah Creek and within upland habitat adjacent to Putah Creek. The Orchard Park site does not contain aquatic habitat, including streams, creeks, or wetlands. Therefore, suitable aquatic habitat for special-status reptile species and for Chinook salmon is not present. Additionally, the Orchard Park site is located a sufficient distance (approximately 1.8 miles) from Putah Creek to preclude it from being used as upland habitat for giant garter snake and western pond turtle. The Orchard Park site is also approximately 1 mile north of the Arboretum Waterway. Because of sufficient distance from aquatic features, special-status reptiles and fish are not expected to be present onsite and therefore are unlikely to be adversely affected by implementation of the Orchard Park Redevelopment component. Implementation of 2018 LRDP Mitigation Measures 3.5-2a, 3.5-2b, and 3.5-3 are not required. No additional project-level analysis is necessary.

Valley Elderberry Longhorn Beetle

The 2018 LRDP program-level analysis concluded that campus development could result in the loss of valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*; 2018 LRDP Impact 3.5-7), wherever blue elderberry (*Sambucus nigra* ssp. *caerulea*) shrubs are present. No blue elderberry shrubs or riparian habitat (which would increase the likelihood of the shrubs and beetles being present) were observed during the August 2017 reconnaissance survey of the Orchard Park site or during preparation of the 2017 IS/ND (UC Davis 2017). Valley elderberry longhorn beetle is not likely to be adversely affected by implementation of the Orchard Park Redevelopment component; therefore, implementation of 2018 LRDP Mitigation Measure 3.5-7 is not required. No additional project-level analysis is necessary.

American Badger

The 2018 LRDP program-level analysis concluded that campus development could result in the loss of American badgers and their burrows because of conversion of grassland and agricultural habitat (2018 LRDP Impact 3.5-8). There is no suitable agricultural habitat within the Orchard Park site and the grassland habitat observed within the Orchard Park site during the August 2017 reconnaissance survey is both low quality and disconnected from surrounding grassland in the area by urban development. American badger is unlikely to be adversely affected by implementation of the Orchard Park Redevelopment component; therefore, implementation of 2018 LRDP Mitigation Measure 3.5-8a is not required. No additional project-level analysis is necessary.

Waters of the United States, Waters of the States, and Riparian Habitat

The 2018 LRDP program-level analysis addressed impacts to waters of the United States, waters of the states, and riparian habitat (2018 LRDP Impact 3.5-9) and concluded that project development could

result in impacts to these sensitive features. There are no wetlands, streams, creeks, or associated riparian habitats within the Orchard Park site; therefore, implementation of 2018 LRDP Mitigation Measures 3.5-9a through 3.5-9d are not required. No additional project-level analysis is necessary.

Nurseries and Wildlife Corridors

The 2018 LRDP program-level analysis determined that the major wildlife corridor on campus, Putah Creek, would not be adversely affected by implementation of the LRDP because project plans did not include any development or conversion of Putah Creek or its associated riparian habitat. This conclusion also applies for the Orchard Park Redevelopment component, and the Orchard Park Redevelopment component is unlikely to result in impacts to wildlife corridors or nurseries. No additional project-level analysis is necessary.

Habitat Conservation Plans

The 2018 LRDP-level analysis addressed project consistency with two habitat conservation plans (HCPs): the Yolo County HCP/Natural Community Conservation Plan and the Solano County Multispecies HCP. It was determined that impacts associated with 2018 LRDP implementation to species covered under both HCPs would be mitigated to a less-than-significant level, and implementation of the LRDP would not conflict with the requirements of either HCP. This conclusion also applies for the Orchard Park Redevelopment component, and the Orchard Park Redevelopment component would also be consistent with local HCP requirements. No additional project-level analysis is necessary.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Impacts to Swainson's hawk and other nesting raptors.

Construction activities within the Orchard Park site such as tree removal, ground disturbance, construction vehicles, and presence of construction crews could disturb nesting Swainson's hawks or other special-status raptors potentially resulting in nest abandonment or failure, and mortality of chicks and eggs. This impact would be **potentially significant**.

The Orchard Park site footprint contains several trees large enough for Swainson's hawk or other raptors (e.g., white-tailed kite, red-tailed hawk) to use for nesting. Many of these are planned for removal as part of a separate project (refer to Section 2.2 of Chapter 2, "Project Description," of this volume). Remaining trees may require removal as part of the Orchard Park Redevelopment component of the 2018 LRDP. Tree removal could result in the direct loss of Swainson's hawk or other raptor nests or mortality of chicks and eggs. Additionally, construction activity and noise could discourage nesting and disturb nesting birds during construction. Disturbance or loss of Swainson's hawk or other raptor nests would be a **potentially significant** impact.

OPR Mitigation Measure 3.5-1: Avoidance of Swainson's hawk and other nesting raptors.

Implement 2018 LRDP Mitigation Measure 3.5-4a.

Significance after Mitigation

Implementation of OPR Mitigation Measure 3.5-1 would reduce impacts to a **less-than-significant** level by requiring that Swainson's hawk and other raptor nests be avoided and protected from construction activities.

Impact 3.5-2: Impacts to pallid bats.

Construction activities associated with the Orchard Park Redevelopment component, including conversion of agricultural land to urban uses and removal of trees, could result in loss of pallid bat roosts and individuals. This impact would be **potentially significant**.

Pallid bats use a variety of habitats to roost, including caves, crevices, mines, hollow trees, and buildings. Potentially suitable day, night, and maternity roosting habitat is present on the Orchard Park site within the large trees onsite. There is one historic (1964) occurrence of pallid bat approximately 1 mile northeast of the Orchard Park site (CNDDDB 2017). Potential tree removal activities could result in the loss of pallid bat roosts and individuals. This would be a **potentially significant** impact.

OPR Mitigation Measure 3.5-2: Preconstruction bat survey and exclusion.

Implement 2018 LRDP Mitigation Measure 3.5-8b.

Significance after Mitigation

Implementation of OPR Mitigation Measure 3.5-2 would reduce impacts to a **less-than-significant** level by requiring that pallid bats be protected from construction activities.

Impact 3.5-3: Conflict with local policies or ordinances related to the protection of biological resources.

Implementation of the Orchard Park Redevelopment component could result in the removal of trees recognized to meet UC Davis standards for important trees. Heritage Trees would not be removed during project implementation, resulting in no impact to Heritage Trees. However, removal of Specimen Trees within the Orchard Park site would be a **potentially significant** impact.

The Orchard Park site has three Heritage Trees and three Specimen Trees within its boundaries. Implementation of the Orchard Park Redevelopment component would not involve removal of the Heritage Trees. Because no Heritage Trees would be removed during implementation of the Orchard Park Redevelopment component, there would be no impact to Heritage Trees.

However, the three Specimen Trees (Canary Island pine [*Pinus canariensis*]) would likely be removed during construction of the Orchard Park Redevelopment component. Specimen Trees are healthy trees or stands of trees that are of high value to the campus because of their size, species, extraordinary educational and research value, and other exceptional local importance. Removal of Specimen Trees within the Orchard Park site would be a **potentially significant** impact.

OPR Mitigation Measure 3.5-3: Tree surveys and tree removal mitigation.

Implement 2018 LRDP Mitigation Measure 3.5-11.

Significance after Mitigation

Implementation of OPR Mitigation Measure 3.5-3 would reduce impacts from removal of specimen trees to a **less-than-significant** level by requiring relocation of the tree if feasible, or replacement offsite with the same species or species of comparable value.

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