# 4.4 BIOLOGICAL RESOURCES

This section describes the existing biological resources of the Specific Plan Area and evaluates the potential impacts associated with the proposed Specific Plan, both at the individual and cumulative levels. The analysis in this section is based in part on the City's General Plan[1] and the Biological Resource Evaluation (BRE) prepared by LSA (2018) included in Appendix F of this EIR.

## 4.4.1 Environmental Setting

### 4.4.1.1 Specific Plan Area

The Specific Plan Area is located west of and adjacent to the City within Madera County. It is located in Sections 8, 16, 17, and 21 of Township 11 South, Range 17 East on the Bonita Ranch and Madera United States Geological Survey (USGS) 7.5-minute quadrangle maps.

The Biological Study Area (BSA), as identified in the BRE, totals approximately 1,935 acres, and is predominately composed of almond orchards, though there is a section near the center (between Avenues 15½ and 16 and Roads 22½ and 23) which has been cleared of orchard trees leaving approximately 132 acres of disked/plowed fallow field (characterized as barren). There is also approximately 30 acres of vineyard in this section of the BSA. The Fresno River abuts the southern portion of the BSA and multiple Merced Irrigation District canals traverse through the BSA.

Historic aerial photos (the earliest of which is from 1946) indicate that the land use in the BSA has remained largely unchanged over the last 70 years, with the hydrology of the area controlled to facilitate various agricultural operations. Subsequent photos from 1958, 1962, and 1998, show continued agricultural land uses throughout the BSA, with the only recent change being in 2019 with the construction of the four retention basins in the southeast and northwest subareas totaling approximately 2.2 acres.

### 4.4.1.2 Plant Communities and Land Uses

There are no natural habitats in the BSA. The overwhelming majority of the BSA (approximately 1,900 acres) is comprised of agricultural land, with approximately 1,700 acres of almond orchard, approximately 130 acres of disked/plowed fallow field (barren), approximately 30 acres of vineyard, and the basin and ditch aquatic features of the irrigation system making up approximately 10 acres. The remaining acres are developed lands such as the farmhouses and other built structures and roadways. Figure 4.4-1 shows the plant communities and existing land uses.

### 4.4.1.3 Wildlife Use

Wildlife use of the BSA is relatively low due to the lack of natural habitats and the dominance of monotypic orchard trees across most of the landscape. However, varieties of species are known to occur in agricultural areas. Based on the BRE conducted for the proposed Specific Plan, common wildlife species observed or that could occur in the BSA include, but are not limited to, California ground squirrels (*Otospermophilus beecheyi*), coyote (*Canis latrans*), American crow (*Corvus*

[1] City of Madera General Plan. October 7, 2009.

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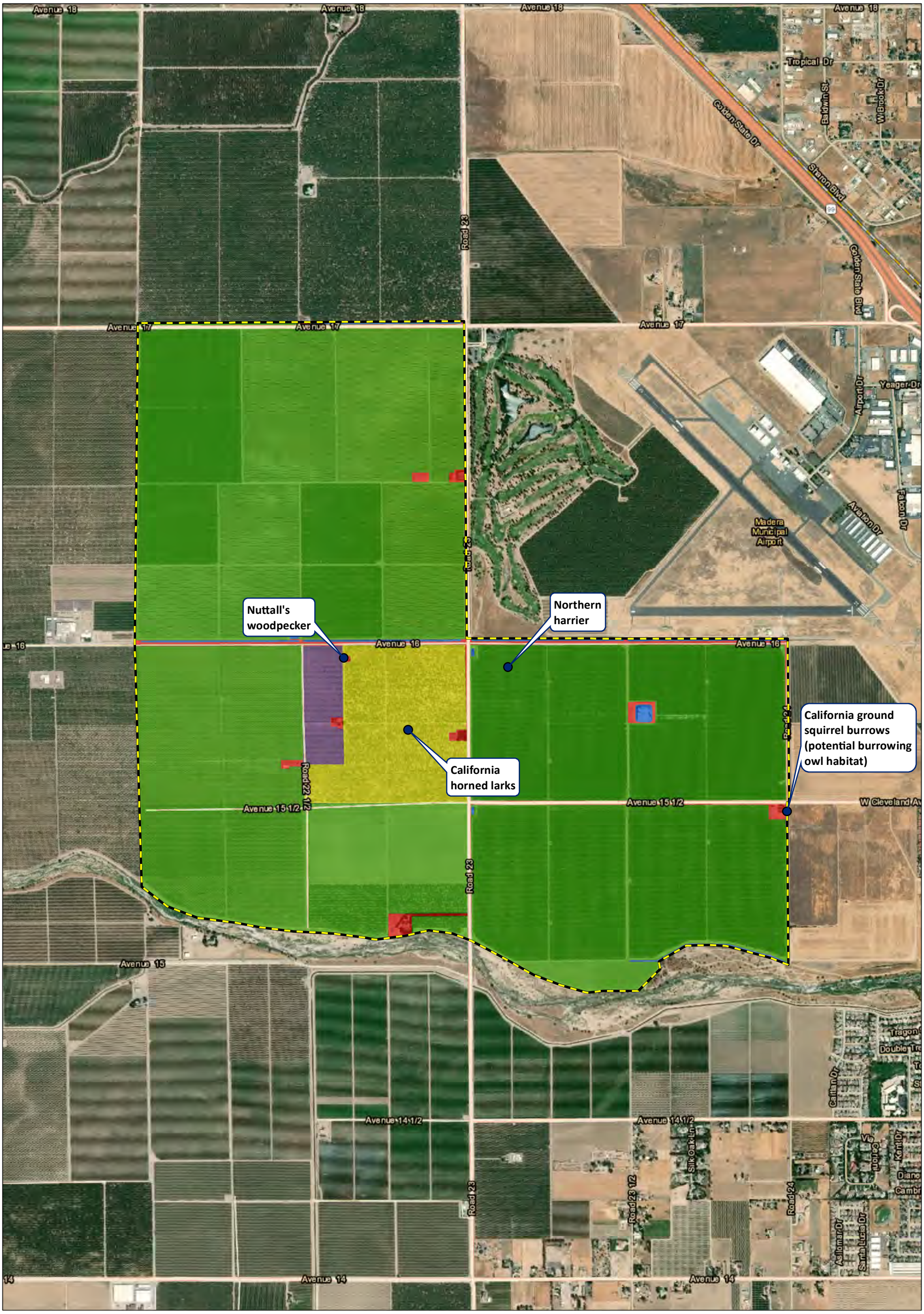


LSA

LEGEND

- Biological Study Area - (1,934.74 ac)
- Special-Status Species or Potential Habitat Observed

**Plant Communities / Land Uses - (1,934.74 ac)**

- Basins and Ditches - (9.89 ac)
- Barren - (132.04 ac)
- Orchard - (1,703.84 ac)
- Vineyard - (29.94 ac)
- Developed - (59.03 ac)

N

0 750 1500
FEET

FIGURE 4.4-1

*The Villages at Almond Grove Specific Plan EIR*

Plant Communities / Land Uses and Sensitive Species Observed

SOURCE: Basemap - ESRI World Imagery (07/2017); Mapping - LSA (11/2018)

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*brachyrhynchos*), western meadowlark (*Sturnella neglecta*), Brewers blackbird (*Euphagus cyanocephalus*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), and red-tailed hawk (*Buteo jamaicensis*).

A comprehensive list of plant and wildlife species observed during the survey is provided in Appendix B of the BRE.

#### 4.4.1.4 Wildlife Movements

Wildlife movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

There are no significant migration corridors that exist within the BSA. The Fresno River, which flows along the southern boundary of the BSA, is the best example of a migration corridor in the vicinity of the Specific Plan Area.

#### 4.4.1.5 Aquatic Resources

Aquatic features within the BSA consist exclusively of those associated with the agricultural water conveyance systems and are comprised of several irrigation ditches and retention basins scattered across the BSA, totaling approximately 10 acres. Aquatic resources are shown in Figure 4.4-2. A formal delineation of the Specific Plan Area has not been conducted and, therefore, the acreages are preliminary.

**Irrigation Ditches.** There are three irrigation ditches located within the BSA, which are part of the water conveyance system for the agricultural operations in the area. All three of these irrigation ditches have earthen banks with weedy vegetation growing throughout and measure approximately 15 feet wide at the top of the bank.

**Retention Basins.** There are four man-made retention basins associated with on-going agricultural uses located within the BSA. The retention basins appear to be isolated aquatic features that are likely not connected to other waters within or adjacent to the BSA. As shown in Figure 4.4-2, three of the retention basins are located along roads at the far corner of orchards, are rectangular in shape, and measure approximately 50 feet by 125 feet. The other retention basin in the BSA is square shaped, located in the middle of one of the orchard properties, and is approximately two acres in size.

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LSA

LEGEND

Biological Study Area - (1,934.74 ac)

Aquatic Features - (9.89 ac)

FIGURE 4.4-2

N

0 750 1500

FEET

*The Villages at Almond Grove Specific Plan EIR*

Aquatic Features within the Biological Study Area

SOURCE: Basemap - ESRI World Imagery (07/2017); Mapping - LSA (11/2018)

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#### 4.4.1.6 Invasive Species

Many non-native plant species have been part of the California landscape for the past 150 years and are considered naturalized in the wild. Some examples of these introduced species observed during the survey include tumbleweed (*Amaranthus albus*), Shepherd's purse (*Capsella bursa-pastoris*), spotted spurge (*Euphorbia maculata*), cheeseweed mallow (*Malva parviflora*), annual blue grass (*Poa annua*), and common groundsel (*Senecio vulgaris*), among others. These species are primarily annual or biennial and are not considered invasive. Non-native plant species considered invasive by the California Invasive Plant Council are those which threaten to dominate California's natural areas. Five invasive plant species of concern were observed in the BSA during surveys: black mustard (*Brassica nigra*), Bermuda grass (*Cynodon dactylon*), red-stemmed filaree (*Erodium cicutarium*), bur clover (*Medicago polymorpha*), and Russian thistle (*Salsola tragus*). These species have an invasive rating of 'Limited' or 'Moderate' per the California Invasive Plant Council Invasive Plant Inventory Online Database[2] (www.cal-ipc.org/plants/inventory/).

#### 4.4.1.7 Regulatory Context

**Federal Regulations**

***Section 404 of the Clean Water Act.*** Under Section 404 of the Clean Water Act (CWA), the Army Corps of Engineers (ACOE) regulates the discharge of dredged or fill material into waters of the United States (U.S.). Waters of the U.S. are those waters that have a connection to interstate commerce, either directly via a tributary system or indirectly through a nexus identified in the ACOE regulations. In non-tidal waters, the lateral limit of jurisdiction under Section 404 extends to the ordinary high water mark (OHWM) of a waterbody or, where adjacent wetlands are present, beyond the OHWM to the limit of the wetlands. The OHWM is defined as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 CFR 328.3). In tidal waters, the lateral limit of jurisdiction extends to the high tide line or, where adjacent wetlands are present, to the limit of the wetlands.

Wetlands. Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for a life in saturated soil conditions".

Non-Wetland Waters. Non-wetland waters essentially include any body of water, not otherwise exempted, that displays an OHWM.

[2] California Invasive Plant Council Invasive Plant Inventory Online Database. Website: www.cal-ipc.org/plants/inventory/ (accessed January 2021).

**State Regulations**

***Regional Water Quality Control Board.*** Under Section 401 of the CWA, the State Water Resources Control Board must certify all activities requiring a 404 permit. The Regional Water Quality Control Board (RWQCB) regulates these activities and issues water quality certifications for those activities requiring a 404 permit. In addition, the RWQCB has authority to regulate the discharge of "waste" into waters of the State pursuant to the Porter-Cologne Water Quality Control Act.

***California Department of Fish and Wildlife.*** The California Department of Fish and Wildlife (CDFW), through provisions of Section 1602 of the California Fish and Game Code, is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be substantially adversely affected. Streams (and rivers) are defined by the presence of a channel bed and banks, and at least an ephemeral or intermittent flow of water. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

CDFW generally includes, within the jurisdictional limits of streams and lakes, any riparian habitat present. Riparian habitat includes willows, cottonwoods, and other vegetation typically associated with the banks of a stream or lake shoreline. In most situations, wetlands associated with a stream or lake would fall within the limits of riparian habitat. Thus, defining the limits of CDFW jurisdiction based on riparian habitat would automatically include any wetland areas. Riparian communities may not fall under ACOE jurisdiction unless they are below the OHWM or classified as wetlands.

***Migratory Bird Treaty Act.*** The Migratory Bird Treaty Act (MBTA) prohibits actions that would result in "take" of migratory birds, their eggs, feathers, or nests. "Take" is defined in the MBTA as any means or any manner to hunt, pursue, wound, kill, possess, or transport, any migratory bird, nest, egg, or part thereof.

Migratory birds are also protected, as defined in the MBTA, under Section 3513 of the California Fish and Game Code (CFGC).

***California Fish and Game Code (Breeding Birds).*** Section 3503 of the California Fish and Game Code prohibits the take, possession, or needless destruction of the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or other regulation.

**Local Policies**

Following annexation of the Specific Plan Area by the City of Madera, implementation of the Specific Plan would not be subject to regulatory requirements of Madera County related to Biological Resources.

***City of Madera Zoning Ordinance.*** Goals and policies listed in the General Plan are implemented in the City of Madera Zoning Ordinance. Zoning districts are established under the zoning law to guide development and land use in Madera by setting allowable land uses within each district. City zoning ordinances regulate allowable land use, parking, signage and other ordinance

enacted under zoning law. The Zoning Ordinance must be consistent with adopted General Plans. When the City of Madera adopts a General Plan, the City must update the Zoning Ordinance accordingly.

Municipal Code Title IV, Chapter 6: Street Trees provides guidelines for replacing and protecting trees located within public places.

***City of Madera General Plan.*** The City of Madera General Plan is the City's primary policy planning document. Through its 10 elements, the General Plan provides the framework for the management and utilization of the City's physical, economic, and human resources. Each element contains goals, policies, and implementation measures that guide development within the City. The General Plan strives to maintain and improve Madera's quality of life and implement the community's shared vision for the future. The General Plan is the official policy statement of the City Council to guide development (both public and private), as well as the City's operations and decisions. Table 4.4.A lists the General Plan policies related to biological resources.

## Table 4.4.A: General Plan Policies Related to Biological Resources

| Policy/Action Item Number | Policy/Action Item |
|---|---|
| Policy CON-23 | The City shall seek to conserve and improve native wildlife and plant habitat in cooperation with governmental agencies, private associations and individuals in Madera. |
| Policy CON-24 | Residential, commercial, industrial and recreational projects shall avoid impacts to native wildlife and plant habitat to the extent feasible. |
| Policy CON-25 | The City encourages the preservation of habitat areas needed for the ongoing viability of native species, and habitat connectivity through the use of conservation easements or other methods. |
| Policy CON-26 | To offset possible additional losses of native wildlife and plant habitat due to development projects, developers shall be responsible for mitigation. Such mitigation measures may include providing and permanently maintaining similar quality and quantity of replacement habitat, enhancing existing habitat areas or paying in-lieu funds to an approved wildlife habitat improvement and acquisition fund. Replacement habitat may occur either on site or at approved offsite locations, but preference shall be given to on-site replacement.<br><br>Action Item CON-26.1<br>The City shall require a biological resources evaluation for private and public development projects in areas identified to contain or possibly contain listed plant and/or wildlife species based upon the City's biological resource mapping provided in the General Plan EIR or other technical materials. This evaluation shall be conducted prior to the authorization of any ground disturbance.<br><br>Action Item CON-26.2<br>For those areas in which special-status species are found or likely to occur, the City shall require feasible mitigation of impacts to those species that ensure that the activity does not contribute to the decline of the affected species such that their decline would impact the viability of the species. Mitigation shall be determined by the City after the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG) are provided an opportunity to comment. |
| Policy CON-27 | The City supports the revitalization of the Fresno River as an amenity which can be enjoyed by both visitors and residents of Madera and serve as a source of civic pride, while continuing to provide for plant and wildlife habitat opportunities. |

Source: City of Madera General Plan October 2009.

## 4.4.2 Impacts and Mitigation Measures

The following section presents a discussion of the impacts related to biological resources that could result from implementation of the proposed Specific Plan. The section begins with the criteria of significance, which establish the thresholds to determine if an impact is significant. The latter part of this section presents the impacts associated with implementation of the proposed Specific Plan and the recommended mitigation measures, if required. Mitigation measures are recommended, as appropriate, for significant impacts to eliminate or reduce them to a less-than-significant level. Cumulative impacts are also addressed.

### 4.4.2.1 Significance Criteria

The thresholds for impacts related to biological resources used in this analysis are consistent with Appendix G of the State California Environmental Quality Act (CEQA) Guidelines. Development of the proposed Specific Plan would result in a significant impact related to biological resources if it would:

**Threshold 4.4.1** **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;**

**Threshold 4.4.2** **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 US Fish and Wildlife Service;**

**Threshold 4.4.3** **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;**

**Threshold 4.4.4** **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;**

**Threshold 4.4.5** **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;**

**Threshold 4.4.6** **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.**

#### 4.4.2.2 Project Impacts

The following discussion describes the potential impacts related to biological resources that could result from implementation of the proposed Specific Plan.

**Threshold 4.4.1** **Would the project 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?**

No State or federally listed or proposed plant species occur in the BSA; therefore, no special-status plants would be affected by implementation of the proposed Specific Plan. However, the proposed Specific Plan has the potential to affect four special-status wildlife species. Potential impacts to these special-status species are described below.

**Western Burrowing Owl.** Potentially suitable nesting and foraging habitat is present in the barren (disked/plowed fallow fields) and developed areas within the BSA. Several suitable California ground squirrel (*Otospermophilus beecheyi*) burrow complexes were observed at the eastern edge of the BSA along Avenue 15 ½/West Cleveland Avenue, while the barren field in the center of the BSA provides potentially suitable foraging habitat. None of the visually inspected burrows within the BSA exhibited signs of burrowing owl occupancy, however a full coverage survey was not possible during the reconnaissance windshield survey.

Implementation of the proposed Specific Plan would result in potential impacts to suitable western burrowing owl habitat as a result of construction because permanent changes to barren areas (disked/plowed fallow fields), totaling approximately 132 acres, would occur. Though there is a low potential for burrowing owl to occur in the BSA, implementation of the proposed Specific Plan could directly affect burrowing owls if this species is present in the BSA when construction activities begin. Implementation of the proposed Specific Plan would occur in phases that would be conditioned on the approval of tentative tract maps and dependent on a number of factors including market conditions and development demand. Therefore, implementation of Mitigation Measure BIO-1.1 would occur prior to the issuance of any grading permits in order to reduce potential impacts to western burrowing owls during both construction and operation of the proposed Specific Plan. No compensatory mitigation would be required because the approximately 132 acres of barren area is considered to be in continued agricultural use, and the permanent change would not result in a potentially-significant impact. As a result, this area is considered to be in continued agricultural use.

**Mitigation Measure BIO-1.1:** Prior to the issuance of grading permits, the following measures shall be implemented to reduce potential impacts to western burrowing owls:

- Preconstruction surveys for western burrowing owls shall be conducted by a qualified biologist in accordance with the California Department of Fish and Wildlife (CDFW) 2012 Staff

Report on Burrowing Owl Mitigation, or the most current guidelines.

- If burrowing owls are identified during the preconstruction survey, avoidance of occupied burrows during the breeding season shall be implemented or passive exclusion, per CDFW's 2012 Staff Report on Burrowing Owl Mitigation, or the most current guidelines (installing one-way doors in burrow openings during the non-breeding season to temporarily exclude burrowing owls, or permanently exclude burrowing owls and close burrows after verifying burrows are empty by site monitoring and scoping) shall be implemented), .

- Following construction activities, all areas temporarily impacted during Project construction and not identified for future development, shall be restored to pre-construction contours and revegetated with native species as specified in Table 4.4.B.

### Table 4.4.B: Native Species Mix

| Scientific Name | Common Name | Rate (Lbs/Acre) | Minimum Percent Germination |
|---|---|---|---|
| *Artemisia douglasiana* | Mugwort | 2.0 | 50 |
| *Bromus carinatuscarinatus* | California brome | 5.0 | 85 |
| *Elymus trachycaulus* | Slender wheatgrass | 2.0 | 60 |
| *Elymus X triticum* | Regreen | 10.0 | 80 |
| *Eschscholzia californica* | California poppy | 2.0 | 70 |
| *Hordeum brachyantherum* | California barley | 2.0 | 80 |
| *Lupinus bicolor* | Bicolored lupine | 4.0 | 80 |

Source: LSA 2018.

**Swainson's Hawk.** The almond orchards covering most of the BSA are not suitable nesting or foraging habitat for Swainson's hawks since this species prefers larger trees for nesting and more open grasslands or row crop agricultural fields for foraging. While several ornamental trees associated with farmhouses in the BSA would normally be considered suitable nesting habitat for Swainson's hawk, and the barren field in the center of the BSA could provide suitable foraging habitat, the barren field was recently cleared, and the adjacent orchards extend a considerable distance in all directions. Therefore, it is unlikely Swainson's hawk would utilize areas within the BSA for nesting or foraging. No Swainson's hawks were observed during the survey, however the survey was conducted in late October when most Swainson's hawks have left the region to winter in South America. Implementation of the proposed Specific Plan would impact marginally suitable Swainson's hawk nesting and foraging habitat as a result of construction. Permanent impacts, totaling approximately 132 acres, would occur as a result of implementation of the proposed Specific Plan. Though there is a low potential for Swainson's hawk to occur in the BSA, implementation of the

proposed Specific Plan could directly affect Swainson's hawk if this species is present in the BSA when construction activities begin. Implementation of the proposed Specific Plan would occur in phases that would be conditioned on the approval of tentative tract maps and dependent on a number of factors including market conditions and development demand. Therefore, implementation of Mitigation Measure BIO-1.2 would occur prior to the issuance of any grading permits in order to reduce potential impacts to Swainson's hawks. No compensatory mitigation would be required because the approximately 132 acres of barren area is considered to be in continued agricultural use, and the permanent change would not result in a potentially-significant impact. Therefore, implementation of Mitigation Measure BIO-1.2 would reduce potential impacts to Swainson's hawks during construction and operation to a less-than-significant level.

**Mitigation Measure BIO-1.2:** Prior to the issuance of grading permits, the following measures shall be implemented to reduce potential impacts to Swainson's hawks:

- If construction begins during the nesting season (February 1 through August 31), an early season preconstruction survey for nesting Swainson's hawks shall be conducted between January and March in the Biological Study Area (BSA) for the Specific Plan Area and immediate vicinity (an approximately 0.25 mi radius) by a qualified biologist when tree foliage is relatively sparse and nests are easy to identify. A second preconstruction survey for nesting Swainson's hawks shall be conducted in the BSA and immediate vicinity (an approximately 0.25-mile radius) by a qualified biologist no more than 14 days prior to initiation of earthmoving activities.

- If nesting Swainson's hawks are found within the survey area, a qualified biologist shall evaluate the potential for the project to disturb nesting activities. The California Department of Fish and Wildlife (CDFW) shall be contacted to review the evaluation and determine if the project can proceed without adversely affecting nesting activities. CDFW shall also be consulted to establish protection measures such as buffers.

- Disturbance of active nests shall be avoided until it is determined by a qualified biologist that nesting is complete and the young have fledged, or that the nest has failed. If work is allowed to proceed, at a minimum, a qualified biologist shall be on-site during the start of construction activities during the nesting season to monitor nesting activity. The monitor shall have the authority to stop work if it is determined the project is adversely affecting nesting activities.

- Following construction, all fill slopes, temporary impact and/or otherwise disturbed areas not identified for future development

shall be restored to preconstruction contours and revegetated with the native seed mix specified in Table 4.4.C.

### Table 4.4.C: Native Species Mix

| Scientific Name | Common Name | Rate (Lbs./Acre) | Minimum Percent Germination |
|---|---|---|---|
| *Artemisia douglasiana* | Mugwort | 2.0 | 50 |
| *Bromus carinatuscarinatus* | California brome | 5.0 | 85 |
| *Elymus trachycaulus* | Slender wheatgrass | 2.0 | 60 |
| *Elymus X triticum* | Regreen | 10.0 | 80 |
| *Eschscholzia californica* | California poppy | 2.0 | 70 |
| *Hordeum brachyantherum* | California barley | 2.0 | 80 |
| *Lupinus bicolor* | Bicolored lupine | 4.0 | 80 |

Source: LSA 2018.

**Northern Harrier, California Horned Lark, and Other Nesting Birds.** One northern harrier was observed foraging low over the edge or an almond orchard in the eastern portion of the BSA. Though the BSA is confirmed to provide suitable foraging habitat for northern harriers (i.e., barren area), there is no suitable nesting habitat for the species in the BSA.

California horned larks were observed foraging in the fallow field in the central portion of the BSA. This species may also nest in the barren area within the BSA.

Several other bird species, which are not listed as special-status species but are protected by the MBTA and CFGC, were observed in the BSA during the field effort.

Implementation of the proposed Specific Plan would result in impacts to northern harrier foraging habitat as well as nesting and foraging habitat for California horned lark and other migratory birds.

Permanent impacts to barren areas, totaling approximately 132 acres, would occur as a result of construction. Implementation of the proposed Specific Plan would occur in phases that would be conditioned on the approval of tentative tract maps and dependent on a number of factors including market conditions and development demand. Therefore, implementation of Mitigation Measure BIO-1.3 would occur prior to the issuance of any grading permits in order to reduce potential impacts. No compensatory mitigation would be required because the approximately 132 acres of barren area (land characterized as disked/plowed fallow fields) is considered to be in continued agricultural use, and the permanent change would not result in a potentially-significant impact. Therefore, implementation of Mitigation Measure BIO-1.3 would reduce potential impacts to these species during construction and operation of the proposed Specific Plan to a less-than-significant level.

**Mitigation Measure BIO-1.3:** Prior to the issuance of grading permits, the following measures shall be implemented to reduce potential impacts to northern harrier, California horned lark, and other nesting birds:

- If construction begins during the nesting season (February 1 through August 31), a qualified biologist shall survey all suitable nesting habitat in the Biological Survey Area (BSA) of the Specific Plan Area for presence of nesting birds. This survey shall occur no more than 10 days prior to the start of construction. If no nesting activity is observed, work may proceed as planned. If an active nest is discovered, a qualified biologist shall evaluate the potential for the proposed project to disturb nesting activities. The evaluation criteria shall include, but are not limited to, the location/orientation of the nest in the nest tree, the distance of the nest from the BSA, the line of sight between the nest and the BSA, and the feasibility of establishing no-disturbance buffers.

- If work is allowed to proceed, a qualified biologist shall be on-site weekly during construction activities to monitor nesting activity. The biologist shall have the authority to stop work if it is determined the project is adversely affecting nesting activities. Weekly monitoring shall continue until any young have fledged or the nest fails (as determined by the qualified biologist).

Level of Significance With Mitigation: Less than significant.

**Threshold 4.4.2 Would the project 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 US Fish and Wildlife Service?**

No riparian habitat or other sensitive natural communities occur in the BSA. The BSA consists of orchards, vineyards, agricultural retention basins and ditches, barren lands, and developed areas. Therefore, the implementation of the proposed Specific Plan would have a less-than-significant impact on riparian habitat or any other sensitive natural community.

Level of Significance Without Mitigation: Less than Significant Impact. No mitigation is required.

**Threshold 4.4.3 Would the project 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?**

Aquatic features within the BSA consist exclusively of irrigation ditches and retention basins associated with agricultural water conveyance systems. Formal delineation of aquatic features should be performed prior to the initiation of construction activities in order to determine if any aquatic features within the Specific Plan Area would be considered wetlands or non-wetland waters of the U.S. under the jurisdiction of the ACOE and/or waters of the State under the jurisdiction of the RWQCB. It is not expected that these aquatic features would be regulated by CDFW because CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by Section 1602 of the CFGC. Implementation of Mitigation Measure BIO-3, which requires jurisdictional delineations to be completed prior to the initiation of ground disturbing activities, would reduce potential impacts during construction of projects under the proposed Specific Plan on riparian habitat or other sensitive natural community to a less-than-significant level.

**Mitigation Measure BIO-3:** The following measures shall be implemented once specific development plans are submitted and prior to the issuance of grading permits to mitigate potential impacts to aquatic resources:

- A jurisdictional delineation shall be performed to determine if any or all of the aquatic features in the Biological Survey Area (BSA) of the Specific Plan Area should be considered jurisdictional by the Army Corps of Engineers (ACOE). The jurisdictional delineation shall be submitted to the ACOE for verification or concurrence.

- If the results of the jurisdiction delineation determine that any of the aquatic features in the BSA are jurisdictional waters, and the Project would result in permanent or temporary impacts to those waters, the project proponent shall obtain any necessary regulatory permits prior to the commencement of ground disturbing activities.

- If the project would result in the loss of wetlands and/or non-wetland waters, mitigation shall be accomplished by purchasing credits at an approved mitigation bank, payment of in-lieu fees, or a combination of these methods, as determined by the City of Madera. Mitigation ratios shall be at least 1:1.

Level of Significance With Mitigation: Less than significant.

**Threshold 4.4.4 Would the project 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 movement corridors are linear habitats that function to connect two or more areas of significant wildlife habitat. These corridors may function on a local level as links between small habitat patches (e.g., streams in urban settings) or may provide critical connections between

regionally significant habitats (e.g., deer movement corridors). Wildlife corridors typically include vegetation and topography that facilitate the movements of wild animals from one area of suitable habitat to another, in order to fulfill foraging, breeding, and territorial needs. These corridors often provide cover and protection from predators that may be lacking in surrounding habitats. Wildlife corridors generally include riparian zones and similar linear expanses of contiguous habitat.

There is no evidence that the plant communities present in the BSA support a wildlife movement corridor or wildlife nursery site. The Specific Plan Area is heavily impacted by human activity (ongoing agriculture, vehicular traffic, etc.) so overall use by wildlife is low. Additionally, the Fresno River is located immediately south of the BSA and provides a suitable migration corridor. Therefore, implementation of the proposed Specific Plan would not impact a wildlife corridor or wildlife nursery site. Implementation of the proposed Specific Plan could result in impacts to local wildlife movement but these potential impacts would be minor and insignificant. As a result, a less-than-significant impact would occur.

Level of Significance Without Mitigation: Less than significant. No mitigation is required.

**Threshold 4.4.5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

Implementation of the proposed Specific Plan would not conflict with any City of Madera policies including General Plan policies. Table 4.4.A identifies the General Plan policies related to biological resources that seek to conserve and improve native wildlife and plant habitat. While habitat could be impacted by implementation of the proposed Specific Plan, the Specific Plan would generally conform to the General Plan policies by including natural open space areas along the southern boundary of the Specific Plan Area to allow for biological resource protection, incorporating native annual grasses and/or other riparian vegetation, and adhering to all federal, State and local laws and regulations for species. In addition, potential impacts to the City's street trees are addressed in Title IV, Chapter 6 of the Municipal Code which requires protection of street trees during construction, and replacement of street trees if avoidance cannot be achieved. There are no street trees within the Specific Plan Area and therefore implementation of the proposed Specific Plan would not conflict with the City's municipal code related to the removal of street trees. As a result, implementation of the proposed Specific Plan would not conflict with any local policies or ordinances, and a less-than-significant impact would occur.

Level of Significance Without Mitigation: Less than significant. No mitigation is required.

**Threshold 4.4.6 Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

The Specific Plan Area is not located within the coverage area for any adopted or proposed Habitat Conservation Plan (HCP) or Natural Community Conservation Plan (NCCP). Therefore, implementation of the proposed Specific Plan would not conflict with the provisions of any adopted habitat conservation plans, and a less-than-significant impact would occur.

Level of Significance Without Mitigation: Less than Significant. No mitigation is required.

#### 4.4.2.3 Cumulative Impacts

The proposed Specific Plan would have a significant effect on the environment if it – in combination with other projects – would contribute to a significant cumulative impact related to biological resources. The cumulative impact analysis for biological resources considers the larger-context of future development of the City of Madera as envisioned by the General Plan and relied upon the projections of the General Plan and General Plan EIR. Cumulative impacts on biological resources would be those impacts that result from incremental changes that degrade habitat or affect other biological resources within the City of Madera.

Development within the vicinity of the Specific Plan Area would primarily focus on conversion of agricultural land to developed uses, and continued development within the urban areas of Madera. As result, the availability of suitable habitat for special-status species, including suitable foraging habitat for raptor species, would decrease. As other suitable habitat for special-status species is developed by other projects in the vicinity of the Specific Plan Area, a potentially-significant cumulative impact would occur. Implementation of Mitigation Measures BIO-1.1, BIO-1.2, and BIO-1.3 would result in a less-than-significant cumulative impact to special-status species by requiring pre-construction surveys, on-site monitoring during construction activities, and site restoration and revegetation. Each future discretionary project within Madera would be required to assess its own potential impacts to biological resources and provide mitigation as necessary, reducing potential impacts to a less than cumulatively significant level.

Because no riparian habitat or other sensitive natural communities occur in the BSA, implementation of the proposed Specific Plan would not combine with development in the vicinity of the Specific Plan Area to result in a cumulatively significant impact to riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS.

A formal delineation of aquatic features has not been conducted for the proposed Specific Plan Area; and as a result, potential impacts on jurisdictional waters will be addressed prior to issuance of grading permits in order to determine if any aquatic features within the Specific Plan Area would be considered wetlands or non-wetland waters of the U.S. under the jurisdiction of the ACOE and/or waters of the State under the jurisdiction of the RWQCB. Therefore, if development that affects State or federally protected wetlands occurs in the vicinity of the Specific Plan Area, it is possible that a cumulatively-significant impact would occur as a result of the implementation of the proposed Specific Plan. Implementation of Mitigation Measure BIO-3 would result in a less-than-significant cumulative impact related to permanent or temporary impacts to any identified waters of the U.S. by requiring a jurisdictional delineation be performed prior to the issuance of grading permits. Similar requirements for other discretionary projects in Madera would ensure that potential impacts are reduced to a less than cumulatively significant level.

There is no evidence that the plant communities present in the BSA support a wildlife movement corridor or wildlife nursery site, and the Specific Plan Area is heavily impacted by human activity so overall use by wildlife is low. Additionally, the Fresno River is located immediately south of the BSA and provides a suitable migration corridor. Therefore, implementation of the proposed Specific Plan would not impact a wildlife corridor or wildlife nursery site, and potential impacts to local wildlife

movement would be minor and insignificant. Therefore, implementation of the proposed Specific Plan in combination with other development would not impact local wildlife, and a less-than-significant cumulative impact would occur.

Implementation of the proposed Specific Plan would not conflict with policies listed in Table 4.4.A. In addition, the City does not have a tree protection ordinance to protect trees located within private property, as discussed under Threshold 4.4.5. As a result, implementation of the proposed Specific Plan in combination with other development would not conflict with existing policies or ordinances, and a less-than-significant cumulative impact would occur.

The Specific Plan Area is not located within the coverage area for any adopted or proposed HCP or NCCP. Therefore, a less-than-significant cumulative impact would occur related to habitat conservation plans.

Level of Significance With Mitigation: Less than Significant. Refer to Mitigation Measures BIO-1.1 through BIO-1.3, and BIO-3.

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