

## 4.6 Biological Resources

### 4.6.1 Existing Conditions

Information contained in this section is summarized from the *General Biological and Focused Western Burrowing Owl Surveys Calexico, California* (HDR, 2006). This document is provided in Technical Appendices - Volume II of II, Appendix E of this EIR.

#### 4.6.1.1 Plant Communities

Thirty species of vascular plants, located within seven plant communities, were detected on the project site. The plant communities include active agriculture, fallow agriculture, arrow-weed scrub, tamarisk scrub, ruderal, disturbed cismontane alkali marsh, and disturbed/developed. The plant species observed typify the diversity normally found in active agriculture and disturbed habitats with Imperial County. The following provides a brief summary of the plant communities found on the project site. Figure 4.6-1 depicts the location of these plant communities on the project site.

##### **A. Fallow Agriculture**

Approximately 201.50 acres of the project site has recently been used for agriculture. Currently, the fallow agricultural fields contain the remnants of the cultivated crops, including Bermuda grass, Sudan grass, and millet. Emory's baccharis, a native plant species, is found scattered throughout the fallow agricultural fields.

##### **B. Arrow-Weed Scrub**

Approximately 1.98 acres of arrow-weed scrub is found along the banks of the Central Main Canal. Arrow-weed scrub is characterized entirely by arrow-weed, a native species.

##### **C. Tamarisk Scrub**

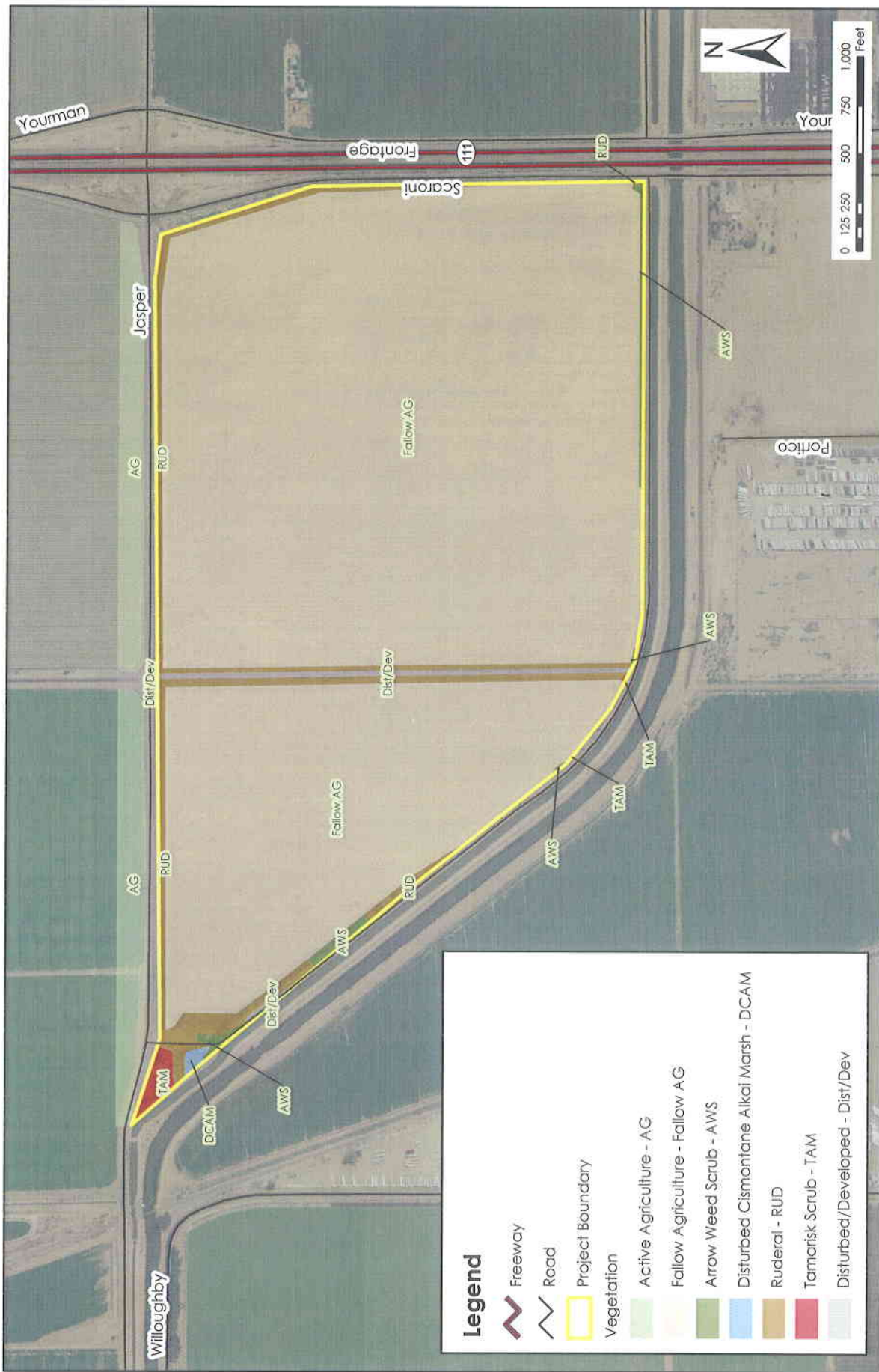
Tamarisk scrub occurs in three small patches, totaling approximately 0.84 acre, along the irrigation canals. Tamarisk is an invasive plant species that occurs within desert riparian systems and as an invasive where conditions are appropriate, such as irrigation canals. Stands of tamarisk may support sensitive and/or listed bird species depending upon size of stand, density, distance to open water, and distance to other riparian associated areas.

##### **D. Disturbed Cismontane Alkali Scrub**

A small patch of approximately 0.22 acre of disturbed cismontane alkali marsh (CAM), dominated entirely by saltgrass, is found in a low-lying area near the northwestern property corner. CAM is a native vegetation community comprised of plant species adapted to alkaline (salt) conditions.

##### **F. Ruderal**

Approximately 8.83 acres of ruderal vegetation is found primarily along the roadsides, within the smaller irrigation canal, and along the edges of the agricultural fields. Ruderal habitats are found within frequently disturbed areas. Species adapted to a frequent disturbance regime typically dominate this plant community. Species found in this type of habitat include common "weedy" species such as Russian thistle,



SOURCE: USDA, 2005; HDR, 2006; ESRI, 2008; BRG Consulting, Inc., 2008



111 Calexico Place Specific Plan EIR

## Existing Vegetation

12/11/08

FIGURE

4.6-1

pig weed, mustards, and non-native grasses. Due to the occasional flooding as a result of agricultural irrigation, several species adapted to wet conditions; for example, cattails are also found within this vegetation community along the irrigation canal south of the fallow agricultural fields.

### **G. Disturbed/Developed**

Approximately 3.5 acres of disturbed/developed habitat is located on the project site along the dirt roads, irrigation canal berms, and Jasper Road. This disturbed/developed habitat has repeatedly been disturbed by ongoing irrigation canal and road maintenance activities.

#### **4.6.1.2 Wildlife**

Thirty-five species of animals were observed utilizing, inhabiting, and/or flying over the project site. These are common species that are abundant in the general vicinity of the project site. Animals observed onsite are listed in Appendix C of the biological report (Technical Appendices - Volume II of II, Appendix E of this EIR). Of the 35 species, two species of concern were observed utilizing and inhabiting the project site: the western burrowing owl and the yellow warbler.

#### **4.6.1.3 Sensitive Biological Resources**

##### **A. Sensitive Vegetation Communities**

The western burrowing owls and yellow warblers inhabiting the project site are not found within any natural habitats; therefore, no naturally occurring sensitive habitats occur on the project site.

##### **B. Federal and State Jurisdictional Waters and Wetlands of the United States**

The project site does not have any Federal or State jurisdictional waters or wetlands of the U.S., as defined by Sections 401 and 404 of the Clean Water Act and Section 1600 of the State Fish and Game Code. Although the project site has multiple agricultural irrigation ditches associated with and located on the project site, they are not jurisdictional due to the fact that they are artificially man-made and maintained, have not been abandoned, and continue to be used for the purpose in which they are intended. A formal wetland delineation has not been conducted for the proposed project. Thus, it is not known if jurisdictional waters or wetlands of the U.S. are present along the banks of the canals.

##### **C. Sensitive Botanical Species**

Sensitive plants include those listed by the United States Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG), candidates for listing (USFWS and CDFG), and/or species that are considered sensitive by the CDFG and/or the California Native Plant Society (CNPS). A sensitive designation includes those listed as rare or of "Special Concern."

Based on the CDFG Rare Find California Natural Diversity Database (CNDDDB) list, two species, the mud nama and Abram's spurge may occur in the Calexico United States Geological Survey (USGS) Quadrangle that the project site is located in. However, neither of these species was detected on the project site nor are they expected to occur due to recent agricultural disturbance. No other Federal, State, or rare botanical species were identified during the surveys.

#### **D. Sensitive Zoological Species**

Sensitive animals are species or subspecies listed as threatened, endangered, or being evaluated (proposed) for listing by the USFWS or CDFG, and/or are considered sensitive by these agencies. A sensitive designation includes those listed as rare or of "Special Concern."

According to the CDFG CNDDDB list, five sensitive zoological species occur within the same USGS quadrangle as the project site. These five species include the western yellow bat, a California Species of Special Concern; American badger, a California Species of Special Concern; flat-tailed horned lizard, a Federal Species of Concern and a California Species of Special Concern; western burrowing owl, a Federal Species of Concern, a migratory bird species and a California Species of Special Concern; and yellow warbler, a migratory bird species and a California Species of Special Concern. Other Species of Concern that may be present on the project site include raptors (birds of prey) that are California Species of Special Concern and mountain plover, a Federal Species of Concern, a migratory bird species, and a California Species of Special Concern.

A baseline biological survey was conducted on foot by biologists from HDR Engineering, Inc. on May 26, 2006 to determine the presence of these sensitive species. All encountered plants, animals and habitats were noted during the survey. The results of the survey are summarized below.

##### Western Yellow Bats

The western yellow bat is exclusively found roosting on fan and other ornamental palm trees that have not been trimmed of their dead fronds. No large, untrimmed palm trees occur within or adjacent to the project site. As such, western yellow bats would not roost on the project site and there is a low potential for this species to forage over the project site.

##### American Badgers

Badgers are burrowing animals that live in dens. No badgers, badger sign, or badger dens were observed on the project site nor are badgers expected to occur on the site or disperse through the site due to the lack of appropriate habitat, development, disturbance, and agricultural land use on the site and within the surrounding area.

##### Flat-Tailed Horned Lizards

The flat-tailed horned lizard has a discrete habitat requirement of stabilized and partially-stabilized desert dunes. There is no potential for this species to occur on the project site due to the lack of appropriate habitat, development, disturbance, and agricultural land use on the project site and within the surrounding area.

##### Western Burrowing Owl

Potential habitat of the western burrowing owl consists of areas that contain earthen berms, including the edges of agricultural fields, irrigation canals and ditches, and dirt roads. Western burrowing owls are known to inhabit the Imperial Valley, and as such, focused surveys were required as part of the biological survey. In 2006, the project site supported three active western burrowing owl burrows, supporting two nesting

pairs. Four active burrows were found within the 500-foot buffer surrounding the project site and currently provide nesting habitat for four pairs. In addition, one burrow located, outside of the 500-foot buffer area, provided nesting habitat for a pair and several young. During the course of the burrowing owl survey, observations were focused on the owls located within the project site. Figure 4.6-2 identifies the location of western burrowing owls located on and off of the project site.

#### Yellow Warbler

The yellow warbler is a migratory species protected by international treaty by the Migratory Bird Treaty Act (MBTA). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10. As discussed in the biological resources report, four yellow warbler individuals, two adults and two juveniles, were observed foraging in arrow weed and tamarisk scrub habitats within the northwestern corner of the project site and along Dogwood Canal (north of Central Main Canal). Although no nests were located on the project site, given the time of year and the presence of juveniles, it is likely that the yellow warblers are residents within and adjacent to the project site.

#### Raptors

The project site offers foraging opportunities for raptors within the agricultural habitats; however, nesting raptors are not expected due to the lack of mature trees or other support structures such as powerline transmission towers.

#### Mountain Plovers

The predominant winter habitat for the mountain plover in the Imperial Valley includes irrigated farmlands, burned Bermuda grass fields, and grazed alfalfa fields. Due to the disturbance of the project site associated with fallow agriculture, the mountain plover was not observed on the project site and is not expected to be present on the site.

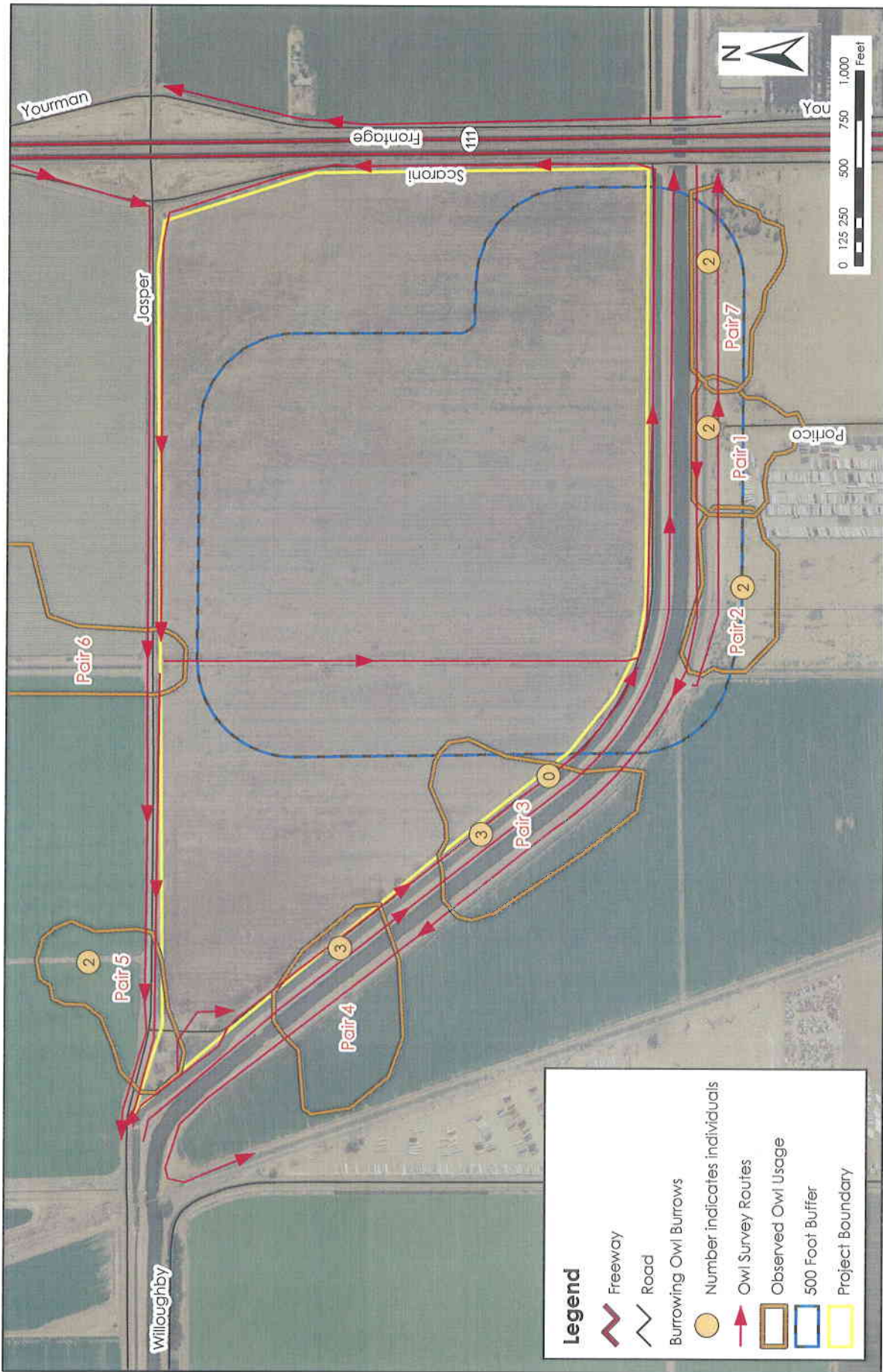
### **E. Wildlife Dispersal Corridors and Linkages**

The project site does not currently provide for future protection of wildlife movement corridors and linkages. The project site does not currently function as a wildlife corridor or linkage based on the current conditions of high volume of vehicle traffic, surrounding rapid development, habitat disturbance and degradation, human presence (residential), and agricultural practices.

## 4.6.2 Impact Thresholds

For purposes of this EIR, a significant biological resources impact would occur if implementation of the proposed project would:

- *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game and U.S. Fish and Wildlife Service;*
- *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;*



SOURCE: HDR, 2006; ESRI, 2008; BRG Consulting, Inc., 2008

111 Callexico Place Specific Pion EIR

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FIGURE

4.6-2

# Locations of Western Burrowing Owls On and Off the Project Site



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- *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;*
- *Interfere substantially with the movement of any native resident or migratory fish and 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; and/or,*
- *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

### 4.6.3 Impact Analysis

#### 4.6.3.1 Direct Impacts

The project site consists of the following seven plant communities: active agriculture, fallow agriculture, arrow weed scrub, tamarisk scrub, disturbed cismontane alkali scrub, ruderal, and disturbed/developed. These plant communities are not considered sensitive; however, they do provide habitat for sensitive species such as the yellow warbler and the western burrowing owl. The direct permanent impact to these sensitive species is considered significant. However, implementation of Mitigation Measures B1 through B3 would reduce this impact to a level less than significant. Mitigation Measure B1 requires focused pre-construction surveys for the western burrowing owl to be conducted prior to the commencement of construction; requires a consultation with the CDFG to determine what mitigation option will be appropriate for the proposed project. Mitigation Measure B2 provides requirements to avoid impacting the western burrowing owl or mitigate loss of foraging habitat or burrows through either passive relocation or paying into an established mitigation bank. Mitigation Measure B3 provides requirements for the removal of potential migratory bird (i.e., yellow warbler, mountain plover) nesting vegetation. Mountain plovers were not observed on the project site, though they may forage on the site during December and January. In the event that mountain plovers are on the project site, impact to the species would result in a significant impact. However, with the implementation of Mitigation Measure B4 this impact would be reduced to a level less than significant. With the implementation of these mitigation measures, this issue is considered less than significant.

As identified above, no Federal or State jurisdictional waters or wetlands are located on the project site or canals. A formal wetland delineation has not been conducted for the proposed project; however, if a bridge associated with the project is proposed to cross the canals, the bridge would span over the canals to avoid potential impacts to riparian habitat and/or waters of the U.S. Furthermore, the banks of the canals will not be affected by construction of the project and the project will avoid any impacts to the canals and their banks. Therefore, the proposed project would not have a substantial adverse effect on federally protected wetlands or waters as defined by Section 404 of the Clean Water Act, or Section 1600 of the State Fish and Game Code. No impact to this issue area is anticipated.

The project site is not a wildlife movement corridor or linkage. As such, the proposed project would not interfere with the movement of any migratory fish or wildlife species. The City of Calexico does not have any local policies or ordinances to protect biological resources. Therefore, the proposed project would not have an adverse impact on local policies intended to protect biological resources. No impact to this issue area is anticipated.

The City of Calexico and surrounding area is not within the jurisdiction of any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would not conflict with the provisions of an adopted HCP, or other approved habitat conservation plan. No impact to this issue area is anticipated.

#### 4.6.3.2 *Indirect Impacts*

Three western burrowing owl pairs (Pairs 1, 2 and 7) are located outside the project site, but within the 500-foot survey buffer (see Figure 4.6-2). These three pairs have the potential to be indirectly impacted by the increased light, traffic and noise associated with the development of the proposed project. Indirect impacts to western burrowing owls are considered significant. However, with the implementation of Mitigation Measure B2 and B5 this issue is considered less than significant.

#### 4.6.4 Significance of Impact

The proposed project would result in significant direct and indirect impacts to sensitive avian species including western burrowing owl and migratory bird species (i.e., yellow warbler and mountain plover). Direct impacts to the western burrowing owl would be caused by clearing of suitable habitat. Indirect impacts to off-site western burrowing owls would be caused by increased light, traffic and noise associated with implementation of the proposed project. Direct impacts to migrating birds would occur if project-related activities resulted in "take" as defined by the MBTA. "Take" of a migratory bird would be a significant impact. In addition, the proposed project would not result in any other impacts to biological resources (i.e., jurisdictional wetlands, conflict with local policies or ordinance, or interfere with movement of any species).

#### 4.6.5 Mitigation Measures

##### 4.6.5.1 *Direct Impact Mitigation Measures*

- B1** A pre-construction focused survey for the western burrowing owl shall be conducted, pursuant to CDFG protocols, within seven days of the start of construction to ensure no portion of the project footprint is being utilized by western burrowing owls. The survey shall be conducted by an experienced and qualified biologist.
- B2** Should any owls be identified during the pre-construction survey, CDFG shall be contacted and consulted with before construction can begin. The Lead Agency in this case, the City of Calexico, in consultation with CDFG, will determine which of the following mitigation options will be used.

*Option 1: Impact Avoidance*

If avoidance is the preferred method of dealing with potential project impacts, then no disturbance should occur within 50 meters (approximately 160 feet) of occupied burrows during the nonbreeding season of September 1 through January 31 or within 75 meters (approximately 250 feet) during the breeding season of February 1 through August 31. Avoidance also requires that a minimum of 6.5 acres of foraging habitat be permanently preserved contiguous with occupied burrow sites for each pair of breeding burrowing owls (with or without dependent young) or single unpaired resident bird. The configuration of the protected habitat should be approved by the CDFG.

*Option 2: Disturbance to Foraging Habitat and Destruction of Burrows*

When the loss of foraging and burrow habitat and/or the destruction of occupied burrows is unavoidable the following shall be implemented.

Based on the result of the preconstruction survey, if western burrowing owls are present on the project site and construction occurs during the avian nesting season (February 1 to August 31), a 75-meter (250-foot) "no construction" buffer between on-site construction and peripheral nesting western burrowing owl pairs is required. Prior to the commencement of any earth moving activities, any on-site burrows shall be evaluated, and deemed unoccupied, by an experienced western burrowing owl biologist. Occupied burrows should not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by the CDFG verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Outside of the breeding season and in consultation with the CDFG, disturbance to foraging habitat shall be mitigated at a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird on permanently protected land. In addition, destruction of occupied burrows shall be mitigated through the enhancement (enlarged or cleared of debris) or new burrows created (by installing artificial burrows) at a ratio of 2:1 on a protected land site. If owls must be moved away from the disturbance area, passive relocation techniques as described in the CDFG 1995 Staff Report on Burrowing Owls should be used rather than trapping. CDFG is currently allowing "passive relocation" until such time as mitigation land banks or approved conservation banks are dedicated. In addition, the CDFG is allowing detention basins to be used as a location for foraging habitat and placement of artificial burrows. The applicant will mitigate western burrowing owl impacts in the proposed detention basins on-site or as otherwise negotiated with CDFG. In consultation with the CDFG, the Lead Agency, in this case the City of Calexico, will make the final determination on which mitigation measures will be complied with pursuant to the CDFG 1995 Staff Report on Burrowing Owls should any owls be identified during the pre-construction survey. These options include passive relocation and/or establishing or paying into an approved mitigation bank. Should a mitigation bank be established, 6.5 acres would be needed to compensate for the loss of each pair of individual owl.

- B3** The removal of potential nesting vegetation supporting migratory birds shall be avoided, to the maximum extent feasible, during the avian nesting season (February 1 to August 31). If vegetation removal must occur during the breeding season, a qualified biologist shall conduct a migratory nesting bird survey to ensure that vegetation removal would not impact any active nests. Surveys shall be conducted no more than three days prior to vegetation removal. If active nests are identified during the surveys, the nesting vegetation shall be avoided until the nesting event has completed and the juveniles can survive independently from the nest. The biologist shall flag the nesting vegetation and establish an adequate buffer around the nesting vegetation. The qualified biologist, in consultation with CDFG, will determine if removal of potential nesting vegetation is avoided to the maximum extent feasible. Clearing/grading shall not occur within the buffer until the nesting event has been completed.
- B4** If initial construction activities (vegetation removal, site grading) are scheduled to occur between December 1 and January 31, a presence/absence survey for mountain plover shall be conducted seven days before construction is to commence. If the mountain plover is identified on the site, a monitoring biologist shall direct all construction activities 250 feet away from the areas being used by any plover until the plover have vacated the site. The biologist shall be one site daily to ensure that construction avoids the plover. Results of the survey and construction monitoring shall be submitted to the Director of Development Services and U.S. Fish and Wildlife Service.
- B5** Activities, including staging areas, equipment access, and disposal of temporary placement of excess fill, shall be prohibited within drainages outside of the identified construction area. Runoff from project-related hardscape surfaces shall be retained onsite, and no discharge of contaminated materials shall be directed into offsite areas pursuant to storm water pollution prevention measures.

#### 4.6.6 Conclusion

The proposed project would result in significant direct and indirect impacts to biological resources. However, with the implementation of Mitigation Measures B1 through B5, these impact would be reduced to a level less than significant.