

3.5 Biological Resources

This section identifies the biological and jurisdictional aquatic resources that may be impacted by the proposed project. The following identifies the existing biological and jurisdictional aquatic resources in the project area, analyzes potential impacts of the proposed project, and recommends mitigation measures to avoid or reduce potential impacts of the proposed project. Information from this section is summarized from the *Biological Resources and Burrowing Owl Survey* and *Preliminary Jurisdictional Report* prepared by Catalyst Environmental Solutions. These reports are included in Appendix E and F of this EIR, respectively.

3.5.1 Existing Conditions

Vegetation Communities and Land Cover

The BSA supports three land cover types: agricultural land, developed/disturbed land, and arrow weed thickets. The vegetation communities and land cover within the BSA is shown in Figure 3.5-1.

Arrow Weed Thicket

Arrow weed (*Pluchea sericea*) is the dominant vegetation on the steep banks of Central Main Canal, Beech Drain, and the Dogwood Canal. Other species such as cattails (*Typha* spp.) and saltcedar (*Tamarisk ramosissima*) are also present but in much smaller numbers. The *Pluchea sericea* Shrubland Alliance (arrow weed thickets) occur around springs, seeps, irrigation ditches, canyon bottoms, stream borders, and seasonally flooded washes. Vegetation is dense in some areas along the canals and very sparse in others. The canals fall within the 500-foot buffer of the project footprint and thus within the BSA.

Agricultural Land

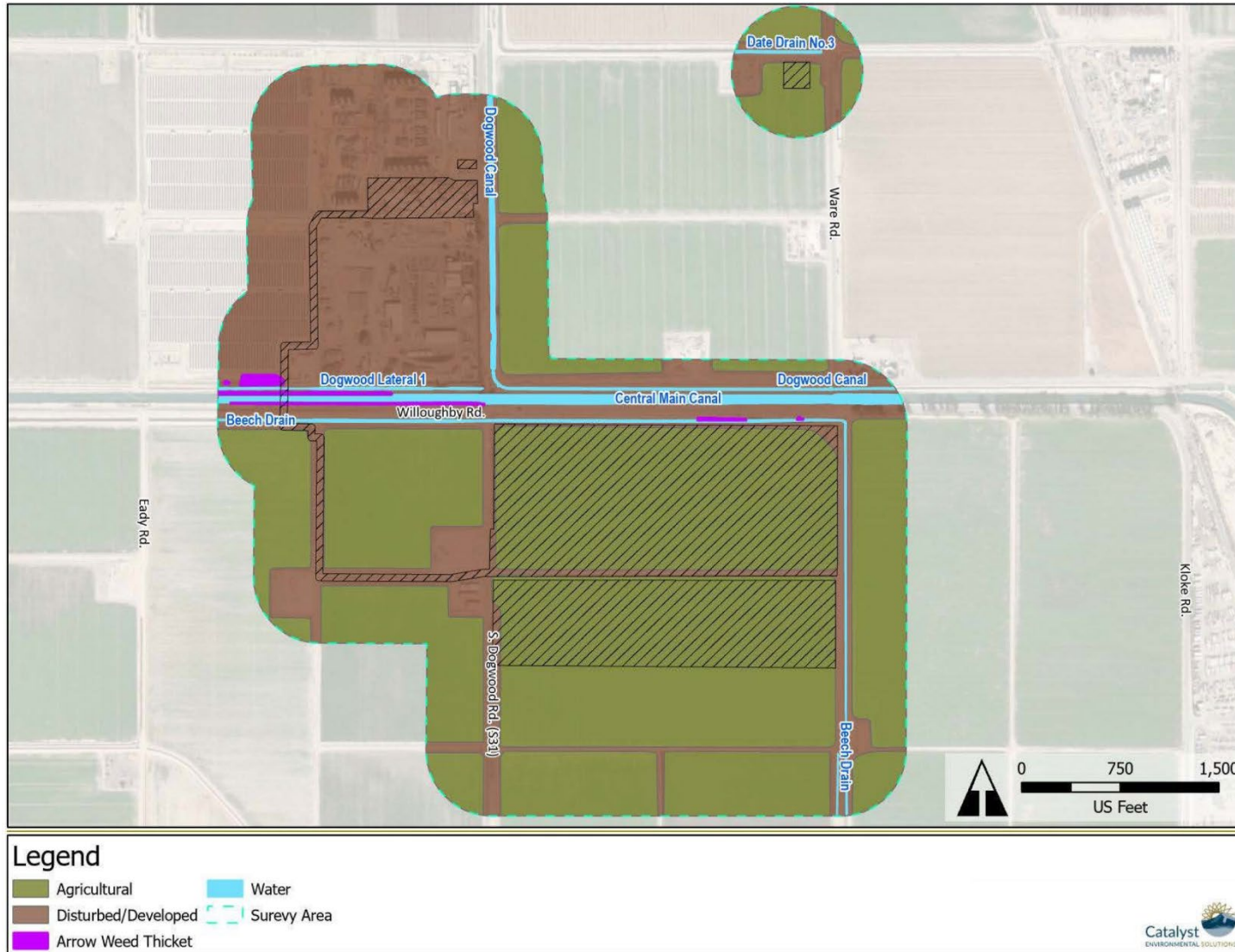
At the time of survey, this land cover type was observed to contain primarily active alfalfa (*Medicago sativa*) cultivation and harvest and associated irrigation canals were present adjacent to and bisecting fields.

Developed/Disturbed Land

Developed/disturbed land in the BSA includes developed areas like roads and existing solar/geothermal facilities. These areas are predominantly devoid of vegetation, but can support ruderal herbaceous scrub, including non-native grasses and other weed species, and planted or landscape trees/shrubs. The proposed Dogwood geothermal plant falls within this land cover type and is nearly devoid of vegetation.

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Figure 3.5-1. Land Cover in the BSA



Source: Appendix E of this EIR

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Sensitive Natural Communities

Arrow weed thickets in the BSA are considered a sensitive natural community by CDFW.

Special-Status Species

Literature Review

Prior to reconnaissance level habitat surveys, available data sets and information regarding vegetation, water resources, and recent species occurrences within the vicinity of the project were reviewed. The following sources were reviewed:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB)
- U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps
- U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) soil profile

Biological Reconnaissance Survey

A pedestrian survey was conducted by Catalyst to photograph and document the general habitat present on the site as well as to record wildlife and vegetation observed during the visit. The project area as well as a 500-foot buffer area were surveyed. When not accessible due to private land, binoculars were used to survey the buffer area. No sampling was included as part of the survey.

The reconnaissance-level survey included:

- Recording all plant and animal species observed within the boundaries of the project site and immediate vicinity;
- Recording signs of animal presence, such as burrows, scat, tracks, vocalizations, etc.;
- Characterizing plant communities present in the project site;
- Photographs of the project site; and
- Recording weather data (time, temperature, cloud cover, wind speed).

Burrowing Owl Surveys

In addition to the biological reconnaissance survey, Catalyst performed Phase I and Phase II surveys for burrowing owls. A Phase I survey assesses the presence of burrowing owl habitat on the project site, including an approximately 500-foot buffer around the project boundary. A Phase II survey is required if burrowing owl habitat occurs on the site and involves walking through suitable habitat over the entire project site and 500-foot buffer. The biologists followed the California Burrowing Owl Consortium (CBOC) Survey Protocol and Mitigation Guidelines (CBOC 1993) except when access to private lands prevented them from walking the buffer areas, in which case binoculars were used to assess habitat.

Catalyst determined that potential burrowing owl habitat was present within the BSA and vicinity due to the presence of sandy banks along drainage canals and burrowing activity of local communities of ground squirrels. Due to the potential habitat, a Phase II survey was conducted.

Plant Species

Based on a review of the USFWS IPaC and the CDFW CNDDDB databases, no federally or state listed endangered or threatened plants are within five miles of the project area. However, there are five other special-status plants that have been documented within five miles of the project area. These five plants carry California Rare Plant Ranks (CRPR) of 1B.1-2B.3. Observations range from 1903 to 1963, and none of the species were observed during the reconnaissance-level survey. The following five plant species are considered to have a **low potential** for occurrence due to lack of habitat:

- Abrams' spurge (*Euphorbia abramsiana*).
- California satintail (*Imperata brevifolia*).
- Chaparral sand-verbena (*Abronia villosa* var. *Aurita*).
- Gravel milk-vetch (*Astragalus sabulonum*).
- Hairy stickleaf (*Mentzelia hirsutissima*).

Wildlife Species

Based on a review of the USFWS IPaC and CDFW CNDDDB databases there are 15 species federally and/or state threatened or endangered, Species of Special Concern (SSC), or other sensitive species with potential to occur at the project site. Of the 15 species one is listed as federally endangered, one is a USFWS candidate species and nine are listed as SSC to California.

The following two species were **observed** within or directly adjacent to the project site, at the time of the survey:

- Long-billed curlew (*Numenius americanus*). Long-billed curlew is on the CDFW Watch List and listed with a State Rank of S2. Species with this rank are considered imperiled and at very high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, server threats, or other factors. Habitats include upland shortgrass prairies and wet meadows which are used for nesting; large coastal estuaries, upland herbaceous area, and croplands are used in winter. The project site is outside of the yearlong range but does occupy the winter range. During the survey, long-billed curlews were observed in the alfalfa fields which are located within the survey buffer area west of the proposed Dogwood parasitic solar energy facilities polygon and east of the existing pipeline area. In addition, the surrounding area is planted with alfalfa and periodically flooded for irrigation.
- Northern harrier (*Circus hudsonius*). Northern harriers are listed by the CDFW as a SSC. Northern harrier habitats include marshes, grasslands, and some croplands (e.g., alfalfa, grain, sugar beets, tomatoes, melons). The project site is outside of the northern harrier breeding range, but the species occurs more broadly during migration and winter. During the survey, one northern harrier was observed circling over the field immediately east of Beech Drain and south of Willoughby Road. This area is within the survey buffer area but outside of the project ground disturbance footprint. Harriers feed on a broad variety of small-to-medium sized rodents and passerines.

One species is considered to have a **moderate potential** occur at the project site:

- Burrowing owl (*Athene cunicularia*). Burrowing owls are listed by the CDFW as a SSC. Burrowing owls start breeding as early as February and extend to August. Burrowing owls have a large breeding population in agricultural areas of the Central and Imperial Valleys

where they have adapted to highly modified habitats including irrigation canals, roads, and agricultural areas. Burrows used by burrowing owls are mostly dug by ground squirrels (*Spermophilus beecheyi*), but they may use fox and badger dens, or other burrows made by small ground dwelling rodents. The project site has potentially suitable burrowing owl habitat in the area for the proposed solar energy facilities, existing pipeline, and near the medium voltage distribution cable. Of the three areas with suitable habitat, only the area for the proposed solar energy facilities contained burrows from ground squirrels that could support burrowing owls (e.g., opening with a diameter greater than 4-inches). In addition, burrowing owls have been mapped 0.7 miles north, 2 miles east, and 3 miles northwest of the project site in 1991, 2007, and 1991, respectively. Therefore, this species has moderate potential to occur at the project site.

The following 13 species are considered to have **no potential** for occurrence in the project area due to lack of suitable habitat, age of last occurrence, and/or species range specifications at the time of this analysis:

- Big free-tailed bat (*Nyctinomops macrotis*)
- Costa's hummingbird (*Calypte costae*)
- Flat-tailed horned lizard (*Phrynosoma mcallii*)
- Gila woodpecker (*Melanerpes uropygialis*)
- Monarch butterfly (*Danaus plexippus*)
- Northern leopard frog (*Lithobates pipiens*)
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*)
- Tricolored Blackbird (*Agelaius tricolor*)
- Western Grebe (*Aechmophorus occident*)
- Western mastiff bat (*Eumops perotis californicus*)
- Western yellow bat (*Lasiurus xanthinus*)
- Yellow warbler (*Setophaga petechia*)
- Yuma Ridgway's rail (*Rallus obsoletus yumanensis*)

Aquatic Resources

Catalyst prepared a Preliminary Jurisdictional Delineation (PJD) Report (Appendix F of this EIR) summarizing the methods and results of an investigation of potential jurisdictional features occurring on the project site. The purpose of the PJD was to determine the location and extent of waters and/or wetlands subject to potential jurisdictional authority within the jurisdictional survey area (JSA) (includes project footprint plus 500-foot buffer). The project site and surrounding areas are traversed by a network of drains, canals, and other irrigation infrastructure administered by IID, some of which constitute potentially jurisdictional features.

The following jurisdictional features were observed within the JSA: federal non-wetland waters and state waters. All features examined are man-made, constructed entirely within uplands, and used solely for agricultural irrigation. The earthen and concrete-lined head and tail ditches are typically dry and convey water only during periodic and infrequent irrigation events. They do not support riparian

vegetation/habitat. These ditches do not meet the definition of a Relatively Permanent Water (RPW) and would not be considered federally or state jurisdictional. The larger, IID-administered canals (supply) and drains (drainage), however, generally do convey water all year and ultimately flow to the Salton Sea, which is considered a Traditionally Navigable Water, and would likely be considered federally and state jurisdictional. Dogwood Canal, Dogwood Lateral 1, Beech Drain, and Date Drain No. 3 would likely be classified as R4SBCx (Riverine, intermittent streambed, seasonally flooded, excavated) while Central Main Canal is classified R2UBHx (Riverine, lower perennial, unconsolidated bottom, permanently flooded, excavated).

Table 3.5-1 summarizes the jurisdictional features present within the disturbance area and their acreages and Figure 3.5-2 depicts their location within the JSA.

Table 3.5-1. Jurisdictional Waters within Disturbance Area

| Feature ID | Ordinary High Water Mark (feet) | Distance (feet) | USACE/RWQCB/CDFW Jurisdictional Waters (acres) |
|--------------------|---------------------------------|-----------------|--|
| Dogwood Lateral 1 | 14 | 57.2 | 0.005 |
| Beech Drain | 40 | 54 | 0.01 |
| Central Main Canal | 89.5 | 56.2 | 0.09 |
| Total | | 167.3 | 0.11 |

Source: Appendix F of this EIR

Federal Wetlands

According to the PJD, there are no federal wetlands within the JSA.

Federal Non-Wetland Waters

According to the PJD, approximately 0.11 acres of the disturbance area meet the definition of “waters of the United States” as outlined in 33 CFR Part 328.

CDFW Waters

According to the PJD, approximately 0.11 acres of the disturbance area also meet the definition of CDFW jurisdictional waters as outlined in Sections 1600-1616 of the CDFW Code.

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Wildlife Movement Corridors

Migratory corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Habitat linkages are patches of native habitat that function to join larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage does represent a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both live-in habitat and avenues of gene flow for small animals such as reptiles and amphibians (Imperial County 2015).

The project site does not contain nor is near any wildlife movement corridors, linkages, or Significant Ecological Areas / FWS Critical Habitat.

Habitat Conservation Plans

The project site is located within the designated boundaries of the Desert Renewable Energy Conservation Plan and the Imperial Irrigation District Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP). However, the project site is not located within or adjacent to an Area of Critical Environmental Concern.

3.5.2 Regulatory Setting

This section identifies and summarizes federal, state, and local laws, policies, and regulations that are applicable to the proposed project.

Federal

Bald and Golden Eagle Protection Act of 1940

The Bald Eagle Protection Act of 1940 protects bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of such birds and establishes civil penalties for violation of this Act. ‘Take’ is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” ‘Disturb’ is defined as “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 *Federal Register* [FR] 31132; 50 CFR 22.3). All activities that may disturb or incidentally take an eagle or its nest as a result of an otherwise legal activity must be permitted by the USFWS under this Act.

Federal Endangered Species Act

The Federal ESA protects federally listed threatened and endangered species and their habitats from unlawful take and ensures that federal actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. Under the Federal ESA, “take” is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. USFWS regulations define harm to mean “an act which actually kills or injures wildlife” (50 CFR 17.3).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the kill or transport of native migratory birds, or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The prohibition applies to birds included in the respective international conventions between the U.S. and Great Britain, the U.S. and Mexico, the U.S. and Japan, and the U.S. and Russia. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend may be a violation of the MBTA. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

Section 404 Permit (Clean Water Act)

The purpose of the CWA is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredge and fill material into waters of the U.S., including wetlands, without a permit from the USACE. Activities regulated under this program include fills for development, water resource projects (e.g., dams and levees), infrastructure development (e.g., highways and airports), and conversion of wetlands to uplands for farming and forestry. Either an individual 404 permit or authorization to use an existing USACE Nationwide Permit will need to be obtained if any portion of the construction requires fill into a river, stream, or stream bed that has been determined to be a jurisdictional waterway.

Farmland Protection Policy Act

The Farmland Protection Policy Act is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It also stipulates that federal programs be compatible with state, local, and private efforts to protect farmland. The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) is charged with oversight of the Farmland Protection Policy Act.

State

California Endangered Species Act

Provisions of the California ESA protect state-listed threatened and endangered species. CDFW regulates activities that may result in “take” of individuals (“take” means “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the California FGC. Additionally, California FGC contains lists of vertebrate species designated as “fully protected” (California FGC Sections 3511 [birds], 4700 [mammals], 5050 [reptiles and amphibians], and 5515 [fish]). Such species may not be taken or possessed.

In addition to state-listed species, CDFW has also produced a list of Species of Special Concern to serve as a “watch list.” Species on this list are of limited distribution or the extent of their habitats has been reduced substantially such that threats to their populations may be imminent. Species of Special Concern may receive special attention during environmental review, but they do not have statutory protection.

Birds of prey are protected in California under California FGC. Section 3503.5 states it is “unlawful to take, possess, or destroy any birds of prey (in the order Falconiformes or Strigiformes) 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.

California Fish and Game Code Section 1600 et. seq (as amended)

The California FGC Section 1600 et. seq. requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Under Sections 3503, 3503.5, and 3513 of the California FGC, activities that would result in the taking, possessing, or destroying of any birds-of-prey, taking or possessing of any migratory nongame bird as designated by the MBTA, or the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds protected by the MBTA, or the taking of any non-game bird pursuant to FGC Section 3800 are prohibited. Additionally, the state further protects certain species of Fully Protected fish, mammals, amphibians, reptiles, birds, and mammals by prohibiting any take or possession of classified species.

California Fish and Game Code Sections 1900-1913 (Native Plant Protection Act)

California’s Native Plant Protection Act prohibits the taking, possessing, or sale within the state of any plant listed by CDFW as rare, threatened, or endangered. This allows CDFW to salvage listed plant species that would otherwise be destroyed.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, all projects proposing to discharge waste that could affect waters of the State must file a waste discharge report with the appropriate Regional Water Quality Control Board (RWQCB). The project falls under the jurisdiction of the Colorado River RWQCB.

California Environmental Quality Act

Title 14 CCR, Section 15380 requires the identification of endangered, rare, or threatened species or subspecies of animals or plants that may be impacted by a project. If any such species are found, appropriate measures should be identified to avoid, minimize, or mitigate the potential effects of projects.

Local

Imperial County General Plan

The Conservation and Open Space Element of the Imperial County General Plan provides detailed plans and measures for the preservation and management of biological resources. The purpose of this element is to recognize that natural resources must be maintained for their ecological value for the direct benefit to the public and to protect open space for the preservation of natural resources, the managed production of resources, outdoor recreation, and for public health and safety. In addition, the purpose of this element is to promote the protection, maintenance, and use of the County's natural resources with particular emphasis on scarce resources, and to prevent wasteful exploitation, destruction, and neglect of the state's natural resources. Table 3.5-2 analyzes the consistency of the proposed project with specific policies contained in the Imperial County General Plan associated with biological resources.

Table 3.5-2. Project Consistency with General Plan Goals and Policies

| General Plan Policies | Consistency with General Plan | Analysis |
|--|-------------------------------|--|
| <p>Conservation and Open Space Element - Open Space and Recreation Conservation</p> <p>Policy No. 2 - The County shall participate in conducting detailed investigations into the significance, location, extent, and condition of natural resources in the County.</p> <p>Program: Notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat.</p> | Consistent | <p>A biological assessment has been conducted at the project site to evaluate the proposed project's potential impacts on biological resources. Although special-status wildlife species were observed and have potential to occur within the project's BSA, implementation of Mitigation Measures BIO-1 through BIO-4 would reduce potential impacts on these species to a level that is less than significant. Applicable agencies responsible for protecting plants and wildlife will be notified of the proposed project and provided an opportunity to comment on this EIR prior to the County's consideration of any approvals for the project. As described in Chapter 2, Project Description, implementation of the project would require the approval of CUPs by the County to allow for the construction and operation of the project.</p> |
| <p><i>Conservation of Environmental Resources for Future Generations</i></p> <p>Goal 1 - Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.</p> <p>Objective 1.6 - Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.</p> | Consistent | <p>A biological assessment has been conducted at the project site to evaluate the proposed project's potential impacts on biological resources. Although special-status wildlife species were observed and have potential to occur within the project's BSA, implementation of Mitigation Measures BIO-1 through BIO-4 would reduce potential impacts on these species to a level that is less than significant. With implementation of Mitigation Measures BIO-1 through BIO-4, the project would not result in residual significant and unmitigable impacts on biological resources.</p> |

Source: County of Imperial 2016
 BLM=Bureau of Land Management; CDFW – California Department of Fish and Wildlife; EIR – environmental impact report;
 USFWS – U.S. Fish and Wildlife Service

3.5.3 Impacts and Mitigation Measures

This section presents the significance criteria used for considering the respective project's impacts on biological resources, the methodology employed for the evaluation, an impact evaluation, and mitigation requirements, if necessary.

Thresholds of Significance

Based on CEQA Guidelines Appendix G, project impacts related to biological resources are considered significant if any of the following occur:

- 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 CDFW or USFWS
- 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 CDFW or USFWS
- Have a substantial adverse effect on state or federally-protected wetlands (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interfere substantially with the movement of any native resident or migratory fish 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
- 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

Impact 3.5-1 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 CDFW or USFWS?

SPECIAL-STATUS PLANT SPECIES

As previously discussed in Section 3.5.1, the following five special-status plants have been documented within 5-miles of the project area: Chaparral sand-verbena, California satintail, Abrams' spurge, gravel milk-vetch, and hairy stickleaf. These five plants carry CRPR of 1B.1-2B.3 and are considered to have a low potential of occurrence at the project site. These species were not observed during the reconnaissance-level surveys and the most recent documented CNDDDB observation was in 1963, thus these species are considered to be extirpated from the area. Therefore, no impacts to these plant species are anticipated to occur with implementation of the proposed project.

SPECIAL-STATUS WILDLIFE SPECIES

As previously discussed in Section 3.5.1, long-billed curlew and northern harrier were observed within or directly adjacent to the project site at the time of the survey. Direct impacts on these species that

could occur include injury, mortality, nest failures, and loss of young. Indirect impacts include loss of nesting and foraging habitat, increase in anthropogenic effects (i.e., noise levels, introduction of invasive/non-native species, increase in human activity, increase in dust). Potential impacts on these species may be considered significant. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce potential impacts on long-billed curlew and northern harrier to a less than significant level. Mitigation Measure BIO-1 requires a Worker Environmental Awareness Program to be implemented prior to construction for construction crews and contractors working onsite. Mitigation Measure BIO-2 requires the clearing of vegetation to take place outside of the breeding season to protect nesting birds. Mitigation Measure BIO-3 requires biological monitoring during construction to ensure that wildlife and vegetation adjacent to the BSA are not harmed.

Burrowing owls are considered to have a moderate potential to occur within the project site. Direct impacts on these species that could occur include injury, mortality, nest failures, and loss of young. Indirect impacts include loss of nesting and foraging habitat, increase in anthropogenic effects (i.e., noise levels, introduction of invasive/non-native species, increase in human activity, increase in dust). Implementation of Mitigation Measures BIO-1, BIO-3, and BIO-4 would reduce potential impacts on burrowing owl to a less than significant level. Mitigation Measure BIO-1 requires a Worker Environmental Awareness Program to be implemented prior to construction for construction crews and contractors working onsite. Mitigation Measure BIO-3 requires biological monitoring during construction to ensure that wildlife and vegetation adjacent to the BSA are not harmed. Mitigation Measure BIO-4 requires a preconstruction take avoidance survey be conducted for burrowing owls.

Mitigation Measure(s)

BIO-1 **Worker Environmental Awareness Program.** Prior to project construction, a Worker Environmental Awareness Program shall be developed and implemented by a qualified biologist and shall be available in both English and Spanish. Handouts summarizing potential impacts on special-status biological resources and the potential penalties for impacts on these resources shall be provided to all construction personnel. At a minimum, the education program shall include the following:

- the purpose for resource protection;
- a description of special-status species including representative photographs and general ecology;
- occurrences of USACE, RWQCB, and CDFW regulated features in the project area;
- regulatory framework for biological resource protection and consequences if violated
- sensitivity of the species to human activities;
- avoidance and minimization measures designed to reduce the impacts on special-status biological resources
- environmentally responsible construction practices;
- reporting requirements;
- the protocol to resolve conflicts that may arise at any time during the construction process; and

- workers sign acknowledgement form indicating that the Environmental Awareness Training and Education Program that has been completed, which shall be kept on record.

BIO-2 Preconstruction Nesting Bird Survey: If construction or other project activities are scheduled to occur during the bird breeding season (typically February 1 through August 31 for raptors and March 15 through August 31 for the majority of migratory bird species), a preconstruction nesting-bird survey shall be conducted by a qualified avian biologist to ensure that active bird nests, including those for the northern harrier, long-billed curlew, and burrowing owl, will not be disturbed or destroyed. In addition, any clearing of vegetation that may occur is required to take place outside of the breeding season. The survey shall be completed no more than 3 days prior to initial ground disturbance. The nesting bird survey shall include the project area and adjacent areas where project activities have the potential to affect active nests, either directly or indirectly, due to construction activity or noise. If an active nest is identified, the biologist shall establish an appropriately sized disturbance limit buffer around the nest using flagging or staking. Construction activities shall not occur within any disturbance limit buffer zones until the nest is deemed inactive by the qualified biologist.

BIO-3 Biological Monitoring: If preconstruction surveys determine either the presence of special-status species or sensitive biological resources on the project site, a construction monitor may be needed during construction. If determined necessary, construction monitoring shall be conducted by a qualified biologist. The biologist shall be given authority to execute the following functions:

- Establish construction exclusion zones and make recommendations for implementing erosion control measures in temporary impact areas.
- Ensure all construction activities stay within the staked construction zone and do not go beyond the limits of disturbance.
- Minimize trimming/removal of vegetation to within the project impact area.
- Restrict non-essential equipment to the existing roadways and/or disturbed areas to avoid disturbance to existing adjacent native vegetation.

During construction, biological monitors shall inspect and verify field conditions, as needed, to ensure that wildlife and vegetation adjacent to the BSA are not harmed. The biological monitor shall coordinate with the construction supervisor and construction crew and shall have the authority to stop any activity that has the potential to affect special-status species or remove vegetation.

BIO-4 Burrowing Owl Avoidance and Minimization. Take avoidance (pre-construction) surveys for burrowing owl shall be completed prior to project construction. Surveys shall be conducted as detailed within Appendix D of the Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game [CDFG] 2012). If burrowing owl is not detected, construction may proceed.

- If burrowing owl is identified during the non-breeding season (September 1 through January 31), a minimum 50-meter buffer shall be established by the biological monitor for low level disturbance. However, the minimum buffer shall be increased depending on the level of construction disturbance (e.g., medium or high).

Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until a CDFW-approved exclusion plan has been implemented. The buffer distance may be reduced if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.

- If burrowing owl is identified during the breeding season (February 1 through August 31), then an appropriate buffer will be established by the biological monitor in accordance with the Staff Report on Burrowing Owl Mitigation (CDFG 2012). Construction within the buffer will be avoided until a qualified biologist determines that burrowing owl is no longer present or until young have fledged. The buffer distance may be reduced in consultation with CDFW if noise attenuation buffers such as hay bales are placed between the occupied burrow and construction activities.

Significance After Mitigation

The proposed project has the potential to impact special-status wildlife species during construction. However, implementation of Mitigation Measures BIO-1 through BIO-4 would reduce potential impacts to less than significant levels.

Impact 3.5-2 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 CDFW or USFWS?

As shown in Figure 3.5-1, arrow weed thicket occurs within the BSA. Arrow weed thickets are recognized by CDFW as a sensitive natural community. Arrow weed thickets were found along canals and drains below the ordinary high-water mark. The canals fall within the BSA, however, none of the arrow weed thickets that occur within the BSA would be removed or disturbed by project activities. Therefore, the proposed project would not have substantial adverse effects on sensitive natural communities, and this is considered a less than significant impact.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.5-3 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, filing, hydrological interruption, or other means?

Based on the PJD, no state or federally protected wetlands exist within the JSA. The IID irrigation canals and drains meet the requirements for jurisdictional waters, however none of the jurisdictional features are within the project footprint except for the proposed medium voltage distribution cable. The medium voltage distribution cable would cross Dogwood Lateral 1 in addition to S Dogwood Road and be attached via trays to the existing pipeline that runs west before turning north to cross the Beech Drain and Central Main Canal at the existing above-ground pipeline span. The entire span of the medium voltage distribution cable would sit above the canal. Therefore, the proposed project would have no substantial adverse effect on state or federally protected wetlands, and impacts would be less than significant.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.5-4 Would the project 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?

The proposed project would not interfere with any native resident or migratory wildlife corridors, nor interfere with the movement of any resident or migratory species. The proposed Dogwood geothermal plant will be constructed within the HGEC which is entirely fenced for security purposes, precluding wildlife from using the site as habitat or for migration. The area to be developed for the solar facilities has suitable habitat for burrowing owl, long-billed curlew and northern harrier. Burrowing owls are considered to have a moderate potential to occur within the project site. Long-billed curlews were observed in the alfalfa fields which are located within the survey buffer area west of the proposed Dogwood parasitic solar energy facilities polygon and east of the existing pipeline area. One northern harrier was observed circling over the field immediately east of Beech Drain and south of Willoughby Road. Although this area is within the survey buffer area, it is outside of the project ground disturbance footprint. However, as described under Impact 3.5-1, Mitigation Measures BIO-1 through BIO-4 would reduce impacts to less than significant levels.

Mitigation Measure(s)

No mitigation measures beyond Mitigation Measures BIO-1 through BIO-4 are required.

Impact 3.5-5 Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed project consists of the construction and operation of a geothermal plant, solar energy facilities, and geothermal wells and pipeline. Development of these facilities would be subject to the County's zoning ordinance.

The project parcels are currently zoned as A-2-G-SPA and A-2-G-U. Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone:

- n) Oil, gas and geothermal exploration meeting requirements specified in Division 17*
- s) Solar energy extraction generation provided that is for on-site consumption only*

Pursuant to Title 9, Division 5, Chapter 8, the following uses are permitted in the A-2 zone subject to approval of a CUP from Imperial County:

- y) Electrical generation plants (less than 50 MW) excluding nuclear or coal fired and meeting requirements in Division 17*
- z) Electrical substations in an electrical transmission system (500 kv/230 kv/161 kv)*
- bb) Facilities for the transmission of electrical energy (100-200 kv)*
- ii) Geothermal test facilities, Intermediate projects, and major exploratory wells, meeting requirements in Division 17*
- rr) Major Geothermal projects per Division 17*
- ww) Resource extraction and energy development as per Division 17*

aaa) Solar energy electrical generator.

As demonstrated in Table 3.5-2 and discussed further in Section 3.11, Land Use Planning, with approval of the CUPs, the project would be consistent with Imperial County General Plan, and with biological resources policies contained therein. Therefore, implementation of the proposed project would not result in a significant impact associated with the project's potential to conflict with local policies protecting biological resources.

Mitigation Measure(s)

No mitigation measures are required.

Impact 3.5-6 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 project site is located within the designated boundaries of the Desert Renewable Energy Natural Community Conservation Plan & Habitat Conservation Plan (NCCP/HCP). However, the project site is not located near or in the vicinity of an Area of Critical Environmental Concern or FWS Critical Habitat. Implementation of the proposed project would result in no impact associated with the potential to conflict with local conservation plans.

Mitigation Measure(s)

No mitigation measures are required.

3.5.4 Decommissioning/Restoration and Residual Impacts

Decommissioning/Restoration

Project decommissioning activities will require construction vehicles to drive across the project site and access roads. Concrete footings, foundations, and pads would be removed using heavy equipment and recycled at an off-site location. All remaining components would be removed, and all disturbed areas would be reclaimed and recontoured. Similar to project construction, decommissioning activities have the potential to directly impact special-status species. This is a potentially significant impact; however, implementation of Mitigation Measures BIO-1 through BIO-4 at the time of decommissioning would reduce potential impacts to a less than significant level.

Residual

With the implementation of Mitigation Measures BIO-1 through BIO-4, potential impacts on special-status species would be reduced to less than significant level. Therefore, the proposed project would not result in residual significant and unmitigable impacts related to biological resources.