

5. Environmental Analysis

5.3 BIOLOGICAL RESOURCES

The analysis in this section is based in part on the following technical report(s):

- *Biological Resources Technical Report, City of Hope Campus Plan, City of Duarte*, Cadre Environmental, June 2016.

A complete copy of this study is included in Appendix D of this DEIR.

5.3.1 Environmental Setting

5.3.1.1 APPLICABLE PLANS AND REGULATIONS

Federal and State Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, protects and conserves any species of plant or animal that is endangered or threatened with extinction, as well as the habitats where these species are found. “Take” of endangered species is prohibited under Section 9 of the FESA. “Take” means to “harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS “to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened.” This provides guidance for planners/managers and biologists by indicating locations of suitable habitat and where preservation of a particular species has high priority. Section 10 of the FESA provides the regulatory mechanism for incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans for the impacted species must be developed in support of incidental take permits to minimize impacts to the species and formulate viable mitigation measures.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) affirms and implements the United States’ commitment to four international conventions—with Canada, Japan, Mexico, and Russia—to protect shared migratory bird resources. The MBTA governs the take, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these items, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the MBTA.

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Clean Water Act, Section 404

The United States Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into “waters of the United States.”¹ Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to Corps wetlands and jurisdictional waters and any mitigation measures that the Corps requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, Section 106 review may also be required. When a Section 404 permit is required, a Section 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401 and 402

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the US Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB.

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires a project proponent to notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review and place conditions on the project, as part of a Streambed Alteration Agreement, that address potentially significant adverse impacts within CDFW’s jurisdictional limits.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding. In

¹ “Waters of the United States,” as applied to the jurisdictional limits of the Corps under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes “navigable waters,” which is defined at Section 502(7) of the act as “waters of the United States, including the territorial seas.”

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In addition, some sensitive mammals and birds are protected by the state as “fully protected species.” California “species of special concern” are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW’s California Natural Diversity Database, which maintains a record of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

Existing Conservation Plans and Areas

Part of the Santa Fe Dam Recreational Area east of the project site is critical habitat for the southwestern willow flycatcher. The Santa Fe Dam Recreational Area is a 836-acre facility with a 70-acre lake that allows year-round fishing and nonmotorized watercraft. The recreation area contains a nature center, picnic areas, boat launch, trails, boat rentals, snack bar, camping facilities, a water play area, and swim beach. The project site and the portion of the Santa Fe Flood Control Basin adjacent to the southeast site boundary are outside of critical habitat.

5.3.1.2 PLANT COMMUNITIES/HABITAT

No suitable habitat for sensitive plant species including those listed as federal or state threatened/endangered was documented within the project site. The project site is characterized as developed, ornamental, disturbed, and ruderal.

Habitat and Plant Species

Developed

The majority of the 116-acre project site is developed areas (82.1 acres, or 71 percent of the site) consisting of existing roads, concrete-lined Duarte Flood Control Channel, and hospital-related uses, including office, industrial, warehouse, assembly, and hospitality housing facilities—as outlined in Table 1, Project Site Vegetation Community Acreages in the biological report (Appendix D), and shown on Figure 5.3-1, *Vegetation Communities Map*.

Ornamental

The landscaped areas of the project site—21.1 acres, or approximately 18 percent of the site, including areas in Pioneer and Heritage parks—are vegetated with an extensive assortment of ornamental plantings, including but are not limited to, turf, pine (*Pinus* sp.), shrub verbenas (*Lantana* sp.), rose (*Rosa* sp.), creeping myoporum (*Myoporum parvifolium*), fountain grass (*Pennisetum setaceum*), rosemary (*Rosmarinus officinalis*), eucalyptus (*Eucalyptus* sp.), Chinese elm (*Ulmus parvifolia*), Brazilian pepper (*Schinus terebinthifolius*), magnolia (*Magnolia* sp.), and various species of exotic succulents.

Disturbed

Disturbed areas constitute 10.9 acres or 9 percent of the site; and mostly in the southwest part of the site. This area is generally devoid of vegetation. These areas are periodically cleared and dominated by filaree

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(*Erodium* sp.), black mustard (*Brassica nigra*), telegraph weed (*Heterotheca grandiflora*), Mediterranean schismus (*Schismus barbatus*), castor bean (*Ricinus communis*), Russian thistle (*Kali tragus*), tobacco tree (*Nicotiana glauca*), and horehound (*Marrubium vulgare*). A few isolated native plants, shrubs, and trees occur within this habitat type, including a single coast live oak (*Quercus agrifolia*), laurel sumac (*Malosma laurina*), California croton (*Croton californicus*), and California sagebrush (*Artemisia californica*). These native species are common offsite along the southeastern project site boundary within the Santa Fe Flood Control Basin.

Ruderal

A 1.9-acre (1.6 percent of the site) patch of ruderal vegetation is at the extreme southwestern tip of the project site. This area is bisected by a disturbed road and dominated by Russian thistle and deerweed (*Acmispon glaber*).

Wildlife Species

General wildlife species documented onsite or within the vicinity during the site assessment include but are not limited to American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferous*), rock dove (*Columba livia*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), western kingbird² (*Tyrannus verticalis*), American crow (*Corvus brachyrhynchos*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), yellow-rumped warbler (*Dendroica coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), desert cottontail (*Sylvilagus audubonii*), and California ground squirrel (*Otospermophilus beecheyi*).

5.3.1.3 SENSITIVE RESOURCES

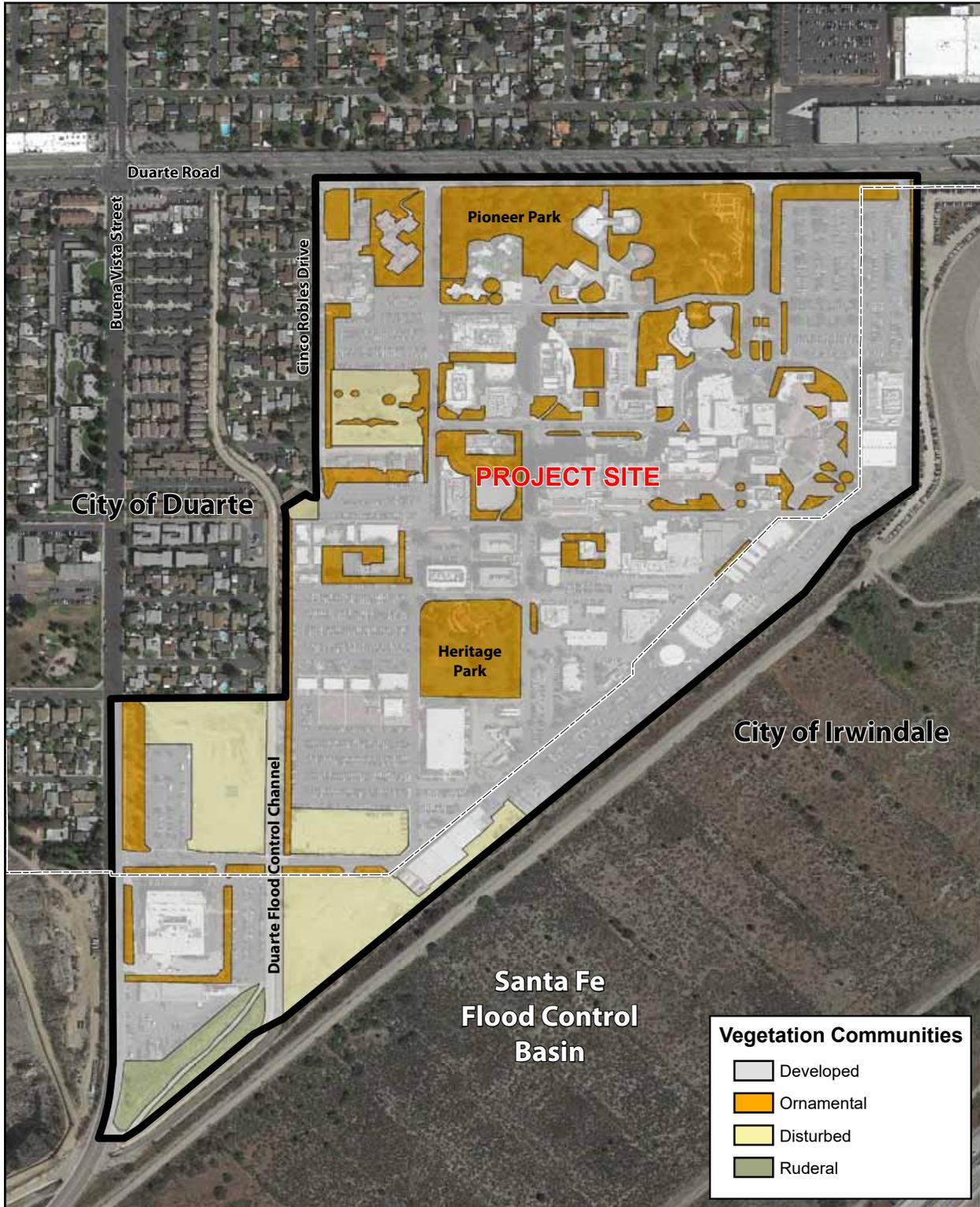
Sensitive Habitats

The project site is characterized as developed, ornamental, disturbed, and ruderal, and no sensitive or native habitats were documented within the project site.

A single sensitive vegetation community (alluvial fan sage scrub) was documented immediately adjacent and offsite along the southeastern project site boundary. Also referred to as Riversidean alluvial fan sage scrub, this vegetation community extends southeast of the project site within the Santa Fe Flood Control Basin. The narrow strip which occurs between the project site and existing access road/dike is dominated by scale-broom (*Lepidospartum squamatum*), California sagebrush, laurel sumac, California buckwheat (*Eriogonum fasciculatum*), California bush sunflower (*Encelia californica*), brittlebush (*Encelia farinosa*), and ladies' tobacco (*Pseudognaphalium californicum*).

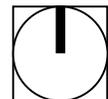
² Every effort was made to distinguish the observation from the more common and resident Cassin's Kingbird. Based on coloration (tail features were not visible), the observation was listed as a Western kingbird. Neither species of Kingbird is listed as a state or federally sensitive species. These are common migratory and resident species in the southwest.

Figure 5.3-1 - Vegetation Communities Map
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— Project Boundary
- - - - - Duarte/Irwindale Boundary

0 600
Scale (Feet)



Base Map Source: Cadre Environmental, 2016

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Sensitive Plants

The project site was assessed to determine the potential for 10 sensitive plant species known to occur within the region. These 10 species are listed below and were identified using federal register listings, protocols, and species data provided by the USFWS; the California Natural Diversity Database (CDFW 2016), a CDFW species account database; and regional field guides. Habitat descriptions for the 10 species are provided in Table 2 of the Biological Resources Technical Report (see Appendix D of this DEIR). No sensitive or native habitats were documented within the project site, and no suitable habitat for sensitive plant species was documented within the project site.

- Braunton's milk-vetch (*Astragalus brauntonii*)
- Plummer's mariposa-lily (*Calochortus plummerae*)
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*)
- California saw-grass (*Cladium californicum*)
- Slender-horned spineflower (*Dodecabema leptoceras*)
- San Gabriel bedstraw (*Galium grande*)
- Mesa horkelia (*Horkelia cuneata* ssp. *puberula*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- Brand's star phacelia (*Phacelia stellaris*)
- Greata's aster (*Symphotrichum greatae*)

Sensitive Wildlife

The project site was assessed to determine the potential for sensitive wildlife. These 10 species are listed below and were identified using federal register listings, protocols, and species data provided by the USFWS; the California Natural Diversity Database (CDFW 2016), a CDFW species account database; and regional field guides.

- Coast horned lizard (*Phrynosoma blainvillii*)
- Coastal California gnatcatcher (*Poliophtila californica californica*)
- Least Bell's vireo (*Vireo bellii pusillus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)
- Yellow Warbler (*Setophaga petechia*)
- Yellow-breasted Chat (*Icteria virens*)
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)

Habitat descriptions for 10 sensitive species known to occur in the region and the potential for each to occur onsite are provided in Table 3 of the *Biological Resources Technical Report* (see Appendix D of this DEIR). None of the sensitive wildlife species identified are expected to occur onsite due to lack of suitable habitat.

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However, two sensitive bird species—Cooper’s hawk (*Accipiter cooperii*), a California Watch List species, and white-tailed kite (*Elanus leucurus*), a State Fully Protected species—may occasionally roost and forage onsite. The project site does not occur within or adjacent to a USFWS-designated critical habitat for any federally listed threatened or endangered species.

5.3.1.4 JURISDICTIONAL WATERS AND WETLANDS

No wetlands regulated by the Corps, CDFW, or Los Angeles RWQCB were documented within or adjacent to the project site (see Appendix D of this DEIR). However, the unvegetated concrete-lined Duarte Flood Control Channel is a jurisdictional feature, and any impacts to the existing outfall structures would be regulated by the Corps, CDFW, and RWQCB. The Duarte Flood Control Channel bisects the southwest part of the project site and drains south to an existing sediment basin about 0.3 mile southwest of the project site. High flow rates extend south through a series of sediment basins and concrete-lined channels, which drain to Long Beach Harbor.

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- B-1 Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- B-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 Game or U.S. Fish and Wildlife Service.
- B-3 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.
- B-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.
- B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- B-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.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

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- Threshold B-5: The cities of Duarte and Irwindale do not have ordinances protecting biological resources applicable to resources within the project site.
- Threshold B-6: The project site is not within a habitat conservation plan or natural community conservation plan.

These impacts will not be addressed in the following analysis.

Threshold B-4 (wildlife movement) was identified as less than significant in the Initial Study. However, impacts were identified in the Biological Technical Report prepared for the proposed project; therefore this topic is analyzed in further detail below.

5.3.3 Environmental Impacts

Methodology

The biological resources assessment was based on a literature review and field surveys, as described in Appendix D. Existing biological resource conditions within and adjacent to the project site were initially investigated through review of pertinent scientific literature. The following sources were reviewed:

- Federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service (USFWS);
- Federally listed species potentially occurring within the region;
- California Natural Diversity Database (CNDDB) (CDFW 2016a);
- California Department of Fish and Wildlife (CDFW) Natural Heritage Division ;
- Numerous regional floral and faunal field guides;
- Special Animals (CDFW 2016b);
- Special Vascular Plants and Bryophytes List (CDFW 2016c);
- Endangered, Threatened, and Rare Plants of California (CDFW 2016d); and
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2016e).

A reconnaissance survey of the project site was conducted by Ruben Ramirez of Cadre Environmental on January 21st, 2016 in order to characterize and identify potential sensitive plant and wildlife habitats, and to establish the accuracy of the data identified in the literature search. Geologic and soil maps were examined to identify local soil types that may support sensitive taxa. Aerial photograph, topographic maps, vegetation and rare plant maps prepared for previous studies in the region were used to determine community types and

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other physical features that may support sensitive plants/wildlife, uncommon taxa, or rare communities that occur within or adjacent to the Project Site. Habitat assessments were conducted for, but not limited to, the following target species/groups.

- Coastal California gnatcatcher – FT/SSC
- Least Bell’s vireo – FE/SE
- Southwestern willow flycatcher – FE/SE
- Sensitive plants
- Protected street trees (City of Duarte Municipal Code, Chapter 13.08)

Natural vegetation communities and habitat types observed on the project site were mapped. The biological assessment included a floristic plant and wildlife resources inventory. Additionally, the project site was assessed for jurisdiction by the Corps, CDFW, and Regional Water Quality Control Board (RWQCB). Non-wetland waters of the United States were assessed based on the limits of the “ordinary high water mark” as determined by erosion, the deposition of vegetation or debris, and changes in vegetation and soil characteristics. The assessment utilized the methodology for routine wetland determination according to the methods outlined in the Corps Wetland Delineation Manual (Environmental Laboratory 1987) and the Arid West Wetland Delineation Supplement (USACE 2008), and updated regulatory guidance letters.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: Implementation of the Campus Plan would not impact habitat for sensitive wildlife or plant species; however, construction noise could impact adjacent sensitive wildlife. [Threshold B-1]

Impact Analysis:

On-Site

Development has the potential to impact sensitive plants and wildlife species when it results in the removal of suitable habitat for these species. The majority of the project site is developed with a few remaining vacant parcels. As discussed above, a biological survey was conducted and determined that the project site is characterized as developed, ornamental, disturbed, and ruderal habitat, and there is no native undisturbed suitable habitat for sensitive plant species. As a result, development within the project area would not impact sensitive plant species.

The proposed project would not 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. There is no native undisturbed suitable habitat for federal or state threatened or endangered wildlife species on the project site. As indicated, two sensitive bird species—Cooper’s hawk, a California Watch List species, and white-tailed kite, a State Fully Protected species—may occasionally roost and forage onsite. These species are not expected to breed onsite due to a

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lack of suitable nesting habitat. Based on the extensive amount of suitable roosting, foraging and breeding habitat located offsite within the Santa Fe Flood Control Basin/Recreation Area, onsite loss of ornamental vegetation potentially utilized for roosting and/or foraging would not represent a significant impact. Implementation of the Campus Plan would not impact sensitive bird species or other wildlife because there is no suitable habitat for these species on site. Impacts are considered less than significant.

Off-Site

The Santa Fe Flood Control Basin (immediately southeast of project site) and Santa Fe Dam Recreational Area (approximately 3,000 feet southeast of project site and I-605) are both potential and occupied habitat for species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. Specifically, the federal/state endangered least Bell's vireo and federal threatened coastal California gnatcatcher have been documented within the Santa Fe Dam Recreational Area, as illustrated in Figure 6, USFWS Sensitive Species Occurrences of Appendix D.

Development in accordance with the Campus Plan would not result in any direct impact to these areas, because it consists of infill development that would be confined to the project site and surrounding roadways.

Potential indirect impacts to habitat areas adjacent to the project site could occur if development resulted in hydrological modification, increased stormwater discharge, increased lighting, or construction noise.

Hydrology and Water Quality

Off-site and indirect impacts to biological resources could occur if development would result in a substantial increase in stormwater runoff or substantially degrade water quality of sensitive habitat. Hydrology and water quality impacts are analyzed in Section 5.7, *Hydrology and Water Quality*, of this DEIR, and impacts were determined to be less than significant.

As discussed in Section 5.7, the Campus Plan is required to comply with the stormwater and urban runoff pollution control provisions of the Los Angeles RWQCB's NPDES permit for municipal separate storm sewer system (MS4) discharges during construction. In addition, development must comply with the Duarte and Irwindale municipal codes (Chapter 6.15 of the Duarte Municipal Code, and Chapter 8.28 of the City of Irwindale Municipal Code.) The MS4 NPDES and Duarte and Irwindale code provisions regulate non-stormwater discharge to the storm drain system and reduction of pollutants in stormwater and urban runoff to the maximum extent practicable.

Operationally, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings and parking lots typically contains oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), fertilizers, herbicides, pesticides, and other pollutants. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations. The Campus Plan includes stormwater treatment features to treat the first flush stormwater in accordance with Los Angeles County MS4 Permit requirements and the guidance provided in the Los Angeles County Department of Public Works' Low-Impact Development Standards Manual.

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Implementation of the Campus Plan would not substantially alter the existing drainage pattern. The stormwater measures incorporated into the project would result in an overall decrease in runoff of 11 cubic feet per second, resulting in lower flow rates than under existing conditions. Therefore, there would be no exceedance of the capacity of existing or planned storm drain system.

Impacts to hydrology and water quality would be less than significant during both construction and operation (i.e., compliance with NPDES permit and MS4 code provisions would ensure no impacts to species, and compliance with County MS4 permit requirements and LID manual would also ensure no impacts to species).

Lighting

The project site has many existing sources of nighttime illumination, including street and parking area lights, security lighting, and exterior lighting on buildings. Additional onsite light and glare is caused by surrounding land uses, I-210 to the north, and I-605 to the east. As discussed in Section 5.1, *Aesthetics*, of this DEIR, implementation of the Campus Plan would increase land uses and related lighting for building security, parking lot lighting, pedestrian lighting, and other sources. The Specific Plan includes a number of guidelines to ensure that new land uses do not generate excessive light or spill light onto adjacent properties, including the Santa Fe Flood Control Basin. Since the project site is developed and implementation of the Specific Plan contains a number of requirements to reduce excessive lighting and eliminate spill light, indirect impacts to sensitive wildlife species are not expected to occur. Impacts related to lighting would be less than significant during both construction and operation. Night lighting associated with the proposed project would not be directed toward the Santa Fe Flood Control Basin located immediately southeast of the project site and no indirect impacts to wildlife species will occur. No significant impacts are anticipated.

Noise

Indirect temporal noise impacts may occur to nesting bird species located adjacent to the project site (Santa Fe Flood Control Basin) during project construction. Noise and vibration associated with the use of heavy equipment during project construction has the potential to disrupt bird nesting, foraging and breeding behavior within the adjacent sensitive receptor site. Significant construction noise impacts were identified in Section 5.10, *Noise*, of this DEIR.

Construction activities would increase noise levels on and near the project site above existing levels. In general, the site preparation and grading portions of construction would typically be the noisiest periods of activity, since the largest and most powerful equipment is typically used during these phases of construction. Thereafter, building construction, paving, and application of architectural coatings typically generate markedly less noise than do demolition and grading activities. Noise produced from construction equipment items is commonly held to decrease at a rate of at least 6 decibels (dB) per doubling of distance; conservatively ignoring other attenuation effects from air absorption, ground effects, and/or shielding/scattering effects.³ For example, a dozer that generates 85 dBA at 50 feet would measure 79 dBA at

³ As sound energy travels outward from the source, spreading loss accounts for a 6 dB decrease in noise level. Soft ground and atmospheric absorption effects can provide an additional 1.5 dB of propagation reduction; for a total of minus 7.5 dB per distance doubling.

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100 feet, 73 dBA at 200 feet, 67 dBA at 400 feet, and 61 dBA at 800 feet (at minus 6 dB per distance-doubling).

In order to aggregate individual equipment items into sets of common processes/activities, composite construction noise by phase has been characterized by Bolt, Beranek & Newman (1987). In their study, construction noise for ground clearing, excavation, foundations, erection, and finishing are aggregated by class of activity. For the majority of residential, commercial, industrial, and public works projects, the loudest phases are typically the site preparation and grading phases; each of which as an aggregate of 88 – 89 dBA L_{eq} when measured at a distance of 50 feet from the summed construction effort (see Impact 5.10-1). This summed value takes into account both the number of pieces and the spacing of the heavy equipment used in the construction effort. Further, noise levels are typically reduced from this value due to usage factors,⁴ as well as the barrier effects provided by the physical structures themselves (once erected). Therefore, the 88 dBA L_{eq} value is a reasonable and prudent value for representing most construction activities. This is a potentially significant impact.

Impact 5.3-2: Implementation of the Campus Plan would not cause the loss of riparian habitats or sensitive natural communities. [Threshold B-2]

Impact Analysis: The majority of the project site is developed, with a few remaining vacant parcels. As described, the project site is characterized as developed, ornamental, disturbed, and ruderal and does not contain any riparian, sensitive, or native habitats. The biological report identified a single sensitive vegetation community (alluvial fan sage scrub) abutting the southeast project site boundary. However, this vegetation would not be impacted by buildout of the proposed Campus Plan, since no development or other off-site improvements would occur in this area. Impacts are considered less than significant.

Impact 5.3-3: Implementation of the Campus Plan would not impact jurisdictional waters or wetlands jurisdictional to the Corps, CDFW, or Los Angeles RWQCB. [Threshold B-3]

Impact Analysis: No wetlands regulated by the Corps, CDFW, or RWQCB were documented within or adjacent to the project site. Therefore, implementation of the Campus Plan would not impact any wetlands.

The unvegetated, concrete-lined Duarte Flood Control Channel is a jurisdictional feature, and any impacts to the existing outfall structures would be regulated by the Corps, CDFW, and Los Angeles RWQCB. The Duarte Flood Control Channel bisects the southwest region of the project site and drains south to an existing currently unvegetated sediment basin. High flow rates extend south through a series of sediment basins and concrete-lined channels that ultimately drain to Long Beach Harbor. In the event that any phase of the proposed project would require the construction, improvement, or relocation of existing outfall structures leading to the Duarte Flood Control Channel or Santa Fe Flood Control Basin, the project applicant would be required to conduct a formal jurisdictional delineation and obtain all applicable permits, including a 404/408 Permit from the Corps, 1602 Streambed Alteration Agreement from CDFW, and a 401 Certification issued by the RWQCB pursuant to the California Water Code Section 13260, as warranted. Compliance with

⁴ Usage factor is the percentage of time during the workday that the equipment is operating at full power (on which the reference noise ratings for typical average and typical maximum noise emissions are based).

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the federal and state regulatory requirements would reduce any potential impacts to jurisdictional resources to less than significant during both construction and operation of developments under the Campus Plan.

Impact 5.3-4: Tree removal during the course of Campus Plan buildout could cause loss of active bird nests. [Threshold B-4].

Impact Analysis: The project site is largely developed, surrounded by urbanized uses, and isolated from areas supporting suitable habitat for wildlife species. Therefore, the project site is not available for overland wildlife movement or migration. However, the project site contains numerous mature trees that could be used for nesting by migratory birds. Construction activities of future development, revitalization, and/or redevelopment activities that would be accommodated by the Campus Plan could result in the removal and/or replacement of trees onsite. However, the Campus Plan intends to preserve and enhance the existing trees in its parks and open space areas. Furthermore, future development would also be required to comply with the Migratory Bird Treaty Act (MBTA) (US Code, Title 16, §§ 703–712) and state law (California Fish and Game Code, §§ 3503 et seq.). The MBTA implements the United States’ commitment to four treaties with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. It governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. The USFWS administers permits to take migratory birds in accordance with the MBTA. Loss of an active nest would be considered a potentially significant impact.

5.3.4 Cumulative Impacts

The area considered for cumulative impacts is the San Gabriel Valley, which is largely built out with urban land uses. Most of the streams in the San Gabriel Valley are engineered channels rather than natural streams supporting riparian habitats. The San Gabriel Valley is part of the Los Angeles Plain ecoregion designated by the US Geological Survey. Typical vegetation historically included California sagebrush, California buckwheat, coast live oak, chamise chaparral, and annual grasslands, although most of the region has been converted to urban and residential land cover. Hydrology has been greatly modified and channelized (Griffith 2016).

Substantial habitat areas in the San Gabriel Valley include the Santa Fe Dam Recreation Area, just east of the Campus Plan area; the Frank Bonelli Regional Park (which includes Puddingstone Reservoir) in the City of San Dimas, about nine miles east of the site; portions of the San Jose Hills southwest of Frank Bonelli Regional Park; and the Whittier Narrows Wildlife Sanctuary in the Whittier Narrows Recreation Area, about 7.3 miles southwest of the project site. The Santa Fe Dam Recreation Area contains a 350-acre wildlife management area plus 50 acres of natural open space (Irwindale 2008). Frank Bonelli Regional Park spans 1,800 acres, much of which is habitat. The 400-acre Whittier Narrows Wildlife Sanctuary is in the southeastern part of the Whittier Narrows Recreation Area in unincorporated Los Angeles County and next to the west bank of the San Gabriel River.

The total population of the 31 incorporated cities in the San Gabriel Valley is forecast to increase from about 1.51 million in 2013 to 1.71 million in 2035. Total employment in the valley is forecast to increase from about 645,000 in 2013 to 728,700 in 2035 (Kyser 2015; PlaceWorks 2015). Most other projects in the San Gabriel Valley would redevelop existing developed sites. Therefore, it is not anticipated that cumulative projects in the

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study area would remove substantial areas of native habitat or interfere with wildlife movement on major wildlife corridors. As described above, the project site does not provide potential habitat for sensitive plant or wildlife communities. As a result, development of the Campus Plan would not impact sensitive plant or wildlife species. Additionally, the project would not impact riparian or sensitive natural communities. Therefore, the project would not contribute to the loss of special-status plant and wildlife species, riparian habitat, or sensitive habitats and cumulative impacts would be less than significant.

Construction activities associated with implementation of the Campus Plan could result in the removal and/or replacement of trees onsite. In addition, many other projects would remove or disturb trees that could be used for nesting by migratory birds protected under federal and state laws. However, construction of the Campus Plan and other cumulative projects would adhere to regulations implementing the federal Migratory Bird Treaty Act, which would mitigate impacts to less than significant. Compliance with the MBTA (see Mitigation Measure BIO-1) would ensure that the project's contribution to disturbance of migratory birds would be less than significant.

5.3.5 Existing Regulations

This analysis assumes compliance with all applicable laws. The following codes, rules, and regulations pertain to biological resources and were described in detail in Sections 5.3.1.1 of this DEIR and are listed below.

Federal

- United States Code, Title 16, Sections 1531 et seq.: Endangered Species Act
- United States Code, Title 16, Sections 703-712: Migratory Bird Treaty Act
- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act

State

- California Fish and Game Code, Section 2080: Endangered Species Act
- California Fish and Game Code, Section 1600: Lakes and Streambeds

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, some impacts would be less than significant: 5.3-2 and 5.3-3.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.3-1** Construction activities have the potential to result in indirect construction noise impacts to sensitive wildlife in the adjacent Santa Fe Dam Recreational Area.
- **Impact 5.3-4** Tree removal during the course of Campus Plan buildout could cause loss of active bird nests.

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5.3.7 Mitigation Measures

Impact 5.3-1

Mitigation Measure N-1 in Section 5.10, *Noise*, applies. The Biological Technical Report includes a Mitigation Measure BIO-MM2 on page 29 for reducing construction noise impacts. Mitigation Measure BIO-MM2 duplicates the requirements set forth in Mitigation Measure N-1, and thus incorporation of Measure BIO-MM2 in this DEIR is not required.

Impact 5.3-4

BIO-1 Prior to issuance of permits for any construction activity, the project applicant shall demonstrate compliance with the federal MBTA and submit required nesting bird surveys to the City of Duarte. Construction outside the nesting season (between September 1st and February 15th) does not require pre-removal nesting bird surveys. If construction is proposed between February 16th and August 31st, a qualified biologist must conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the project site.

The preconstruction survey(s) shall focus on identifying any raptors and/or passerines nests that may be directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. A minimum exclusion buffer shall be maintained during construction, depending on the species and location per the discretion of the qualified biologist. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present or that the young have fledged, shall be submitted to the City of Duarte prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a biological monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. A final report of the findings, prepared by a qualified biologist, shall be submitted to the City of Duarte prior to construction-related activities that have the potential to disturb any active nests during the nesting season. Any nest permanently vacated for the season would not warrant protection pursuant to the MBTA.

5.3.8 Level of Significance After Mitigation

Impact 5.3-1

Mitigation Measure N-1 would reduce potential construction noise impacts to sensitive biological resources in the Sana Fe Flood Control Basin by requiring stationary noise-generating construction equipment to be

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placed away from the Basin and to require a temporary noise barrier with a Sound Transmission Class rating of 35 or greater between construction zones and the Basin. The noise barrier would block line of sight noise levels to adjacent properties and substantially reduce noise levels at the Santa Fe Flood Control Basin due to its elevation which is lower than the project site. Therefore, Impact 5.3-1 would be less than significant following implementation of Mitigation Measure N-1.

Impact 5.3-4

Implementation of Mitigation Measure BIO-1 would ensure compliance with the MBTA and reduce potential impacts to nesting birds to less than significant.

5.3.9 References

- Cadre Environmental. 2016, June. Biological Resources Technical Report, City of Hope Campus Plan, City of Duarte.
- California Department of Fish and Wildlife (CDFW). 2016. Sensitive Element Record Search for the Baldwin Park and Azusa Quadrangles. Natural Diversity Data Base (CNDDDB). Sacramento, California. Accessed February 2016.
- Griffith, Glenn et al. 2016, February 24. Ecoregions of California (poster). Open-File Report 2016–1021. U.S. Geological Survey. http://pubs.usgs.gov/of/2016/1021/ofr20161021_sheet2.pdf.
- Irwindale, City of. 2008, June. City of Irwindale 2020 General Plan. <http://ci.irwindale.ca.us/DocumentCenter/View/38>.
- Kyser Center for Economic Research. 2015, February 20. 2014 San Gabriel Valley Economic Forecast and Regional Overview. Los Angeles County Economic Development Corporation. http://laedc.org/wp-content/uploads/2012/04/SGV-Report-2014_Final.pdf.
- PlaceWorks. 2015, January. Population and Housing, Section 5.10 of Draft Environmental Impact Report for the Pasadena General Plan. <http://www.cityofpasadena.net/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=8589939184&libID=8589939188>.
- Science & Collaboration for Connected Wildlands (SC Wildlands). 2008, December 2. South Coast Missing Linkages. Data Layer ds419 on Biogeographic Information and Observation System (BIOS). California Department of Fish and Wildlife. <https://map.dfg.ca.gov/bios/>.

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