Appendix E

Biological

APPENDIX E:
Biological Resources

The following reports are included as part of this appendix to support the alternatives discussion:

- Attachment 1: U.S. Fish and Wildlife Service Depredation Permit
- Attachment 2: HELIX Consulting, Ontario International Airport Rehabilitation of Runway 8R-26L and Associated Improvements Biological Technical Report, April 2022

Attachment 1

USFWS Depredation Permit

DEPREDATION AT AIRPORTS

Permit Number: MBPER0037939

Version Number: 0

Effective: 2022-03-25 **Expires:** 2023-02-28

Issuing Office:

Department of the Interior

U.S. FISH AND WILDLIFE SERVICE

MB Sacramento Permit Office
2800 Cottage Way - Room W-2606
Sacramento, California 95825
permitsR8MB@fws.gov
Tel: 916-978-6183

Digitally signed by

Permits Biologist

Permittee:

Ontario International Airport Authority
1923 E. Avion St.
Ontario, CA 91761
U.S.A.

Authority: Statutes and Regulations: 16 U.S.C 703-712 50 CFR Part 13, 50 CFR 21.41

Location where authorized activity may be conducted:

Ontario International Airport operations area and property.

Reporting requirements:

ANNUAL REPORT DUE: 1/31 You must submit an annual report to your Regional Migratory Bird Permit Office each year, even if you had no activity. Form can be found at: https://fwsepermits.servicenowservices.com/fws Under "Explore Permits" select your permit type. Annual Report Form is under Permit Details.

Authorizations and Conditions:

Last Full Review: **2022** Next Full Review: **2027**

Annual ePermits Renewal Request: Request a permit renewal in ePermits each year. Submit a full application, including Section E, in the year that a full application review is due (once every five years), and upload your annual report. In the interim years, update your contact information (including Principal Officer) and upload your annual report in ePermits.

Migratory Bird Permit Office Contact: permitsR8MB@fws.gov or amy_walsh@fws.gov

DEPREDATION AT AIRPORTS

Permit Number: MBPER0037939

Version Number: 0

Effective: 2022-03-25 **Expires:** 2023-02-28

A. To resolve or prevent threats to human safety and/or aircraft safety at airports or airfields, you are authorized to take, temporarily possess, and transport the migratory birds specified below. You are required to continually apply non-lethal methods in conjunction with lethal control to minimize the lethal take of migratory birds. All take must be done as part of an integrated wildlife damage management program that implements nonlethal management techniques. You may not use this authority for situations in which migratory birds are merely causing a nuisance or nesting in an inconvenient location.

This authority excludes bald eagles, golden eagles, and threatened or endangered species (http://www.fws.gov/endangered). Harassment and/or removal of endangered/threatened species and/or bald eagles and golden eagles require additional permits from Migratory Bird Permit Office and/or Ecological Services Office.

(1) The following may be trapped and relocated or lethally taken: *For Birds of Conservation Concern and raptors – we recommend attempting trapping and relocation prior to implementing lethal control unless there is an immediate threat to human safety.* A list of BCC species can be found at: https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php

For information on the presence of bird species at your airport, we recommend using IPAC: https://ecos.fws.gov/ipac/

Combined Authorized Take Total: 200 birds

BCC-Listed Species:

No More than 5: California Gull, Western Gull

*California Fully Protected Species - The U.S. Fish and Wildlife Service recommends coordination with the California Department of Fish and Wildlife prior to relocation and/or lethal removal.

(2) The following may be trapped and relocated:

Monitored Species:

5 of Each: Swainson's Hawk*
4 of Each: Ferruginous Hawk
2 of Each: Loggerhead Shrike

BCC-Listed Species:

No More than 5: Burrowing Owl**

**Please coordinate with our office prior to trapping and relocation.

(3) Nest Take (including egg destruction/addling). You are authorized to collect viable eggs and give them to a federally permitted migratory bird rehabilitator or place them in a foster nest before destroying an active nest. If egg collection is not feasible, you are authorized to destroy.

(4) Emergency Take. You are authorized in emergency situations only to take, trap, or relocate any migratory birds, nests, and eggs, including species that are not listed in Condition A (except bald eagles, golden eagles, endangered or threatened species) when the migratory birds, nests, or eggs are posing a direct threat to human safety. You are authorized to exceed the take authorized in 2 – 3 above in emergency

situations. You must notify your Migratory Bird Permit Office (contact information above Condition A) within 48 hours and include the following information:

(i) Emergency situation description, including date and time;
(ii) Species and number of bird(s) taken;
(iii) Method of take.

A response from the office is not required. You will be contacted if further coordination is appropriate.

(5) Do not report the following activities under your Airport Depredation permit. If activities are conducted under a Depredation Order, Conservation Order, or other regulatory authorization or permit you should conduct activities in accordance with those authorizations and reporting requirements. Canada goose nests should be taken and reported under the Resident Canada Goose registration system (https://epermits.fws.gov/eRCGR/).

B. **Methods**. You may use the following methods of take. The use of any of the below methods is at your discretion for each situation.

(1) Firearms. Shotguns must be no larger than 10-gauge and must be fired from the shoulder. You must use nontoxic shot listed in 50 CFR 20.21(j). Rifles or air rifles may be used when determined most appropriate to resolve the injurious situation. Nontoxic rounds and pellets must be used when humane and feasible. If lead shot is used, bird remains must be disposed of in a manner that prevents introducing lead in the environment. Paint ball guns may be used to haze birds but are not an authorized firearm for take. You may not use blinds, pits, or other means of concealment, decoys, duck calls, or other devices to lure or entice migratory birds into gun range. Firearm use must be in accordance with local laws and ordinances.

(2) Live Traps. All trapping must be under humane and healthful conditions (50 CFR 13.41).

Trapping Requirements: Only persons who have experience trapping birds, may trap birds under this permit. Others may assist in trapping but may not trap without supervision by an experienced trapper.

It is your responsibility to have a plan and adequate resources in place for trapping and relocating birds prior to trapping. Adequate resources include transport carriers and food appropriate for each species; rehabilitators and/or transporters qualified to care for, transport, and release birds; and appropriately sized enclosures for birds that remain in captivity for more than two days. *You are responsible for the costs of transport, care, conditioning, and release of birds trapped under this permit.*

Any bird killed or injured during trapping must be reported within 72 hours to the issuing office at permitsR8MB@fws.gov and reported on your Annual Report.

Trap Types & Provisions

Any appropriate and humane trap may be used. Traps should be placed in the shade, if possible. Enclosure-type traps must contain an adequate supply of food and water.

Pole traps (padded-jaw and Verbail-design) may be used to capture raptors when other reasonable and appropriate methods have been employed and fail to alleviate the problem. We recommend using Verbail or Verbail-style pole traps as a more humane alternative to padded jaw-design pole traps. Padded jaw-design pole traps should only be used as a last resort.

Pole traps used between sunrise and sunset must be checked at least every 2 hours. Pole traps used between sunset and sunrise must be checked at least once during the night, not including set-up and take-down. Checks may be in person, by camera, or by other remote-sensing technology such as trap transponders. During inclement weather (e.g., extreme precipitation or temperatures), pole traps must be continuously monitored or closed. The Service recommends the tether on pole traps be long enough for raptors to land on the ground and stand on their feet.

Pole Trap Reporting Requirements

1. Injury or death due to pole trapping must be reported your Migratory Bird Permit Office within 72 hours (contact information above Condition A)

2. Non-target capture in a pole trap must be reported your Migratory Bird Permit Office within 72 hours (contact information above Condition A)

3. Annual Report: report each raptor captured with a pole trap, including target and non-target species, trap type (padded-jaw or Verbail set), the date taken, if injured or killed during trapping, and the final disposition (released, transferred including permit number of recipient, euthanized) of the bird (see MBPM-4, 2005).

Trap Checks

Traps must be checked at least every 2 hours during the day and at least once at night (not including set up and take down). Under extenuating circumstances, you may extend the trap-check frequency to every 4 hours for Swedish Goshawk traps if the temperature is ≤70°F and the trap is in the sun (≤80°F is authorized if the trap is in the shade). Traps must be closed down during inclement weather (e.g. precipitation or extreme temperatures) unless they are monitored continuously. Trap motion-detection transmitters and scanning receivers may be used in lieu of checking traps in person.

On an experimental basis, you may set Swedish Goshawk traps at night and check them first thing in the morning, rather than once at night. You must send photos of all species caught in the Swedish Goshawk trap to Jennifer_C_Brown@fws.gov, except for Great Horned Owl, Barn Owl, and Red-tailed Hawk (an experiment was already successfully run for these species). The photos should clearly show the face, the primaries, and the tail feathers so that the condition of the bird may be assessed, and the humane treatment of the birds can be determined by the Migratory Bird Permit Office and our National Raptor Coordinator.

Birds must be released within 72 hours of capture. Birds should be weighed before going into captivity for any length of time. Pre-approval must be obtained from the U.S. Fish and Wildlife Service, Migratory Bird Program in order to hold healthy birds longer than 72 hours, and additional requirements will be provided. An example of adequate justification for holding healthy birds longer than the specified limit includes needing additional time to arrange relocation transport. Birds held longer than 72 hours must be reported on your Annual Report with length of time held and justification. All birds should be banded prior to release if possible. Birds captured must be relocated a distance sufficient to minimize potential for return to the capture site. Birds should be released at a time of day appropriate to that species and in an area of suitable, unoccupied habitat.

You may act as a subpermittee and house, transport, and release birds trapped by other facilities with permits for avian trapping and relocation. Likewise, other facilities with permits for avian trapping and relocation can act as subpermittees under your permit and house, transport, and release birds captured under your permit. Birds remain the responsibility of the permittee where they were captured until released.

Facilities that plan to hold healthy birds longer than two days must place birds in adequately sized enclosures for the species. Enclosure requirements for each species may be found in Tables 3, 4, and 5 included in the International Wildlife Rehabilitation Council's and National Wildlife Rehabilitators Association's 2000 Minimum Standards for Wildlife Rehabilitation, 3rd Edition (Minimum Standards). This document is available online at:

http://c.ymcdn.com/sites/www.nwrawildlife.org/resource/resmgr/Min_Standards/MinimumStandards3rdEdition.pdf. The "Restricted Activity," "Limited Activity" and "Unlimited Activity" columns in Table 5 of the Minimum Standards provides appropriate caging dimensions for raptor species held in short-term captivity. Table 3 of the Minimum Standards provides appropriate caging dimensions for Loggerhead Shrikes held in short-term captivity. No wire may be used on raptor or passerine cages. Only individuals of the same species may share an enclosure, except accipiters, which should be housed separately.

Transfer to Permitted Falconers or Educational Facilities

When release to the wild is not feasible, such as when a previously captured bird returns to the capture site within the same year it was released, a bird may be transferred as non-releasable to an individual or entity authorized to receive live birds, such as for educational use or to a licensed falconer. Approval from your Migratory Bird Permit Office is required PRIOR to transferring birds. Birds transferred to licensed falconers or educational facilities must be reported on your Annual Report. The Annual Report must list the final disposition of transferred birds as "given to falconer" with the State Falconry Permit number, or "given to permitted educational institution" with the name of the institution. Transferred birds count toward the lethal take authorized under Condition A, as they are removed from the wild population. Contact your Migratory Bird Permit Office prior to placement to request authorization (contact information above Condition A).

(3) Nest Take. Viable eggs may be oiled, addled, or destroyed. Eggs must by oiled using only 100% corn oil, a substance exempt from regulation by the Environmental Protection Agency. Eggs may be addled in any humane manner (see 6 below). Nests, including viable eggs, may be destroyed by any humane method, provided they are completely destroyed and eggs and/or nests are not retained after destruction.

Report take as number of active nests (not number of eggs). Do not report inactive nests taken (nests with no viable eggs or chicks present). No federal authorization is required for the take of inactive migratory bird nests.

(4) Registered animal drugs (excluding nicarbazin), pesticides, and repellents. Must be humane and used in accordance with label instructions. Additional state and/or tribal authorization may be required for use.

(5) Falconry Abatement. Migratory birds may be killed by abatement falconry birds. Birds killed by falconry abatement count toward the lethal take authorized under Condition A. Additional state and/or tribal authorization may be required.

(6) Any live birds trapped or otherwise in-hand must be in humane and healthful conditions (50 CFR 13.41). Birds euthanized must follow the American Veterinary Medical Association Guidelines on Euthanasia (https://www.avma.org/resources-tools/avma-policies/avma-guidelines-euthanasia-animals).

C. **Sick, injured, or orphaned migratory birds.** You may possess and immediately transport any birds found sick, injured, or orphaned to a federally permitted rehabilitator or licensed veterinarian for care. You do not need to report these birds (50 CFR 21.31(a)). An individual bird that is severely injured due to an airstrike or other incident may be euthanized immediately. Healthy birds may not be admitted to rehabilitation facilities as per regulation 50 CFR 21.31. However, rehabilitation facilities may act as a subpermittee to care for healthy birds provided possession remains under the depredation permit. The permittee is ultimately responsible for healthy birds possessed under this depredation permit, even while under the care of entities which have their own federal permits.

Injured birds should be placed either in a secure cardboard box with ventilation holes or in a pet carrier having newspaper/imitation turf/baby blanket (non-loop material) lining with the carrier covered by a cloth and must be transferred immediately to a federally permitted migratory bird rehabilitator or licensed veterinarian for care at the permittee's expense.

D. **Salvage**. You are authorized to salvage and temporarily possess migratory birds found dead. Salvaged birds must be disposed of as described in Condition E below within 6 months of salvage. Before you salvage any bird killed by suspected illegal activity, you must first contact the U.S. Fish and Wildlife Service Office of Law Enforcement (OLE) for authorization to salvage that bird. See FWS OLE contact information below.

Any dead bald eagle or golden eagle salvaged must be reported within 48 hours to your local U.S. Fish and Wildlife Service Office of Law Enforcement (contact information below) and to your migratory bird permit issuing office (contact information above Condition A). After clearance from OLE, contact the National Eagle Repository at (303) 287-2110 for shipment directions of these specimens.

E. **Disposition of dead migratory birds.** Migratory birds, nests, or eggs taken under this permit must be disposed of by one of the following:

(1) Donated to an individual or entity authorized by permit or regulation to receive donated birds (i.e. scientific, educational, or tribal use);
(2) Completely destroyed in accordance with local laws and ordinances;
(3) Retained for diagnostic or personnel training purposes;
(4) Retained and used as effigies; or
(4) If the species is a migratory game bird and suitable for consumption, donated to a public charity.

F. **Reporting.**

Immediate Notification. You must immediately notify your Migratory Bird Permit Office at the contact information above Condition A about:

(1) Emergency Take (Condition A(4))
(2) Salvage of eagles (Condition D)
(3) Report any bird killed or injured during trapping operation (Condition B(2))

Annual Report. You must submit an annual report (Form 3-202-9). You must report take by species (e.g. ring-billed gull, Canada goose) and method (e.g. kill, nest take, trap-release, trap-relocate, DRC-1339).

A summary of additional Annual Report requirements described above is included here for reference:

(1) Report any bird killed or injured during trapping operations (in addition to reporting within 72 hours).
(2) Report any bird held longer than 72 hours, including length of time held and justification.
(3) Report band numbers and auxiliary markers (if used) of trapped and relocated birds.
(4) Raptors transferred to licensed falconers or accredited AZA facilities with final disposition listed as "given to falconer" with the State Falconry Permit number, or "given to permitted educational institution" with the name of the institution.
(5) Provide the approximate distance between capture sites and release sites for each species. Also provide the number of each species that return to the site and a list of band numbers/auxiliary markers that were identified on returning individuals, if available. Provide the date, location, and band information on returning individuals, if known.
(6) Report any bird intentionally taken as a result of a severe injury caused by an airstrike or other incident.

G. **Subpermittees.** A subpermittee is an individual to whom you have provided written authorization to conduct some or all of the permitted activities in your absence. As the permittee, you are legally responsible for ensuring that your subpermittees are adequately trained and adhere to the terms of your permit. Subpermittees must be able to identify birds by species prior to take. The following subpermittees are authorized: **Designated employees of USDA/APHIS/Wildlife Services.**

In addition, any other person who is (1) employed by or under contract to you for the activities specified in this permit, or (2) otherwise designated a subpermittee by you in writing, may exercise the authority of this permit.

You and any subpermittees must carry a legible paper or electronic copy of this permit and display it upon request whenever you are exercising its authority. Subpermittees must be at least 18 years of age. You are responsible for maintaining current records of who you have designated as a subpermittee, including copies of any designation letters provided to individuals not named above.

H. You and any subpermittees must comply with the below Standard Conditions.

These standard conditions are a continuation of your permit conditions *and must remain with your permit*. These standard conditions are nationwide and may not be modified for individual permits.

1. All of the provisions and conditions of the governing regulations at 50 CFR part 13 and 50 CFR part 21.41 are conditions of your permit. Failure to comply with the conditions of your permit could be cause for suspension of the permit. If you have questions regarding these conditions, refer to the regulations or, if necessary, contact your migratory bird permit issuing office. For copies of the regulations and forms, or to obtain contact information for your issuing office, visit: http://www.fws.gov/migratorybirds/mbpermits.html.

2. General conditions set out in Subpart B of 50 CFR 13, and specific conditions contained in Federal regulations cited above, are hereby made a part of this permit. All activities authorized herein must be carried out in accord with and for the purposes described in the application submitted. Continued validity, or renewal of this permit is subject to complete and timely compliance with all applicable conditions, including the filing of all required information and reports.

3. The validity of this permit is also conditioned upon strict observance of all applicable foreign, state, local tribal, or other federal law.

4. Valid for use by permittee named above.

5. Explosive Pest Control Devices (EPCDs) are regulated by the Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF). If you plan to use EPCDs, you require a Federal explosives permit, unless you are exempt under 27 CFR 555.141. Information and contacts may be found at www.atf.gov/explosives/howto/become-an-fel.htm.

6. If you encounter a migratory bird with a Federal band issued by the U.S. Geological Survey Bird Banding Laboratory, Laurel, MD, report the band number to http://www.reportband.gov.

7. You are responsible for obtaining appropriate, prior, written landowner permission for activity (take or release) of any migratory birds, nests, or eggs on lands where you are not the landowner or custodian.

8. You must maintain records as required in 50 CFR 13.46 and 50 CFR 21.41. All records relating to the

permitted activities must be kept at the location indicated in writing by you to the migratory bird permit issuing office.

9. Acceptance of this permit authorizes the U.S. Fish and Wildlife Service to inspect any wildlife held, and to audit or copy any permits, books, or records required to be kept by the permit and governing regulations.

10. You may not conduct the activities authorized by this permit if doing so would violate the laws of the

applicable State, county, municipal or tribal government or any other applicable law.

For suspected illegal activity, immediately contact USFWS Law Enforcement 1-844-FWS-TIPS (397-8477)

Attachment 2

Biological Technical Report

April 2022

HELIX Environmental Planning

Ontario International Airport Rehabilitation of Runway 8R-26L and Associated Improvements

Biological Technical Report

April 2022 | 00343.00013.001

Prepared for:

HNTB Corporation
2900 South Quincy Street, Suite 600
Arlington, VA 22206

Prepared by:

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road, Suite 150
Irvine, CA 92618

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ACRONYMS AND ABBREVIATIONS

AMSL	above mean sea level
BUOW	Burrowing Owl
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
City	City of Ontario
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
DSFLF	Delhi Sands Flower-loving Fly
EPA	Environmental Protection Agency
FESA	Federal Endangered Species Act
HELIX	HELIX Environmental Planning, Inc.
I	Interstate
MBTA	Migratory Bird Treaty Act
MCV	A Manual of California Vegetation
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
OIAA	Ontario International Airport Authority
Project	Taxiway Improvements and South Electrical Vault Relocation
RPW	Relatively Permanent Water Body
RWQCB	Regional Water Quality Control Board
S	State
SFP	State Fully Protected
SAR HCP	Upper Santa Ana River Habitat Conservation Plan
SSC	Species of Special Concern

ACRONYMS AND ABBREVIATIONS (cont.)

TNW	Traditional Navigable Waters
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) completed this biological technical report for the Taxiway Improvements and South Electrical Vault Relocation Project (project), proposed by HNTB Corporation in the City of Ontario (City), San Bernadino County, California. HNTB Corporation is proposing rehabilitation and reconstruction of a runway, taxiway connector improvements, airfield improvements, construction of a batch plant, and the relocation of several project features on an approximately 424-acre study area. The study area is generally located south of Interstate (I-) 10 and west of I-15 in the City of Ontario.

The study area is in a highly developed landscape surrounded by residential and industrial uses. The topography within the study area is generally flat. Three drainage features were observed on the study area, which includes three concrete-lined channels (Cucamonga Creek Channel, Deer Creek Channel, and Western Cucamonga Creek Channel). The study area consists of ornamental, non-native vegetation/disturbed habitat, and urban/developed areas. The study area supports no native upland or riparian vegetation communities. HELIX conducted a general biological survey (including vegetation mapping and a general habitat assessment) and a jurisdictional assessment in January 2021.

A total of three vegetation communities were mapped on the study area. Native communities were not observed on-site, and no vegetation community is considered sensitive. No sensitive plant species were determined to have the potential to occur on the study area. One sensitive animal species was determined to have a low potential to occur on the study area: western mastiff bat [*Eumops perotis californicus*]). One species, burrowing owl (BUOW; *Athene cunicularia*), is presumed present, based on the species being observed on the study area in 2019 and 2020 (HELIX 2020). Burrowing owl are listed as state species of special concern. The study area supports a total of 2.54 acres of U.S. Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB) non-wetland waters of the U.S. and California Department of Fish and Wildlife (CDFW) jurisdictional streambed. No impacts will occur to protected trees that meet the City's definition of a parkway tree. The study area is not considered a regional wildlife corridor.

Potential significant impacts were identified for burrowing owl, Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), and nesting bird species. Permanent impacts are proposed to approximately 423.28 acres of developed and disturbed/non-native vegetation. The project would not impact any USACE, RWQCB, or CDFW jurisdictional wetlands, or non-wetland waters. The project would not remove any protected trees. The proposed project would not impact wildlife corridors or conflict with regional conservation plans.

Measures related to the following topics are proposed herein to fully mitigate the potential impacts of the project: burrowing owl, Delhi Sands flower-loving fly, and nesting birds. Successful implementation of these measures would mitigate potential impacts to below a level of significance.

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1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report provides the City of Ontario (City), Ontario International Airport Authority (OIAA; California Environmental Quality Act [CEQA] lead agency), resource agencies, and the public with current biological data required to review the potential impacts of the proposed Taxiway Improvements and South Electrical Vault Relocation Project (project) located in the City of Ontario, San Bernardino County, California. The purpose of this report is to document the existing biological conditions on and in the immediate vicinity of the project and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resource information necessary for project review under CEQA.

1.2 PROJECT LOCATION

The approximately 424-acre study area is in the City of Ontario, San Bernardino County, California. It is generally located south of Interstate (I-) 10 and west of I-15 (Figure 1, *Regional Location*). The study area is located within Section 25 of Township 1 South, Range 7 West of the Guasti, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the study area is located to the northwest of the intersection of South Haven Avenue and Jurupa Street; to the southwest of the intersection of East Airport Drive and South Haven Avenue; to the southeast of the intersection of South Grove Avenue and East Airport Drive; and to the northeast of the intersection of South Grove Avenue and East Mission Boulevard (Figure 3, *Aerial Photograph*).

1.3 PROJECT DESCRIPTION

The proposed project focuses on the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation of several objects outside of the Runway Safety Area and/or Runway Object Free Area, and the relocation of the south electrical vault. The proposed project will also include a batch plant south of the airport, south of East Avion Street (Figure 4, *Site Plan*).

2.0 METHODS

Project evaluation included a review of project plans; a literature review of biological resources occurring on the study area and the surrounding vicinity; a general biological survey, including vegetation mapping and a general habitat assessment; and a jurisdictional assessment. The methods used to evaluate the biological resources present on the study area are discussed in this section.

2.1 NOMENCLATURE

Nomenclature for this report follows Baldwin et al. (2012) for plants. Plant communities were classified in accordance with Holland (1986) and Oberbauer (2008), with additional vegetation community information taken from Manual of California Vegetation, Second Edition (MCV; Sawyer et al. 2009). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, Center for North American Herpetology (Taggart 2016) for reptiles and amphibians, American Ornithological Society (2021) for

birds, and Baker et al. (2003) for mammals. Rare plant and sensitive animal statuses are from the Inventory of Rare and Endangered Plants of California (California Native Plant Society [CNPS] 2021b) and the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2021a). Rare plant species' habitats and flowering periods are from the Jepson Manual (Baldwin et al. 2012), the Inventory of Rare and Endangered Plants of California (CNPS 2021b), and the California Natural Diversity Database (CDFW 2021a). Soil classifications were obtained from the Web Soil Survey (Natural Resources Conservation Service [NRCS] 2021).

2.2 LITERATURE REVIEW

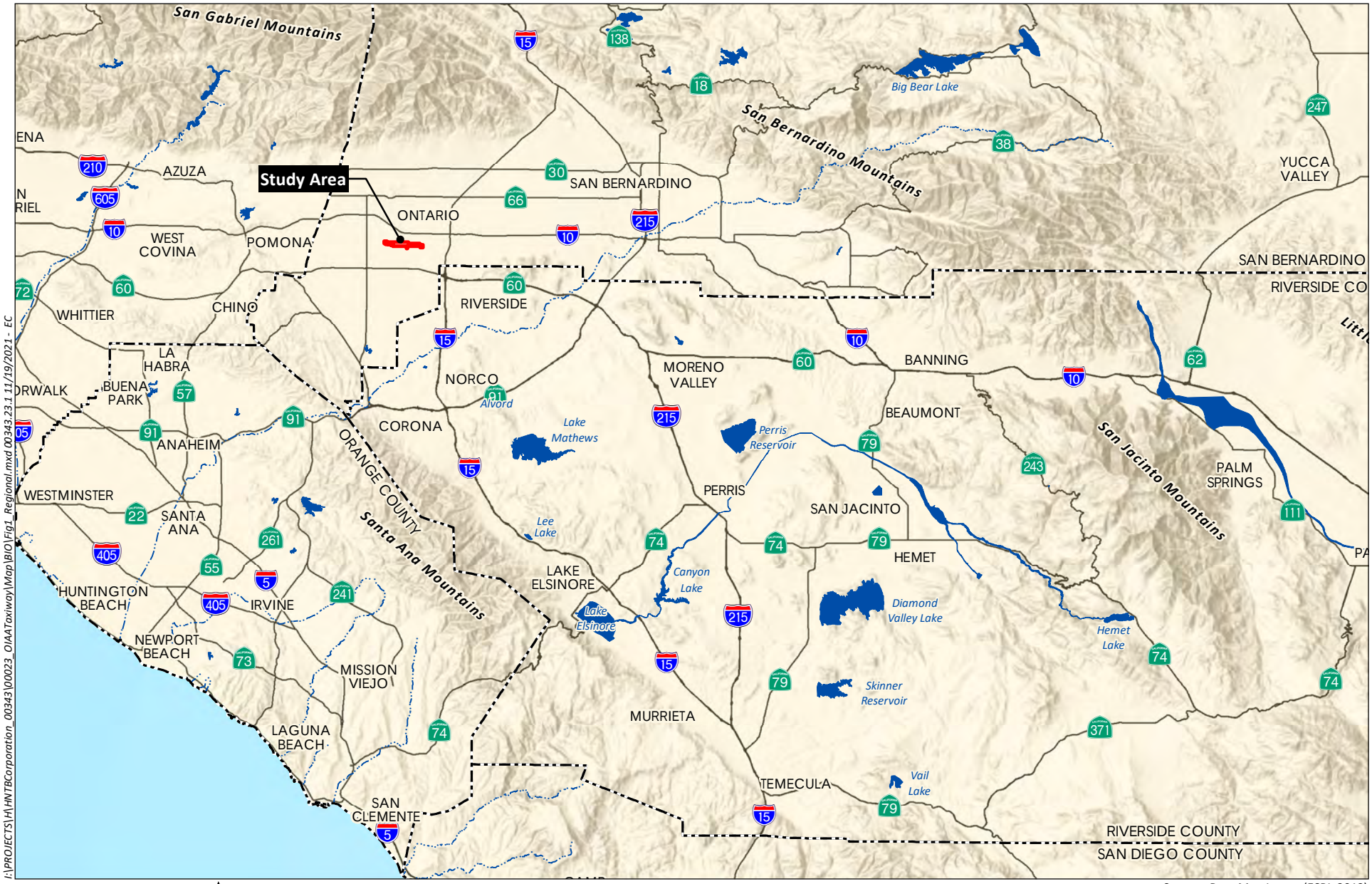
Prior to conducting the site visit, HELIX Environmental Planning, Inc. (HELIX) reviewed regional planning documents, Google Earth aerials (2021), Web Soil Survey (NRCS 2021), and sensitive species database records, including the Inventory of Rare and Endangered Plants of California (CNPS 2020b), CNDDB (CDFW 2021a), and critical habitat maps for endangered and threatened species (U.S. Fish and Wildlife Service [USFWS] 2021a). A one-quadrangle database search was conducted on CNDDB and CNPS, which consisted of the Guasti quadrangle.

2.3 FIELD SURVEYS

Field surveys were conducted to document the existing condition of the study area and surrounding lands. A general biological survey and habitat assessment were conducted on the study area to map existing vegetation communities and to determine habitat suitability for sensitive plant and animal species. A list of plant and animal species observed and/or detected during the field surveys are provided as Appendix A, *Plant Species Observed*, and Appendix B, *Animal Species Observed or Detected*. Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the list of animal species identified is not necessarily a comprehensive account of all species that use the study area as species that are nocturnal, secretive, or seasonally restricted may not have been observed. A habitat assessment for Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*; DSFLF) and a habitat assessment for burrowing owl (BUOW; *Athene cunicularia*) were conducted. A jurisdictional assessment was also conducted to determine the existing jurisdictional limits regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW.

2.3.1 General Biological Survey

HELIX Biologist and Regulatory Specialist Ezekiel Cooley conducted a general biological survey of the study area on January 12, 2021. Vegetation communities were classified and mapped in accordance with Holland (1986) and Oberbauer (2008). Vegetation was mapped on a 125-foot (1 inch = 125 feet) aerial photograph of the site. Vegetation communities were mapped by HELIX to one-hundredth of an acre (0.01 acre). The entire site was surveyed on foot with the aid of binoculars. Representative photographs of the site were taken, with select photographs included in this report as Appendix C, *Representative Site Photographs*. Plant and animal species observed or otherwise detected were recorded in a field notebook. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs. The DSFL habitat assessment consisted of performing a pedestrian survey within all areas that supported Delhi Fine Sand soils and all adjacent soils to determine if the soils provide suitable habitat for DSFL. A BUOW habitat assessment was conducted by a qualified biologist to determine whether the project site supports suitable BUOW



Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1

Study Area

0 2,000 Feet

Source: ONTARIO & GUASTI 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2

Study Area

S. VINEYARD AVE
E. HOLT BLVD
E. AIRPORT DR
S. GROVE AVE
ONTARIO
ALERE
MISSION BLVD
S. TOWER DR
JURUPA ST
S. ARCHIBALD AVE

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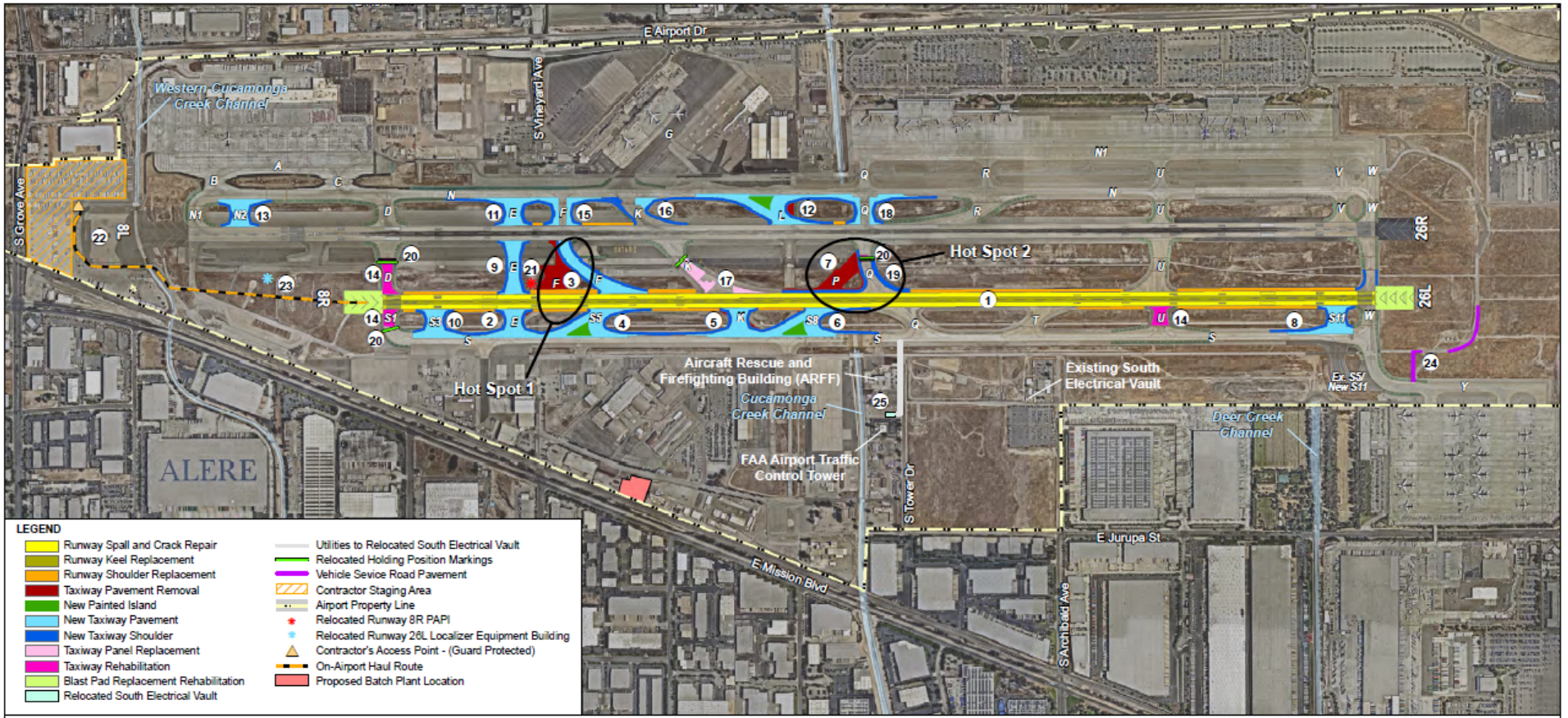
0 1,000 Feet

Source: Aerial (San Bernardino County, 2020)

HELIX Environmental Planning

Aerial Photography

Figure 3



PROPOSED PROJECT ELEMENTS

(1) REHABILITATE RUNWAY 8R-26L
(2) MODIFY EXISTING CONNECTOR TAXIWAY F AND REDESIGNATE AS TAXIWAY E
(3) REMOVE EXISTING TAXIWAY F BETWEEN RUNWAYS 8L-26R AND 8R-26L AND CONSTRUCT NEW EXIT TAXIWAY F
(4) CONSTRUCT EXIT TAXIWAY S5
(5) RECONSTRUCT EXISTING EXIT TAXIWAY K
(6) RECONSTRUCT EXISTING EXIT TAXIWAY P TO A HIGH-SPEED EXIT AND REDESIGNATE AS TAXIWAY S8
(7) REMOVE EXISTING TAXIWAY P BETWEEN RUNWAYS 8L-26R AND 8R-26L
(8) CONSTRUCT BYPASS TAXIWAY S11
(9) CONSTRUCT CROSSING TAXIWAY E BETWEEN RUNWAYS 8R-26L AND 8L-26R
(10) CONSTRUCT BYPASS TAXIWAY S3
(11) CONSTRUCT CROSSING TAXIWAY E BETWEEN RUNWAYS 8L-26R AND TAXIWAY N
(12) RECONSTRUCT EXISTING TAXIWAY L AS A HIGH-SPEED EXIT TAXIWAY
(13) CONSTRUCT BYPASS TAXIWAY N2
(14) RESURFACE TAXIWAY D, TAXIWAY S1 AND TAXIWAY U PAVEMENT
(15) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY F BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(16) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY K BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(17) REPLACE/REHABILITATE PANELS ON TAXIWAY K BETWEEN RUNWAYS
(18) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY Q BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(19) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY Q BETWEEN RUNWAYS
(20) RELOCATE HOLDING POSITION MARKINGS*
(21) RELOCATE RUNWAY 8R PAPI
(22) RELOCATE PERIMETER FENCE AND REMOVE OBJECTS WITHIN ROFA
(23) RELOCATE RUNWAY 26L (8R END) LOCALIZER EQUIPMENT BUILDING
(24) MODIFY EXISTING VEHICLE SERVICE ROAD
(25) RELOCATE SOUTH ELECTRICAL VAULT

* DEPICTED IN MULTIPLE LOCATIONS

ONT ONTARIO INTERNATIONAL AIRPORT
REHABILITATION OF RUNWAY 8R-26L AND ASSOCIATED IMPROVEMENTS
SUPPLEMENTAL EIR

0 250 500 1,000 Feet

N

HNTB

Proposed Project

Sources: OIAA, Nearmap, HNTB Analysis

HELIX Environmental Planning

Site Plan

Figure 4

habitat, including disturbed, low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover), gently rolling or level terrain, areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows, fence posts, rocks, or other low perching locations, and artificial structures, such as earthen berms, debris piles, and cement culverts.

2.3.2 Jurisdictional Assessment

Prior to beginning fieldwork, aerial photographs (1 inch = 75 feet), topographic maps (1 inch = 75 feet), USGS quadrangle maps, and National Wetlands Inventory maps (USFWS 2021b), were reviewed to assist in determining the location of potential jurisdictional waters on the study area. Mr. Cooley conducted the jurisdictional assessment fieldwork on January 12, 2021 (HELIX 2021). The assessment was conducted to identify and jurisdictional waters potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), RWQCB jurisdiction pursuant to Section 401 of the CWA, and streambed habitats potentially subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game (CFG) Code. Data collection was targeted in areas deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark (OHWM), the presence of a bed/bank and streambed associated vegetation, and/or other surface indications of streambed hydrology. The findings of the jurisdictional assessment are included as Appendix D, *Jurisdictional Delineation Memo*.

2.3.2.1 U.S. Army Corps of Engineers

The USACE waters of the U.S. were determined using current USACE guidelines (Environmental Laboratory 1987, USACE 2008a). Areas were determined to be waters of the U.S. if there was evidence of regular surface flow (e.g., bed and bank). Jurisdictional limits for these areas were measured according to the presence of a discernible OHWM, which is defined in 33 Code of Federal Regulations Section 329.11 as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas." The USACE has issued further guidance on the OHWM (Riley 2005; USACE 2008b), which also was considered in this jurisdictional assessment.

The jurisdictional delineation was conducted in accordance with court decisions (i.e., Rapanos v. United States, Carabell v. United States, and Solid Waste Agency of Northern Cook County v. USACE), as outlined and applied by the USACE (USACE 2007; USACE 2015; Grumbles and Woodley 2007); and the USACE and U.S. Environmental Protection Agency (USACE and EPA; 2007). These publications explain that the EPA and USACE will assert jurisdiction over traditional navigable waters (TNW) and tributaries to TNWs that are a relatively permanent water body (RPW), which has year-round or continuous seasonal flow. For water bodies that are not RPWs, a significant nexus evaluation is used to determine if the non-RPW is jurisdictional. As an alternative to the significant nexus evaluation process, a preliminary jurisdictional delineation may be submitted to the USACE. The preliminary jurisdictional delineation treats all waters and wetlands on a site as if they are jurisdictional waters of the U.S. (USACE 2008a). A significant nexus evaluation or preliminary jurisdictional delineation are typically only required for projects that propose impacts to potentially jurisdictional features and, therefore, require a Section 404 permit from the USACE.

2.3.2.2 Regional Water Quality Control Board

The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. Potential RWQCB jurisdiction found within the study area follows the boundaries of potential USACE jurisdiction for waters of the U.S. There are no areas supporting isolated waters of the State subject to exclusive RWQCB jurisdiction pursuant to the State Porter-Cologne Water Quality Control Act.

2.3.2.3 California Department of Fish and Wildlife

The CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow, if present. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses with surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Jurisdictional limits for CDFW streambeds were defined by the top of bank. Vegetated CDFW habitats were mapped at the limits of streambed-associated vegetation, if present.

3.0 RESULTS

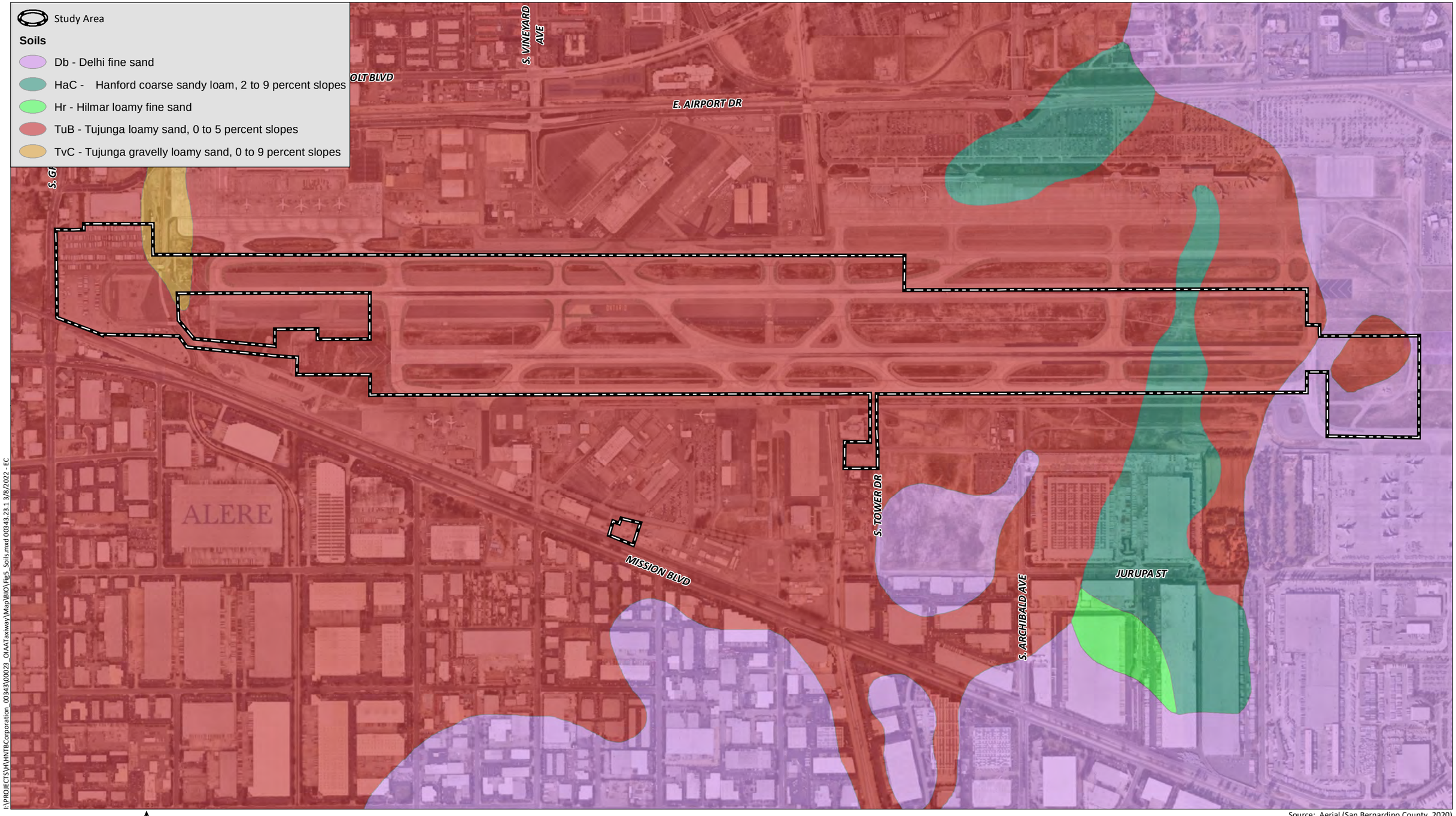
3.1 ENVIRONMENTAL SETTING

The study area is in the City of Ontario. Topographically, the site consists of a large, relatively flat, open area in a highly developed landscape. Three concrete channels run north to south, through the east, center, and western portions of the site. The drainage features observed within the study area (Deer Creek, Cucamonga Creek Channel, and West Cucamonga Creek Channel) coalesce into Cucamonga Creek, and eventually drain into the Santa Ana River to the south. Elevations on the study area range from 900 feet (247 meters) above mean sea level (AMSL) within the northeastern portion to 935 feet (284 meters) AMSL along the southwestern portion. The remainder of the study area consists of developed, disturbed, and ornamental habitat. Six soil types are mapped on the study area and shown on Figure 5, *Soils*, including Delhi fine sand (Db), Hanford coarse sandy loam (HaC, 2 to 9 percent slopes), Hilmar loamy fine sand (Hr), Tujunga loamy sand (TuB, 0 to 5 percent slopes), and Tujunga gravelly loamy sand (TvC, 0 to 9 percent slopes) (NRCS 2021).

Immediate land uses surrounding the study area primarily include industrial and commercial uses (Figure 3). The airport is located approximately 0.25 mile south of the I-10 freeway.

3.2 VEGETATION COMMUNITIES

The study area supports three vegetation communities, which are shown on Figure 6, *Vegetation and Sensitive Resources*, and listed in Table 1, *Vegetation Communities*. Plant communities are classified in accordance with Holland (1986) and Oberbauer (2008). Community names consistent with A Manual of California Vegetation, Second Edition (MCV; Sawyer et al. 2009) are also provided. Sensitive habitats pursuant to CDFW's Natural Communities List (CDFW 2021b) were not observed on-site.



Source: Aerial (San Bernardino County, 2020)

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HELIX Environmental Planning

Soils

Figure 5

Source: Aerial (San Bernardino County, 2020)

HELIX Environmental Planning

Vegetation and Sensitive Resources

Figure 6

Table 1
VEGETATION COMMUNITIES

Habitat Type (Holland/Oberbauer)	Habitat Type (MCV)[1]	Acres
Developed	N/A	290.33
Disturbed/Non-native Vegetation	N/A	132.95
Ornamental	N/A	0.63
	TOTAL	**423.91**

[1] Manual of California Vegetation

3.2.1 Developed

Developed land consists of areas where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained. Within the study area, developed land consists of runways, paved roads, buildings, and other impervious surfaces, and covers approximately 290.33 acres.

3.2.2 Disturbed

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or actively maintained, or heavily disturbed areas that are mostly unvegetated but may support scattered non-native plant species, such as ornamentals or ruderal exotic species that take advantage of disturbance. Disturbed habitat is similar to the vegetation community non-native vegetation, except disturbed habitat generally supports little to no vegetative cover.

Disturbed habitat was observed throughout the study area and was dominated by ripgut brome (*Bromus diandrus*), Mediterranean grass (*Schismus barbata*), and foxtail brome (*Bromus madritensis*), as well as several non-native forbs, and totals approximately 132.95 acres. This area is frequently mowed by the airport.

3.2.3 Ornamental

The ornamental vegetation community is typically associated with land that has been heavily influenced by human activities, including areas adjacent to roads, manufactured slopes, and abandoned lots. This non-native community is dominated by ornamental and non-native species that take advantage of previously cleared or abandoned landscaping, or land with past or present animal usage that prevents it from providing viable habitat for native vegetation.

Ornamental vegetation was observed along the western portion of the study area adjacent to South Grove Avenue, and totals 0.63 acre. The area was dominated by jacaranda (*Jacaranda* sp.) and myoporum (*Myoporum* sp.).

3.3 PLANTS

HELIX identified a total of 12 plant species within the study area during surveys to date, of which 11 (92 percent) are non-native species (Appendix A).

3.4 ANIMALS

A total of 12 animal species were identified on the study area during biological surveys, including 11 bird species and one reptile species (Appendix B). Common mammal species expected to use the study area include species, such as California ground squirrel (*Otospermophilus beecheyi*).

3.5 SENSITIVE BIOLOGICAL RESOURCES

3.5.1 Rare Plant Species

Rare plant species are uncommon or limited in that they: (1) are only found in a particular region; (2) are a local representative of a species or association of species not otherwise found in the region; or (3) are in severe decline within their ranges or within the region. Rare plant species include those species listed by CNPS with a California Rare Plant Rank (CRPR) of 1, 2, or 3 or federally and state listed endangered and threatened species. Species with a CRPR of 4 may be considered rare if a population is locally uncommon, at the periphery of the species' range, sustained heavy losses, shows unusual morphology, or occurs on unusual substrates (CNPS 2021a).

Eight rare plant species were recorded within the Guasti database search conducted on CNDDB (CDFW 2021a) and CNPS (2021b). These species are included in Appendix E, *Rare Plant Species Potential to Occur.* None of the eight species have the potential to occur on the study area based on the lack of suitable habitat and high level of disturbance within the study area.

3.5.2 Sensitive Animal Species

Sensitive wildlife species are those listed or candidate-listed as federally threatened or endangered by USFWS; and/or state listed or candidate-listed as threatened or endangered or considered Species of Special Concern (SSC) by CDFW.

The study area is located outside of any USFWS-designated critical habitat. The critical habitat closest to the study area is for coastal California gnatcatcher (*Polioptila californica californica*) and occurs over five miles to the southeast of the study area. Sixteen sensitive animal species were recorded within the Gausti quadrangle database search conducted on CNDDB (CDFW 2021). These species are included in Appendix F, *Sensitive Animal Species Potential to Occur.* An evaluation of each sensitive animal species' potential to occur on the study area is also provided in Appendix F and discussed in further detail below.

Present

BUOW is listed as a state SSC. This species is associated with grasslands, open scrublands, agricultural fields, and other areas where there are small mammal burrows and prey available. BUOWs have been observed on and adjacent to the study area during non-breeding season focused surveys performed in 2019/2020 within the study area (HELIX 2020; Appendix G).

Study Area

BUOW Observations

- Active Burrow
- BUOW Sign
- Occupied Burrow
- Suitable Burrow
- 2019/2020 Non-Breeding Season BUOW Observations

S. VINEYARD AVE
HOLT BLVD
E. AIRPORT DR
S. GROVE AVE
ONTARIO
ALERE
MISSION BLVD
S. TOWER DR
JURUPA ST
S. ARCHIBALD AVE

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0 1,000 Feet

Source: Aerial (San Bernardino County, 2020)

HELIX Environmental Planning

2018-2020 Nearby BUOW Survey Results

Figure 7

Potential to Occur

Of the 16 sensitive animal species recorded within the vicinity of the study area, two species were considered to have the potential to occur. One species was determined to have a low potential to occur on the study area based on the presence of low-quality habitat and lack of recent observations within the immediate vicinity of the study area: western mastiff bat (*Eumops perotis californicus*), which is a state SSC.

One additional species, DSFLF, has a moderate potential to occur based on a habitat assessment performed in December 2021, combined with negative survey results for the species, conducted in 2019 and 2020 adjacent to the study area (Osborne 2020). Focused surveys for DSFLF are recommended based on the results of a habitat assessment conducted in 2021.

No Potential to Occur

Twelve species (southern California legless lizard [*Anniella stebbinsi*], California glossy snake [*Arizona elegans occidentalis*], coast horned lizard [*Phrynosoma blainvillii*], tricolored blackbird [*Agelaius tricolor*], California black rail [*Laterallus jamaicensis coturniculus*], coastal California gnatcatcher [*Polioptila californica*], northwestern San Diego pocket mouse [*Chaetodipus fallax fallax*], San Bernardino kangaroo rat [*Dipodomys merriami parvus*], Stephens' kangaroo rat [*Dipodomys stephensi*], western yellow bat [*Lasiurus xanthinus*], San Diego desert woodrat [*Neotoma lepida intermedia*], and Los Angeles pocket mouse [*Perognathus longimembris brevinasus*]) have no potential to occur on the study area due to lack of suitable habitat.

Crotch's bumble bee (*Bombus crotchii*), a state endangered candidate, is not expected to occur due to lack of suitable habitat and nectar sources, although transient individuals moving through the region may occasionally occur within the study area.

3.5.3 Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are considered either rare within the region, or sensitive by CDFW (2021b). Communities are given a Global and State (S) ranking on a scale of 1 to 5. Communities afforded a rank of 5 are most common, while communities with a rank of 1 are considered highly periled. CDFW considers sensitive communities as those with a rank between S1 and S3.

No sensitive plant communities were observed or mapped within the study area.

3.5.4 Jurisdictional Waters and Wetlands

Three drainages, Cucamonga Creek Channel, Deer Creek Channel, and Western Cucamonga Creek Channel were observed on the study area (Figure 8, *Jurisdictional Features*; Table 2, *Existing Jurisdictional Features*). A brief description of each drainage is provided below.

Table 2
EXISTING JURISDICTIONAL FEATURES

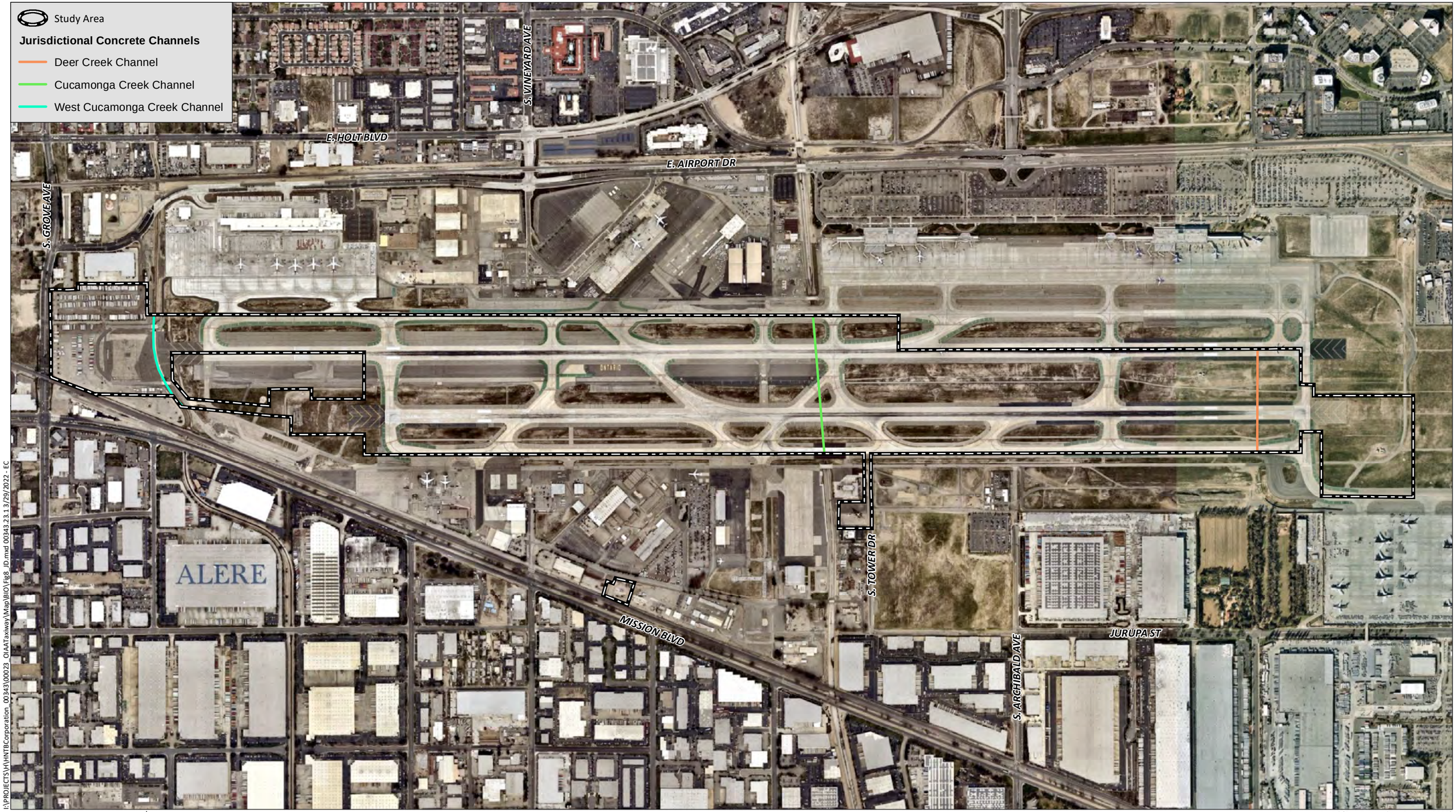
Feature	Linear Feet	Acres
Cucamonga Creek Channel	1,536	1.44
Deer Creek Channel	1,136	0.32
Western Cucamonga Creek Channel	1,114	0.78
TOTAL	**3,786**	**2.54**

3.5.4.1 Cucamonga Creek Channel

Cucamonga Creek Channel is a concrete rectangular channel that runs north to south through the center of the study area and is considered a USACE public works facility. Based on the USGS Guasti quadrangle map, the headwaters of Cucamonga Creek originate approximately seven miles to the north of the study area at the base of Cucamonga Peak in the San Gabriel Mountains, where it occurs as a natural soft-bottomed creek. Cucamonga Creek generally flows south through Cucamonga Canyon and becomes channelized once it exits the San Gabriel Mountains. Cucamonga Creek Channel flows enter the study area near the northern boundary, south of Airport Drive. The channel continues for approximately 0.4 mile through the center of the site, flowing underneath the airport taxiway and resurfacing to the south of the taxiway. The channel exits the study area near the southern boundary of the site, just north of Avion Street. After exiting the study area, Cucamonga Creek Channel flows south for 11 miles and becomes soft-bottomed, just prior to meeting the Santa Ana River at the Prado Flood Control Basin in Riverside County. The Santa Ana River ultimately drains into the Pacific Ocean approximately 35 miles to the southwest of the study area. Soils within Cucamonga Creek Channel on the study area are mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 5). However, native soils are no longer present in Cucamonga Creek Channel due to the concrete channelization of the creek.

3.5.4.2 Deer Creek Channel

Deer Creek Channel is a concrete, rectangular channel that runs north to south along the eastern study area boundary. Based on the USGS Guasti quadrangle map, the headwaters of Deer Creek originate approximately seven miles to the northeast of the study area at the base of Cucamonga Peak in the San Gabriel Mountains, where it occurs as a natural soft-bottomed creek. Deer Creek generally flows south through Deer Canyon and becomes channelized once it exits the San Gabriel Mountains. The channel likely collects sheet flow from impervious surfaces in the surrounding area and storm drains that empty into the channel. The majority of flows within Deer Creek Channel empty into Cucamonga Creek Channel near Turner Basin, approximately one mile north of the study area. Some water is diverted into the channel within the historic flow path of Deer Creek, which flows south from Turner Basin as a mostly natural streambed until it reaches Airport Drive. Deer Creek flows underneath the airport and enters and exits the study area as an underground channel. Deer Creek continues south as an underground channel and surfaces as a concrete trapezoidal channel just north of State Route 60, approximately 1.6 miles to the south of the study area. The channel continues southwest as Lower Deer Creek Channel for approximately 2.1 miles, ultimately draining into Cucamonga Creek Channel. Soils within Deer Creek Channel on the study area are mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 5). However, native soils are no longer present in Deer Creek Channel due to the concrete channelization of the creek.



Source: Aerial (San Bernardino County, 2020)

HELIX Environmental Planning

Jurisdictional Features

Figure 8

3.5.4.3 Western Cucamonga Creek Channel

Western Cucamonga Channel is a concrete, rectangular channel that runs north to south along the western study area boundary. Western Cucamonga Creek Channel originates from percolating basins located where Cucamonga Creek exits Cucamonga Canyon, approximately six miles to the northwest of the study area. The channel likely collects sheet flow from impervious surfaces in the surrounding area as well as water collected in the 8th Street storm drains. Western Cucamonga Creek Channel flows mostly underground until it reaches the 8th Street Basins. The channel continues south from the basins as an above-ground rectangular concrete channel. The channel passes through the Princeton Basin and continues five miles south until it reaches the northwestern boundary of the study area. The channel flows along the western boundary and exits near the southwest corner. After exiting the site, the channel continues south through the Ely Basins and connects with Cucamonga Creek Channel, approximately seven miles south of the study area. Soils within Western Cucamonga Creek Channel within the study area are primarily mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 5). However, native soils are no longer present in Western Cucamonga Creek Channel due to the concrete channelization of the creek.

3.5.5 Habitat and Wildlife Corridor Evaluation

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Local wildlife corridors allow animals access to resources such as food, water, and shelter within the framework of their daily routine. Animals use these corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations.

Regionally, the study area is situated within a highly developed landscape. The study area is surrounded by residential housing and industrial uses, such as warehouses and roadways. There are no large swaths of native habitat adjacent to the Ontario International Airport. The site itself is dominated by developed and disturbed habitat, which provides very limited resources to locally common wildlife. The airport is entirely fenced for human health and safety. Despite offering a somewhat open area within a developed landscape, access to the site may be limited to birds, small mammals, or reptiles able to access the study area despite the fencing. Trees occur within the study area, which may provide habitat for nesting birds or a stopover during migration.

As previously described, corridors can be local or regional in scale. The study area is not considered a regional corridor since it does not directly connect two or more large blocks of habitat that would otherwise be fragmented or isolated from one another. Development of the project would not impede wildlife access to other undeveloped land in the region since the study area is located within an area of existing development. The nearest wildlife movement corridor to the study area identified by the South Coast Missing Linkages Project is the San Gabriel – San Bernardino Connection, located approximately seven miles to the north of the study area (South Coast Wildlands 2008).

The study area is not considered a regional wildlife movement corridor as the study area does not support habitat suitable for local wildlife movement. Bird species may fly over the surrounding development to nest and/or forage within the study area. As discussed above, the study area supports

marginal habitat and has very limited opportunities for local wildlife to forage. It does not function as a wildlife corridor since it does not directly connect to two or more blocks of large habitat.

4.0 REGIONAL AND REGULATORY CONTEXT

Biological resources located within the study area are subject to regulatory review by federal, state, and local agencies. Biological resources-related laws and regulations that apply to the project include the Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, California Endangered Species Act (CESA), and CFG Code.

4.1 FEDERAL REGULATIONS

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species and their habitats, identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. A biological assessment is required for any major construction activity if it may affect a listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species' use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows the issuance of permits for "incidental" take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to, and not the purpose of, an otherwise lawful activity.

4.1.2 Federal Clean Water Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling waters of the U.S., including wetlands and vernal pools, is overseen by USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. Individual Permits typically require substantial time (often longer than six months) to review and approve, while Nationwide Permits are pre-approved if a project meets the appropriate conditions. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board, must be issued prior to any 404 Permit.

4.1.3 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season, which is generally defined as February 15 to August 31 for songbirds. In addition, the USFWS commonly places restrictions on the disturbances allowed near active raptor nests, which the nesting season is generally defined as January 15 to August 31.

4.1.4 Critical Habitat

As described by the FESA, critical habitat is the geographic area occupied by a threatened or endangered species essential to species conservation that may require special management considerations or protection. Critical habitat also may include specific areas not occupied by the species but determined to be essential for species conservation.

The study area is located outside of any USFWS-designated critical habitat. The nearest critical habitat is for the coastal California gnatcatcher and occurs over five miles to the southeast of the study area.

4.2 STATE REGULATIONS

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated because of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The CESA is similar to the FESA in that it contains a process for the listing of species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. For example, the golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*) are considered State Fully Protected (SFP) species. An SFP species may not be taken or possessed at any time, and no state licenses or permits may be issued for their take except for collecting the species necessary for scientific research and relocation of the bird species for the protection of livestock (Fish and Game Code Sections 3511, 4700, 5050, and 5515).

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates the collection, transport, and commerce of plants that are listed. The CESA followed the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the CESA.

Rare plant species are those listed or candidate-listed as federally threatened or endangered by the USFWS; State listed as threatened or endangered or considered rare by the CDFW; and/or are CNPS

CRPR List 1A, 1B, 2A, 2B, or 3 species, as recognized in the CNPS's Inventory of Rare and Endangered Vascular Plants of California.

4.2.3 California Fish and Game Code

4.2.3.1 Protection of Raptor Species

Raptors (birds of prey) and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

4.2.3.2 Streambed Alteration Agreement

The CFG Code (Section 1600 et seq.) requires an agreement with the CDFW for projects affecting riparian and wetland habitats through the issuance of a Streambed Alteration Agreement.

4.3 LOCAL REGULATIONS

4.3.1 Parkway Tree Protection

Title 10, Chapter 2 of the City of Ontario's Municipal Code protects parkway trees, which are defined as trees located on any public street right-of-way between the right-of-way boundary line and the curbline, and also the area enclosed within the curblines of a median divider. Although trees occur within the study area, none are proposed for removal as part of the project. If the project proposes impacts to City parkway trees, authorization from the City and replacement of removed trees may be required.

5.0 PROJECT EFFECTS

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes, and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

The significance of impacts to biological resources present, or those with the potential to occur, was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact would be significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally stable population in the region but declining elsewhere) could sustain some impact with a less than significant effect.

5.1 SENSITIVE SPECIES

5.1.1 Rare Plant Species

No Impacts

No rare plant surveys were performed since no rare plant species have a potential to occur on the project site. Additionally, none have been previously documented within the study area based on CNDDB and CNPS database review. Due to the high-level of disturbance within the study area, habitat suitable to support rare plant species was not present and none were observed during a recent survey conducted by Ezekiel Cooley on January 12, 2021. Therefore, the project is not expected to impact any rare plant species.

5.1.2 Sensitive Animal Species

Less than Significant Impacts with Mitigation Incorporated

Of the 16 sensitive animal species recorded within the vicinity of the study area, 14 species were determined to have no potential to occur due to lack of suitable habitat, and/or these areas are located outside of the species' known geographical range (Appendix F). One species (BUOW) is considered present based on positive focused non-breeding season surveys. To prevent direct and indirect impacts to BUOW, Mitigation Measure BIO-1 will be implemented as part of the project. Of the remaining two species, one species has a low potential to occur, and one species has a moderate potential to occur. These species are discussed in greater detail below.

Low Potential Species

One species, western mastiff bat was determined to have a low potential to occur on the study area based on the presence of low-quality habitat, and lack of recent observations within the project vicinity. Western mastiff bat is a state SSC. The study area lacks suitable rock slabs and cliff faces for this species to roost, although open areas within the study area may potentially provide suitable foraging habitat. Since the study area supports limited habitat for this species, the project would not result in a significant impact to this species as suitable foraging habitat is located to the east and south of the study area.

Moderate Potential Species

One species, DSFLF, was determined to have a moderate potential to occur within the study area based on a habitat assessment conducted in December 2021 (Osborne, *personal communication*). To prevent direct and indirect impacts to DSFLF, Mitigation Measure BIO-3 will be implemented as part of the project.

5.2 SENSITIVE VEGETATION COMMUNITIES

5.2.1 California Department of Fish and Wildlife Sensitive Vegetation Communities/Habitats

No Impacts

The study area supports developed, disturbed, and ornamental habitat. None of these vegetation communities or habitats are considered sensitive by CDFW. Impacts to these communities are not considered sensitive and do not require mitigation. Therefore, no impacts to sensitive communities will occur as a result of the project (Figure 9, *Impacts to Vegetation*; Table 3, *Impacts to Vegetation Communities*).

Table 3
IMPACTS TO VEGETATION COMMUNITIES

Habitat Type	Existing (acres)	Permanent Impacts (acres)
Developed	290.33	290.33
Disturbed	132.95	132.95
Ornamental	0.63	0.00
Total	**423.91**	**423.28**

5.2.2 California Department of Fish and Wildlife Riparian Habitat and Streambed

No Impacts

Based on the results of the jurisdictional delineation, Cucamonga Creek Channel, Deer Creek Channel, and West Cucamonga Creek Channel are considered non-wetland waters under CDFW jurisdiction (Figure 8). These jurisdictional features are underground through the extent of the study area.

The project will not result in any impacts to the Cucamonga Creek Channel, Deer Creek Channel, or West Cucamonga Creek Channel. The project will require the removal and installation of storm drain inlets. The removal and installation of storm drain inlets will be performed in such a way that no incidental fall back to the storm drain system will occur. Since the storm drain inlet removal and installation activities will not result in direct or indirect impacts to downstream jurisdictional waters, the project would not impact CDFW jurisdictional waters. In the absence of impacts to jurisdictional waters, the project would not require regulatory permits from CDFW.

5.3 U.S. ARMY CORPS OF ENGINEERS/REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

No Impacts

Based on the results of the jurisdictional delineation, Cucamonga Creek Channel, Deer Creek Channel, and West Cucamonga Creek Channel are considered non-wetland waters under USACE/RWQCB jurisdiction (Figure 8). These jurisdictional features are underground through the extent of the study area.

The project will not result in any impacts to the Cucamonga Creek Channel, Deer Creek Channel, or West Cucamonga Creek Channel. The project will require the removal and installation of storm drain inlets. The removal and installation of storm drain inlets will be performed in such a way that no incidental fall back to the storm drain system will occur. Since the storm drain inlet removal and installation activities will not result in direct or indirect impacts to downstream jurisdictional waters, the project would not

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Source: Aerial (San Bernardino County, 2020)

HELIX Environmental Planning

Impacts to Vegetation

Figure 9

impact USACE or RWQCB jurisdictional waters. In the absence of impacts to jurisdictional waters, the project would not require regulatory permits from USACE or RWQCB.

5.4 WILDLIFE MOVEMENT AND MIGRATORY SPECIES

5.4.1 Wildlife Movement

No Impacts

The study area is not part of a regional corridor and does not serve as a nursery site. The study area is not identified as part of a local or regional corridor or linkage by the South Coast Missing Linkages (South Coast Wildlands 2008). The study area currently has no direct connectivity to two or more large blocks of habitat and is constrained by existing development. The study area does not support native vegetation and provides very limited habitat for local wildlife and migratory birds passing through the study area. Some reptiles and small mammals may occasionally access the study area. Birds may fly over existing development to access the study area for foraging and/or nesting. Therefore, the study area may provide very limited habitat for local wildlife but does not serve as a regional wildlife corridor. Although the implementation of the project may result in some temporary disturbance to local wildlife movement on-site, no regional movement corridors would be impacted.

5.4.2 Migratory Species

Less than Significant Impacts with Mitigation Incorporated

The study area has the potential to support songbird and raptor nests due to the presence of vegetation and trees in the study area. Project activities could disturb or destroy active migratory bird nests, including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact. The nesting season is generally defined as February 15 through August 31 for songbirds and January 15 to August 31 for raptors. An avoidance and minimization measure is provided as BIO-2 in Section 6.0 below, which would ensure the project is in compliance with MBTA regulations.

5.5 LOCAL POLICIES AND ORDINANCES

No Impact

The project will not impact any local policies or ordinances; therefore, no mitigation is required.

5.6 ADOPTED PLANS

The project area is not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The project area is located within the proposed Upper Santa Ana River Habitat Conservation Plan (SAR HCP), which was released for public review in May 2021; the review period ended in July 2021 and has not been approved as of the preparation of this report. Therefore, development within the project area is not in conflict with any adopted habitat conservation plans.

Should the Upper SAR HCP be approved, future development within the study area would be required to comply with the plan implemented at the time of their entitlement, pursuant to Countywide Plan Policy

NR-5.7. The project would comply with state and federal regulations regarding protected species of animals and vegetation through the development review, entitlement, and environmental clearance processes. Implementation of Policy NR-5.7 would include compliance with Habitat Conservation Plans and/or Natural Community Conservation Plan. Therefore, impacts would be less than significant.

No Impact

The study area is not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, the implementation of the project would not conflict with any adopted habitat conservation plans.

6.0 MITIGATION MEASURES

The following provides recommended measures intended to minimize or avoid impacts to biological resources:

BIO-1 **Burrowing Owl**: Prior to the commencement of construction activities (i.e., demolition, earthwork, clearing, and grubbing), focused surveys shall be conducted by a qualified biologist during the breeding season, as defined by the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).

Take avoidance surveys for BUOW shall be conducted within the study area. The take avoidance surveys shall be conducted within 14 days and repeated 24 hours prior to construction activities (i.e., demolition, earthwork, clearing, and grubbing) to determine the presence of BUOW. If take avoidance surveys are negative and BUOW is confirmed absent, then ground-disturbing activities shall be allowed to commence, and no further mitigation would be required.

If BUOW is observed during focused surveys and/or take avoidance surveys within any portion of the study area, active burrows shall be avoided by the project in accordance with the CDFW's Staff Report (CDFG 2012). The CDFW shall be immediately informed of any BUOW observations. A BUOW Protection and Relocation Plan (plan) shall be prepared by a qualified biologist, which must be sent for approval by the CDFW prior to initiating ground disturbance. The plan shall detail avoidance measures that shall be implemented during construction and passive or active relocation methodology. Relocation shall only occur outside of the nesting season (September 1 through January 31).

BIO-2 **Nesting Birds:** To the extent possible, construction activities (i.e., earthwork, clearing, and grubbing) shall occur outside of the general bird nesting season for migratory birds, which is February 15 through August 31 for songbirds and January 15 to August 31 for raptors.

If construction activities (i.e., earthwork, clearing, and grubbing) must occur during the general bird nesting season for migratory birds and raptors (January 15 and August 31), a qualified biologist shall be retained to perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code. The pre-construction survey

shall be performed no more than seven days prior to the commencement of construction activities. The qualified biologist shall document the results of the pre-construction survey. If construction is inactive for more than seven days during the breeding season, an additional survey shall be conducted.

If the qualified biologist determines that no active migratory bird or raptor nests occur, the activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that an active migratory bird or raptor nest is present, no impacts within 300 feet (500 feet for raptors) of the active nest shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, as determined by the qualified biologist. The biological monitor may modify the buffer or propose other recommendations in order to avoid indirect impacts to nesting birds.

BIO-3 **Delhi Sands Flower-loving Fly:** Focused surveys shall be conducted for DSFLF pursuant to current USFWS protocols by a qualified biologist with a DSFLF USFWS recovery permit. If the surveys are negative, no further assessments, focused surveys, or mitigation shall be required, and construction activities shall be allowed to proceed without any further requirements.

If focused surveys are positive, mitigation measures would be required and subject to review and approval by USFWS either through Section 7 of the ESA (if there is a federal action) or under Section 10(A)(1)(B) of the ESA (in the absence of a federal action). Measures may include, but are not necessarily limited to, the following:

- Avoidance of construction activities within DSFLF occupied habitat during the adult flight season, which occurs between July 1 and September 20.
- Installation of construction and post-construction fencing and signage around any avoided occupied habitat.
- Attendance of project personnel to a training program presented by a qualified biologist prior to construction activities.
- Monitoring by a qualified biologist during construction.
- Dust control adjacent to any avoided areas during construction.
- Mitigation for permanent loss of occupied DSFLF habitat.

7.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork and/or preparation of this report:

Ezekiel Cooley	B.S., Natural Resources with an emphasis in Wildlife, Central Michigan University, 2004
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8.0 REFERENCES

American Ornithological Society. 2021. AOS checklist of North and Middle America birds. July 1, 2021. Retrieved from: http://checklist.aou.org/taxa/.

Baker, R.J., L.C. Bradley, R.D. Bradley, J.W. Dragoo, M.D. Engstrom, R.S. Hoffmann, C.A. Jones, F. Reid, D.W. Rice, and C. Jones. 2003. Revised checklist of North American mammals north of Mexico. Occasional Papers of the Museum, Texas Tech University 223.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: Vascular plants of California. 2nd ed. University of California Press, Berkeley.

California Department of Fish and Game (CDFG) 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7.

California Department of Fish and Wildlife. 2021a. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Retrieved from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed November 2, 2021.

2021b. California Natural Community List. The Vegetation Classification and Mapping Program. Wildlife & Habitat Data Analysis Branch. August 2021. Retrieved from: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline. Accessed November 2, 2021.

California Native Plant Society. 2021a. CNPS Rare Plant Ranks. Retrieved from: https://www.cnps.org/rare-plants/cnps-rare-plant-ranks. Accessed on November 2, 2021.

2021b. Inventory of Rare and Endangered Plants of California. California Native Plant Society. Retrieved from: http://www.rareplants.cnps.org/. Accessed November 2, 2021.

Emmel, T.C. and J.F. Emmel. 1973. The butterflies of Southern California. Natural History Museum of Los Angeles County, Science Series 26: 1-148.

Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Technical report Y-87-1. Vicksburg (MS): U.S. Army Engineer Waterways Experiment Station. 100 p. with Appendices.

Google Earth. 2021. Aerial Imagery of the Shady View Study Area, 34.055998°, -117.598092°. Aerial Imagery from August 2021. Retrieved from: http://www.google.com/earth/index.html. Accessed November 2, 2021.

Grumbles, B.H. and J.P. Woodley, Jr. 2007. Memorandum: Clean Water Act jurisdiction following the U.S. Supreme Court's Decision in Rapanos v. United States & Carabell v. United States. June 5. 12 p.

HELIX Environmental Planning, Inc. 2021. Jurisdictional Delineation Letter Report for the Proposed Taxiway Improvements and Relocation of Localizer Equipment Building at Ontario International Airport. February 16.

2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11.

Holland R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, State of California, Department of Fish and Game, Sacramento, 156 pp.

Natural Resources Conservation Service. 2021. Web Soil Survey. United States Department of Agriculture (USDA). Retrieved from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed November 2, 2021.

Oberbauer, T. 2008. Terrestrial vegetation communities in San Diego County based on Holland's Descriptions, San Diego Association of Governments, San Diego, CA.

Osborne, Kendall H. 2021. Personal communication (email). December 20.

Riley, D.T. 2005. Ordinary High Water Mark. RGL No. 05-05. 4 p.

South Coast Wildlands. 2008. South Coast missing linkages: A wildland network for the South Coast ecoregion. Retrieved from: http://www.scwildlands.org/reports/SCMLRegionalReport.pdf. March.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A manual of California vegetation. 2nd Ed. Sacramento: California Native Plant Society.

Taggart, T.W. 2016. The Center for North American Herpetology: The Academic Portal to North American Herpetology. Retrieved from: http://www.cnah.org/.

U.S. Army Corps of Engineers (USACE). 2015. Federal Register: Clean Water Rule: Definition of "Waters of the United States." 80 FR 37053; 37053-37127

2008a. Regional supplement to the Corps of Engineers wetland delineation manual: Arid west region (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERCD/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

2008b. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Unites States. Technical Report TR-08-12, Ed. R.W. Lichvar, S.M. McColley. Hanover, New Hampshire: Cold Regions Research and Engineering Laboratory.

2007. Questions and Answers for Rapanos and Carabell Decisions. June 5. 21 pp.

--- and EPA. 2007. Jurisdictional Determination Form Instructional Guidebook. May 30. 60 pp.

U.S. Fish and Wildlife Service (USFWS). 2021a. Critical habitat mapping. GIS files provided by USFWS. Retrieved from: https://ecos.fws.gov/ecp/report/table/critical-habitat.html. Accessed November 1, 2021.

2021b. National Wetlands Inventory. Retrieved from: https://www.fws.gov/wetlands/data/google-earth.html. Accessed November 1, 2021.

Appendix A

Plant Species Observed

Appendix A
PLANT SPECIES OBSERVED

Family	Scientific Name	Common Name
ANGIOSPERMS - EUDICOTS		
Arecaceae	*Phoenix canariensis**	Canary island date palm
Bignoniaceae	*Jacaranda mimosifolia**	blue jacaranda
Brassicaceae	*Hirschfeldia incana**	short-pod mustard
Chenopodiaceae	*Salsola tragus**	tumbleweed
Geraniaceae	*Erodium cicutarium**	red stemmed filaree
Scrophulariaceae	*Myoporum* sp.*	myoporum
ANGIOSPERMS - MONOCOTS		
Poaceae	*Bromus diandrus**	common ripgut grass
	Bromus madritensis ssp. *rubens**	red brome
	*Schismus barbatus**	Mediterranean grass

* Non-native species

Appendix B

Animal Species Observed or Detected

Appendix B
ANIMAL SPECIES OBSERVED OR DETECTED

Order	Family	Scientific Name	Common Name
VERTEBRATES			
Reptiles			
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
	Cathartidae	*Cathartes aura*	turkey vulture
Charadriiformes	Charadriidae	*Charadrius vociferus*	killdeer
Columbiformes	Columbidae	*Columba livia*	rock pigeon
		Zenaida macroura	mourning dove
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Corvidae	*Corvus brachyrhynchos*	American crow
	Passerellidae	*Melospiza melodia*	song sparrow
	Sturnidae	*Sturnus vulgaris**	European starling
	Tyrannidae	*Tyrannus verticalis*	western kingbird
Strigiformes	Strigidae	*Athene cunicularia*†	burrowing owl

* Non-native species

† Observed outside the study area

Appendix C

Representative Site Photographs

Photo 1: Typical non-native/disturbed habitat on the project site.

Photo 2: Typical developed habitat on the project site.

Photo 3: One of several storm drains on the project site leading to a concrete lined channel running under the airport property.

Appendix D

Jurisdictional Delineation Report

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February 16, 2021 HNT-13.01

Kim Hughes
HNTB Corporation
2900 South Quincy St. Suite 600
Arlington, VA 22206

Subject: Jurisdictional Delineation Letter Report for the Proposed Taxiway Improvements and Relocation of Localizer Equipment Building at Ontario International Airport

Dear Ms. Hughes:

HELIX Environmental Planning, Inc. (HELIX) conducted a preliminary jurisdictional assessment to identify any jurisdictional resources within Proposed Taxiway Improvements and Relocation of Localizer Equipment Building (project) located at Ontario International Airport (ONT). A review of the jurisdictional resources within and adjacent to the project, is provided below.

This letter presents the results of a jurisdictional delineation conducted by HELIX Environmental Planning, Inc. (HELIX) for the proposed Taxiway Improvements and Relocation of Localizer Equipment Building (project) located at Ontario International Airport (ONT). The delineation was conducted to identify and map existing areas within the project area that are "waters of the U.S." under U.S. Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA); waters of the State under Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA; and streambed habitats under California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Section 1600 of the California Fish and Game Code. This report presents HELIX's best efforts to quantify jurisdiction within the project site using the current regulations, written policies, and guidance from USACE, RWQCB, and CDFW (collectively, the "regulatory agencies").

PROJECT LOCATION

The approximately 231-acre project site is in the City of Ontario, San Bernardino County, California. generally located south of the Interstate (I-) 10 and west of I-15 (Figure 1, *Regional Location*). The project site is located within Section 25 of Township 1 South, Range 7 West of the Guasti, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *Vicinity Map*). Specifically, the project site is located to the northwest of the intersection of S Haven Avenue and Jurupa Street; to the southwest of the intersection of E Airport Drive and S Haven Avenue; to the southwest of the intersection of S Grove Avenue and E Airport Drive; and to the northeast of the intersection of S Grove Avenue and E Mission Boulevard (Figure 3, *Aerial Photograph*).

PROJECT DESCRIPTION

The proposed project consists of the construction, modification, and removal of taxiways and runways; relocation of taxiways; construction of taxiway bypass; relocation of perimeter fencing; relocation of localizer equipment building; and modification of an existing service road (Figure 4, *Site Plan*).

METHODS

Prior to beginning fieldwork, aerial photographs (1 inch = 150 feet), topographic maps (1 inch = 150 feet), USGS quadrangle maps, and National Wetland Inventory maps (U.S. Fish and Wildlife Service 2019) were reviewed. HELIX Regulatory Specialist Ezekiel Cooley conducted the jurisdictional delineation field work on January 12, 2021. Delineation methods used to determine each agency's jurisdictional limits are discussed below.

U.S. Army Corps of Engineers

The USACE waters of the U.S. are determined using current USACE guidelines (Environmental Laboratory 1987, U.S. Army Corps of Engineers [USACE] 2008a). Areas are determined to be waters of the U.S. if there is evidence of regular surface flow (e.g., bed and bank). Jurisdictional limits for these areas are measured according to the presence of a discernible OHWM, which is defined in 33 Code of Federal Regulations (CFR) Section 329.11 as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas." The USACE has issued further guidance on the OHWM (Riley 2005; USACE 2008b), which also was considered in this jurisdictional assessment.

The jurisdictional delineation was conducted in accordance with court decisions (i.e., Rapanos v. United States, Carabell v. United States, and Solid Waste Agency of Northern Cook County v. USACE), as outlined and applied by the USACE (USACE 2007; Grumbles and Woodley 2007); and USACE and U.S. Environmental Protection Agency (EPA; 2007). These publications explain that the EPA and USACE will assert jurisdiction over traditional navigable waters (TNW) and tributaries to TNWs that are a relatively permanent water body (RPW), which has year-round or continuous seasonal flow. For water bodies that are not RPWs, a significant nexus evaluation is used to determine if the non-RPW is jurisdictional. As an alternative to the significant nexus evaluation process, a preliminary jurisdictional delineation may be submitted to the USACE. The preliminary jurisdictional delineation treats all waters and wetlands on a site as if they are jurisdictional waters of the U.S. (USACE 2008a). A significant nexus evaluation or preliminary jurisdictional delineation are typically only required for projects that propose impacts to potentially jurisdictional features and, therefore, require a Section 404 permit from the USACE.

Regional Water Quality Control Board

The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. Potential RWQCB jurisdiction would follow the boundaries of USACE jurisdiction for waters of the U.S.

California Department of Fish and Wildlife

The CDFW jurisdictional boundaries are determined based on the presence of riparian vegetation or regular surface flow, if present. Streambeds within CDFW jurisdiction are delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses with surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Jurisdictional limits for CDFW streambeds are defined by the top of bank. Vegetated CDFW habitats are mapped at the limits of streambed-associated vegetation, if present.

RESULTS

The project site supports three drainages that flow beneath the work area through covered concrete channels. The drainages include Deer Creek Channel in the eastern portion of the project site, Cucamonga Creek Channel in the center of the project site, and West Cucamonga Creek Channel in the western portion of the project site. Additionally, the project site includes multiple storm drain inlets that convey flows into the three concrete channels.

Based on the results of the jurisdictional delineation, Cucamonga Creek Channel, Deer Creek Channel, and Western Cucamonga Creek Channel are considered USACE/RWQCB non-wetland waters of the U.S. and CDFW jurisdiction (Figure 5, *Jurisdictional Features*). These jurisdictional features are underground through the extent of the project site.

Cucamonga Creek Channel

Cucamonga Creek Channel is a concrete rectangular channel that runs north to south through the center of the project site and is considered a USACE public works facility. Based on the USGS Guasti quadrangle map, the headwaters of Cucamonga Creek originate approximately seven miles to the north of the project site at the base of Cucamonga Peak in San Gabriel Mountains where it occurs as a natural soft-bottomed creek. Cucamonga Creek generally flows south through Cucamonga Canyon and becomes channelized once it exits the San Gabriel Mountains. Cucamonga Creek Channel flows enter the project site near the northern boundary to the south of Airport Drive. The channel continues for approximately 0.4 mile through the center of the site, flowing underneath the airport taxiway and resurfacing to the south of the taxiway. The channel exits the project site near the southern boundary, just north of the Avion Street. After exiting the project site, Cucamonga Creek Channel flows south for 11 miles to the south of the project site and becomes soft-bottomed just prior to meeting the Santa Ana River at the Prado Flood Control Basin in Riverside County. The Santa Ana River ultimately drains into the Pacific Ocean approximately 35 miles to the southwest of the project site. Soils within Cucamonga Creek Channel on the project site are mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 6, *Soils*). However, native soils are no longer present in Cucamonga Creek Channel due to the full concrete channelization of the creek.

Deer Creek Channel

Deer Creek Channel is a concrete rectangular channel that runs north to south along the eastern project site boundary. Based on the USGS Guasti quadrangle map, the headwaters of Deer Creek originate approximately seven miles to the northeast of the project site at the base of Cucamonga Peak in San Gabriel Mountains where it occurs as a natural soft-bottomed creek. Deer Creek generally flows south through Deer Canyon and becomes channelized once it exits the San Gabriel Mountains. The channel likely collects sheet flow from impervious surfaces in the surrounding area and storm drains that empty into the channel. The majority of flows within Deer Creek Channel empty into Cucamonga Creek Channel near Turner Basin, approximately one mile to the north of project site. Some water is diverted into the channel within the historic flow path of Deer Creek, which flows south from Turner Basin as a mostly natural streambed until it reaches Airport Drive. Deer Creek flows underneath the airport and enters and exits the project site as an underground channel. Deer Creek continues south as an underground channel and surfaces as a concrete trapezoidal channel just north of State Route 60, approximately 1.6 miles to the south of the project site. The channel continues southwest as Lower Deer Creek Channel for approximately 2.1 miles, ultimately draining into Cucamonga Creek Channel. Soils within Deer Creek Channel on the project site are mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 6). However, native soils are no longer present in Deer Creek Channel due to the concrete channelization of the creek.

Western Cucamonga Creek Channel

Western Cucamonga Channel is a concrete rectangular channel that runs north to south along the western project site boundary. Western Cucamonga Creek Channel originates from the percolating basins as Cucamonga Creek exits Cucamonga Canyon, approximately six miles to the northwest of the project site. The channel likely collects sheet flow from impervious surfaces in the surrounding area as well as water collected in the 8th Street storm drains. Western Cucamonga Creek Channel flows mostly underground until it reaches 8th Street Basins. The channel continues south from the basin as an above-ground rectangular concrete channel. The channel passes through the Princeton Basin, and continues five miles south until it reaches the northwestern boundary of the project site. . The channel flows along the western boundary and exits near the southwest corner. After exiting the site, the channel continues south through the Ely Basins and connecting with Cucamonga Creek Channel approximately seven miles south of the project site. Soils within Western Cucamonga Creek Channel within the project site are primarily mapped as Tujunga loamy sand (0 to 5 percent slopes; NRCS 2021; Figure 6). However, native soils are no longer present in Western Cucamonga Creek Channel due to the concrete channelization of the creek.

IMPACTS

The project will require removal and installation of storm drain inlets. The removal and installation of storm drain inlets will be performed in such a way that no incidental fall back to the storm drain system will occur. Since the storm drain inlet activities will not result in direct or indirect impacts to downstream jurisdictional waters, the project would not impact USACE, RWQCB, or CDFW jurisdictional waters. In the absence of impacts to jurisdictional waters, the project would not require regulatory permits from the regulatory agencies.

AVOIDANCE AND MINIMIZATION MEASURES

The project will result in the removal and replacement of several storm drain inlets, which will not require work within USACE, RWQCB, or CDFW jurisdictional waters. No discharge of fill will occur within USACE and/or RWQCB jurisdictional waters and no streambed alterations will occur within CDFW jurisdictional resources, as a result of the proposed project.

The following minimization measures shall be implemented during construction to avoid indirect impacts to downstream jurisdictional waters:

1. General Stormwater Construction Permit compliance.

2. Municipal Storm Drain Permit (MS4) compliance.

3. Source control and treatment control BMPs shall be implemented to minimize the potential contaminants that are generated during and after construction. Source control BMPs and Treatment control BMPs will follow the ONT Storm Water Pollution Prevention Plan (SWPPP) and standard construction BMPs.

4. Employees shall strictly limit their activities, vehicles, equipment, and construction material to the proposed project footprint, staging areas, and designated routes of travel.

CONCLUSION

Based on HELIX's assessment, the project will not result in direct or indirect impacts to jurisdictional resources regulated by the USACE, RWQCB, or CDFW, provided that the jurisdictional avoidance and minimization measures outlined above are adequately implemented during construction of the project. Given the absence of jurisdictional impacts, HELIX does not anticipate that regulatory permits will be required to implement the project.

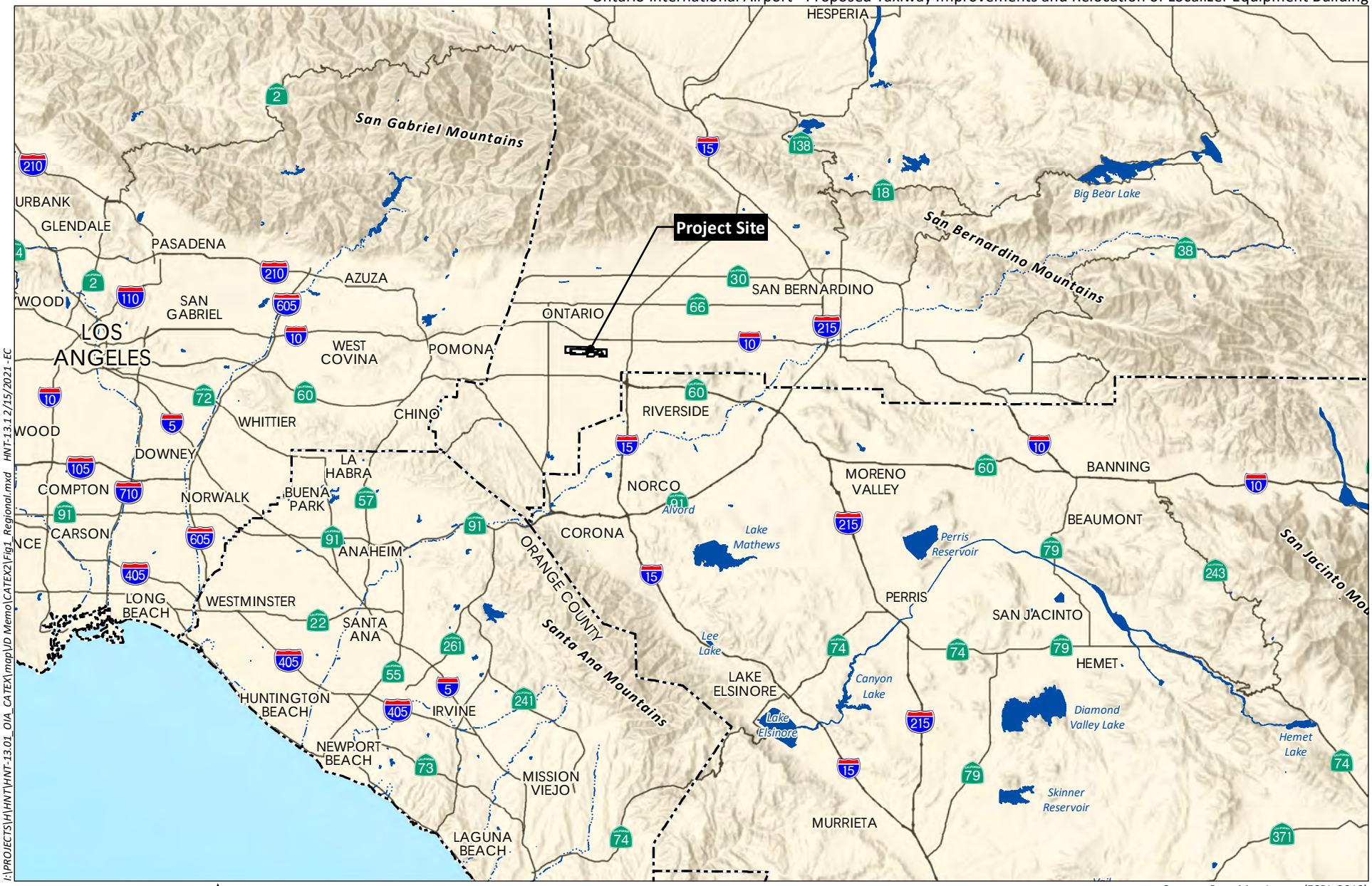
If you have any questions regarding the information presented in this letter report, please contact me at EzekielC@helixepi.com or (949) 234-8770.

Sincerely,

Ezekiel Cooley
Senior Biology Project Manager/Regulatory Specialist

Attachments:

Figure 1: Regional Location
Figure 2: Vicinity Map
Figure 3: Aerial Photograph
Figure 4: Site Plan
Figure 5: Jurisdictional Features
Figure 6: Soils



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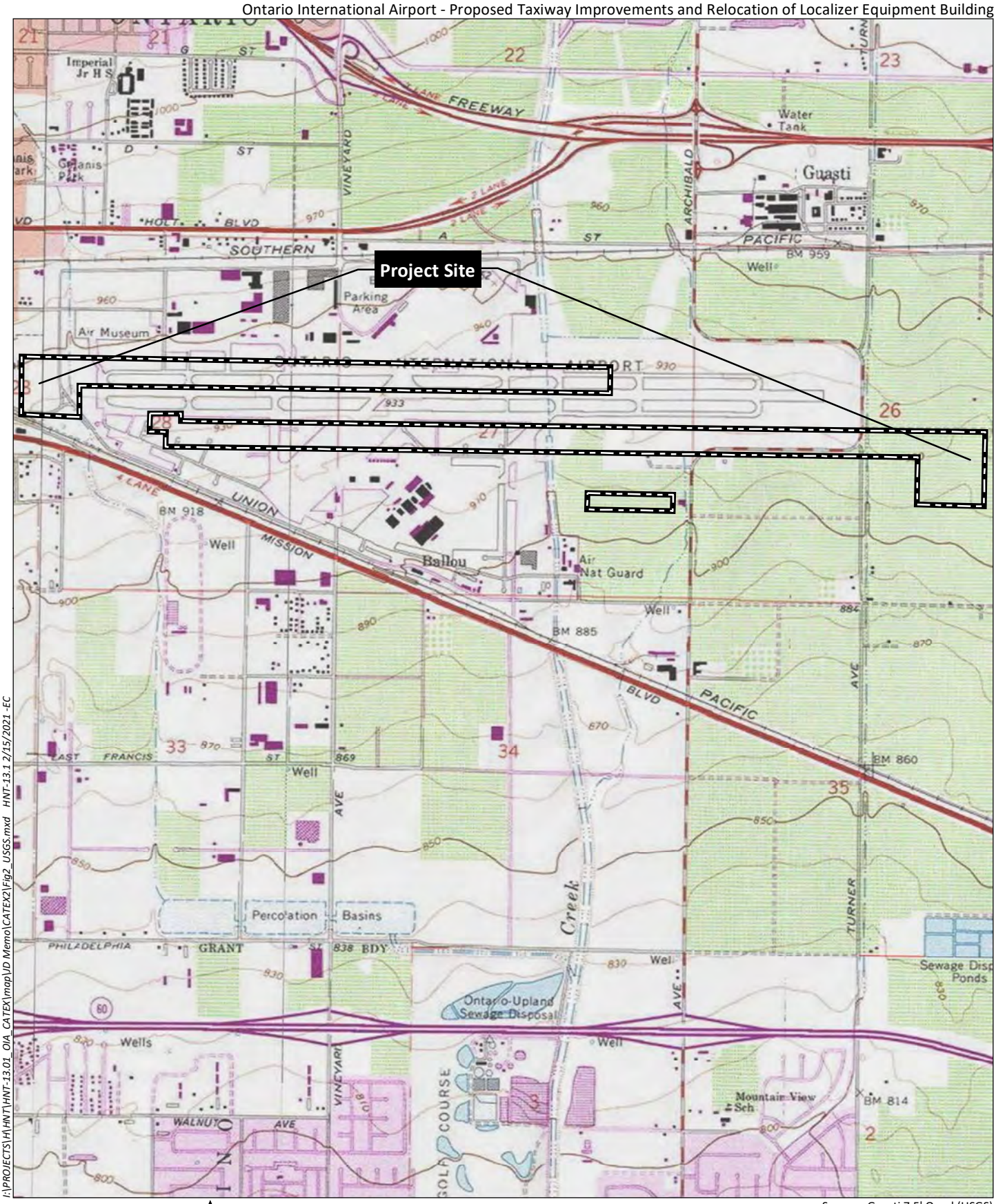
Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



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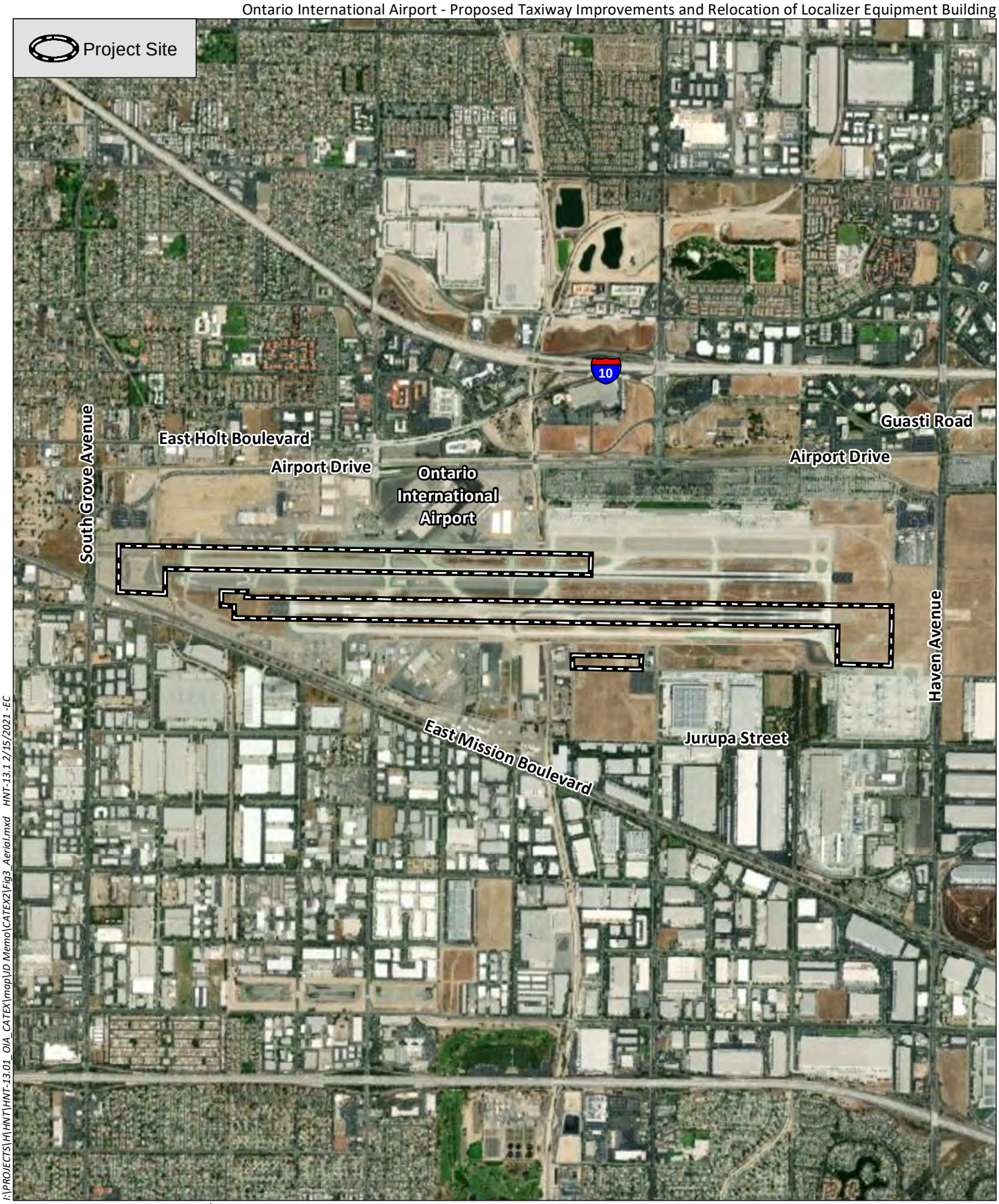
0 2,000 Feet

Source: Guasti 7.5' Quad (USGS)

HELIX Environmental Planning

Vicinity Map

Figure 2



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0 2,500 Feet

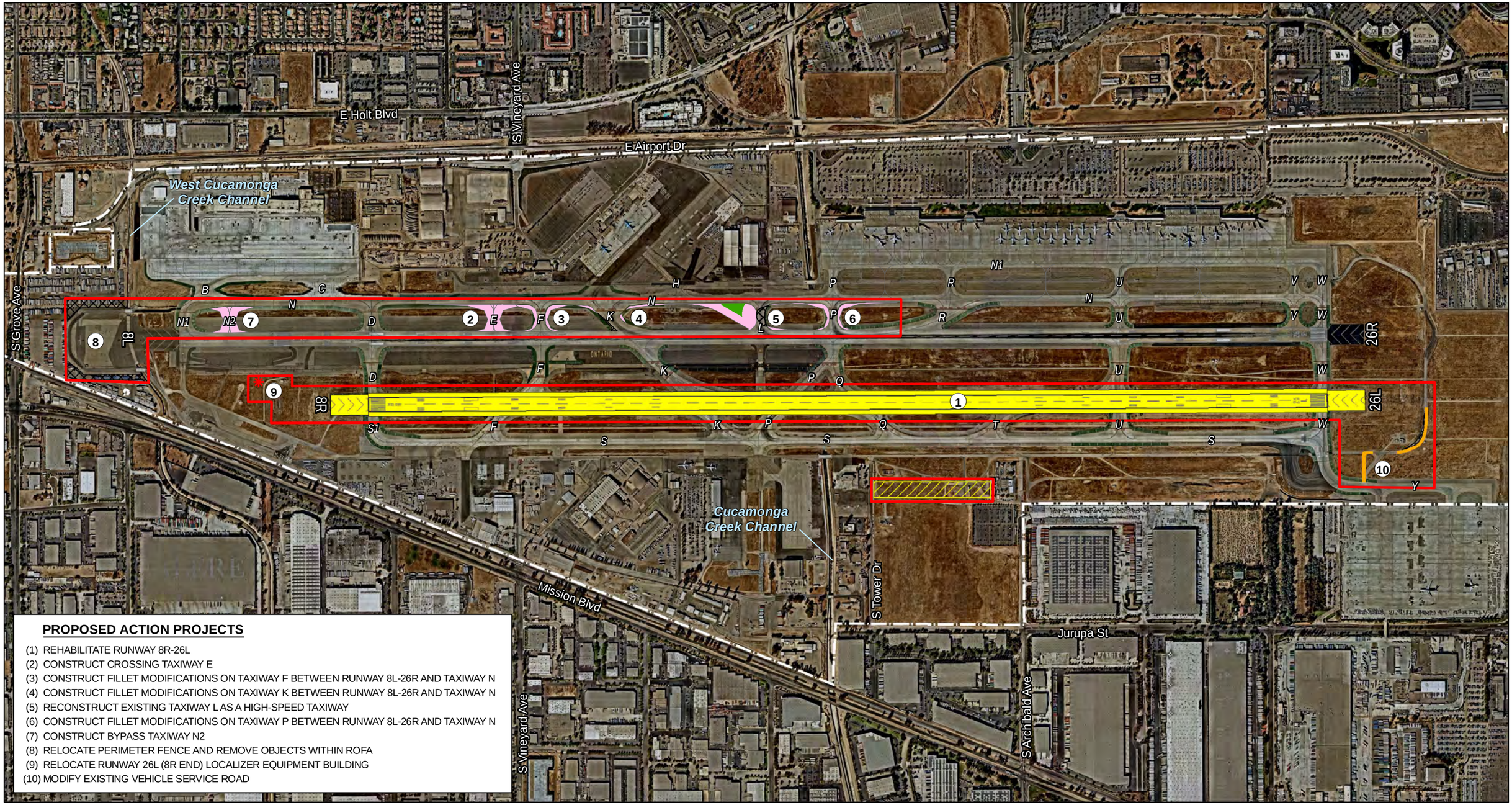
Source: Base Map Layers (Maxar, 2020)

HELIX Environmental Planning

Aerial Photograph

Figure 3

Categorical Exclusion for Runway 8R-26L Rehabilitation and Additional Airfield Improvements at Ontario International Airport



PROPOSED ACTION PROJECTS

(1) REHABILITATE RUNWAY 8R-26L
(2) CONSTRUCT CROSSING TAXIWAY E
(3) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY F BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(4) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY K BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(5) RECONSTRUCT EXISTING TAXIWAY L AS A HIGH-SPEED TAXIWAY
(6) CONSTRUCT FILLET MODIFICATIONS ON TAXIWAY P BETWEEN RUNWAY 8L-26R AND TAXIWAY N
(7) CONSTRUCT BYPASS TAXIWAY N2
(8) RELOCATE PERIMETER FENCE AND REMOVE OBJECTS WITHIN ROFA
(9) RELOCATE RUNWAY 26L (8R END) LOCALIZER EQUIPMENT BUILDING
(10) MODIFY EXISTING VEHICLE SERVICE ROAD

Legend

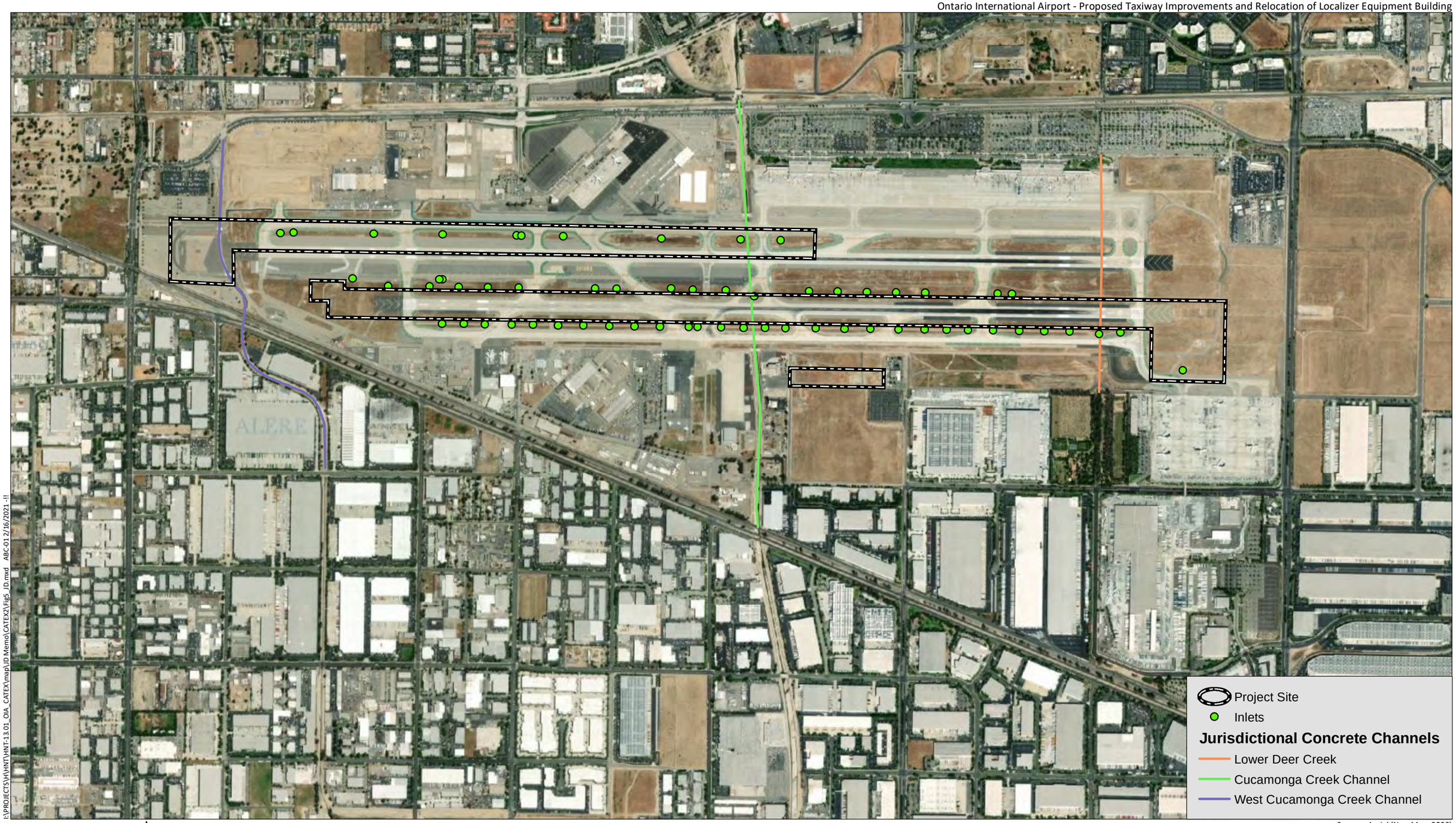
- Area of Potential Effects
- Runway 8R-26L Pavement Rehabilitation
- Proposed Taxiway Pavement
- Proposed Pavement Removal
- Proposed Painted Island
- Proposed Vehicle Service Road Pavement
- Contractor Staging Area
- Airport Property Line
- Relocated Runway 26L Localizer Equipment Building

Figure 2
Area of Potential Effects

N

0 250 500 1,000 Feet

Sources: OIAA, Nearmap, HNTB Analysis



Source: Aerial (NearMap, 2020)

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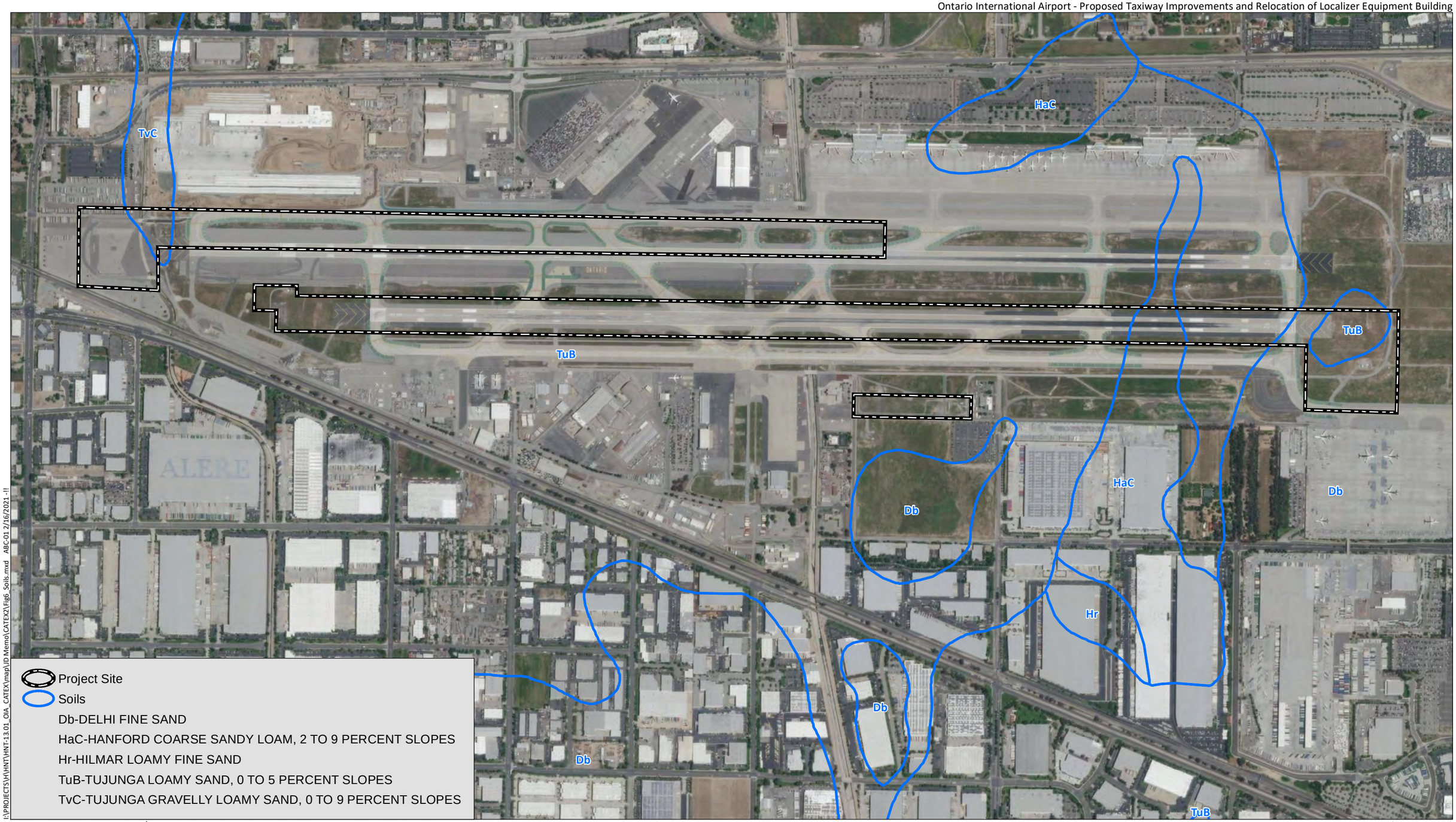
HELIX Environmental Planning

Jurisdictional Features

Figure 5



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Source: Aerial (NearMap, 2020)

HELIX Environmental Planning

Soils

Figure 6

Appendix E

Rare Plant Species Potential to Occur

Appendix E
RARE PLANT SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Chorizanthe parryi var. *parryi*	Parry's spineflower	--/-- CRPR 1B.1	Annual herb. Occurs in sandy soil on flats and foothills in mixed grassland, coastal sage scrub, and chaparral communities. Elevation range 275-1220 m. Flowering period May-Jun.	**None.** The study area lacks suitable sandy soil and mixed grassland, coastal sage scrub, and chaparral communities. This species has been reported approximately five miles northeast of the study area.
Cladium californicum	California saw-grass	--/-- CRPR 2B.2	Perennial rhizomatous herb. Occurs in freshwater and alkaline wetlands, meadows, and seeps. Elevation range -10-2150 m. Flowering period Jun-Sep.	**None.** The study area lacks wetlands, meadows, and seeps. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Horkelia cuneata var. *puberula*	Mesa horkelia	--/-- CRPR 1B.1	Perennial herb. Occurs in sandy or gravelly areas within chaparral, coastal sage scrub, and coastal mesas. Elevation range 70-870. Flowering period Mar-Jul.	**None.** The study area lacks suitable chaparral, coastal sage scrub, and coastal mesas to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Muhlenbergia utilis	Aparejo grass	--/-- CRPR 2B.2	Perennial rhizomatous herb. Occurs in coastal scrub, chaparral, lower montane coniferous forest, meadows and seeps. Usually found near streams or seeps. Elevation range 100-2000 m. Flowering period Mar-Oct.	**None.** The study area lacks suitable habitat as well as any streams or seeps to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).

Appendix E
RARE PLANT SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Navarretia prostrata	Prostrate vernal pool navarretia	--/-- CRPR 1B.2	Annual herb. Occurs in alkaline floodplain, meadows, seeps, and vernal pools within coastal scrub and valley and foothill grassland. Elevation range below 700 m. Flowering period Apr-Jul.	**None.** The study area lacks suitable alkaline floodplain, meadows, seeps, and vernal pools to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Phacelia stellaris	Brand's star phacelia	--/-- CRPR 1B.1	Annual herb. Grows in open areas in coastal scrub and coastal dune habitat. Elevation range 3-370 m. Flowering period Mar-Jun.	**None.** The study area does not support coastal scrub or coastal dune habitat. This species has been reported approximately four miles to the northeast of the study area.
Pseudognaphalium leucocephalum	White rabbit-tobacco	--/-- CRPR 2B.2	Biennial or short-lived perennial herb. Occurs in sandy and gravelly benches, dry stream and canyon bottoms within woodland, coastal scrub, and chaparral. Elevation range below 500 m. Flowering period Jul-Oct.	**None.** The study area lacks sandy and gravelly benches, dry stream and canyon bottoms that occur in suitable habitat support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).

Appendix E
RARE PLANT SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Symphyotrichum defoliatum	San Bernardino aster	--/-- CRPR 1B.2	Perennial herb. Occurs in vernally mesic soils within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, grasslands, streams, springs, and disturbed ditches. Elevation range 0-2050 m. Flowering period Jul-Nov.	**None.** The study area lacks suitable vernally mesic soils to support this species. The nearest reported occurrence of this species is approximately five miles southeast of the study area in what is now a residential development.

Source: HELIX (2021)

[1] Sensitive species reported within the Prado Dam and Corona North quadrangles based on a database search conducted on CNDDB and CNPS.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened.
CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3] Potential to Occur is assessed as follows: **None**: Habitat suitable for species survival does not occur on the study area, the study area is not within geographic range of the species, and/or the study area is not within the elevation range of the species; **Low**: Suitable habitat is present on the study area but of low quality and/or small extent. The species has not been recorded recently on or near the study area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the study area and the species was recorded recently near the study area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent is present on the study area and the species has been recorded recently on or near the study area, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; Presumed **Present**: The species was observed during focused surveys for the current project and is assumed to occupy the study area; **Presumed Absent**: Suitable habitat is present on the study area but focused surveys for the species were negative.

Appendix F

Sensitive Animal Species Potential to Occur

Appendix F
SENSITIVE ANIMAL SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Invertebrates				
Bombus crotchii	Crotch's bumble bee	--/SCE	Coastal California east to the Sierra-Cascade crest and south into Mexico and is associated with grassland and scrub habitats near the coast. Species' food genera include *Antirrhinum* spp., *Clarkia* spp., *Dendromecon* spp., *Eriogonum* spp., *Eschscholzia* spp., *Lupinus* spp., *Medicago* spp., *Phacelia* spp., and *Salvia* spp. Nests are underground and commonly consist of abandoned rodent nests.	**Not Expected.** Suitable habitat does not occur on the project site.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	FE/--	Found only within the Delhi Sands formation in San Bernardino and Riverside Counties. Requires wholly or partly consolidated dunes with sparse vegetation.	**Moderate.** Suitable habitat occurs on site, however focused surveys in habitat adjacent to the project site 2019 and 2020 were negative.
Reptiles				
Anniella stebbinsi	Southern California legless lizard	--/SSC	Occurs in moist warm loose soil with plant cover. May be found in coastal sand dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	**None.** Although this species has been reported within five miles of the study area, the study area lacks suitable loose soils or stream terraces to support this species. The closest reported occurrence is approximately one mile to the south of the study area but has since been developed.

Appendix F
SENSITIVE ANIMAL SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Arizona elegans occidentalis	California glossy snake	--/SSC	Most common in desert habitats, but also occurs in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grassland. Associated with sandy open areas with sparse shrub cover but can also occur in rocky habitats.	**None.** The study area lacks suitable chaparral and pine-juniper to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Phrynosoma blainvillii	coast horned lizard	--/SSC	Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* spp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**None.** The study area lacks chaparral and coniferous forests to support this species**.** The closest occurrence of this species was reported approximately five miles to the northeast of the study area in what is now a commercial development.
Birds				
Agelaius tricolor	tricolored blackbird	SCE/SSC	Breeds in dense stands of cattails (*Typha* sp.) or bulrushes (*Schoenoplectus* sp./*Scirpus* sp.) located within large freshwater marshes. Forages in adjacent open habitats, such as agricultural fields, pastures, or grasslands.	**None**. The study area lacks suitable freshwater marsh or bulrush and cattail stands required by this species. The closest occurrence of this species was approximately two miles to the southeast of the study area in a basin.
Athene cunicularia	burrowing owl	--/SSC	Typical habitat is grasslands, open scrublands, agricultural fields, and other areas where there are ground squirrel burrows or other areas in which to burrow.	**Presumed present.** This species is currently located on the study area. Focused surveys in 2019 and 2020 both yielded positive findings.

Appendix F
SENSITIVE ANIMAL SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Laterallus jamaicensis coturniculus	California black rail	ST/SFP	Occurs most commonly in tidal emergent wetlands dominated by pickleweed, or in brackish marshes supporting bulrushes in association with pickleweed. Usually found within the immediate vicinity of tidal sloughs.	**None**. Although this species has been reported within five miles of the study area, the report is historic. This species is presumed to be extirpated from southern California. Reported occurrences are historic (greater than 50 years old).
Polioptila californica	coastal California gnatcatcher	FT/SSC	Occurs in coastal sage scrub and very open chaparral.	**None.** The study area does not have coastal sage scrub or open chapparal to support this species. Although this species has been reported within five miles of the study area, that area has been developed for residential housing.
Mammals				
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	--/SSC	Herbaceous openings within coastal sage scrub, chaparral, grasslands, and desert scrub. Often associated with sandy, rocky, or gravelly substrates.	**None.** Although this species has been reported within five miles of the study area, the area lacks coastal sage scrub and associated substrates. This species is presumed to be extirpated from San Bernardino County.
Dipodomys merriami parvus	San Bernardino kangaroo rat	FE/SSC	Generally associated with alluvial fan sage scrub, but also occurs in sage scrub, chaparral, and grassland in proximity to alluvial fan sage scrub habitats.	**None.** Although this species has been reported within five miles of the study area, the study area lacks alluvial fan sage scrub and associated habitats. This species is presumed to be extirpated from San Bernardino County.

Appendix F
SENSITIVE ANIMAL SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST	Primarily occurs in sparsely vegetated areas within grassland habitats, but also found in open coastal scrub habitat. Feeds on filaree (*Erodium* sp.) and brome (*Bromus* sp.) seeds. Dig burrows in firm soil or use abandoned pocket gopher burrows.	**None.** Although the study area has *Erodium* species and *Bromus* species, the habitat consists more of a mixture of non-native vegetation than a grassland and soils on-site are unsuitable for the species. Additionally the nearest occurrence is 14 miles southeast of the project site.
Eumops perotis californicus	western mastiff bat	--/SSC	Roosts under exfoliating rock slabs on cliff faces and occasionally in large boulder crevices and building cracks. Forages in a variety of open areas, including washes, floodplains, chaparral, coastal sage scrub, woodlands, ponderosa pine forests, grassland, and agricultural areas.	**Low.** Although this species has been reported within five miles of the study area, and the study area lacks suitable rock slabs and cliff faces for this species to roost. The closest occurrence was reported north of the study area at Alta Loma High School.
Lasiurus xanthinus	western yellow bat	--/SSC	Roosts in trees and are commonly found in palms and cottonwoods. Typically forages over water and among trees within riparian, desert riparian, desert wash, and palm oasis habitats.	**None.** Although this species has been reported within five miles of the study area, the study area lacks suitable roosting habitat such as palms and cottonwoods, and lacks foraging habitat of open water and riparian, desert wash, or palm oasis habitat. The closest occurrence was reported north of the study area near Alta Loma.
Neotoma lepida intermedia	San Diego desert woodrat	--/SSC	Open chaparral, coastal sage scrub, pinyon-juniper, and Joshua tree habitats. This species builds large, stick nests in rock outcrops or around clumps of cactus or yucca.	**None.** This species has been reported over five miles away of the study area and the study area lacks suitable nesting habitat such as rock outcrops or cactus.

Appendix F
SENSITIVE ANIMAL SPECIES POTENTIAL TO OCCUR[1]

Species Name	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Perognathus longimembris brevinasus	Los Angeles pocket mouse	--/SSC	Sandy, gravelly, or stony soils within coastal scrub, alluvial sage scrub, and grassland habitats.	**None**. Although this species has been reported within five miles of the study area, the study area lacks suitable soils and suitable habitat such as alluvial sage scrub. The closest occurrence was northeast of the study area in relict alluvial fan sage scrub.

Source: HELIX (2021)

[1] Sensitive species reported within the Guasti quadrangle based on a database search conducted on CNDDB.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; CT = Candidate Threated; FP = Fully Protected; SSC = State Species of Special Concern. [3] Potential to Occur is assessed as follows. **None**: Species is so limited to a particular habitat that it cannot disperse across unsuitable habitat (*e.g.* aquatic organisms), and habitat suitable for its survival does not occur on the study area; **Not Expected**: Species moves freely and might disperse through or across the study area, but suitable habitat for residence or breeding does not occur on the study area (includes species recorded during surveys but only as transients); **Low**: Suitable habitat is present on the study area but of low quality and/or small extent. The species has not been recorded recently on or near the study area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the study area and the species was recorded recently near the study area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent for residence or breeding is present on the study area and the species has been recorded recently on or near the study area, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during biological surveys for the current project and is assumed to occupy the study area; **Presumed Absent**: Suitable habitat is present on the study area but focused/protocol surveys for the species were negative.

Appendix G

2019/2020 Non-Breeding Burrowing Owl Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
Suite 150
Irvine, CA 2618
949.234.8770 **tel**
619.462.1515 **fax**
www.**helixepi**.com

February 11, 2020 OIA-01

Mr. Keith Owens
Ontario International Airport Authority
1923 E Avion Avenue
Ontario, CA 91761

Subject: 2019\2020 non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study

Dear Mr. Owens:

This letter report presents the results of the 2019 non-breeding season burrowing owl (*Athene cunicularia*; BUOW) survey conducted by HELIX Environmental Planning, Inc. (HELIX) for the Ontario International Airport (study area) located in the City of Ontario, San Bernardino County, California. The survey was conducted in accordance with the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on BUOW Mitigation (CDFG 2012). This letter report describes the methods used to perform the survey and the survey results.

STUDY AREA LOCATION

The 322-acre study area is generally located south of the Interstate (I-) 10 and west of I-15 (Figure 1, *Regional Location*). The study area is located within Section 25 of Township 1 South, Range 7 West of the Guasti, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *Vicinity Map*). Specifically, the study area is located to the northwest of the intersection of S Haven Avenue and Jurupa Street; to the northwest and southwest of the intersection of E Airport Drive and S Haven Avenue; and to the southwest and southeast of the intersection of S Grove Avenue and E Airport Drive (Figure 3, *Aerial Photograph*). The study area comprises approximately 320 acres of suitable burrowing owl habitat.

STUDY AREA DESCRIPTION

The study area is located directly on and surrounding the tarmac of the Ontario International Airport. The study area is dominated by non-native grass species, such as common ripgut grass (*Bromus diandrus*), puncture vine (*Tribulus terestris*), *red* brome (*Bromus madritensis* ssp. *rubens*), and slender oat (*Avena barbata*), which are maintained as required for weed abatement. The topography of the study area is mostly flat with elevations ranging from 902 feet above mean sea level (AMSL) near the southeast corner to 967 feet AMSL near the northeast corner. Immediate surrounding land uses include the commercial buildings to the north, east, south, and west.

METHODS

The focused BUOW survey was conducted according to the CDFW BUOW survey guidelines (CDFG 2012), which includes Part I Habitat Assessment and Focused Burrow Survey and Part II Focused BUOW Surveys. The CDFW BUOW survey guidelines are described in further detail below.

Part I: Habitat Assessment and Focused Burrow Survey

Prior to conducting the habitat assessment, HELIX consulted the California Natural Diversity Database (CNDDB) to determine the nearest BUOW occurrence(s). A habitat assessment was conducted by HELIX biologists Ezekiel Cooley and Lauren Singleton on November 1, 2018 to determine whether the study area supports suitable BUOW habitat. A focused burrow survey was conducted concurrently with the habitat assessment. All suitable burrows (i.e., greater than 11 centimeters [cm] in height and width and greater than 150 cm in depth) and burrow surrogates were recorded using a handheld Global Positioning System (GPS) unit (Figure 4, *Suitable Burrow and Transect Locations*). The habitat assessment and focused burrow survey were conducted prior to commencement of the BUOW focused surveys. The assessment was conducted on the study area and within a 150-meter (approximately 500-foot) buffer zone around the periphery of the study area (survey area). The survey area was slowly walked and assessed for suitable BUOW habitat, including:

- disturbed low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and
- man-made structures, such as earthen berms, debris piles, and cement culverts.

All potential burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitate fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

Part II: Locating Burrowing Owls

Since suitable habitat and burrows were observed within the survey area during the habitat assessment, non-breeding focused BUOW surveys were conducted to determine whether the survey area supports BUOW. The focused surveys consisted of four (4) non-breeding season surveys, spread evenly, throughout the nonbreeding season, that were performed by Mr. Cooley and Ms. Singleton and HELIX biologists Matthew Dimson, Amy Lee, and Daniel Torres between October 8, 2019 and January 14, 2020. (Table 1 *Survey Information*)

The biologists walked transects spaced no greater than 20 meters apart (approximately 65 feet) to allow for 100 percent visual coverage of all suitable habitat within the survey area (Figure 4). The biologists walked slowly and methodically, closely checking suitable habitat within the survey area for BUOW diagnostic sign (e.g., molted feathers, pellets/castings, or whitewash at or near a burrow entrance) and individual BUOW. If observed, BUOW sign and BUOW observations were recorded with a GPS unit. Inaccessible areas of the survey area were visually assessed using binoculars.

Table 1
Survey Information

	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
10/08/19	Ezekiel Cooley Lauren Singleton	0715-0900	62°F, wind 0-1 mph, 0% clouds 69°F, wind 1-2 mph, 0% clouds	• Active Burrow #1: One adult was observed next to a grated drain with a burrow located to the west of the drain.
10/11/19	Ezekiel Cooley Lauren Singleton	0710-0900	67°F, wind 4-5 mph, 0% clouds 71°F, wind 4-5 mph, 0% clouds	• Active Burrow #2: One adult was in a cement culvert.
10/15/19	Lauren Singleton Daniel Torres	0710-1000	56°F, wind 3-4 mph, 0% clouds 73°F, wind 1-2 mph, 0% clouds	• No BUOW detected.
11/05/19	Matthew Dimson Lauren Singleton	0715-0945	61°F, wind 0-1 mph, 0% clouds 73°F, wind 0-1 mph, 0% clouds	• No BUOW detected.
11/08/19	Matthew Dimson Lauren Singleton	0730-0915	61°F, wind 2-3 mph, 0% clouds 77°F, wind 2-3 mph, 0% clouds	• Active Burrow #2: One adult was in a cement culvert.
11/12/19	Amy Lee Lauren Singleton	0715-0945	55°F, wind 0-1 mph, 5% clouds 77°F, wind 0-1 mph, 0% clouds	• No BUOW detected.
12/03/19	Matthew Dimson Lauren Singleton	0800-1000	56°F, wind 0-1 mph, 100% clouds 63°F, wind 0-1 mph, 100% clouds	• No BUOW detected.
12/06/19	Matthew Dimson Lauren Singleton	0730-0930	50°F, wind 0-1 mph, 30% clouds 63°F, wind 2-3 mph, 50% clouds	• No BUOW detected.
12/10/19	Matthew Dimson Lauren Singleton	0710-0930	46°F, wind 1-2 mph, 20% clouds 55°F, wind 0-1 mph, 80% clouds	• No BUOW detected.
01/07/20	Ezekiel Cooley Matthew Dimson	0715-0900	46°F, wind 0-1 mph, 15% clouds 55°F, wind 0-1 mph, 20% clouds	• Active Burrow #3: One adult was observed below a grated drain with a burrow located on the south side of the drain.
1/10/20	Ezekiel Cooley Matthew Dimson	0710-0850	43°F, wind 2-3 mph, 100% clouds 50°F, wind 1-2 mph, 100% clouds	• No BUOW detected.
01/14/20	Ezekiel Cooley Matthew Dimson	0700-0900	43°F, wind 0-1 mph, 100% clouds 47°F, wind 0-1 mph, 100% clouds	• No BUOW detected.

RESULTS

Suitable BUOW habitat was observed within the survey area during the habitat assessment, including low-growing vegetation within the non-native grassland. Several burrows and burrow surrogates, such as vertical corrugated metal pipe storm drain risers, that could potentially be used by BUOWs were observed within the survey area (Figure 4). Suitable foraging habitat was observed within and adjacent to the survey area. There are CNDDB records of BUOWs within the survey area from 2007 and 2013 (CDFW 2019).

A total of three active burrows were detected within the survey area (Figure 4). One active burrow was located on the western end of the tarmac (Active Burrow [AB]-1) and two active burrows were located on the northeastern end of the tarmac (Active Burrow [AB]-2 and AB-3). A summary of observations is provided below.

AB-1 was on the study are in the middle of the tarmac between the two runways, approximately 2,100 feet to the northwest of South Vineyard Avenue and Avion Drive intersection. One adult BUOW was observed next to a grated drain with a burrow located to the west of the drain. This adult was only observed once on October 5, 2019 and was not present on subsequent surveys.

AB-2 was located on the eastern portion of the study area, approximately 2,200 feet to the southwest of South Haven Avenue and East Airport Drive. One adult BUOW was observed in a cement culvert on October 11 and November 8, 2019. The BUOW was not present on subsequent surveys.

AB-3 was located on the eastern portion of the study area, approximately 3,000 feet to the southwest of South Haven Avenue and East Airport Drive. One adult was observed below a grated drain with a burrow located on the south side of the drain. This adult was observed only once on January 7, 2020.

The locations of all suitable burrows, BUOW sign, and occupied burrows observed within and adjacent to the study area are shown on Figure 4.

CONCLUSION

A total of three active burrows were detected within the survey area. One adult BUOW was observed at each active burrow: AB-1, AB-2, and AB-3. AB-1 and AB-2 had no adult BUOW present during the final series of surveys.

These surveys are intended to document the non-breeding season activity on the survey area and may not be considered conclusive findings by CDFW even if BUOW are observed. A breeding season focused survey may be required to determine the full extent of use on the survey area.

In addition to breeding season protocol surveys, a take avoidance (pre-construction) survey would also be required and shall be conducted within 14 days prior to ground disturbance in accordance with CDFW Staff Report on BUOW Mitigation (2012). If ground-disturbing activities are delayed more than 14 days after the pre-construction survey has been completed, the study area must be resurveyed.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley (EzekielC@helixepi.com) or Lauren Singleton (LaurenS@helixepi.com) at (949) 234-8770.

Sincerely,

Ezekiel Cooley
Biologist

Lauren Singleton
Biologist

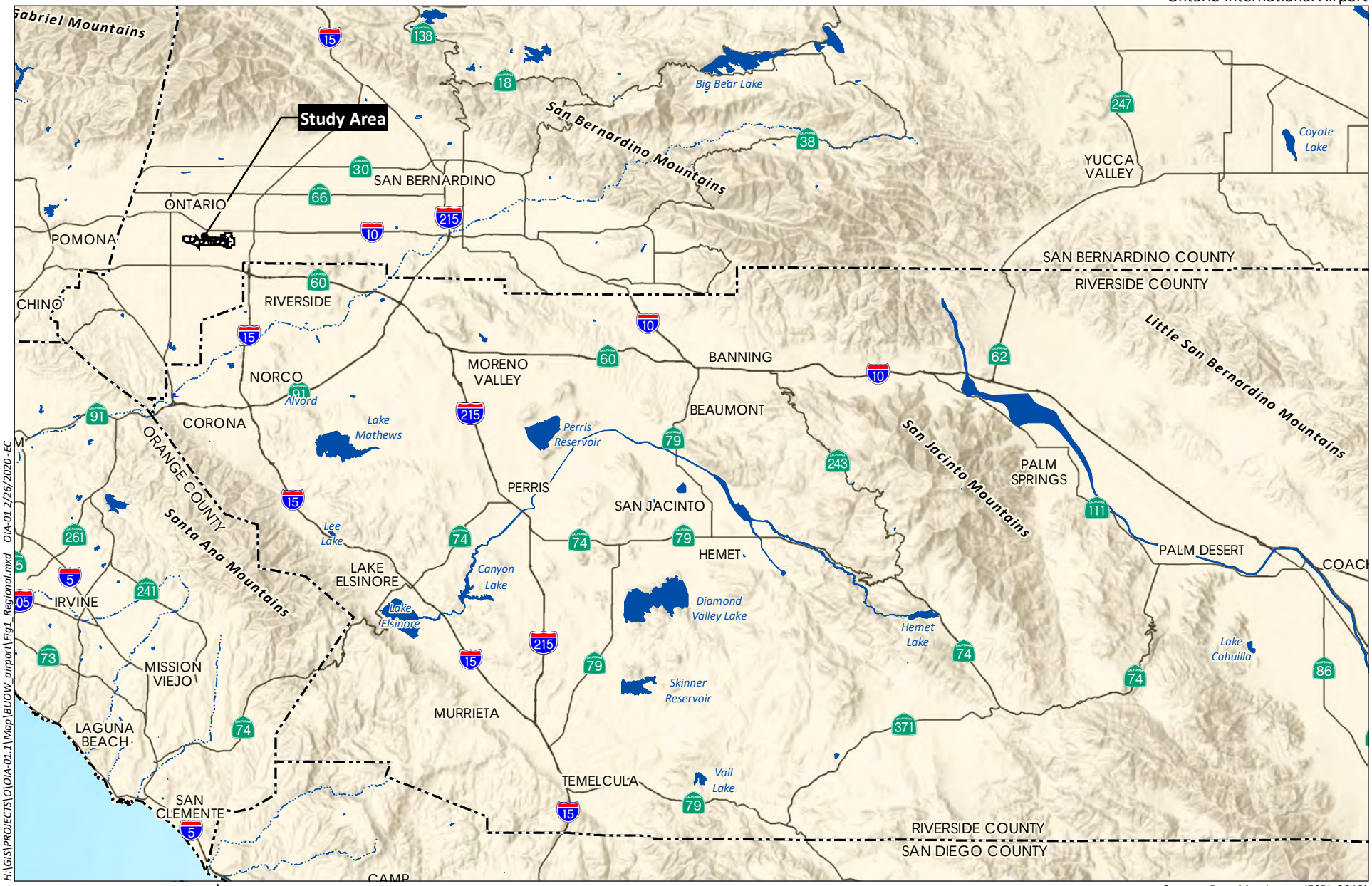
Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: BUOW Observations and Burrow Locations

REFERENCES

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. State of California Natural Resources Agency. March 7, 2012.

California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database and Rarefind. California Department of Fish and Wildlife: Sacramento, California. Retrieved from: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed July 31, 2019.



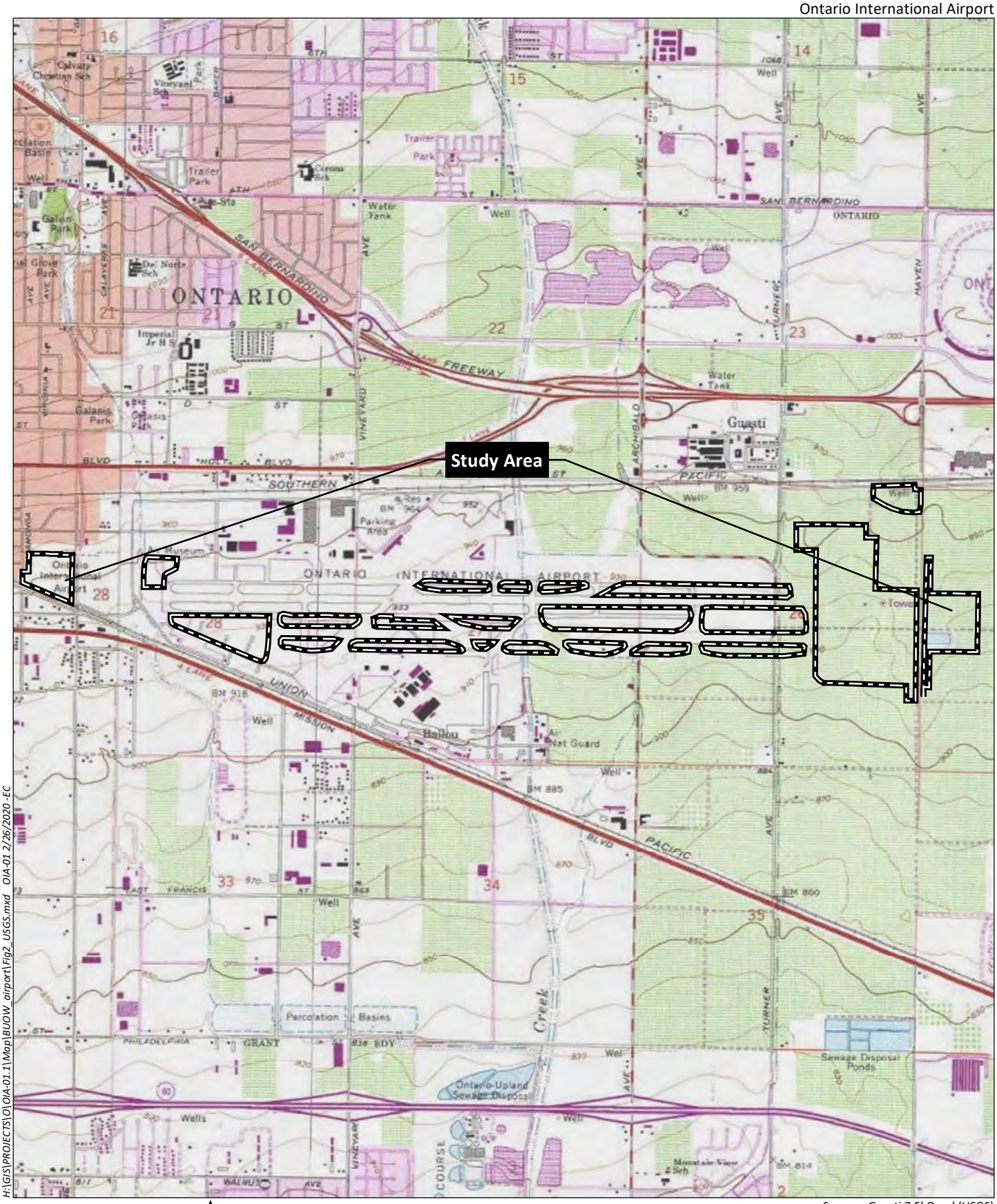
H:\GIS\PROJECTS\O\OIA-01.1\Map\BUOW_airport\Fig1_Regional.mxd OIA-01 2/26/2020 - EC

Source: Base Map Layers (ESRI, 2013)

HELIX Environmental Planning

Regional Location

Figure 1



H:\GIS\PROJECTS\O\OIA-01.1\Map\BUOW_airport\Fig2_USGS.mxd OIA-01 2/26/2020 -EC

0 2,000 Feet

Source: Guasti 7.5' Quad (USGS)

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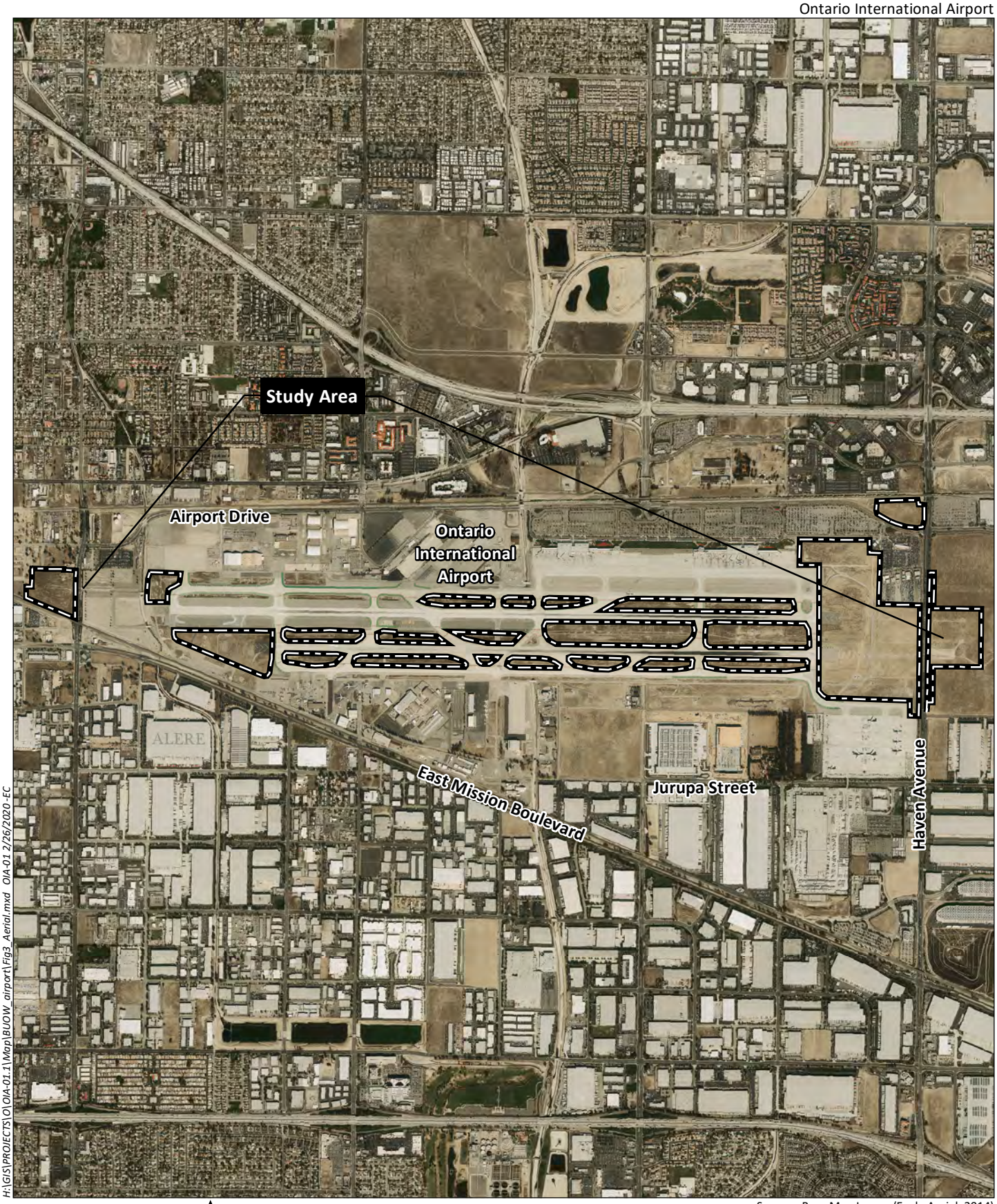
USGS Topography

Figure 2



H:\GIS\PROJECTS\O\OIA-01.1\Map\BUOW airport\Fig3 Aerial.mxd OIA-01 2/26/2020 EC

0 2,500 Feet

Source: Base Map Layers (Eagle Aerial, 2014)

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Aerial Photograph

Figure 3

Ontario International Airport

500-foot Survey Buffer
Survey Areas
2019/2020 Non-Breeding Season BUOW Observations
Suitable Burrows
Transects

AB-1
AB-3
AB-2

Inset Map
0 200 Feet
AB-1
AB-3

Inset Map
0 200 Feet
AB-2

0 1,300 Feet

Source: Aerial (Eagle Aerial, 2014)

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2019/**2020** Non-Breeding Season BUOW Survey Areas

Figure 4