

FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

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

State Clearinghouse No. 2021060531

Lead Agency:

Ontario International Airport Authority
1923 East Avion Street
Ontario, CA 91761

Prepared by:

HNTB Corporation
6033 West Century Boulevard, Suite 1050
Los Angeles, CA 90045

In association with:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

June 2022



Introduction to the Final SEIR

The Final Supplemental Environmental Impact Report (Final SEIR) is a compilation of documents including the Draft SEIR made available to the public, and new Appendices to incorporate the Final SEIR Amendment to the Draft SEIR. This Final SEIR document integrates these documents. In conformance with Section 15132 of the CEQA Guidelines, this Final SEIR contains the following, at the locations indicated:

- (a) The Draft SEIR, together with the Draft SEIR technical appendices (Appendix A through L), in its entirety follows this *Introduction to the Final SEIR*.
- (b) Revisions to the text of the Draft SEIR are provided within this *Introduction to the Final SEIR*. Note: These revisions are not incorporated into the text of the compiled Draft SEIR.
- (c) Chapter 9.0 Mitigation Monitoring and Reporting Program is added to the Final SEIR.
- (d) Two Final SEIR Appendices, included as *Appendix M, Notice of Availability of the Draft SEIR* and *Appendix N, Responses to Comments on the Draft SEIR*.

The Draft SEIR was circulated to the affected public agencies and interested parties for a 45-day review period from April 25, 2022 until June 9, 2022. Comments were accepted through June 13, 2022. *Appendix M* contains the Notice of Availability (NOA) and summary of Draft SEIR NOA recipients. *Appendix N* contains the comments received on the Draft SEIR by the OIAA as Lead Agency, as well as responses to comments.

Purpose of the Final SEIR

In accordance with CEQA Guidelines *Section 15132, Contents of Final Environmental Impact Report*, this Final SEIR provides a summary of the Draft SEIR public review, including a list of who received notification of the availability of the Draft SEIR, locations where Notice of Availability (NOA) was posted, a response to comments (RTC) matrix summarizing agency and public comments received on the Draft SEIR, as well as OIAA responses to comments. The Final SEIR also provides a summary of mitigation measures intended to reduce or eliminate significant environmental impacts (see *Chapter 9.0, Mitigation Measures and Reporting Plan*, of the Final SEIR).

Pursuant to CEQA Guidelines Section 15090(a), prior to approving a project, the Ontario International Airport Authority (OIAA), as the lead agency, shall certify that:

- 1) The final EIR has been completed in compliance with CEQA;
- 2) The final EIR was presented to the decision-making body of the lead agency, and that the decision-making body reviewed and considered the information contained in the final EIR prior to approving the project; and
- 3) The final EIR reflects the lead agency's independent judgment and analysis.

Public Review

In conformance with California Code, Public Resources Code - PRC Section 21092.5 and CEQA Guidelines Section 15088(b), responses to comments received from public agencies were provided to the commenting agency 10 days prior to the Final SEIR certification hearing. The Final SEIR and all documents referenced in the Final SEIR are available for public review at the OIAA Administrative Offices during normal business hours and on OIAAs website at: <https://www.flyontario.com/corporate/environment/environment-reports>.

Draft SEIR Text Revisions

The following summarizes the revisions to the text of the Draft SEIR dated April 2022. Revised and new language is underlined. Deletions are shown with a line through the text.

Page 3-5
(Section 3.3,
Environmental
Factors with
Potential for
Impact)

ADD (at end of Section 3.3)

Appendices to the June 2021 IS are also included in Appendix A which incorporate Mitigation Measures (MMs) HYD-1 through MM HYD-6 by reference. The MMs are also included as part of Chapter 9.0, Mitigation, Monitoring and Reporting Program of the Final SEIR.

Page 4-26
(Section 4.2.5,
Biological
Resources,
Mitigation
Measures)

REVISE BIO-1 Burrowing Owl

~~Prior to 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 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). 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 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).~~

Prior to commencement of construction activities (i.e., demolition, earthwork, clearing, and grubbing), focused surveys, as defined by the Staff Report on Burrowing Owl Mitigation (CDFG 2012) will be conducted by a qualified biologist across all suitable breeding, wintering, and foraging habitat within the project and appropriate buffer. Take avoidance surveys will also be conducted within 14 days and repeated 24 hours prior to construction activities to determine presence of burrowing owl.

If a burrowing owl is observed during focused surveys and/or take avoidance surveys, CDFW will be immediately informed of its location and status. The project will avoid all impacts to burrowing owls onsite. If this is not feasible, a Burrowing Owl Protection Plan (plan) will be prepared by a qualified biologist, which must be approved by CDFW prior to initiating the project. The plan will include conserving all nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are maintained and/or replaced. Further coordination with CDFW will occur to mitigate for the loss of habitat through the acquisition, conservation, and management of in-kind habitat. Lands conserved will include 1) sufficiently large acreage with fossorial mammals present; 2) permanent protection through a conservation easement for the purpose of conserving burrowing owl habitat and prohibiting activities incompatible with burrowing owl use; 3) development and implementation of a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls; and 4) funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment (CDFW, 2012).

OIAA will develop and maintain an interactive mapping and current inventory of burrowing owl occurrences within

the active airport and adjacent airport owned parcels, along with an adequate buffer to provide analysis that burrowing owl distribution and cumulative impacts are not significantly impacted by past and present activities. Further, OIAA shall ensure adequate land is available and conserved **before** owls are relocated and provide compensation for loss of all aspects of habitat types used (e.g., foraging, wintering, migratory stopovers, and breeding).

Page 4-26
(Section 4.2.5,
Biological
Resources,
Mitigation
Measures)

REVISE BIO-2 Nesting Birds

~~To the extent possible, construction activities (i.e., earthwork, clearing, and grubbing) will 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 results of the pre-construction survey shall be documented by the qualified biologist. 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.~~

To the extent possible, construction activities (i.e., earthwork, vegetation clearing, and grubbing) will occur outside of the peak nesting season, or February 15

through August 31 for songbirds and January 15 to August 31 for raptors. During the duration of the Project:

- Nesting bird surveys will be conducted by the qualified biologist no more than three days prior to any Project activities. The survey(s) will occur at the appropriate time of day/night, during appropriate weather conditions. Surveys will encompass all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration will take into consideration the acreage of the Project impacts; density, and complexity of the habitat; number of survey participants; survey techniques employed; and will be sufficient to ensure the data collected is complete and accurate. Pre-construction surveys will focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (i.e., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors). If a nest is suspected, but not confirmed, the qualified biologist will establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations. The qualified biologist will not risk failure of the nest to determine the exact location or status and will make every effort to limit the nest to potential predation as a result of the survey/monitoring efforts (i.e., limit number of surveyors, limit time spent at/near the nest, scan the site for potential nest predators before approaching, immediately depart nest area if indicators of stress or agitation are displayed). If a nest is observed, but thought to be inactive, the qualified biologist will monitor the nest for 1 hour (4 hours for raptors during the non-breeding season) prior to approaching the nest to determine status. The qualified biologist will use their best professional judgement regarding the monitoring period and whether approaching the nest is appropriate.
- If active nests are located within the Project or buffer, the qualified biologist will immediately establish a conservative buffer surrounding the nest

based on their best professional judgement and experience. The buffer will be delineated to ensure that its location is known by all persons working within the vicinity but will not be marked in such a manner that it attracts predators.

- Once the buffer is established, the qualified biologist will document baseline behavior, stage of reproduction, and existing site conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. Following documentation of baseline conditions, the qualified biologist may choose to make adjustments to the buffer based on site characteristics, stage of reproduction, and types of Project activities proposed at/near that location. The qualified biologist will monitor the nest at the onset of Project activities, and at the onset of any changes in Project activities (i.e., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the qualified biologist determines that Project activities may be causing an adverse reaction, the qualified biologist will adjust the buffer accordingly.
- The qualified biologist will be onsite daily to monitor all existing nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist will document the status of all existing nests, including the stage of reproduction and the expected fledge date. If a nest is suspected to have been abandoned or failed, the qualified biologist will monitor the nest for a minimum of 1 hour (4 hours for raptors), uninterrupted, during favorable field conditions. If no activity is observed during that time, the qualified biologist may approach the nest to assess the status. Permittee, under the direction of the qualified biologist, may also take steps to discourage nesting on the Project site, including moving equipment and materials daily, covering material with tarps or fabric, and securing all open pipes and construction materials. The qualified biologist will ensure that none of the materials used pose an entanglement risk to birds or other species.

Page 4-53
(Section 4.5.5,
Noise, Mitigation
Measures)

ADD to Mitigation Measures (Noise)

There are no feasible mitigation measures within the control, authority, and jurisdiction of the OIAA that can be implemented to reduce Project-related noise impacts to below a level of significance. Any potential mitigation measures on this matter are within the jurisdiction and control of the FAA.

Page 4-68
(Section 4.11,
Areas of Public
Controversy)

ADD (to end of Section 4.11)

Six comments were received related to the Burrowing Owl during the Draft SEIR comment review period. All comments have been addressed as part of the RTCs in Appendix M and mitigation measures have been updated in accordance with recommendations received from the CDFW.

Appendix A,
Notice of
Preparation and
Initial Study

ADD Appendices to Initial Study (IS) for ONT Rehabilitation of Runway 8R-26L and Associated Improvements (June 2021)

Appendix E,
Biological
Resources

ADD Attachment 3, Wildlife Hazard Management Plan, May 2016 (by OIAA in Cooperation with: U.S. Department of Agriculture Animal and Plant Health Inspection Service Wildlife Services, Ontario International Airport)

Executive Summary

The Ontario International Airport Authority (OIAA) as lead agency, has prepared a Supplemental Environmental Impact Report (SEIR) in compliance with the California Environmental Quality Act (CEQA) for the proposed rehabilitation and reconstruction of Runway 8R-26L and associated airfield improvements (Proposed Project) at Ontario International Airport (ONT). The SEIR provides new information and analyzes the environmental effects of changes to the project reviewed in the 1991 *Certified ONT Final EIR (FEIR) for Terminals, Other Facilities and Operations to Support 12 Million Annual Passengers* (referred to hereafter as "1991 Certified FEIR"). While the Proposed Project remains similar to the project reviewed in the 1991 Certified FEIR, with the objective of providing facilities to accommodate 12 million annual passengers (MAP) at ONT, the Proposed Project reviewed in this SEIR would have temporary significant effects during periods of the runway rehabilitation construction. The proposed improvements would not result in increased runway capacity.

Starting in April 2022, OIAA circulated a Draft SEIR for review to agencies, local governments and interested members of the general public for a period of 45 days. Comments must be provided to OIAA by the close of the public review period (Thursday, June 9, 2022) for consideration in the Final SEIR. During the public review period, comments on the Draft SEIR from agencies, local governments and members of the public may be submitted to OIAA at the following address:

ATTN: OIAA Environmental Planning Manager
1923 East Avion Street
Ontario, CA 91761

Or email:
NWALKER@FLYONTARIO.COM

This Executive Summary addresses the potential environmental effects associated with the Proposed Project. An introduction and project background, project objectives, project description, environmental setting and project alternatives are also included. A table summarizing the environmental impacts and mitigation measures is provided.

ES.1 Overview of Ontario International Airport

ONT is located in San Bernardino County, approximately 35 miles east of Downtown Los Angeles in the center of Southern California and is considered part of the Inland Empire. The Airport resides on 1,741 acres of land, surrounded primarily by airport-related, industrial and commercial uses. Airport facilities include two passenger terminals, general aviation facilities, air freight buildings, parking lots, and numerous airport and aircraft maintenance and support services. ONT has two parallel runways that are oriented in the east-west direction, Runways 8L-26R and 8R-26L. Runway 8R-26L, the primary runway during low visibility conditions, is 10,200' x 150' and is served by a full-length, parallel taxiway to the south (Taxiway S). Runway 8L-26R is

12,197' x 150' and is served by a full-length, parallel taxiway to the north (Taxiway N).

The three primary runway use configurations at ONT are (1) East Flow (depart and arrive on Runways 8L and 8R), (2) West Flow (depart and arrive on Runways 26L and 26R), and (3) Contra Flow. Contra Flow is an operational noise mitigation strategy used at ONT to minimize noise over residential areas at night and thus occurs daily between 10:00 PM and 7:00 AM when weather and wind conditions allow. Under certain circumstances in the interest of safety, airport efficiency, or aircraft operational necessity, pilots and FAA Air Traffic Control may deviate from noise abatement procedures.

ES.2 Project Background

Improvements are proposed at ONT to meet current FAA standards, improve safety, and enhance airfield efficiency. In 2020, ONT conducted an assessment of all airfield and landside pavements to establish a Pavement Management Plan ("2020 ONT PMP") in accordance with current Federal Aviation Administration (FAA) requirements found in FAA Advisory Circular (AC) 150/5380-6C - Guidelines and Procedures for Maintenance of Airport Pavements, and 150/5380-7B - Airport Pavement Management Program (PMP). With the results of the PMP, OIAA identified and prioritized future maintenance, rehabilitation, and reconstruction projects for airside pavement based on priority of pavement, severity of distressed pavement, and available funding.

ES.3 Project Objectives

The objectives of this Proposed Project are to make improvements to the ONT airfield via rehabilitation and reconstruction of pavement and relocation and facilities that would:

- Prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP;
- Meet current FAA standards;
- Improve safety on the airfield;
- Enhance airfield efficiency;
- Provide adequate infrastructure to support airfield and navigational power requirements; and
- Maximize available FAA funding for construction.

ES.4 Proposed Project

The Proposed Project focuses on the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation of objects located within the Runway Safety Area (RSA) and Runway Object Free Area (ROFA), and relocation of the south electrical vault. The Proposed

Project would not result in increased runway capacity. Runway use and flight patterns would not be impacted after the Proposed Project is implemented. However, during runway closure periods as part of construction, all operations would occur on a single runway. Because the two runways are parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. The only change in flight patterns during temporary runway closure periods may result from FAA Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations during nighttime (10:00 PM to 7:00 AM). Since Contra Flow would not be used by ATC when operating on a single runway, there would be temporary increases in noise exposure to the west of the Airport during nighttime operations. The runway program would be constructed over a three-year period in 2023, 2024 and 2025 due to FAA AIP funding availability.

The individual project components, that in total make up the Proposed Project, their justification, and connected actions are summarized below according to the type of improvement (e.g., runway, taxiway/airfield, relocation need) and are illustrated on **Figure ES-1**. Many of the project elements have connected actions, including replacement of centerline striping with centerline lights, replacement of taxiway edge striping with taxiway edge lights, relocation or runway hold bars, relocation of runway guard lights, and relocation of above ground directional signage.

Runway Improvements

The runway improvements would meet the objectives to improve safety on the airfield and enhance airfield efficiency. Runway 8R-26L requires rehabilitation and reconstruction after 40 plus years of use. According to the PMP, due to the age and the type of distresses, full reconstruction of the keel section and maintenance and rehabilitation projects repairing the large amount of joint seal damage and spalling of the outboard sections are necessary at this time.

- Project Element #1 - Rehabilitate Runway 8R-26L

Taxiway and Other Airfield Improvements

The taxiway and other airfield improvements would meet the objectives to meet current FAA standards, improve safety on the airfield, enhance airfield efficiency and provide adequate infrastructure to support airfield and navigational power requirements. Several taxiways need to be modified to address “Hot Spots” at ONT. A Hot Spot is defined as a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary.

- Project Element #2 - Modify Existing Connector Taxiway F and Redesignate as Taxiway E
- Project Element #3 - Remove Existing Taxiway F between Runways 8L-26R and 8R-26L and Construct New Exit Taxiway F
- Project Element #4 - Construct Exit Taxiway S5



LEGEND

Runway Spall and Crack Repair	Utilities to Relocated South Electrical Vault
Runway Keel Replacement	Relocated Holding Position Markings
Runway Shoulder Replacement	Vehicle Service Road Pavement
Taxiway Pavement Removal	Contractor Staging Area
New Painted Island	Airport Property Line
New Taxiway Pavement	Relocated Runway 8R PAPI
New Taxiway Shoulder	Relocated Runway 26L Localizer Equipment Building
Taxiway Panel Replacement	Contractor's Access Point - (Guard Protected)
Taxiway Rehabilitation	On-Airport Haul Route
Blast Pad Replacement Rehabilitation	Proposed Batch Plant Location
Relocated South Electrical Vault	

PROPOSED PROJECT ELEMENTS

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

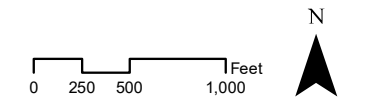


Figure ES-1

Proposed Project

Sources: OIAA, Nearmap, HNTB Analysis

DRAFT

- Project Element #5 - Reconstruct Existing Exit Taxiway K (South)
- Project Element #6 - Reconstruct Existing Exit Taxiway P to a High-Speed Exit and Redesignate as Taxiway S8
- Project Element #7 - Remove Existing Taxiway P between Runways 8L-26R and 8R-26L
- Project Element #8 - Construct Bypass Taxiway S11
- Project Element #9 - Construct Crossing Taxiway E between Runways 8R-26L and 8L-26R
- Project Element #10 - Construct Bypass Taxiway S3
- Project Element #11 - Construct Crossing Taxiway E between Runway 8L-26R and Taxiway N
- Project Element #12 - Reconstruct Existing Taxiway L as a High-Speed Exit Taxiway
- Project Element #13 - Construct Bypass Taxiway N2
- Project Element #14 - Rehabilitate Taxiway D, Taxiway S1 and Taxiway U Pavement
- Project Element #15 - Construct Fillet Modifications on Taxiway F between Runway 8L-26R and Taxiway N
- Project Element #16 - Construct Fillet Modifications on Taxiway K (North) between Runway 8L-26R and Taxiway N
- Project Element #17 - Rehabilitate/Replace Panels on Taxiway K (Middle) between Runways
- Project Element #18 - Construct Fillet Modifications on Taxiway Q between Runway 8L-26R and Taxiway N
- Project Element #19 - Construct Fillet Modifications on Taxiway Q between Runways
- Project Element #20 - Relocate Hold Bar Position Markings

Relocation of Objects to Outside of the Runway Safety Area (RSA), Runway Object Free Area (ROFA) and Taxiway Object Free Area (TOFA)

Several objects and navigational aids (NAVAIDS) are currently located within the RSA or ROFA. The objects need to be removed and/or relocated clear of the ROFA. The relocation of objects to outside of the RSA, ROFA and TOFA would meet the objectives to meet current FAA standards and improve safety on the airfield.

- Project Element #21 - Relocate Runway 8R precision approach path indicator (PAPI)
- Project Element #22 - Relocate Perimeter Fence and Remove Objects within the Runway 8L-26R ROFA
- Project Element #23 - Relocate Runway 26L (8R End) Localizer Equipment Building
- Project Element #24 - Modify Existing Vehicle Service Road

Relocation of South Electrical Vault

To support the taxiway improvements and future rehabilitation of Runway 8R-26L, the existing south electrical vault would be replaced and relocated to an area between the ATCT and the Aircraft Rescue and Firefighting (ARFF) building, in the ARFF Auxiliary Lot. The airfield improvements would result in electrical power requirements that cannot be accommodated with the existing south electrical vault, which is outdated and difficult to maintain. The relocation of the south electrical vault would meet the objective to provide adequate infrastructure to support airfield and navigational power requirements.

- Project Element #25 – Relocate South Electrical Vault

ES.5 Anticipated Environmental Effects of the Proposed Project

It was determined that the following environmental factors would be potentially affected by the Proposed Project and thus are included in the evaluation of impacts as it relates to construction and operation of the Proposed Project. The following issue areas are evaluated:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Cultural Resources
- Noise
- Transportation/Traffic
- Tribal Cultural Resources
- Health Risk Assessment
- Cumulative Impacts

Note that Cultural Resources have no impact, Air Quality and Transportation/Traffic have less than significant impact, and Biological Resources and Tribal Resources findings have less than significant impact with mitigation incorporated, however discussion of these resources is included to support that determination.

Table ES-1 presents the impact conclusions for each of the subject areas evaluated in this SEIR or as part of the June 2021 Initial Study for the project (*see Appendix A of the SEIR*).

Table ES-1: Summary of Environmental Impacts of the Proposed Project

Resource	No Impact	Less than Significant Impact	Less than Significant Impact with Mitigation	Significant Unavoidable Impact
Aesthetics		X		
Agricultural and Forestry Resources	X			
Air Quality	X (Operations)	X (Construction)		
Biological Resources			X	
Cultural Resources	X			
Energy		X		
Geology/Soils		X		
Greenhouse Gas Emissions	X (Operations)			X (Temporary during Construction)
Hazards and Hazardous Materials		X		
Hydrology and Water Quality		X		
Land Use/Planning	X			
Mineral Resources	X			
Noise	X (Operations)			X (Temporary during Construction)
Population/Housing	X			
Public Services	X			
Recreation	X			
Transportation/Traffic		X		
Tribal Cultural Resources			X	
Utilities/Service Systems		X		
Health Risk Assessment		X		
Cumulative Impacts			X	
Growth-Inducing Impacts	X			

A summary of the environmental impacts from construction and operation of the Proposed Project for each of the eight resource topics analyzed in *Chapter 4.0, Environmental Impacts and Mitigation*, of this Draft SEIR follows.

Air Quality

Construction of the Proposed Project would result in emissions associated with construction activities (direct emissions) as well as emissions associated with temporary changes in aircraft taxiing times from proposed temporary runway closures (indirect emissions). The total construction emissions do not exceed NAAQS or SCAQMD thresholds of significance in any construction year, and therefore the Proposed Project results in a *less than significant impact* from construction emissions.

The Proposed Project would have no impact on operations at the Airport beyond the three-year construction period. The Proposed Project would not increase Airport capacity and would not result in increases in local traffic. Therefore, emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed.

Biological Resources

Impacts to biological resources resulting from implementation of the Proposed Project were reviewed as it relates to sensitive species, sensitive vegetation communities, wildlife movement, migratory species, local policies and ordinances, and adopted plans. The Proposed Project would have no impact on rare plant species, sensitive vegetation communities, wildlife movement, local policies and ordinances, or adopted plans. The Proposed Project would have a *less than significant impact with mitigation* incorporated on sensitive animal species and migratory species.

Greenhouse Gas Emissions

Construction of the Proposed Project would result in GHG emissions associated with construction activities (direct emissions) as well as GHG emissions associated with temporary changes in aircraft taxiing times from proposed temporary runway closures (indirect emissions). The Proposed Project would result in total net positive construction-related GHG emissions in years 2023, 2024 and 2025. Therefore, the Proposed Project would result in *significant, unavoidable temporary impacts* due to construction-related GHG emissions.

The Proposed Project would have no impact on operations at the Airport beyond the three-year construction period. The Proposed Project would not increase Airport capacity and would not result in increases in local traffic. Therefore, GHG emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed.

Cultural Resources

A records search was requested through the SCCIC, a review of the Sacred Lands File was completed, archival research was completed, and a pedestrian field survey of the project area was conducted. The SCCIC record search did not identify any cultural resources within the project area. Furthermore, the Sacred Lands File search, conducted through the NAHC, failed to identify any tribal cultural resources within the project area, thus *no impacts* to Cultural Resources are anticipated related to the Proposed Project.

Noise

Construction of the Proposed Project would require temporary runway closure periods in 2023, 2024, and 2025. During the proposed runway closure periods, all operations would occur on a single open runway. Due to the two runways being parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. The only change in flight patterns during temporary runway closure periods in 2023, 2024 and 2025, may result from FAA Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations during nighttime (10:00 PM to 7:00 AM), as defined in *Section 2.2.3, Airfield Operations*. Since Contra Flow would not be used by ATC when operating on a single open runway, the Proposed Project would result in temporary increases in noise exposure to the west of the Airport during the nighttime hours during these construction periods. This would result in a *significant, unavoidable temporary impact on noise levels* in the vicinity of the project.

The Proposed Project would have no impact on operations at the Airport beyond the three-year construction period. The Proposed Project would not increase Airport capacity and would not result in increases in local traffic. Therefore, noise levels associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed beyond the construction period.

Transportation/Traffic

The Proposed Project is a rehabilitation, repair, replacement, and safety improvement project that does not add or increase capacity at ONT and would therefore not increase VMT. The Proposed Project would have less than significant impacts to transportation and traffic. Any temporary surface traffic changes associated with construction of the Proposed Project would be minor and mitigated, if necessary, by a required construction traffic plan.

Tribal Cultural Resources

No tribal cultural resources have been identified within the project area. During AB 52 consultation with Kizh Nation, although not recorded at the SCCIC, the Nation advised that they have knowledge of some isolated prehistoric isolates and a fire hearth located within the airport property. As such, there is potential for the Proposed Project to impact buried prehistoric archaeological and tribal cultural resources if

found during construction. Mitigation measures described in *Chapter 4.0, Section 4.7.6 Mitigation Measures* are proposed to reduce the potential for significant impacts to tribal cultural resources. Therefore, the Proposed Project would result in a *less than significant impact with mitigation* to tribal cultural resources.

Health Risk Assessment

Potential temporary changes in health risks to nearby sensitive receptors from the emission of Toxic Air Contaminants (TACs) during construction of the Proposed Project were analyzed. The analysis considered increased cancer risk and non-cancer chronic risks for the maximally exposed individual resident (MEIR) and for off-site maximally exposed individual worker (MEIW); discrete sensitive receptor incremental cancer risk, chronic risk, and acute risk; and cancer burden. The analysis determined that the incremental increases in health risk due to the Proposed Project would not exceed SCAQMD thresholds for significant impact. Therefore, the Proposed Project would have a *less than significant* impact due to human health risks.

Cumulative Impacts

The Proposed Project results in significant, unavoidable temporary impacts to GHG emissions and noise levels at ONT. For this reason, the Proposed Projects impact on GHG emissions and noise is cumulatively considerable.

The cumulative impacts analysis determined that recently completed or probable future on- and off-airport projects are expected to result in a *cumulatively considerable significant impact to GHG emissions*, from construction or operationally, when combined with the Proposed Project.

As it relates to cumulative impacts associated with noise, the greatest potential for impacts is associated with aircraft operational noise at ONT. A future on-airport project, the South Air Cargo Center (SACC), proposes cargo operations that overlap with the analysis of Proposed Project noise levels in 2024 and 2025. A cumulative noise analysis determined that the "Proposed Project – Cumulative Impact" would result in temporary (during construction) and permanent (due to background growth and SACC operations compared to baseline conditions) increases in noise exposure surrounding ONT and would therefore be a *cumulatively considerable significant impact on noise levels*.

All cumulative projects would be subject to CEQA requirements to identify feasible mitigation measures and alternatives. While no additional cumulative impacts are anticipated from the combined impact of the Proposed Project and other projects other than to GHG emissions and noise, CEQA documentation for future projects will include a comprehensive analysis of potential cumulative impacts.

ES.6 Growth Inducement

The Proposed Project would not facilitate any unplanned growth, would not result in increased runway capacity, and would not affect the number of employees required to operate Airport facilities. No changes to land uses on or off airport property would occur. No land acquisition or new facilities are proposed in the surrounding communities as a result of, or to accommodate the Proposed Project. The Proposed Project is consistent with plans, goals, policies, zoning and local controls that have been adopted and govern over the project site. The Proposed Project would not induce growth at the Airport beyond that which would occur without the improvements and therefore would not result in a significant growth-inducing impact.

ES.7 Effects Found Not Significant

Impacts to aesthetics, agricultural resources, geology/soils, hazards and hazardous materials, land use/planning, mineral resources, population/housing, public services, recreation, utilities/service systems, and wildfire were found not significant and did not require detailed evaluation in the SEIR.

ES.8 Alternatives

The CEQA Guidelines state that an EIR must identify alternatives that would feasibly attain the most basic objectives of the project, but avoid or substantially lessen significant environmental effects, or further reduce impacts that are considered less than significant with the incorporation of mitigation. As described in ES.5, the Proposed Project would result in significant temporary noise and GHG emissions impacts during construction in parts of 2023, 2024 and 2025. This SEIR chapter focuses on alternatives that would avoid or minimize these significant or potentially significant temporary environmental impacts.

Alternatives Carried Forward for Detailed Evaluation

The alternatives carried forward for detailed evaluation for this SEIR therefore includes an alternative that would minimize potentially significant temporary environmental impacts, the Two-Year Program Alternative.

Two-Year Program Alternative

This alternative would include identical project components included as part of the Proposed Project and depicted in Figure 2-5: the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation of objects located within the RSA and ROFA, and relocation of the south electrical vault. However, the Two-Year Program Alternative would implement all of the project components over a two-year schedule (2023 and 2024). For comparison, the Proposed Project is expected to be implemented over a three-year schedule (2023, 2024, and 2025). The Two-Year Program Alternative was considered during early planning efforts.

Ability of Alternative to Meet Basic Objectives of the Proposed Project and to be Feasibly Implemented

This alternative would only partially achieve the basic objectives of the Proposed Project in that it would prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, meet current FAA standards, improve safety on the airfield, enhance airfield efficiency, and provide adequate infrastructure to support airfield and navigational power requirements. The Two-Year Program Alternative both does not meet the Project Objective to maximize FAA funding for capital projects at ONT and is neither practically nor financially or economically feasible under CEQA Guidelines sections 15126(f)(1) and 15364. OIAA does not have available funds for the Proposed Project or any Alternative independent of FAA funding available during a three-year construction program for the Project. Without a funding commitment from FAA for the Two-Year Program Alternative, OIAA is financially unable to implement this alternative which makes it infeasible. Nor can this Alternative be feasibly implemented given construction labor shortages and supply chain problems for needed construction materials and goods.

No Project Alternative

CEQA and CEQA Guidelines require the evaluation of a No Project Alternative. The No Project Alternative is the circumstance under which the project does not proceed. No rehabilitation or reconstruction of runways, taxiways, or other airfield improvements would occur.

Ability of Alternative to Meet Basic Objectives of the Proposed Project

The No Project Alternative would fail to meet all the objectives of the Proposed Project. It would not prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, meet current FAA standards, improve safety on the airfield, enhance airfield efficiency, and provide adequate infrastructure to support airfield and navigational power requirements, or maximize the use of available FAA funding for construction.

Table ES-2 provides a summary comparison of the Two-Year Program Alternative, Proposed Project, and No Project regarding impact significance.

As indicated, both the Proposed Project and the Two-Year Program Alternative would result in temporary significant, unmitigable impacts to GHG emissions and noise. The Proposed Project would result in less overall construction related GHG emissions as compared to the Two-Year Program Alternative. However, the Proposed Project would result in greater temporary impacts to noise levels (and as a result additional population and housing counts) due to the extended construction period through 2025 as compared to the Two-Year Program Alternative that is complete in 2024.

Table ES-2: Summary Comparison of Alternatives' Impact Significance Compared to Baseline Conditions

Resource	Proposed Project	Two-Year Program	No Project
Aesthetics	Less than significant	Less than significant	No impact
Agricultural and Forestry Resources	No impact	No impact	No impact
Air Quality	Operations – No impact Construction – Less than significant	Operations – No impact Construction – Less than significant	Operations – No impact Construction – No impact
Biological Resources	Less than significant with mitigation	Less than significant with mitigation	No impact
Cultural Resources	Less than significant with mitigation	Less than significant with mitigation	No impact
Energy	Less than significant	Less than significant	No impact
Geology/Soils	Less than significant	Less than significant	No impact
Greenhouse Gas Emissions	Operations – No impact <i>Construction – Temporary Significant, unmitigable</i>	Operations – No impact <i>Construction – Temporary Significant, unmitigable</i>	Operations – No impact Construction – No impact
Hazards and Hazardous Materials	Less than significant	Less than significant	No impact
Hydrology and Water Quality	Less than significant with mitigation	Less than significant with mitigation	No impact
Land Use/Planning	No impact	No impact	No impact
Mineral Resources	No impact	No impact	No impact
Noise	Operations – No impact <i>Construction - Temporary Significant, unmitigable</i>	Operations – No impact <i>Construction - Temporary Significant, unmitigable</i>	Operations – No Impact Construction – No impact
Population/Housing	No impact	No impact	No impact
Public Services	No impact	No impact	No impact
Recreation	No impact	No impact	No impact

Table ES-2: Summary Comparison of Alternatives' Impact Significance Compared to Baseline Conditions

Resource	Proposed Project	Two-Year Program	No Project
Transportation/Traffic	Less than significant	Less than significant	No impact
Tribal Cultural Resources	Less than significant with mitigation	Less than significant with mitigation	No impact
Utilities/Service Systems	Less than significant	Less than significant	No impact
Health Risk Assessment	Less than significant	Less than significant	No impact
Cumulative Impacts	Less than significant with mitigation	Less than significant with mitigation	No impact
Growth-Inducing Impacts	No impact	No impact	No impact

Note: The Proposed Project would result in less overall construction related GHG emissions as compared to the Two-Year Program Alternative. However, the Proposed Project would result in greater temporary impacts to noise levels (and as a result additional population and housing counts) due to the extended construction period through 2025 as compared to the Two-Year Program Alternative that is complete in 2024.

Alternatives Not Carried Forward for Detailed Evaluation

Three potential alternatives were initially considered and were not carried forward for more detailed evaluation. According to Section 15126.6(c), "Among the factors that may be used to eliminate alternatives from detailed consideration in an [S]EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." Based on this guidance, the following alternatives were not carried forward for detailed evaluation due to the failure to meet most of the basic project objectives.

- Continued Use of Contra Flow Operations During Construction
- Partial Rehabilitation
- Reduced Project Components

Environmentally Superior Alternative

The No Project Alternative could be considered environmentally superior because it would avoid virtually all impacts associated with the Proposed Project. Of the alternatives that would at least partially meet the objectives of the Proposed Project and that were carried forward for detailed analysis, the Two-Year Program would be environmentally superior. This alternative would have similar impacts to the Proposed Project, however it would reduce the duration of the noise exposure impacts associated with the Proposed Project during construction. As explained above, however, the Two-Year Program Alternative does not meet a key Project Objective to maximize available FAA funding and is not practically or economically or financially feasible.

ES.9 Significant, Unavoidable Effects

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented as it is proposed. The following significant unavoidable impacts have been identified as a result of the Proposed Project:

GHG Emissions: The Project would result in the following temporary significant unavoidable GHG emissions impacts:

- Net increase in construction-related GHG emissions.

Noise: The Project would result in the following temporary significant unavoidable noise impacts:

- Increased noise levels in the vicinity of the project due to construction-related aircraft operation changes (due to proposed runway closures and suspension of Contra Flow)

All other significant impacts of the Proposed Project would be reduced to a less than significant level with the implementation of mitigation measures identified in this SEIR.

TABLE OF CONTENTS

	Page
1.0 Introduction	1-1
1.1 Document Purpose.....	1-1
1.2 Rationale for Supplementing the 1991 Certified FEIR.....	1-1
1.2.1 Project Updates Since Certification of 1991 Certified FEIR	1-2
1.2.2 Current Requirements to Meet Project Objectives	1-2
1.2.3 CEQA Updates Since Certification of 1991 Certified FEIR	1-3
1.3 Environmental Categories to be Reviewed.....	1-4
1.4 Supplemental EIR Process	1-4
1.4.1 Notice of Preparation and Scoping	1-4
1.4.2 Draft SEIR Public Review and Comment Period	1-4
1.4.3 Final SEIR/Responses to Comments	1-5
1.4.4 Notice of Determination.....	1-5
1.5 Aviation Activity Forecast and Years Reviewed in Environmental Analysis.....	1-5
1.6 Document Organization	1-6
2.0 Proposed Project Description	2-2
2.1 Project Location.....	2-2
2.2 Site Description, Existing Land Uses and Airfield Operations.....	2-2
2.2.1 Site Description	2-2
2.2.2 Existing Land Uses	2-3
2.2.3 Airfield Operations	2-3
2.3 Project Objectives.....	2-4
2.4 Project Description.....	2-5
2.4.1 Runway Improvements.....	2-6
2.4.2 Taxiway and Other Airfield Improvements.....	2-7
2.4.3 Relocation of Objects to Outside of the Runway Safety Area (RSA), Runway Object Free Area (ROFA) and Taxiway Object Free Area (TOFA).....	2-14
2.4.4 Relocation of the South Electrical Vault.....	2-15
2.5 Intended Uses and Purpose of the Supplemental EIR.....	2-16

TABLE OF CONTENTS

	Page
3.0 Environmental Setting.....	3-1
3.1 Regional Setting	3-1
3.1.1 Local Jurisdictions	3-1
3.1.2 Regional Land Use Patterns	3-2
3.1.3 Regional Topography	3-2
3.2 Baseline Conditions	3-3
3.3 Environmental Factors with Potential for Impact	3-4
3.4 Air Quality.....	3-5
3.4.1 Pollutants of Interest	3-5
3.4.2 Regulatory Setting	3-7
3.4.3 Baseline Conditions	3-11
3.5 Biological Resources.....	3-15
3.5.1 Regulatory Setting	3-15
3.5.2 Existing Conditions	3-18
3.6 Greenhouse Gas Emissions	3-24
3.6.1 Greenhouse Gases and Climate Change	3-24
3.6.2 Regulatory Setting	3-25
3.6.3 Baseline Conditions	3-29
3.7 Cultural Resources	3-31
3.7.1 Regulatory Setting	3-32
3.7.2 Existing Condition	3-33
3.8 Noise.....	3-33
3.8.1 Noise Metrics	3-34
3.8.2 Regulatory Setting	3-34
3.8.3 Baseline Conditions	3-37
3.9 Transportation/Traffic.....	3-38
3.9.1 Regulatory Setting	3-38
3.9.2 Existing Conditions	3-39
3.10 Tribal Cultural Resources	3-40
3.10.1 Regulatory Setting	3-40
3.10.2 Existing Conditions	3-40

TABLE OF CONTENTS

	<u>Page</u>
4.0 Environmental Impacts and Mitigation.....	4-1
4.1 Air Quality.....	4-1
4.1.1 Methodology.....	4-2
4.1.2 Baseline Conditions.....	4-3
4.1.3 Thresholds of Significance.....	4-6
4.1.4 Impacts.....	4-7
4.1.5 Mitigation Measures.....	4-18
4.2 Biological Resources.....	4-18
4.2.1 Methodology.....	4-18
4.2.2 Existing Conditions.....	4-21
4.2.3 Thresholds of Significance.....	4-21
4.2.4 Impacts.....	4-22
4.2.5 Mitigation Measures.....	4-25
4.3 Greenhouse Gases.....	4-27
4.3.1 Methodology.....	4-27
4.3.2 Baseline Conditions.....	4-28
4.3.3 Thresholds of Significance.....	4-29
4.3.4 Impacts.....	4-30
4.3.5 Mitigation Measures.....	4-35
4.4 Cultural Resources.....	4-36
4.4.1 Methodology.....	4-36
4.4.2 Existing Conditions.....	4-37
4.4.3 Thresholds of Significance.....	4-37
4.4.4 Impacts.....	4-37
4.4.5 Mitigation Measures.....	4-38
4.5 Noise.....	4-38
4.5.1 Methodology.....	4-38
4.5.2 Baseline Conditions.....	4-39
4.5.3 Thresholds of Significance.....	4-39
4.5.4 Impacts.....	4-40
4.5.5 Mitigation Measures.....	4-53
4.6 Transportation/Traffic.....	4-54
4.6.1 Methodology.....	4-54
4.6.2 Existing Conditions.....	4-54
4.6.3 Thresholds of Significance.....	4-54

TABLE OF CONTENTS

	Page
4.6.4 Impacts.....	4-54
4.6.5 Mitigation Measures	4-55
4.7 Tribal Cultural Resources	4-55
4.7.1 Methodology	4-55
4.7.2 Existing Conditions	4-56
4.7.3 Thresholds of Significance.....	4-56
4.7.4 Impacts.....	4-56
4.7.5 Regulatory Requirements.....	4-56
4.7.6 Mitigation Measures	4-56
4.8 Health Risk Assessment.....	4-59
4.8.1 Methodology	4-60
4.8.2 Existing Conditions	4-62
4.8.3 Thresholds of Significance.....	4-62
4.8.4 Impacts.....	4-62
4.8.5 Mitigation Measures	4-67
4.9 Significant Irreversible Environmental Changes	4-67
4.10 Significant and Unavoidable Impacts	4-68
5.0 Cumulative Impacts	5-1
5.1 Introduction	5-1
5.2 Methodology	5-1
5.3 Qualitative Review	5-7
5.3.1 Air Quality	5-8
5.3.2 Biological Resources.....	5-9
5.3.3 Greenhouse Gas Emissions	5-10
5.3.4 Cultural Resources	5-10
5.3.5 Transportation/Traffic.....	5-11
5.3.6 Tribal Cultural Resources	5-12
5.3.7 Health Risk Assessment.....	5-12
5.4 Quantitative Review of Noise.....	5-13
5.4.1 Noise	5-13
6.0 Growth-Inducing Impacts	6-1
6.1 Growth-Inducing Impacts of the Proposed Project.....	6-1

TABLE OF CONTENTS

	<u>Page</u>
7.0 Effects Found Not to be Significant.....	7-1
8.0 Alternatives.....	8-1
8.1 Alternatives Carried Forward for Detailed Evaluation	8-2
8.1.1 Two-Year Program Alternative	8-2
8.1.1.1 Description of Alternative	8-2
8.1.1.2 Comparison of Environmental Effects.....	8-2
8.1.1.3 Ability of Alternative to Meet Basic Objectives of the Proposed Project and to be Feasibly Implemented	8-50
8.1.2 No Project Alternative	8-52
8.1.2.1 Description of Alternative	8-52
8.1.2.2 Environmental Effects	8-52
8.1.2.3 Ability of Alternative to Meet Basic Objectives of the Proposed Project	8-65
8.1.3 Summary Comparison	8-65
8.2 Alternatives Not Carried Forward for Detailed Evaluation.....	8-68
8.2.1 Continued Use of Contra Flow Operations During Construction	8-68
8.2.2 Partial Rehabilitation	8-69
8.2.3 Reduced Project Components	8-69
8.3 Environmentally Superior Alternatives	8-70
9.0 <u>Mitigation Monitoring and Reporting Program (NEW)</u>.....	9-1
10.0 Consultation	10-1
10.1 Notice of Preparation.....	10-1
10.2 Tribal Consultation.....	10-1
11.0 Lead Agency and Consultants.....	11-1
11.1 Lead Agency	11-1
11.2 Consultants	11-1
12.0 Abbreviations and Acronyms and List of References	12-1
12.1 Abbreviations and Acronyms	12-1
12.2 List of References	12-6

LIST OF TABLES

		<u>Page</u>
Table 1-1	Summary of Aircraft Activity.....	1-7
Table 2-1	Primary Runway Use Configurations.....	2-4
Table 3-1	Sources of Airport Emissions	3-6
Table 3-2	Federal and State Air Quality Standards and Attainment Status for the South Coast Air Basin	3-9
Table 3-4	Baseline Conditions Aircraft Taxiing Emissions.....	3-12
Table 3-5	CA-60 Monitoring Data.....	3-13
Table 3-6	Northwest San Bernardino Valley Monitoring Data	3-14
Table 3-7	Central San Bernardino Valley 1 Monitoring Data.....	3-15
Table 3-8	Vegetation Communities	3-18
Table 3-9	Existing Jurisdictional Features	3-21
Table 3-10	Baseline Conditions Aircraft Taxiing GHG Emissions	3-30
Table 3-11	GHG Emissions in California by Economic Sector	3-31
Table 3-12	2010-2019 GHG Emissions in California by Economic Sector	3-31
Table 3-13	Baseline Conditions Effects of Aircraft Noise Exposure on Land Uses	3-38
Table 4-1	Baseline Conditions Aircraft Taxiing Emissions.....	4-5
Table 4-2	General Conformity de minimis Levels.....	4-6
Table 4-3	SCAQMD Thresholds of Significance for Construction Criteria Air Pollutants and Precursors	4-7
Table 4-4	Proposed Project Direct Construction Emissions.....	4-9
Table 4-5	Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to Baseline Conditions.....	4-11
Table 4-6	Total Proposed Project Construction Emissions Compared to Baseline Conditions.....	4-12
Table 4-7	Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to No Project Alternative	4-14
Table 4-8	Total Proposed Project Construction Emissions Alternative	4-15
Table 4-9	Impacts to Vegetation Communities.....	4-23
Table 4-10	Baseline Conditions Aircraft Taxiing GHG Emissions	4-29
Table 4-11	Proposed Project Direct Construction GHG Emissions (MT/Year)	4-30
Table 4-12	Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to Baseline Conditions.....	4-31
Table 4-13	Total Proposed Project Construction GHG Emissions Compared to Baseline Conditions.....	4-31
Table 4-14	Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to the No Project Alternative	4-33

LIST OF TABLES

	<u>Page</u>
Table 4-15 Total Proposed Project Construction GHG Emissions Compared to the No Project Alternative	4-33
Table 4-16 2023 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)	4-41
Table 4-17 2024 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)	4-42
Table 4-18 2025 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)	4-43
Table 4-19 Noise Inputs and Outputs for Baseline Conditions and Proposed Project	4-44
Table 4-20 Estimated Population, Housing Units and Acreage within Proposed Project and Baseline Conditions Aircraft Noise Contours	4-45
Table 4-21 2023 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)	4-47
Table 4-22 2024 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)	4-48
Table 4-23 2025 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)	4-49
Table 4-24 Noise Inputs and Outputs for No Project and Proposed Project	4-50
Table 4-25 Estimated Population, Housing Units and Acreage within Proposed Project and No Project Aircraft Noise Contours	4-51
Table 4-26 Proposed Project Maximally Exposed Individual Resident Incremental Health Risk	4-63
Table 4-27 Proposed Project Maximally Exposed Individual Worker Incremental Health Risk	4-63
Table 4-28 Proposed Project Discrete Sensitive Receptor Incremental Cancer Risk	4-64
Table 4-29 Proposed Project Discrete Sensitive Receptor Incremental Chronic Risk.....	4-65
Table 4-30 Proposed Project Discrete Sensitive Receptor Incremental Acute Risk	4-66
Table 5-1 Projects Reviewed for Cumulative Impacts (On-Airport).....	5-3
Table 5-2 Projects Reviewed for Cumulative Impacts (Off-Airport)	5-4
Table 5-3 2024 Proposed Project – Cumulative Impact Effects of Aircraft Noise Exposure on Land Uses (acres)	5-15
Table 5-4 2025 Proposed Project – Cumulative Impact Effects of Aircraft Noise Exposure on Land Uses (acres)	5-16
Table 5-5 Noise Inputs and Outputs for Baseline Conditions and Proposed Project – Cumulative Impacts	5-17
Table 5-6 Estimated Population, Housing Units and Acreage within Proposed Project – Cumulative Impact and Baseline Conditions Aircraft Noise Contours.....	5-18
Table 8-1 Two-Year Program Alternative Direct Construction Emissions	8-4
Table 8-2 Two-Year Program Alternative Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to Baseline Conditions	8-6
Table 8-3 Total Two-Year Program Alternative Construction Emissions Compared to Baseline Conditions.....	8-6

LIST OF TABLES

		<u>Page</u>
Table 8-4	Two-Year Program Alternative Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to the No Project Alternative ...	8-8
Table 8-5	Total Two-Year Program Alternative Construction Emissions Compared to the No Project Alternative	8-8
Table 8-6	Comparison of Proposed Project and Two-Year Program Alternative Construction Emissions	8-13
Table 8-7	Comparison of Proposed Project and Two-Year Program Alternative Indirect Construction Emissions.....	8-14
Table 8-8	Comparison of Proposed Project and Two-Year Program Alternative Total Construction Emissions.....	8-15
Table 8-9	Two-Year Program Alternative Direct Construction GHG Emissions (MT/Year)	8-17
Table 8-10	Two-Year Program Alternative Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to Baseline Conditions	8-18
Table 8-11	Total Two-Year Program Alternative Construction GHG Emissions Compared to Baseline Conditions.....	8-18
Table 8-12	Two-Year Program Alternative Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures.....	8-20
Table 8-13	Total Two-Year Program Alternative Construction GHG Emissions	8-20
Table 8-14	Comparison of Proposed Project and Two-Year Program Alternative Direct Construction GHG Emissions	8-24
Table 8-15	Comparison of Proposed Project and Two-Year Program Alternative Indirect Construction GHG Emissions	8-24
Table 8-16	Comparison of Proposed Project and Two-Year Program Alternative Total Construction GHG Emissions	8-25
Table 8-17	2023 Two-Year Program Alternative Effects of Aircraft Noise Exposure on Land Uses (acres).....	8-27
Table 8-18	2024 Two-Year Program Alternative Effects of Aircraft Noise Exposure on Land Uses (acres).....	8-28
Table 8-19	Noise Inputs and Outputs for Baseline Conditions and Two-Year Program Alternatives	8-29
Table 8-20	Estimated Population, Housing Units and Acreage within Two-Year Program Alternative and Baseline Conditions Aircraft Noise Contours	8-30
Table 8-21	Noise Inputs and Outputs for No Project and Two-Year Program Alternative	8-32
Table 8-22	Estimated Population, Housing Units and Acreage within Two-Year Program Alternative Aircraft Noise Contours	8-33
Table 8-23	Noise Inputs and Outputs for Proposed Project and Two-Year Program Alternative	8-37
Table 8-24	Estimated Population, Housing Units and Acreage within the Proposed Project and Two-Year Program Alternative Aircraft Noise Contours	8-38
Table 8-25	Two-Year Program Alternative Maximally Exposed Individual Resident Incremental Health Risk	8-41
Table 8-26	Two-Year Program Alternative Maximally Exposed Individual Worker Incremental Health Risk	8-41

LIST OF TABLES

	<u>Page</u>
Table 8-27 Two-Year Program Alternative Discrete Sensitive Receptor Incremental Cancer Risk	8-42
Table 8-24 Two-Year Program Alternative Discrete Sensitive Receptor Incremental Chronic Risk	8-43
Table 8-29 Two-Year Program Alternative Discrete Sensitive Receptor Incremental Acute Risk	8-44
Table 8-30 Proposed Project and Two-Year Program Alternative Maximally Exposed Individual Resident Incremental Health Risk.....	8-46
Table 8-31 Proposed Project and Two-Year Program Alternative Maximally Exposed Individual Worker Incremental Health Risk.....	8-46
Table 8-32 Proposed Project and Two-Year Program Alternative Discrete Sensitive Receptor Incremental Cancer Risk.....	8-47
Table 8-33 Proposed Project and Two-Year Program Alternative Discrete Sensitive Receptor Incremental Chronic Risk.....	8-48
Table 8-34 Proposed Project and Two-Year Program Alternative Discrete Sensitive Receptor Incremental Acute Risk.....	8-49
Table 8-35 No Project Alternative Aircraft Taxiing Emissions Compared to Baseline Conditions	8-54
Table 8-36 Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to No Project Alternative	8-55
Table 8-37 No Project Alternative Aircraft Taxiing GHG Emissions Compared to Baseline Conditions	8-57
Table 8-38 Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to the No Project Alternative.....	8-58
Table 8-39 Noise Inputs and Outputs for Baseline Conditions and No Project Alternatives	8-60
Table 8-40 Estimated Population, Housing Units and Acreage within No Project Alternative and Baseline Conditions Aircraft Noise Contours	8-61
Table 8-41 Noise Inputs and Outputs for No Project and Proposed Project	8-62
Table 8-42 Estimated Population, Housing Units and Acreage within Proposed Project and No Project Aircraft Noise Contours	8-63
Table 8-43 Summary Comparison of Alternatives' Impact Significance Compared to Baseline Conditions.....	8-66
Table 9-1 Mitigation Monitoring and Reporting Program Matrix	9-2

LIST OF FIGURES

On or Following Page

Figure 2-1	Project Location	2-2
Figure 2-2	Airport Facilities	2-2
Figure 2-3	Existing Land Uses	2-3
Figure 2-4	Primary Runway Use Configurations	2-4
Figure 2-5	Proposed Project	2-6
Figure 3-1	Soils	3-18
Figure 3-2	Vegetation and Sensitive Resources.....	3-18
Figure 3-3	Jurisdictional Features	3-21
Figure 3-4	Cultural Resources Project Area	3-33
Figure 3-5	Existing Condition Noise Exposure	3-37
Figure 4-1	Impacts to Vegetation.....	4-23
Figure 4-2	2023 Proposed Project vs Baseline Conditions Noise Contours.....	4-40
Figure 4-3	2024 Proposed Project vs Baseline Conditions Noise Contours.....	4-40
Figure 4-4	2025 Proposed Project vs Baseline Conditions Noise Contours.....	4-40
Figure 4-5	2023 Proposed Project vs 2023 No Project Noise Contours	4-46
Figure 4-6	2024 Proposed Project vs 2024 No Project Noise Contours	4-46
Figure 4-7	2025 Proposed Project vs 2025 No Project Noise Contours	4-46
Figure 4-8	Receptor Locations	4-60
Figure 5-1	Projects Considered for Cumulative Impacts.....	5-2
Figure 5-2	2024 Proposed Project – Cumulative Impact, 2025 Proposed Project – Cumulative Impact and Baseline Conditions Noise Contours Comparison	5-14
Figure 8-1	2023 Two-Year Program Alternative vs. Baseline Conditions Noise Contours..	8-26
Figure 8-2	2024 Two-Year Program Alternative vs. Baseline Conditions Noise Contours..	8-26
Figure 8-3	2023 Two-Year Program Alternative vs. 2023 No Project Noise Contours	8-31
Figure 8-4	2024 Two-Year Program Alternative vs. 2024 No Project Noise Contours	8-31
Figure 8-5	2023 Two-Year Program Alternative vs. 2023 Proposed Project Noise Contours	8-36
Figure 8-6	2024 Two-Year Program Alternative vs. 2024 Proposed Project Noise Contours	8-36
Figure 8-7	No Project vs. Baseline Conditions Noise Contours	8-59

APPENDICES

Appendix A	Notice of Preparation (NOP) and Initial Study (<u>updated to include Initial Study appendices</u>)
Appendix B	NOP Comments
Appendix C	Pavement Management Program (2020)
Appendix D	Air Quality and Greenhouse Gas Emissions
Appendix E	Biological Resources (<u>updated to include Attachment 3, Wildlife Hazard Management Plan</u>)
Appendix F	Cultural Resources
Appendix G	Introduction to Noise
Appendix H	Noise
Appendix I	Health Risk Assessment
Appendix J	City of Ontario Coordination
Appendix K	Two-Year Program
Appendix L	Contra Flow
Appendix M	<u>Notice of Availability of the Draft SEIR</u>
Appendix N	<u>Responses to Comments on the Draft SEIR</u>

1.0 Introduction

This chapter describes the purpose of the document, the rationale for supplementing the 1991 Certified Final Environmental Impact Report (EIR) completed for Ontario International Airport (ONT), and the process of environmental review. This chapter also summarizes the aviation activity forecast used in the analysis of the Proposed Project and the organization of this document.

1.1 Document Purpose

This Supplemental EIR (SEIR) provides new information and analyzes the environmental effects of changes to the project reviewed in the 1991 *Certified ONT Final EIR (FEIR) for Terminals, Other Facilities and Operations to Support 12 Million Annual Passengers* (referred to hereafter as “1991 Certified FEIR”). The 1991 Certified FEIR studied, among other items, the potential impacts of various airfield improvements, including a runway extension and construction and reconstruction of several taxiways. The Ontario International Airport Authority (OIAA) as lead agency, has prepared this SEIR in compliance with the California Environmental Quality Act (CEQA) of 1970, as amended, (Public Resources Code 21000–21189) and the CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387). This SEIR evaluates the potential environmental effects associated with the proposed rehabilitation and reconstruction of Runway 8R-26L and associated airfield improvements (Proposed Project) at ONT. While the Proposed Project remains similar to the project reviewed in the 1991 Certified FEIR, with the objective of providing facilities to accommodate 12 million annual passengers (MAP) at ONT, the Proposed Project reviewed in this SEIR would have temporary significant effects during periods of the runway rehabilitation construction. These effects include temporary increases in noise exposure to the west of the Airport during nighttime operations due to likely Federal Aviation Administration (FAA) Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations, explained in *Section 2.2.3, Airfield Operations*. during nighttime hours when operating on a single runway.

This SEIR reviews the temporary significant effects expected during construction and addresses environmental review requirements that have been enacted since certification of the 1991 FEIR. The proposed improvements would not result in increased runway capacity.

1.2 Rationale for Supplementing the 1991 Certified FEIR

If an agency determines that one or more of the conditions described in California Public Resources Code *Division 13. Environmental Quality Statute*, as amended in 2020, *Chapter 6: Limitations § 21166*, and *CEQA Guidelines Article 11 Section 15162* applies to a subsequent discretionary approval, it must prepare either a subsequent EIR or a supplemental EIR. OIAA has determined that the following conditions apply to the Proposed Project:

- Public Resources Code Section § 21166 (c) "New information, which was not known and could not have been known at the time of the EIR was certificated as completed, becomes available."
- CEQA Guidelines Section 15162(a)(3)(A) "The project will have one or more significant effects not discussed in the previous EIR", and (B) "Significant effects previously examined will be substantially more severe than shown in the previous EIR."

CEQA Guidelines Article 11 Section 15163 sets forth the circumstances under which a project may warrant a supplemental (rather than subsequent) EIR. Specifically, a lead agency shall prepare a supplement to an EIR if any of the conditions described in Section 15162 requiring further documentation are found, but only minor additions or changes would be necessary to make the original EIR adequate. OIAA has determined that a Supplemental EIR to the 1991 Certified FEIR is the appropriate environmental review documentation needed to consider approval of the Proposed Project.

The purpose of an SEIR is to provide the additional information necessary to make the previously certified EIR adequate for the project as modified. Accordingly, per CEQA Section 15163(b), the SEIR need contain only the information necessary to analyze the project modifications, changed circumstances, or new information that triggered the need for additional environmental review. Information and analysis from the 1991 Certified FEIR that is relevant to the analysis of the project modifications is briefly summarized or described rather than repeated.

1.2.1 Project Updates Since Certification of 1991 Certified FEIR

Most of the proposed developments included in the 1991 Certified FEIR have been constructed, including: Taxiway S and connecting taxiways; air cargo development; roadway upgrades; and extensive terminal improvements, all in keeping with passenger and airfield operational needs. As with the approved project, the Proposed Project includes "Taxiway and Other Airfield Improvements." The taxiway and other airfield improvements reviewed in this SEIR include similar taxiway modifications needed to align more closely with current FAA standards, as well as to improve pavement conditions. In addition, this SEIR Proposed Project includes relocation of objects and a vehicle service road (VSR) located within the Runway Safety Area (RSA) and Runway Object Free Area (ROFA) to meet FAA standards, and relocation of the south electrical vault. Although not explicitly described in the 1991 Certified FEIR, in order to meet the project objectives of adequately serving 12 MAP and mitigating environmental impacts associated with future growth, the runways must be maintained through rehabilitation and/or reconstruction and objects must be relocated to be outside of FAA defined object free and safety areas.

1.2.2 Current Requirements to Meet Project Objectives

Improvements are proposed at ONT to meet current FAA standards, improve safety, and enhance airfield efficiency. In 2020, ONT conducted an assessment of all airfield and landside pavements to establish a Pavement Management Plan ("2020 ONT

PMP”) in accordance with current Federal Aviation Administration (FAA) requirements found in FAA Advisory Circular (AC) 150/5380-6C - *Guidelines and Procedures for Maintenance of Airport Pavements*, and 150/5380-7B - *Airport Pavement Management Program (PMP)*. With the results of the PMP, OIAA identified and prioritized future maintenance, rehabilitation, and reconstruction projects for airside pavement based on priority of pavement, severity of distressed pavement, and available funding.

Connector taxiways would be reconstructed to align more closely with current FAA standards, as well as to improve pavement conditions for air traffic throughout the airfield. The proposed pavement sections would be designed for a 20-year life for all shoulder pavements, blast pad pavement, and the new taxiway pavement. Runway 8R-26L was built in 1979 and is now over 40 years old, and requires rehabilitation and reconstruction as it has exceeded the intended design service life of 20-years. As noted in the 2020 ONT PMP, with the age and the type of distresses, full reconstruction of the keel section and maintenance and rehabilitation projects repairing the large amount of joint seal damage and spalling of the outboard sections are necessary at this time. The shoulder and blast pad pavement for Runway 8R-26L has been deteriorating up to a point where large cracks which are over an inch wide are frequently seen.¹ Runway shoulder replacement is also proposed along sections of Runway 8L-26R in the vicinity of taxiway improvements.

To support airfield and navigational power requirements, the existing south electrical vault would be relocated. Additionally, there are objects and a VSR located within the RSA and ROFA that need to be relocated to meet current FAA standards. The proposed improvements would not result in increased runway capacity.

The improvements would be implemented over a three-year period in 2023, 2024 and 2025 to maximize use of available federal funding. OIAA is reliant on federal funding for large scale airfield improvement projects. The need to maximize federal funding plays a significant role in the timing of projects at ONT and in this case requires that the Proposed Project be constructed over a three-year period. See *Chapter 2.0, Project Description* for a detailed project description.

1.2.3 CEQA Updates Since Certification of 1991 Certified FEIR

The 1991 Certified FEIR was prepared pursuant to CEQA Statutes and Guidelines (June 1986). Since the certification of the FEIR in 1991, several changes have been made to Appendix G, the Environmental Checklist Form. Analysis and mitigation of greenhouse gas (GHG) emissions was included March 2010. In September 2016, the form was updated to include tribal cultural resources questions. On December 28, 2018, updated guidelines went into effect, which included a comprehensive update that contained “changes or additions involving nearly thirty different sections of the CEQA Guidelines, addressing nearly every step of the environmental review process. In general, OPR [Office of Planning and Research] proposed changes that address efficiency, substantive, and technical improvements. It is a balanced package that is intended to make the CEQA process easier and quicker to implement, and to better protect natural and fiscal resources in a way that is consistent with other state

environmental policies.”² Part of the 2018 update was to ensure consistency of CEQA Guidelines with recent court decisions, including but not limited to the incorporation of energy as new topic and requirement to analyze hazards that a project may risk exacerbating. As such, the thresholds and analyses contained in this SEIR reflect the latest CEQA Guidelines.

1.3 Environmental Categories to be Reviewed

This SEIR reviews in detail the following environmental categories: air quality, biological resources, greenhouse gas emissions, noise, and their related cumulative impacts, which have been found to be potentially significant. As indicated in the June 2021 Initial Study (IS), biological resources, cultural resources, transportation/traffic and tribal cultural resources findings were found to be less than significant impact with mitigation incorporated. While this finding remains valid, these resources are also reviewed in detail in the SEIR to support that determination.

The Proposed Project would have no impact, less than significant impacts, or less than significant impacts with mitigation incorporated on all other environmental resource categories (i.e., aesthetics, agricultural resources, geology/soils, hazard and hazardous materials, hydrology and water quality, land use/planning, mineral resources, population/housing, public services, recreation, and utilities/ service systems and wildfire). These resource areas would not result in potentially significant impacts and were not analyzed further in this SEIR.

1.4 Supplemental EIR Process

A supplement to an EIR has the same noticing and public review requirements as a regular EIR as described in CEQA Section 15087. A supplement to an EIR may be circulated by itself without recirculating the previous Draft or Final EIR.³

1.4.1 Notice of Preparation and Scoping

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, OIAA prepared a Notice of Preparation (NOP) for this SEIR. The NOP was circulated to local, state, and federal agencies from June 17, 2021 through July 17, 2021. The NOP provided a general description of the Proposed Project and identified possible environmental impacts that could result from implementation of the Project. Eight (8) comments were received from agencies, groups and individuals. The main topic of concern from stakeholder is the potential impact to the Burrowing Owl, a California State Species of Special Concern, which has been known to occur on Airport property during certain periods. **Appendix A, NOP and IS** of this SEIR includes the NOP and June 2021 IS, and **Appendix B, NOP Comments** contains the comments received on the NOP.

1.4.2 Draft SEIR Public Review and Comment Period

This Draft SEIR will be available to local, state, and federal agencies and to interested organizations and individuals for a 45-day public review and comment period. During this period, Notice of this Draft SEIR will be sent directly to every agency, person, and organization that commented on the NOP. Written comments concerning the

environmental review contained in this Draft SEIR during the 45-day public review period should be sent to:

Nicole Walker, Environmental Planning Manager
Ontario International Airport Authority
1923 East Avion Street
Ontario, CA 91761
nwalker@flyontario.com

1.4.3 Final SEIR/Responses to Comments

Following the conclusion of the 45-day public review period, OIAA will prepare a Final SEIR in conformance with CEQA Guidelines Section 15132. The Final SEIR will consist of the following:

- Revisions to the Draft SEIR text, as necessary;
- List of individuals and agencies commenting on the Draft SEIR;
- Responses to comments received on the Draft SEIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of letters received on the Draft SEIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, or reduced or avoided by adopting a feasible alternative, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

1.4.4 Notice of Determination

If the Proposed Project is approved, OIAA will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the Office of Planning and Research – State Clearinghouse for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA.⁴

1.5 Aviation Activity Forecast and Years Reviewed in Environmental Analysis

An aviation activity forecast (forecast) was developed, including a detailed fleet mix to provide input into the analysis of environmental impact categories that require review of aircraft operations. A detailed fleet mix was developed to represent the existing/base condition and the years of construction, which include 2023, 2024 and 2025. Construction of the Proposed Project is estimated to begin January 2023 and continue into 2025, with a pause to accommodate holiday traffic in November and

December of 2023 and 2024. The environmental analysis for this SEIR also includes the analysis of three years of construction for air emission purposes.⁵ Once the construction is completed, the airfield would operate as it has prior to construction of the Proposed Project.

The base year fleet mix uses a hybrid of 2019 and 2020 operations and was based on the ONT Airport Noise Monitoring System (ANOMS) radar data from 2019 and 2020, and FAA's Traffic Flow Management System Count (TFMSC) and Operations Network (OSPNET). Passenger air carriers, air taxi, and General Aviation (GA) operations were obtained from the 2019 ANOMS data and the all-cargo operations were obtained from the 2020 ANOMS data. The military operations were obtained from the FAA TFMSC data. This approach serves to normalize operations to represent baseline conditions recognizing that the temporary reduction in passenger air carrier and air taxi operations, due to the COVID-19 pandemic, is not indicative of existing conditions at ONT. Refer to *Section 3.2.2, Baseline Conditions* for additional details. The fleet mixes for years 2023, 2024 and 2025 are based on the hybrid base year fleet mix and supplemented with announced airline aircraft replacement and retirement plans, as well as announced new airlines and destinations. The future forecast of operations and enplanements in the 2020 Draft Terminal Area Forecast (TAF) were used as the future scenarios' base operations and enplanements numbers. **Table 1-1** summarizes the aircraft activity for the existing and construction years.

1.6 Document Organization

This document includes the main SEIR report and appendices consisting of supporting documentation. Volume I consists of the main document, including *Chapters 1.0 through 11.0*. An *Executive Summary* chapter precedes *Chapter 1.0* of the report. *Chapter 1.0* provides an introduction and an overview of this SEIR. *Chapter 2.0* provides background for the project, a detailed project description, and the project objectives. *Chapter 3.0* provides the environmental setting. *Chapter 4.0* provides impacts and mitigation measures associated with the resources with potential for impact. *Chapter 5.0* includes cumulative impacts of the Proposed Project when combined with other projects, *Chapter 6.0* includes discussion of growth-inducing impacts, and *Chapter 7.0* summarizes the environmental resources that would have no impact, or less than significant impacts and describes other effects of the Proposed Project. *Chapter 8.0* discusses the alternatives carried forward and dismissed from detailed evaluation. *Chapter 9.0* includes the mitigation monitoring and reporting program, *Chapter 10.0* documents consultation completed throughout the preparation of this SEIR, *Chapter 11.0* includes the list of preparers and *Chapter 12.0* includes abbreviations and acronyms. Volume II contains the Appendices which contain various reference materials, technical information, and record of coordination activities.

Table 1-1: Summary of Aircraft Activity

Annual Operations Type	Year 2019/2020		Year 2023		Year 2024		Year 2025	
	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
Passenger Carrier	24,472	24,472	24,738	24,738	25,627	25,627	26,605	26,605
All- Cargo Carrier	20,978	20,978	21,240	21,240	22,031	22,031	22,902	22,902
Air Taxi	542	542	506	506	524	524	545	545
General Aviation	6,868	6,868	8,541	8,541	8,570	8,570	8,600	8,600
Military	154	154	161	161	161	161	161	161
All Operations	53,013	53,013	55,184	55,184	56,913	56,913	58,812	58,812

Note: Totals may not sum due to rounding.

Source: ONT ANOMS, FAA TFMSC, OPSNET, TAF, and HNTB analysis, 2021.

ENDNOTES

¹ ONT, Pavement Management Plan, March 2020, p. 51.

² Office of Planning and Research (OPR), "Frequently Asked Questions Regarding the Proposed Updates to the CEQA Guidelines," https://opr.ca.gov/ceqa/docs/20171127_FAQs_Nov_2017.pdf (accessed 9/17/21).

³ OPR, Title 14, Division 6, Chapter 3 of the California Code of Regulations ("CEQA Guidelines"), 2018, Section 15163(c)(b).

⁴ OPR, CEQA Guidelines, 2018, Section 15094(g).

⁵ HNTB Construction Phasing Schedule, July 2020.

2.0 Proposed Project Description

This chapter includes background information related to ONT's location, airfield layout and airfield operations. Also included in this chapter are the Proposed Project objectives, detailed description of the Proposed Project and its components, and the intended use of the SEIR.

2.1 Project Location

ONT is located in San Bernardino County, approximately 35 miles east of Downtown Los Angeles in the center of Southern California and is considered part of the Inland Empire. The Airport resides on 1,741 acres of land with an elevation of 944 feet above mean sea level. The Airport is generally bounded by Southern Pacific Railroad on the north, and Mission Boulevard and Union Pacific Railroad on the south. S. Grove Avenue borders the airfield to the west and S. Haven Avenue borders the airfield to the east, however, the Airport property is bounded to the west by S. Cucamonga Avenue and to the east by S. Commerce Parkway and Doubleday Avenue. Primary access to the Airport is from Interstate 10 (I-10) via Archibald Avenue from the north and California State Route 60 (SR-60) via Haven Avenue from the South. Land uses immediately surrounding the Airport are primarily airport-related, industrial and commercial uses. The regional and project location is shown on **Figure 2-1**.

2.2 Site Description, Existing Land Uses and Airfield Operations

The Proposed Project would be developed entirely within airport property.

2.2.1 Site Description

Facilities on the Airport include two passenger terminals, general aviation facilities, air freight buildings, parking lots, and numerous airport and aircraft maintenance and support services. ONT has two parallel runways that are oriented in the east-west direction, Runways 8L-26R and 8R-26L. Runway 8R-26L, the primary runway during low visibility conditions, is 10,200' x 150' and is served by a full-length, parallel taxiway to the south (Taxiway S). Runway 8L-26R is 12,197' x 150' and is served by a full-length, parallel taxiway to the north (Taxiway N). There are 27 taxiways/taxilanes on the airfield which make up the taxiway system. There are also two commercial terminal aprons, a general aviation apron and two primary air cargo ramps. UPS facilities are located in the southeast quadrant of the Airport (with most of their facilities outside of and adjacent to Airport property) and FedEx facilities are in the northwest quadrant. **Figure 2-2** illustrates the Airport facilities.

The project site supports three drainages that flow beneath the work area through covered concrete channels and ultimately combine to form the Cucamonga Creek Channel. 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. Each of these channels are considered jurisdictional non-wetland waters of the U.S. based on



LEGEND

- Airport Property
- Direct Study Area
- County Boundary

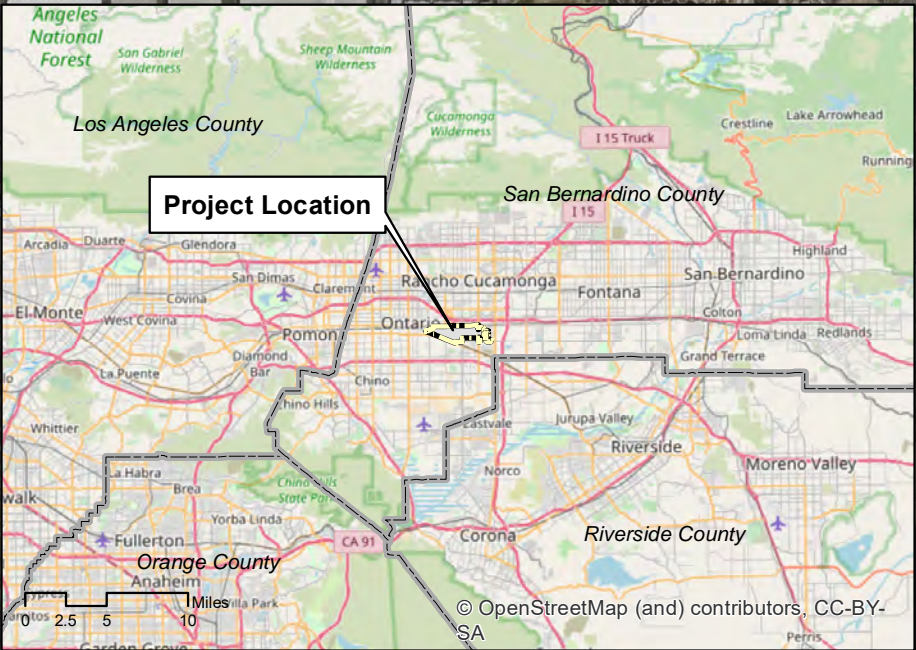
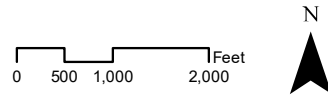


Figure 2-1

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



Project Location

Sources: OIAA, Nearmap, HNTB Analysis

DRAFT

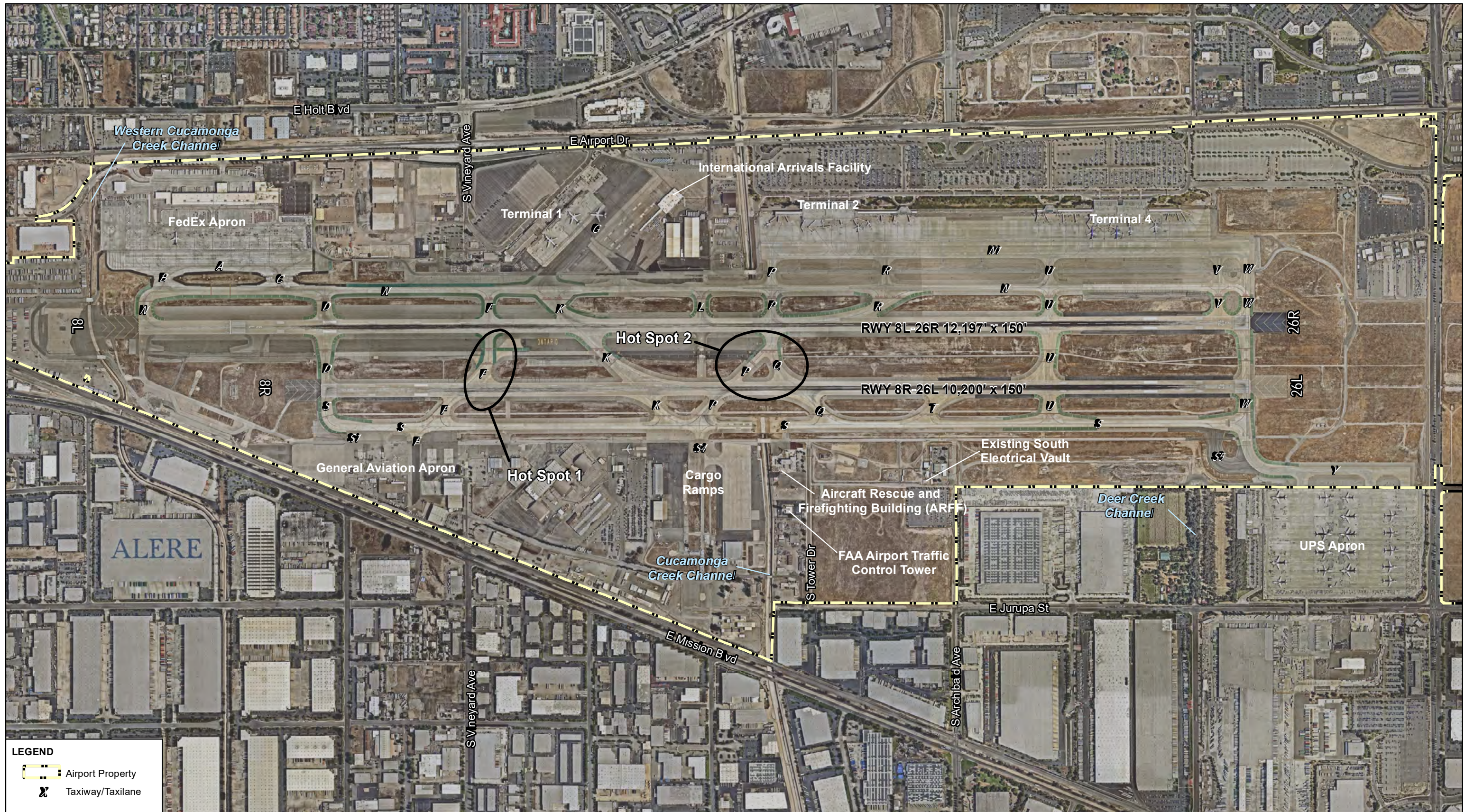


Figure 2-2

criteria defined by the U.S. Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB), Region 8.

2.2.2 Existing Land Uses

Land uses immediately surrounding the project site primarily include industrial and commercial uses. Surrounding land uses and designations are described below and shown on **Figure 2-3**. Specifically, land uses in relation to the Airport are as follows:

- **North:** The Airport is bordered to the north by E. Airport Drive and Southern Pacific (operated by Amtrak) railroad tracks. Land uses include business park, hospitality mixed-use (multi-modal and Guasti, a mixed-use district with plans for redevelopment), and office commercial land uses. Beyond the industrial, mixed use, and business uses to the west and northwest of the Airport are low- and medium-density residential land uses.
- **South:** The Airport is bordered by industrial land uses to the south, many of which are related to airport operations and cargo. Union Pacific (operated by BNSF Railway and Metrolink) railroad tracks and Mission Boulevard run from the northwest to the southeast along airport property. There is a small pocket of residential uses and mixed uses located south of the Airport, between S. Vineyard Avenue and S. Baker Avenue.
- **West:** S. Grove Avenue and industrial, vacant and commercial land uses are adjacent to the Airport to the west. A mixed-use development (E. Holt) is northwest of the Airport. Land use data¹ indicates residential land uses exist west of ONT however much of this area has been converted to Part 150 noise lands and for non-residential land uses in recent years. The industrial area west of the Airport is consistent with aircraft departure patterns at ONT and makes use of the nearby railroad.
- **East:** Industrial land uses are located to the east of Airport property, with multiple vacant land uses. A commercial overlay district is located southeast as well, south of E. Jurupa Street and east of N. Haven Avenue.

2.2.3 Airfield Operations

The three primary runway use configurations at ONT are (1) East Flow (depart and arrive on Runways 8L and 8R), (2) West Flow (depart and arrive on Runways 26L and 26R), and (3) Contra Flow. FAA Orders 1050.11 and 8400.9, require the FAA to promote, encourage, and cooperate with airport proprietors in development and implementation of noise abatement procedures including any associated runway use programs. In accordance with these Orders FAA developed a preferred runway use program for noise abatement that uses a procedure known as Contra Flow. Contra Flow is an operational noise mitigation strategy used at ONT to minimize noise over residential areas at night and thus occurs daily between 10:00 PM and 7:00 AM when weather and wind conditions allow. Under certain circumstances in the interest of safety, airport efficiency, or aircraft operational necessity, pilots and FAA Air Traffic Control may deviate from noise abatement procedures.

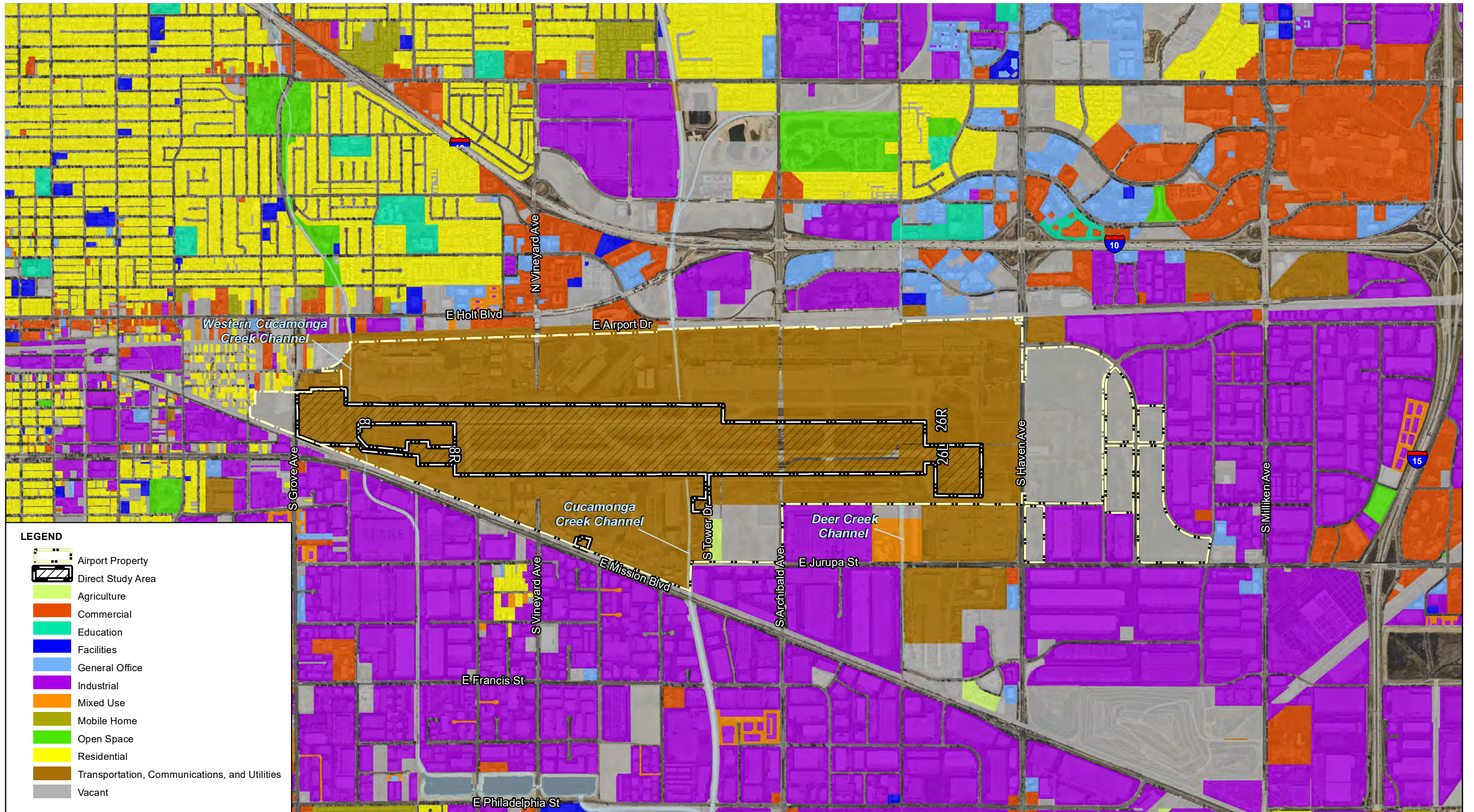


Figure 2-3

Contra Flow during nighttime operations was first implemented at ONT in 1988, and has been reinforced through FAA Records of Approval for ONT’s first Noise Compatibility Program (NCP) in 1990 and has been approved for continuation in subsequent updates, initially through FAA Order ONT 7110.5E and now by ONT Order 7110.65B. As stated in ONT Rules and Regulations (August 2019), “By FAA Letter of Agreement (LOA), ATC [Air Traffic Control] shall employ the noise abatement preferential runway use procedures...” including Contra Flow operations. Under Contra Flow operations at ONT, jet departures take off to the east (from Runways 8L and 8R) and arrivals land to the west (on Runways 26L and 26R). It is important to note that while jet aircraft depart to the east under Contra Flow, propeller aircraft (turboprop and piston aircraft) will primarily depart to the west. It should be noted that FAA has exclusive authority to control the operation of aircraft both in the air and on the airport taxiways and runways. The ONT Rules and Regulations also state that “Contra-flow procedures shall be discontinued when atmospheric conditions (wind and low cloud ceilings), or when aircraft operations and construction activities require.”

Figure 2-4 illustrates the corresponding arrival and departure runways and **Table 2-1** identifies the runway use configuration paired with the corresponding arrival and departure runways.

Table 2-1: Primary Runway Use Configurations

	East Flow	West Flow	Contra Flow
Arrival Runway(s)	8L, 8R	26L, 26R	26L, 26R
Departure Runway(s)	8L, 8R	26L, 26R	8L, 8R ⁽¹⁾

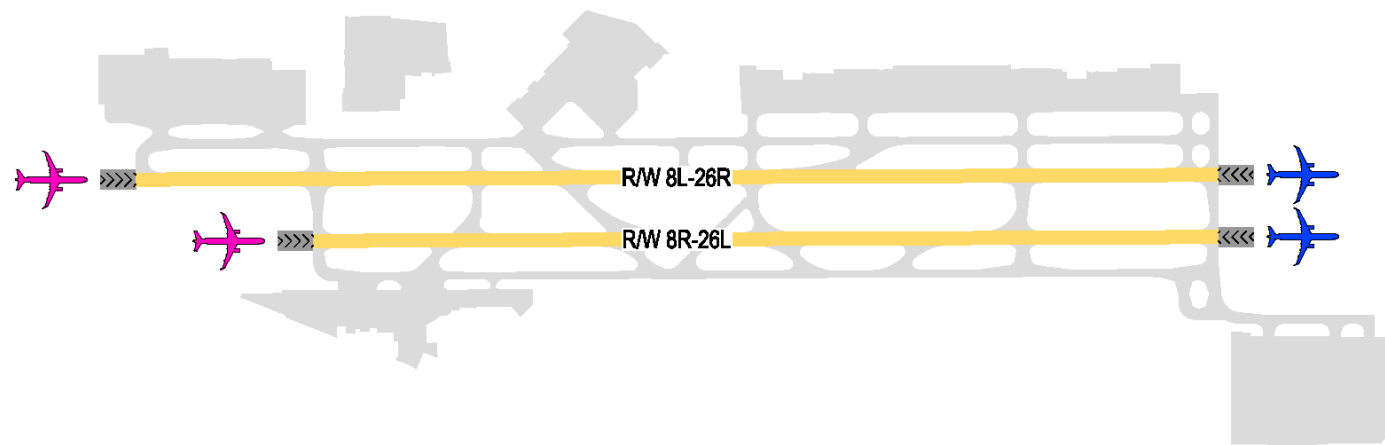
Note: ¹Jet aircraft are required to depart to the east from Runways 8L and 8R under Contra Flow; propeller aircraft can depart to the west.

Source: Airport Traffic Control Tower (ATCT) coordination meeting held on March 31, 2021, and HNTB analysis.

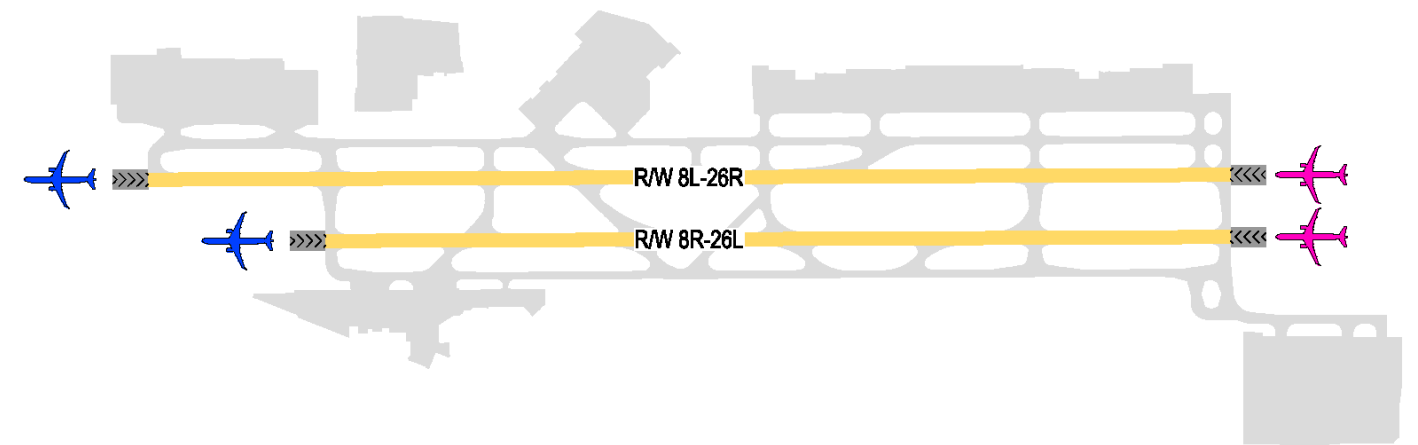
2.3 Project Objectives

The objectives of this Proposed Project are to make improvements to the ONT airfield via rehabilitation and reconstruction of pavement and relocation and facilities that would:

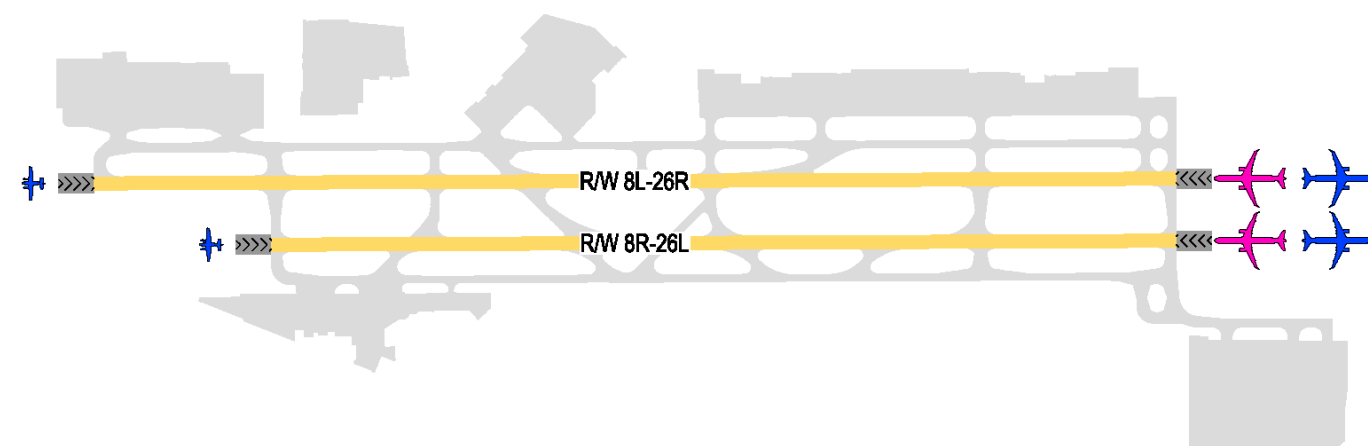
- Prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP;
- Meet current FAA standards;
- Improve safety on the airfield;
- Enhance airfield efficiency;
- Provide adequate infrastructure to support airfield and navigational power requirements; and
- Maximize available FAA funding for construction.



EAST FLOW



WEST FLOW



CONTRA FLOW

DRAWING LEGEND

ARRIVAL RUNWAY		
DEPARTURE RUNWAY		
RUNWAY PAVEMENT		
BLAST PAD		
TAXIWAY / APRON PAVEMENT		

NOTES

(1) PROPELLER AIRCRAFT ARE ALLOWED TO DEPART TO THE WEST FROM RUNWAYS 26L AND 26R DURING CONTRA FLOW.

Prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP: The maintenance, rehabilitation and/or reconstruction aspect of the Proposed Project is based on the 2020 ONT PMP's assessment of current airfield pavement conditions and assigned pavement condition index (PCI) values for all runways, taxiways, aprons and vehicle service roads. The report sequences this maintenance based on the priority of the pavements, severity of distresses, and available funding. The 2020 ONT PMP is provided in **Appendix C, Pavement Management Program (PMP)**.

Meet current FAA standards: Connector taxiways would be reconstructed to align more closely with current FAA standards, as well as to improve pavement conditions for air traffic throughout the airfield. Objects located within the RSA and ROFA need to be relocated to meet FAA standards.

Improve safety on the airfield: Several taxiways need to be modified to address Hot Spots at ONT. A Hot Spot is defined as a location on an airport movement area with a history of potential risk of collision or runway incursion, and where heightened attention by pilots and drivers is necessary. The rehabilitation of the runway and several taxiways, as well as the relocation of objects and the VSR outside the RSA and ROFA would also improve safety on the airfield.

Enhance airfield efficiency: Runway 8R-26L requires rehabilitation and reconstruction as it was built in 1979 and has exceeded the intended design service life of 20-years. Runway shoulder replacement is also proposed along sections of Runway 8L-26R in the vicinity of taxiway improvements. The proposed pavement sections would be designed for a 20-year life for all runways, shoulder pavements, blast pad pavement, and for the new taxiway pavement. Relocations, rehabilitations and new or modified taxiway connections would also enhance efficiency on the airfield.

Provide adequate infrastructure to support airfield and navigational power requirements: The airfield improvements would result in electrical power requirements that cannot be accommodated with the existing south electrical vault, which is outdated and difficult to maintain. A replacement south electrical vault in a new location (in order to not have a lapse in operation) is needed to accommodate the electrical needs of the Proposed Project.

Maximize available FAA funding for construction: OIAA is reliant on FAA funding through the Airport Improvement Program (AIP) for large scale construction needs such as the Proposed Project. FAA has indicated that AIP funding is expected to be available to support the Proposed Project if completed over a three-year period (2023, 2024 and 2025). Although construction of the project would be physically possible over a shorter duration, FAA funding availability dictates construction timeframes.

2.4 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 objects located within the RSA and ROFA, and relocation of the south electrical vault. The individual project components, that in total make up the Proposed Project, their justification, and connected actions are described in detail according to the type of improvement (e.g., runway, taxiway/airfield, relocation need) and are illustrated on **Figure 2-5**.

The Proposed Project would not result in increased runway capacity. Runway use and flight patterns would not be impacted after the Proposed Project is implemented. However, during runway closure periods as part of construction, all operations would occur on a single runway. Because the two runways are parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. The only change in flight patterns during temporary runway closure periods may result from FAA Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations during nighttime (10:00 PM to 7:00 AM), as defined in *Section 2.2.3, Airfield Operations*. Since Contra Flow would not be used by ATC when operating on a single runway, there would be temporary increases in noise exposure to the west of the Airport during nighttime operations.

The airfield drainage includes tributary areas on the airfield located between the runways and taxiways. The proposed taxiway improvements would not modify the basic drainage pattern within the airfield, however the drainage areas between the runways and taxiways 'S' and 'N' are being modified to accommodate existing connector taxiways and construction of the new connector taxiways.

A concrete batch plant is proposed in the industrial area south of the airfield on ONT property on the south side of E. Avion Street on a partially paved and flat parcel that is, flanked by E. Mission Boulevard (and railroad tracks) to the south, and industrial abandoned (industrial) uses on either side as shown in Figure 2-5. The batch plant would enable the Airport to mix concrete onsite, thereby reducing project costs significantly. A new concrete pad would be constructed on which to place the batch plant equipment. It is assumed that once the project is completed, the pad constructed for the batch equipment will be left in place until such time that the land is needed for other uses.

The runway program would be constructed over a three-year period in 2023, 2024 and 2025 due to FAA AIP funding availability.

2.4.1 Runway Improvements

The runway improvements would meet the objectives to improve safety on the airfield and enhance airfield efficiency.

Project Element #1 - Rehabilitate Runway 8R-26L:

As noted in the 2020 ONT PMP, Runway 8R-26L requires rehabilitation and reconstruction after 40 plus years of use. According to the PMP, due to the age and the type of distresses, full reconstruction of the keel section and maintenance and



LEGEND

- Runway Spall and Crack Repair
- Runway Keel Replacement
- Runway Shoulder Replacement
- Taxiway Pavement Removal
- New Painted Island
- New Taxiway Pavement
- New Taxiway Shoulder
- Taxiway Panel Replacement
- Taxiway Rehabilitation
- Blast Pad Replacement Rehabilitation
- Relocated South Electrical Vault
- Utilities to Relocated South Electrical Vault
- Relocated Holding Position Markings
- Vehicle Service Road Pavement
- Contractor Staging Area
- Airport Property Line
- Relocated Runway 8R PAPI
- Relocated Runway 26L Localizer Equipment Building
- Contractor's Access Point - (Guard Protected)
- On-Airport Haul Route
- Proposed Batch Plant Location

PROPOSED PROJECT ELEMENTS

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (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 | <ul style="list-style-type: none"> (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 |
|---|--|--|

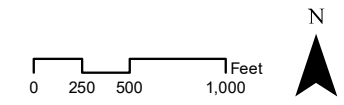


Figure 2-5

rehabilitation projects repairing the large amount of joint seal damage and spalling of the outboard sections are necessary at this time.

For the 2020 ONT PMP, the runways were split into three distinct pavement sections (i.e., outboard northern section, a center keel section and an outboard southern section). This project element would replace or reconstruct the concrete keel section (center section) of the runway and associated centerline (CL) lights and striping. Spall and crack repair on concrete on the north and south sides of the runway's keel section is also proposed. Approximately 714,000 SF of existing runway shoulder asphalt concrete (AC) would be replaced or reconstructed and associated edge lights would be replaced.

Project Element #1 has the following connected actions:

- The CL lights replacement includes the lights, pavement light cans, underground conduit and wiring.
- For runway edge lighting and signage, the affected existing airfield signage, edge lights, pavement light cans, underground conduit and wiring would be replaced.
- Replace or reconstruct the asphalt concrete blast pads, 200' Wide (W) x 400' Long (L) at both ends of Runway 8R-26L and associated striping (160,000 square feet (SF) total).
- Replace runway shoulder as shown in Figure 2-5.

The runway improvements would meet the objectives to improve safety on the airfield, enhance airfield efficiency and provide adequate infrastructure to support airfield and navigational power requirements.

2.4.2 Taxiway and Other Airfield Improvements

The taxiway and other improvements would meet the objectives to meet current FAA standards, improve safety on the airfield, and enhance airfield efficiency

Taxiway and other airfield improvements are needed both to meet FAA design standards such as taxiway geometry and hold bar locations, as well as to address deterioration as discussed in the 2020 ONT PMP. Construction, reconstruction, or modification of several taxiways, taxiway connectors and bypass taxiways is proposed to improve safety and enhance efficiency on the airfield.

Taxiway improvements also include fillet modifications and panel rehabilitation or replacement. The taxiways connect the runways (e.g., F, K, P and Q) and are deteriorating. The age of these taxiways is now exceeding their 20-year design pavement life and structural issues such as linear cracking and shattered slabs were seen during the pavement inspection. While full reconstruction of these taxiways may not be necessary at this time, rehabilitation repairs need to be made. This includes

several runway hold bar locations that need to be relocated to meet FAA design standards. This includes Project Elements #2 through 20, as discussed below:

Project Element #2 - Modify Existing Connector Taxiway F and Redesignate as Taxiway E

The existing connector Taxiway F between Taxiway S and Runway 8R-26L does not meet the runway at a 90-degree angle and there is an elevation change of approximately five feet between the runway centerline and the Taxiway S centerline. These are contributing factors to Hot Spot 1 at ONT, resulting in a potential loss of situational awareness.

Project Element #2 is to modify the existing Taxiway F to a standard 90-degree runway exit taxiway by changing the fillet geometry and shifting Taxiway F's centerline start of curvature with Runway 8R-26L further to the west. The proposed new crossing Taxiway would be redesignated as Taxiway E (depicted as Project Element #9) would connect to this connector taxiway. This project element would result in a net increase of approximately 8,100 SF of pavement.

Project Element #2 has the following connected actions:

- Replace centerline striping with CL lights;
- Replace taxiway edge striping with taxiway edge lights;
- Shorten Runway Hold Bar by 50 feet (ft.) and relocate runway guard lights; and
- Relocate six above ground directional signs.

Project Element #3 - Remove Existing Taxiway F between Runways 8L-26R and 8R-26L and Construct New Exit Taxiway F

This is the location of Hot Spot 1 at ONT. The removal of the existing Taxiway F would mitigate the Hot Spot. The new exit Taxiway F would allow aircraft landing on Runway 26L to exit and cross Runway 8L-26R to reach Taxiway N. Fillet modifications are proposed on new Taxiway F between Runway 8L-26R and Taxiway N to meet FAA design standards. This project element would result in a net increase of approximately 33,650 SF of pavement.

Project Element#3 has the following connected actions:

- Replace centerline striping with CL lights;
- Replace taxiway edge striping with taxiway edge lights;
- Install 300 ft. of Runway Hold Bar with Runway Guard Lights; Remove 315 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate ten above ground directional signs.

Project Element #4 - Construct Exit Taxiway S5

Exit Taxiway S5 would be located between Taxiways K and E, south of Runway 8R-26L and is a high-speed exit providing access to Taxiway S for heavy cargo arriving aircraft. This project element includes 116,535 SF of additional pavement and a painted island (19,000 SF).

Project Element #4 has the following connected actions:

- New centerline striping with CL lights;
- New taxiway edge striping with taxiway edge Lights;
- Install 280 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install six above ground directional signs.

Project Element #5 - Reconstruct Existing Exit Taxiway K (South)

The existing exit Taxiway K between Runway 8R-26L and Taxiway S does not meet the runway at a 90-degree angle. Project Element #5 is to modify the existing taxiway to a standard 90-degree runway exit taxiway by changing the fillet geometry and shifting Taxiway K's centerline start of curvature with Runway 8R-26L further to the east. This project element would not result in a change in pavement area.

Project Element #5 has the following connected actions:

- Replace centerline striping with CL lights;
- Replace taxiway edge striping with taxiway edge lights;
- Relocate 250 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate four above ground directional signs.

Project Element #6 - Reconstruct Existing Exit Taxiway P to a High-Speed Exit and Redesignate as Taxiway S8

Project Element #6 would utilize the existing portion of the exit Taxiway P alignment to construct a high-speed exit between Runway 8R-26L and Taxiway S. This project element would also assist in mitigating Hot Spot 2 by eliminating the ability to cross both runways at an acute angle in conjunction with the other improvements to Taxiways P and Q included in Project Elements #7 and #19. Taxiway S8 would meet FAA geometric standards through a change to the fillet design to allow for both west bound and eastbound movements on Taxiway S after exiting Runway 26L. This project element would result in a net increase of 65,647 SF of pavement and includes a new painted island (19,016 SF).

Project Element #6 has the following connected actions:

- Replace centerline striping with CL lights;
- Replace taxiway edge striping with taxiway edge lights;

- Install 280 ft. of Runway Hold Bar with Runway Guard Lights; Remove 225 ft. of existing Runway Hold Bar with Runway Guard Lights; and
- Relocate six above ground directional signs.

Project Element #7 - Remove Existing Taxiway P between Runways 8L-26R and 8R-26L

The existing wide expanse of pavement formed by the intersection of Taxiways P and Q between Runways 8L-26R and 8R-26L would be removed. This intersection encompasses the location of Hot Spot 2, and is a wide expanse of pavement where pilots can experience a loss of situational awareness, which would be mitigated in conjunction with Project Elements #6 and #19. Aircraft exiting Runway 8R to the north would now be directed to exit at Taxiway U, which is outside of the high-energy portion of Runway 8L-26R. This project element would result in removal of 124,275 SF of pavement.

Project Element #7 has the following connected actions:

- Remove centerline striping with CL lights;
- Remove taxiway edge striping with TW edge lights;
- Remove 485 ft. of Runway Hold Bar with Runway Guard Lights; and
- Remove 12 above ground directional signs.

Project Element #8 - Construct Bypass Taxiway S11

The construction of bypass Taxiway S11, which would connect Runway 8R-26L to Taxiway S, would further enhance ATC staging and flexibility by ensuring that there is a bypass entrance onto Runway 26L within 500 feet west of Taxiway W. Existing Taxiway S5 south of Taxiway S, which directly aligns with new S11 would be redesignated as Taxiway S11 as well. This project element would result in the addition of 59,875 SF of pavement.

Project Element #8 has the following connected actions:

- New centerline striping with CL lights;
- New taxiway edge striping with TW edge lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install 10 above ground directional signs.

Project Element #9 - Construct Crossing Taxiway E between Runways 8R-26L and 8L-26R

The construction of crossing Taxiway E between Runway 8R-26L and Runway 8L-26R would enhance ATC staging and ground maneuvers by facilitating a north-south airfield crossing without encumbering aircraft that are queued to depart the full length

of Runway 8R-26L. This project would result in the addition of 145,100 SF of pavement.

Project Element #9 has the following connected actions:

- New centerline striping with CL lights;
- New taxiway edge striping with TW edge lights;
- Install 500 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install 16 above ground directional signs.

Project Element #10 - Construct Bypass Taxiway S3

This project would provide a bypass entrance to Runway 8R from Taxiway S and would enhance ATC staging and flexibility by allowing for departures to the east to access Runway 8R within 500 feet of Taxiway S1, qualifying it as a full-length departure point and not subject to additional wake turbulence separation penalties. This would afford the ability to bypass aircraft that are queued at Taxiway S1 either waiting for clearance to depart Runway 8R or to transit to the north side of the field. This project element would result in the addition of 63,300 SF of pavement.

Project Element #10 has the following connected actions:

- New centerline striping with CL lights;
- New taxiway edge Striping with TW edge lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install six above ground directional signs.

Project Element #11 - Construct Crossing Taxiway E between Runway 8L-26R and Taxiway N

The construction of crossing Taxiway E between Runway 8L-26R and Taxiway N would enhance ATC staging and ground maneuvers by facilitating a north-south airfield crossing without encumbering aircraft that are queued to depart the full length of Runway 8R-26L. This project element would result in the addition of 145,100 SF of pavement.

Project Element #11 has the following connected actions:

- New centerline striping with CL lights;
- New taxiway edge striping with TW edge lights;
- Install 500 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install 16 above ground directional signs.

Project Element #12 - Reconstruct Existing Taxiway L as a High-Speed Exit Taxiway

Existing Taxiway L is proposed to be reconstructed as a high-speed exit taxiway to allow aircraft landing on Runway 26R to efficiently exit the runway when landing in west flow. This project element would allow aircraft to clear the runway environment to avoid a loss of separation. This reconstruction project element includes new concrete pavement, a painted island (19,000 SF), and pavement demolition. The project element would result in a net increase of 79,990 SF of pavement.

Project Element #12 has the following connected actions:

- New Centerline Striping with CL Lights; Remove Centerline Striping with CL Lights;
- New Taxiway Edge Striping with TW Edge Lights; Remove Taxiway Edge Striping with TW Edge Lights;
- Install 290 ft. of Runway Hold Bar with Runway Guard Lights; Remove 115 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate six above ground directional signs.

Project Element #13 - Construct Bypass Taxiway N2

This project element would provide a bypass entrance to Runway 8L from Taxiway N and would enhance ATC staging and flexibility by allowing for departures to the east to access Runway 8L within 500 feet of Taxiway N1, qualifying it as a full-length departure point and not subject to additional wake turbulence separation penalties. This would afford the ability to bypass aircraft that are queued at Taxiway N1 waiting for clearance to depart Runway 8L. The project element would result in 58,280 SF of additional pavement.

Project Element #13 has the following connected actions:

- New Centerline Striping with CL Lights;
- New Taxiway Edge Striping with TW Edge Lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; and
- Install six new above ground directional signs.

Project Element #14 - Rehabilitate Taxiway D, Taxiway S1 and Taxiway U Pavement

Portions of Taxiway D, Taxiway S1 and Taxiway U (south of Runway 8R-26L) pavement need to be rehabilitated, as indicated in 2020 ONT PMP. In total, approximately 165,000 SF of existing pavement would be rehabilitated.

Project Element #15 - Construct Fillet Modifications on Taxiway F between Runway 8L-26R and Taxiway N

Fillet widening modifications are proposed on Taxiway F between Runway 8L-26R and Taxiway N to meet FAA design standards for Taxiway Design Group (TDG) 6 aircraft. This project element would result in an additional 28,350 SF of pavement.

Project Element #15 has the following connected actions:

- New Taxiway Edge Striping with TW Edge Lights; Remove Taxiway Edge Striping with TW Edge Lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; Remove 115 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate five above ground directional signs.

Project Element #16 - Construct Fillet Modifications on Taxiway K (North) between Runway 8L-26R and Taxiway N

Fillet widening modifications are proposed on Taxiway K between Runway 8L-26R and Taxiway N to meet FAA design standards for TDG 6 aircraft. This project element would result in a net decrease of 22,080 SF of pavement.

Project Element #16 has the following connected action:

- New Taxiway Edge Striping with TW Edge Lights; Remove Taxiway Edge Striping with TW Edge Lights.

Project Element #17 - Rehabilitate/Replace Panels on Taxiway K (Middle) between Runways

Panel rehabilitation/replacement is proposed on Taxiway K between Runway 8L-26R and Runway 8R-26L based on low PCI values, as indicated in 2020 ONT PMP.

Project Element #18 - Construct Fillet Modifications on Taxiway Q between Runway 8L-26R and Taxiway N

Fillet modifications are proposed on Taxiway Q between Runway 8L-26R and Taxiway N to meet FAA design standards for TDG 6 aircraft. The project element would result in an increase of 8,500 SF of additional pavement.

Project Element #18 has the following connected actions:

- New Taxiway Edge Striping with TW Edge Lights; Remove Taxiway Edge Striping with TW Edge Lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; Remove 115 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate six above ground directional signs.

Project Element #19 - Construct Fillet Modifications on Taxiway Q between Runways

Fillet modifications are proposed on Taxiway Q between the runways to meet FAA design standards for TDG 6 aircraft. The project element would not result in any additional pavement.

Project Element #19 has the following connected actions:

- New Taxiway Edge Striping with TW Edge Lights; Remove Taxiway Edge Striping with TW Edge Lights;
- Install 250 ft. of Runway Hold Bar with Runway Guard Lights; Remove 115 ft. of Runway Hold Bar with Runway Guard Lights; and
- Relocate two above ground directional signs.

Project Element #20 - Relocate Hold Bar Position Markings

Project Element #20 would standardize the runway hold bar locations to meet FAA design standards for runway centerline to hold bar position marking. This improvement would be made at the following locations: Taxiway D holding short of Runway 8L, Taxiway K holding short of Runway 8L, Taxiway Q holding short of Runway 8R, and Taxiway S1 holding short of Runway 8R.

Project Element #20 has the following connected action:

- Install in-pavement and above ground elevated runway guard lights.

This project element enhance situational awareness of approaching a runway environment and reduce the likelihood of a runway incursion to occur.

The taxiway and other airfield improvements would meet the objectives to meet current FAA standards, improve safety on the airfield, enhance airfield efficiency and provide adequate infrastructure to support airfield and navigational power requirements.

2.4.3 Relocation of Objects to Outside of the Runway Safety Area (RSA), Runway Object Free Area (ROFA) and Taxiway Object Free Area (TOFA)

The relocation of objects would meet the objectives to meet current FAA standards, improve safety on the airfield, and enhance airfield efficiency.

Several objects and navigational aids (NAVAIDS) are currently located within the RSA or ROFA. The objects need to be removed and/or relocated clear of the ROFA. This includes Project Elements #21 through 24.

Project Element #21 - Relocate Runway 8R PAPI

The existing Runway 8R precision approach path indicator (PAPI) is located within the alignment designated for crossing Taxiway E. This project element would relocate the Runway 8R PAPI approximately 250 feet east of its current position to be clear of the Taxiway E TOFA while still maintaining a threshold crossing height within the standard range.

Project Element #22 - Relocate Perimeter Fence and Remove Objects within the Runway 8L-26R ROFA

Approximately 1,570 LF of existing perimeter fence is located within the ROFA beyond the end of Runway 8L and would be relocated outside of the ROFA. The existing light poles, temporary concrete barriers (K-rail), parking lot and several ornamental trees that line the parking lot would be removed and/or relocated clear of the ROFA.

Project Element #23 - Relocate Runway 26L (8R End) Localizer Equipment Building

The Runway 26L (8R End) localizer equipment building is currently located within the RSA for Runway 8R-26L. This project element would relocate the building approximately 165 feet west of its current location to clear both the RSA and ROFA.

Project Element #24 - Modify Existing Vehicle Service Road

The existing VSR beyond the end of Runway 26L is located within the ROFA. The Proposed Project realigns the VSR to remain clear of the ROFA. The existing VSR pavement to be removed is 17,890 SF. The VSR pavement to be added is 32,810, a net increase of 14,920 SF.

The relocation of objects to outside of the RSA, ROFA and TOFA would meet the objectives to meet current FAA standards and improve safety on the airfield.

2.4.4 Relocation of the South Electrical Vault

The relocation of the south electrical vault would meet the objectives to provide adequate infrastructure to support airfield and navigational power requirements.

Project Element #25 – Relocate South Electrical Vault

To support the taxiway improvements and future rehabilitation of Runway 8R-26L, the existing south electrical vault must be replaced. The airfield improvements would result in electrical power requirements that cannot be accommodated with the existing south electrical vault, which is outdated and difficult to maintain. The existing south electrical vault was built in 1980 and does not meet the latest building code (Ventilation) and Air Quality Management District (AQMD) requirements. Additionally, the parts needed to maintain and repair the existing system to meet the new electrical requirements are not readily available due to its age. As a result, the

existing south electrical vault would be replaced and relocated. The south electrical vault is proposed to be relocated to an area between the ATCT and the Aircraft Rescue and Firefighting (ARFF) building, in the ARFF Auxiliary Lot. The new location for the vault is needed in order to build and commission the new vault before the existing vault can be decommissioned. Utility service to the relocated new south electrical vault would be provided along Tower Drive, tying into airfield utilities along Taxiway S. The new south electrical vault would be constructed at grade, however the utility service connection to the relocated vault would require placement of underground conduit to contain the electrical feed. The conduit would be within four feet of the surface, which requires trench excavation to a maximum depth of six feet to construct the ductbank. The ductbank would be encased in concrete.

The relocation of the south electrical vault would meet the objective to provide adequate infrastructure to support airfield and navigational power requirements.

2.5 Intended Uses and Purpose of the Supplemental EIR

The SEIR is intended to:

- Supplement the 1991 Certified FEIR and address project modifications, changed circumstances, or new information that was not known and could not have been known with the exercise of reasonable diligence at the time the prior document was certified, as described in CEQA Guidelines Section 15163;
- Address new or substantially changed significant environmental effects related to proposed project modifications;
- Recommend mitigation measures to avoid or lessen impacts associated with any new or substantially more severe significant environmental effects; and
- Update the impact analysis and mitigation measures where conditions have changed since the certification of the 1991 Certified FEIR.

OIAA has principal responsibility for approving the Proposed Project. Agencies and City entities which may be required to take actions associated with the Proposed Project include, but may not be limited to, the following:

- U.S. Department of Transportation Federal Aviation Administration (FAA)
- South Coast Air Quality Management District (SCAQMD)
- Regional Water Quality Control Board (RWQCB), Region 8
- San Bernardino County Flood Control District
- City of Ontario (regarding ministerial building permit and related matters)
- Other Federal, State or local approvals, permits, or actions as may be deemed necessary.

ENDNOTES

¹ Southern California Association of Governments (SCAG) Annual Land Use Data, 2019.

3.0 Environmental Setting

This chapter provides a description of the physical environmental conditions in the vicinity of the Proposed Project from both a local and regional perspective. Per CEQA Guidelines Section 15125(a), "An EIR must include a description of the physical environmental conditions in the vicinity of the project. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." Also, per CEQA Guidelines Section 15125(a)(1), physical conditions are generally described "as they exist at the time the notice of preparation is published... Where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence." This chapter provides rationale for the adjusted Baseline Conditions used in the review of air quality, greenhouse gas emissions (GHGs), and noise.

Additionally, the Proposed Project was compared to the project analyzed in the Certified 1991 FEIR to determine which CEQA environmental issue areas warranted further analysis in this SEIR. The Certified 1991 FEIR studied aircraft operations at ONT needed to serve 12 million annual passengers, which is a greater number of aircraft operations than in the existing conditions or baseline studied in this SEIR.

3.1 Regional Setting

Pursuant to CEQA Guidelines Section 15125(a), this section provides information on the regional setting. Refer to discussions of individual topics in *Sections 3.4* through *3.10* of this chapter and brief overviews of other environmental factors in *Chapter 7.0, Effects Found Not to be Significant*. In addition, overviews of the existing Project site and ONT are provided in *Chapter 1.0, Introduction* and *Chapter 2.0, Project Description*.

3.1.1 Local Jurisdictions

OIAA is a separate and independent public agency under California law. ONT is located in the City of Ontario, which encompasses approximately 50 square miles in southwestern San Bernardino County. As shown in Figure 2-1, the City of Ontario has a population of approximately 180,000 people.¹ The City is surrounded by the cities of Chino and Montclair, and unincorporated areas of San Bernardino County to the west; the cities of Upland and Rancho Cucamonga to the north; the City of Fontana and unincorporated land in San Bernardino County to the east; and unincorporated Riverside County land to the south.

San Bernardino County encompasses approximately 20,100 square miles in an area of southern California known as the "Inland Empire" and has a population of over 2.2 million people. According to the Southern California Association of Governments (SCAG), the Metropolitan Planning Organization (MPO) for the region, between 2000

and 2018, the total population of San Bernardino County increased by 464,799 to 2,174,938.² The Inland Empire consists of southwestern San Bernardino County and western Riverside County. The cities of Riverside and San Bernardino, both of which are located east of Ontario, are the major population centers of the Inland Empire.

3.1.2 Regional Land Use Patterns

ONT is located in a highly developed and mostly urban/suburban environment. In general, commercial and mixed-use development are north and east of the Airport, and commercial shopping centers generally align with the I-15 and I-10 corridors. Northeast of the interchange of the two interstates is primarily industrial. Further north is dominated by single family residential neighborhoods which extend to the southern edge of the San Bernardino National Forest, approximately seven miles north of the Airport.

Approximately two miles west of ONT is the historic downtown, civic center, and SR-83 (Euclid Avenue). This area contains smaller lots, a grid street pattern, single- and multi-family homes.

The area south of State Route 60 (SR-60) is characterized by large single-family and master-planned communities (which are approximately 1.5 miles away from the south boundary of ONT) with commercial shopping centers at major intersections. Beyond this area to the south of Riverside Drive includes the New Model Colony mixed-use centers and residential neighborhoods focused around centers of employment, commercial, cultural, and residential uses largely connected by greenways and trails, and the Great Park, a linear open space facility.

Regional circulation to and through the City is provided by I-10 and SR-60 east–west, and by I-15 and SR-83 north–south. Uses and designations immediately surrounding the Airport are discussed in *Section 2.2.2, Existing Land Uses* and shown on Figure 2-3.

3.1.3 Regional Topography

ONT is located in the upper Santa Ana Valley, which is surrounded by the San Gabriel Mountains to the north, the San Bernardino Mountains to the northeast, the Puente Hills and Chino Hills to the southwest and the San Jose Hills to the west. The City of Ontario is approximately 925 feet above sea level, and ONT's surveyed elevation is 944.1 feet above sea level. Major drainages in the Ontario portion of the upper Santa Ana Valley are San Antonio and Cucamonga creeks, which flow south and join the Santa Ana River at the Prado Flood Control Basin. The Santa Ana River (when flowing) discharges to the Pacific Ocean just south of Huntington Beach in Orange County.

3.2 Use of Existing Conditions vs. Baseline Conditions

3.2.1 Existing Conditions

This section describes the existing physical conditions in the year 2021 for the following resource categories that could be affected by the Proposed Project: biological resources, cultural resources, transportation/traffic and tribal cultural resources. See *Section 3.2.2, Baseline Conditions* for discussion of existing conditions utilized for air quality, GHGs, and noise resource categories.

3.2.2 Baseline Conditions

The term "Baseline Conditions" is applied for discussion of the hybrid 2019/2020 base year (baseline) condition, as it relates to the air quality, GHG, and noise environments, as introduced in *Section 1.5, Aviation Activity Forecast and Years Reviewed in Environmental Analysis*. Per CEQA Guidelines Section 15125(a)(1), "where necessary to provide the most accurate picture practically possible of the project's impacts, a lead agency may define existing conditions by referencing historic conditions, or conditions expected when the project becomes operational, or both, that are supported with substantial evidence." Due to the COVID-19 pandemic, existing conditions in 2021 do not represent activity levels that have been, or will be, typical of ONT or that are reasonably expected to exist during the timeframe for project implementation.

Specifically, the FAA advised, as part of their annual Terminal Area Forecast (TAF) "In 2020 there was a major decrease in passenger enplanements and commercial operations as a result of the COVID-19 pandemic. There is uncertainty associated with the forecasts because of the uncertainty regarding the path of the pandemic and its economic impacts."³ FAA estimated that medium hub airports (ONT is a medium hub airport) would have an aggregate recovery to 2019 levels of aircraft operations and enplanements by 2025, however the projections for ONT indicate operations will exceed 2019 levels by 2023.⁴ These estimates were developed prior to the extensive uptake in passenger activity in mid to late 2021 and are thus likely under-representative of the recovery expected at ONT. Importantly, the recovery estimated by FAA in their TAF released in May of 2021 does not incorporate the additional cargo activity that occurred in 2020 in response to the world's reliance on cargo carriers during the pandemic. ACI-NA reported an increase of approximately 17% in cargo operations between 2019 and 2020⁵ and ONT ranked 10th in North American airports for cargo activity, growing approximately 21% in total cargo when compared to 2019.

Thus, to more accurately represent historically consistent existing conditions at ONT, and to avoid a potentially misleading comparison of project impacts, these resource categories (noise, air quality, and GHGs) are described and compared using a hybrid of 2019 and 2020 operations. The Baseline Conditions noise contour for this SEIR was developed using calendar year 2019 aircraft operations with modifications to reflect increased cargo operations experienced during 2020 and continuing into 2021. As explained in *Section 1.5, Aviation Activity Forecast and Years Reviewed in Environmental Analysis*, the existing/base year fleet mix is a hybrid of 2019 and 2020

operations and was based on the ONT ANOMS radar data from 2019 and 2020, and FAA Traffic Flow TFMSC and OSPNET. Specifically, passenger air carriers, air taxi, and GA operations were obtained from the 2019 ANOMS data and the all-cargo operations were obtained from the 2020 ANOMS data. The military operations were obtained from the FAA TFMSC data.

This approach serves to normalize operations to represent Baseline Conditions recognizing that the temporary reduction in passenger air carrier and air taxi operations, due to the COVID-19 pandemic, is not indicative of baseline/existing conditions at ONT.

3.3 Environmental Factors with Potential for Impact

It was determined that the following environmental factors would be potentially affected by this Proposed Project and thus the existing conditions of each are evaluated in detail in this chapter:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Cultural Resources
- Noise
- Transportation/Traffic
- Tribal Cultural Resources

Note that while the findings included in the June 2021 IS remain valid that Cultural Resources and Transportation/Traffic have less than significant impact, and Biological Resources and Tribal Resources findings have less than significant impact with mitigation incorporated, additional discussion of these resources is included in this chapter and *Chapter 4.0, Environmental Impacts and Mitigation* to support that determination. These environmental factors are organized into the following sections:

- Regulatory Setting
- Existing Conditions or Baseline Conditions

The remaining environmental factors were determined to not have new or substantially more significant direct, indirect or cumulative effects as a result of the implementation of the Proposed Project, and therefore, detailed evaluation of these environmental factors is not required in this SEIR. Discussion of the effects found not to be significant is included in *Chapter 7.0, Effects Found Not to be Significant and Appendix A* which contains the June 2021 IS, of which materials are incorporated here in full.

- Aesthetics
- Agricultural Resources
- Energy
- Geology/Soils
- Hazard and Hazardous Materials
- Hydrology and Water Quality
- Land Use/Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Utilities/ Service Systems
- Wildfire

Discussion of jurisdictional waters and wetlands is included in *Section 3.5, Biological Resources*. Additional information on hydrology and water quality is included in Appendix A which contains the June 2021 IS.

3.4 Air Quality

ONT is located in San Bernardino County within the South Coast Air Basin. The Certified 1991 FEIR studied projected aircraft operations at ONT at a 12 MAP level, which is a greater number of aircraft operations than in the Baseline Conditions relating to potential air quality impacts studied in this SEIR.

3.4.1 Pollutants of Interest

There are six criteria air pollutants evaluated in this SEIR as it relates to the proposed project. These pollutants are comprised of: ozone (O₃); carbon monoxide (CO); nitrogen dioxide (NO₂); sulfur dioxide (SO₂); particulate matter equal to or less than 10 micrometers (coarse particulates or PM₁₀); and particulate matter equal to or less than 2.5 micrometers (fine particulates or PM_{2.5}). Additionally, volatile organic compounds (VOCs) and nitrogen oxides (NO_x) are also evaluated as they are the two primary precursors to O₃ formation. Lead (Pb) is also considered a criteria air pollutant; however, it is not evaluated in the SEIR's air quality analysis.⁶ Note, however, a discussion of lead and the trace amounts of lead emissions present at ONT is included in *Section 4.8, Health Risk Assessment*, of this SEIR. The following sections describe the criteria air pollutants, including sources of emissions and potential health impacts.

Ozone

Ozone occurring at ground level, as opposed to in Earth's upper atmosphere, is a harmful pollutant. Ground level ozone is the main component of smog. Ozone is created by a chemical reaction between two precursor pollutants, NO_x and VOCs. This chemical reaction occurs when NO_x and VOCs are emitted in the presence of heat and sunlight. Common sources of NO_x and VOC emissions are from cars, power plants and chemical plants. Ozone levels are particularly high on hot sunny days. Ozone is a pulmonary irritant that can impact the respiratory system, and trigger symptoms such as tightness in the chest, coughing, and wheezing. Ozone also negatively impacts sensitive vegetation and ecosystems at elevated levels.

Carbon Monoxide

CO is a colorless odorless gas that is released when something is burned. The main source of CO emissions is from the burning of fossil fuels from cars, trucks and other machinery. CO can be harmful when inhaled in large amounts as it reduces the amount of oxygen that can be circulated in the blood stream, and result in cardiovascular and nervous system effects.

Nitrogen Dioxide

The main source of nitrogen dioxide is from the burning of fuels, especially from cars, trucks, power plants and off-road equipment. Nitrogen dioxide emissions standards are used to protect against exposure to all NO_x, with NO₂ used as the indicator for

the larger group of gases. Nitrogen dioxide can irritate the lungs and lead to respiratory illnesses such as bronchitis and pneumonia.

Sulfur Dioxide

The main source of sulfur dioxide emissions is from fossil fuel combustion at power plants and other industrial facilities. Sulfur dioxide emissions standards are used to protect against exposure to all sulfur oxides (SO_x), with SO₂ being the component of greatest concern and other sulfur oxides found in much smaller concentrations in the atmosphere. Sulfur dioxide exposure can irritate the lungs, cause bronchial damage and exacerbate respiratory diseases such as asthma.

Particulate Matter

Particulate matter (PM) describes a mixture of solid particles and liquid droplets found in the air. Larger particulate matter, or PM₁₀, diameters 10 micrometers and smaller, are inhalable particles such as dust, dirt, soot and smoke. Smaller particulate matter, or PM_{2.5}, diameters 2.5 micrometers or smaller, are fine inhalable particles. Once inhaled, particulate matter can travel deep into your lungs and causing serious respiratory health issues. Fine particles, PM_{2.5}, pose a greater risk to human health.

In addition to the criteria air pollutants, airport-related activities also emit GHGs and hazardous air pollutants (HAPs). GHGs are described in further detail in *Section 3.6. Greenhouse Gas Emissions*. HAPs include a wide array of organic and inorganic compounds which are regulated under the federal CAA due to the potentially adverse effect on human health and the environment. **Table 3-1** summarizes the sources of airport-related emissions and the pollutants they emit.

Table 3-1: Sources of Airport Emissions

Source	Type	Pollutants
Aircraft	Main engines	CO, VOC, NO _x , PM ₁₀ and PM _{2.5} , SO ₂ , Pb, GHGs, and HAPs
Auxiliary Power Units (APUs)	Turbine engines	
Ground Support Equipment (GSE)	Combustion engines (e.g., aircraft tugs, air start units, loaders, tractors, fuel or hydrant trucks)	
Stationary Sources	Combustion sources (e.g., boilers, heaters, generators, snowmelters, incinerators, fire training facilities)	CO, VOC, NO _x , PM ₁₀ and PM _{2.5} , SO ₂ , GHGs, and HAPs
	Non-combustion sources (e.g., fuel storage tanks, painting operations, de-icing and anti-icing operations, salt/sand storage)	VOC, PM ₁₀ , PM _{2.5} , and HAPs
Ground Access Vehicles	Passenger vehicles (e.g., private autos, taxis/limos, shuttles, vans, buses, rental cars), airport and tenant employee vehicles, airport fleet, and vehicles transporting cargo to and from airport as well as circulating around the airport.	CO, VOC, NO _x , PM ₁₀ and PM _{2.5} , SO ₂ , GHGs

Table 3-1: Sources of Airport Emissions

Source	Type	Pollutants
Construction	Combustion sources (e.g., heavy construction equipment, on-road vehicles and off-road vehicles)	CO, VOC, NO _x , PM ₁₀ and PM _{2.5} , SO ₂ , GHGs
	Non-combustion sources associated with construction (e.g., materials staging, demolition, earthworks, and asphalt paving operations)	PM ₁₀ , PM _{2.5} and VOC
Electrical Usage	The onsite generation of electricity using coal, oil, or natural gas	GHGs
Refrigerants	Compounds used for refrigeration and air conditioning.	
Waste Management	Solid waste generated and the recycling/waste disposal practices employed by the airport.	

Note: GHGs include CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆

Source: Federal Aviation Administration, Office of Environment and Energy, *Aviation Emissions and Air Quality Handbook Version 3 Update 1, Table 3-2. Sources of Air Emissions and Pollutants of Concern at Airports, January 2015.*

3.4.2 Regulatory Setting

Federal

At the federal level, the U.S. Environmental Protection Agency (USEPA) establishes the guiding principles and policies for protecting air quality conditions throughout the nation. USEPA’s primary responsibility in this area includes promulgating the National Ambient Air Quality Standards (NAAQS)⁷ which define outdoor levels of criteria air pollutant concentrations that are considered safe for public health, welfare and the environment. USEPA sets NAAQS for O₃, CO, NO₂, PM_{2.5}, PM₁₀, SO₂, and Pb.

Under the federal Clean Air Act (CAA), USEPA’s other responsibilities include the approval of State Implementation Plans (SIPs), as well as the establishment of emission standards for mobile and stationary sources. USEPA has adopted multiple tiers of emission standards for construction equipment, including a comprehensive national program to reduce emissions from nonroad diesel engines by setting Tier 4 emission standards (40 CFR Part 1039). Additionally, on the federal level, FAA is the primary agency involved in, and responsible for, ensuring that air quality impacts associated with proposed airport projects adhere to the reporting and disclosure requirements of NEPA as well as the General Conformity rule of the CAA.

USEPA establishes standards for the control of air pollution from aircraft and aircraft engines (40 CFR 87). USEPA consults with FAA, as FAA sets aircraft engine fuel venting and exhaust emissions certification requirements (14 CFR Part 34) to enforce compliance with USEPA’s emission regulations.

FAA encourages airports to reduce emissions through federal programs, including providing Airport Improvement Program (AIP) grants for airports to develop sustainability plans, as well as FAA programs that provide funding for use of low or zero emission technologies, such as the Voluntary Airport Low Emissions (VALE) program⁸ and the Airport Zero Emissions Vehicle and Infrastructure Pilot Program.⁹

State

At the state level, the CARB manages air quality, regulates mobile emissions sources, and oversees the activities of county and regional air districts within California. CARB also regulates local air quality indirectly by establishing California Ambient Air Quality Standards (CAAQS) and vehicle emissions standards, and by conducting research, planning, and coordination activities. In addition to the criteria air pollutants, CARB also measures for compliance with three other CAAQS: hydrogen sulfide, sulfates and vinyl chloride.

As it relates to construction equipment, for both on- and off-road equipment, CARB sets lower exhaust emissions standards when compared to the federal standards. See *Section 4.8, Health Risk Assessment*, for discussion of CARB regulations related to toxic air contaminants.

In June 2020, CARB adopted the Advanced Clean Trucks regulation which requires truck manufacturers to sell zero-emission vehicles in California and a one-time requirement for company and fleet reporting. The regulation aims to accelerate the transition of zero-emission medium and heavy-duty vehicles from Class 2b to Class 8, requiring manufacturers to sell zero-emission trucks at an increasing percentage of annual sales from 2024 to 2035. By 2035, zero-emission truck sales would need to be 55% of Class 2b-3 sales, 75% of Class 4-8 sales and 40% of truck tractor sales.¹⁰

Ambient Air Quality Standards and Attainment Status

Ambient concentrations of criteria air pollutants are measured within the Basin and compared to Federal (NAAQS) and State (CAAQS) standards to determine air quality. These standards are shown in **Table 3-2**.

General Conformity

The EPA, under the provisions of the CAA, requires each state that has not attained the NAAQS to prepare a separate local plan detailing how these standards are to be met in each local area and incorporated into a SIP. The General Conformity Rule of the federal CAA prohibits federal agencies (including the FAA) from permitting or funding projects that do not conform to an applicable SIP. The General Conformity Rule applies only to areas that are designated “nonattainment” or “maintenance.”

Regional and Local

At the regional level, the South Coast Air Quality Management District (SCAQMD) has jurisdiction over the South Coast Air Basin, which includes portions of Los Angeles, Riverside and San Bernardino counties and all of Orange County. The SCAQMD is responsible for ensuring that federal and state air quality standards are met by

monitoring ambient air pollutant levels throughout the region and implementing strategies to attain the standards.

Table 3-2: Federal and State Air Quality Standards and Attainment Status for the South Coast Air Basin

Criteria Pollutant	Standard	Averaging Time	Standard Concentration	Designation
Ozone (O₃)	NAAQS	1-hour	0.12 ppm	Non-attainment (Extreme)
		8-hour	0.08 ppm (1997) 0.075 ppm (2008) 0.070 ppm (2015)	Non-attainment (Extreme)
	CAAQS	1-hour	0.09 ppm	Non-attainment
		8-hour	0.070 ppm	
Carbon Monoxide (CO)	NAAQS	1-hour	35 ppm	Maintenance (Serious)
		8-hour	9 ppm	
	CAAQS	1-hour	20 ppm	Attainment
		8-hour	9 ppm	
Nitrogen Dioxide (NO₂)	NAAQS	1-hour	0.10 ppm	Attainment
		Annual	0.053 ppm	Maintenance
	CAAQS	1-hour	0.18 ppm	Attainment
		Annual	0.030 ppm	
Sulfur Dioxide (SO₂)	NAAQS	1-hour	75 ppb	Attainment
		24-hour	0.14 ppm	
		Annual	0.03 ppm	
PM₁₀	NAAQS	24-hour	150 µg/m ³	Maintenance (Serious)
	CAAQS	24-hour	50 µg/m ³	Non-attainment
		Annual	20 µg/m ³	
PM_{2.5}	NAAQS	24-hour	35 µg/m ³	Nonattainment (Serious)
	NAAQS	Annual	15 µg/m ³ (1997)	Attainment
			12 µg/m ³ (2012)	Nonattainment (Serious)
	CAAQS	Annual	12 µg/m ³	Nonattainment
Lead	NAAQS	3-months rolling	0.15 µg/m ³	Attainment ¹
Hydrogen Sulfide (H₂S)	CAAQS	1-hour	0.03 ppm	Attainment
Sulfates	CAAQS	24-hour	25 µg/m ³	Attainment

Note:

¹Partial Nonattainment designation in Los Angeles County portion of Basin only for near-source monitors.

Source: SCAQMD, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf>, September 2018

In conformance with federal requirements, the SCAQMD prepared the 2016 Air Quality Management Plan (AQMP). The AQMP is, in turn, based upon the adopted general plans (and resulting vehicular trip generation) from the local jurisdictions that were in place when the AQMP was developed. Proposed land uses that are consistent with such adopted general plans are considered consistent with the AQMP and will not conflict with or obstruct implementation of the applicable air quality plan. The 2016 AQMP includes the strategies and measures needed to meet the NAAQS and CAAQS. SCAQMD approved the 2016 AQMP on March 3, 2017 which demonstrates attainment of the 1-hr and 8-hr ozone NAAQS as well as the latest 24-hr and annual PM_{2.5} standards.

The SCAQMD is currently in the process of developing an Air Quality Analysis Guidance Handbook to replace the 1993 CEQA Air Quality Handbook, as many sections of the 1993 handbook are now obsolete.¹¹

In 2019, ONT developed a voluntary Air Quality Improvement Plan (AQIP) as part of a collaborative effort between SCAQMD and other airports in the South Coast Air Basin to minimize and reduce emissions from mobile source activities at the Airport. The AQIP was developed to address a measure presented in the 2016 AQMP, *Facility-Based Measure for Mobile Sources Measure for the Emissions Reductions at Commercial Airports (MOB-04)*. MOB-04 requires Basin airports to reduce non-aircraft emission sources at their facilities. The ONT AQIP identifies efforts related to MOB-04 and programs to address air quality at the Airport.¹² As it relates to construction projects, the AQIP includes a Construction Equipment Policy (RM7), which requires contractors under contract with OIAA to utilize Tier 4 Final construction equipment. Use of Tier 4 Final construction equipment would result in a reduction on NO_x and PM emissions from construction activities.

In December 2019, SCAQMD and ONT signed a Memorandum of Understanding (MOU) which outlines how the Airport will quantify NO_x emission reductions through implementation measures outlined in ONT's AQIP.

Table 3-3 summarizes the attainment status for the NAAQS and CAAQS at ONT, according to CARB Ambient Air Quality Standards Designation Tool.

Table 3-3: Current Nonattainment and Maintenance Designations

Level	Pollutant/Standard	Attainment Status
NAAQS	Ozone (2008 standard)	Nonattainment – Extreme
	Ozone (2015 standard)	Nonattainment – Extreme
	CO	Maintenance – Serious
	NO ₂	Maintenance
	PM _{2.5} (2006 standard)	Nonattainment – Serious
	PM _{2.5} (2012 standard)	Nonattainment – Moderate
	PM ₁₀	Maintenance – Serious
CAAQS	Ozone	Nonattainment
	PM _{2.5}	Nonattainment
	PM ₁₀	Nonattainment

Source: CARB, Ambient Air Quality Standards Designation Tool, <https://ww2.arb.ca.gov/aqs-designation-tool>, zip code 91761 (accessed 4/6/21).

3.4.3 Baseline Conditions

Aircraft Taxiing Emissions

Due to proposed runway closures during the construction period, the Proposed Project would temporarily impact aircraft taxiing times. More specifically, and of relevance to the air quality analysis, the Proposed Project would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. In 2025, aircraft taxiing times would be slightly greater than Baseline Conditions due to additional taxiing delay associated with background growth in operations. The Proposed Project would not result in any other changes to the landing take off (LTO) cycle accounted for in air quality analysis. For this reason, Baseline Conditions emissions are determined for aircraft taxiing operations as this is the only operational factor that would be affected by the Proposed Project.

The Baseline Conditions aircraft taxiing emissions were determined using the hybrid base year (2019/2020) approach explained in *Section 3.2.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to correctly represent typical operations levels at ONT. See **Appendix D, Air Quality and GHG** for air quality modeling details.

Table 3-4 summarizes the Baseline Conditions aircraft taxiing emissions for 2019/2020 based on the hybrid base year modeled in AEDT.

Table 3-4: Baseline Conditions Aircraft Taxiing Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9

Source: FAA ASPM and HNTB analysis, 2022.

Air Monitoring Stations

The SCAQMD maintains a network of air monitoring stations throughout the Basin, with eight monitors located within San Bernardino County. The nearest air monitoring station, which measures NO₂ and PM_{2.5}, is the CA-60 Near Road station in Ontario (#5136 at 2330 S. Castle Harbour Place) located 1.5 miles south of ONT. Two additional stations nearby ONT include the Northwest San Bernardino Valley station in Upland (#5175 at 1350 San Bernardino Road) located approximately three miles north of ONT, which measures CO, O₃, NO₂ and PM₁₀, and the Central San Bernardino Valley 1 station in Fontana (#5197 at 14360 Arrow Boulevard) located seven miles northeast of ONT, which measures SO₂ and PM_{2.5}. **Tables 3-5, 3-6, and 3-7** summarize ambient air quality monitoring data at these stations between 2018-2020. Note that while the nearest air monitoring station to ONT is the CA-60 station, this station is designated to focus primarily on roadway emission sources.

The air monitoring data from 2018-2020 indicate:

- PM_{2.5}: Minimal exceedance of the federal 24-hour standard (35 µg/m³) (both stations), and exceedance of the federal and state annual standard (12 µg/m³) each year (at CA-60 station only).
- NO₂: Exceedance of federal 1-hour standard (100 ppb) in 2020 and exceedance of state annual standard (30 ppb) in 2018, both at the CA-60 station.
- Ozone: On average between 2018 and 2020, the 2015 federal and state 8-hour standard is exceeded 20% of the time (14-31%). On average between 2018 and 2020, the state 1-hour standard is exceeded 13% of the time (7-22%). Exceedances of all ozone standards more than doubled in 2020 as compared to 2018 and 2019 (likely due to the extensive wildfires in San Bernardino and neighboring counties in 2020).
- PM₁₀: No exceedances of the federal 24-hr standard. Exceedance of state annual standard (20 µg/m³) each year and minimal exceedances of the state 24-hr standard each year.
- CO: No exceedances of federal or state standards (1-hour and 8-hour).

Table 3-5: CA-60 Monitoring Data

Pollutant	Averaging Time	2018	2019	2020
PM _{2.5}	Maximum Concentration, 24-hour (µg/m ³)	47.90	41.30	53.10
	# Samples Exceeding Federal Standard (35 µg/m ³), 24-hour	5 (1.4%)	5 (1.4%)	4 (1%)
	Annual Average Concentration, AAM (µg/m ³) (NAAQS/CAAQS: 12 µg/m ³)	14.31	12.70	14.36

Table 3-5: CA-60 Monitoring Data

Pollutant	Averaging Time	2018	2019	2020
NO ₂	Maximum Concentration, 1-hour (ppb) (NAAQS: 100 ppb, CAAQS: 180 ppb)	79.4	87.7	101.6
	Annual Average Concentration, AAM (ppb) (NAAQS: 53 ppb, CAAQS: 30 ppb)	30.4	29.0	29.1

Note: While CA-60 monitoring station is the nearest to ONT, it is primarily designated to focus on roadway emission sources.

AAM = Annual Arithmetic Mean

Source: SCAQMD, Historical Data By Year, 2018-2020, <http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year>

Table 3-6: Northwest San Bernardino Valley Monitoring Data

Pollutant	Averaging Time	2018	2019	2020
Ozone	Maximum Concentration, 1-hour (ppm)	0.133	0.131	0.158
	Maximum Concentration, 8-hour (ppm)	0.111	0.107	0.123
	# Days Standard Exceeded			
	Federal, 1-hour (0.124 ppm)	6	1	15
	2015 Federal, 8-hour (0.070 ppm)	52	52	114
	2008 Federal, 8-hour (0.075 ppm)	32	34	87
	State, 1-hour (0.09 ppm)	25	31	82
	State, 8-hour (0.070 ppm)	52	52	114
PM ₁₀	Maximum Concentration, 24-hour (µg/m ³)	73	125	63
	Annual Average Concentration, AAM (µg/m ³) (CAAQS: 20 µg/m ³)	32.3	28.1	30.5
	# Samples Exceeding Federal Standard, 24-hour (150 µg/m ³)	0	0	0
	# Samples Exceeding State Standard, 24-hour (50 µg/m ³)	14 (4%)	7 (2%)	12 (4%)
CO	Maximum Concentration, 1-hour (ppm) (NAAQS: 35 ppm, CAAQS: 20 ppm)	1.7	1.5	1.5
	Maximum Concentration, 8-hour (ppm) (NAAQS/CAAQS: 9 ppm)	1.2	1.1	1.1
NO ₂	Maximum Concentration, 1-hour (ppb) (NAAQS: 100 ppb, CAAQS: 180 ppb)	58.7	57.9	55.4
	Annual Average Concentration, AAM (ppb) (NAAQS: 53 ppb, CAAQS: 30 ppb)	14.7	14.0	13.9

Note: AAM = Annual Arithmetic Mean

Source: SCAQMD, Historical Data By Year, 2018-2020, <http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year>

Table 3-7: Central San Bernardino Valley 1 Monitoring Data

Pollutant	Averaging Time	2018	2019	2020
PM _{2.5}	Maximum Concentration, 24-hour (µg/m ³) (NAAQS: 35 µg/m ³)	29.20	46.50	46.10
	# Samples Exceeding Federal Standard (35 µg/m ³), 24-hour	0	2(1.8%)	1(1%)
	Annual Average Concentration, AAM (µg/m ³) (NAAQS/CAAQS: 12 µg/m ³)	11.13	10.84	11.95
SO ₂	Maximum Concentration, 1-hour (ppb) (NAAQS: 75 ppb)	2.9	2.4	2.5
	99 th Percentile Concentration, 1-hour (ppb)	2.5	1.9	1.7

Source: SCAQMD, Historical Data By Year, 2018-2020, <http://www.aqmd.gov/home/air-quality/historical-air-quality-data/historical-data-by-year>

3.5 Biological Resources

This section provides current biological data required to review the potential impacts of the Proposed Project and documents the existing biological conditions on and in the immediate vicinity of the project with respect to local, state, and federal policy.

3.5.1 Regulatory Setting

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), Clean Water Act (CWA), California Endangered Species Act (CESA), and California Fish and Game (CFG) Code.

Federal

Federal Endangered Species Act

Administered by the U.S. Fish and Wildlife Service (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 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 U.S. Army Corps of Engineers (USACE) jurisdictional areas.

Section 10(a) allows 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.

In addition, the USFWS issued Permit No. MBPER0037939 (USFWS Permit) for ONT, which USFWS Permit allows the trapping and relocation of certain birds at ONT, including the burrowing owl, “to resolve or prevent threats to human safety and/or aircraft safety” at ONT. (See **Appendix E, Biological Resources, Attachment 1.**)

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 that may discharge fill materials into U.S. waterways, 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.

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 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 disturbances allowed near active raptor nests, which the nesting season is generally defined as January 15 to August 31.

In addition, USFWS Permit was issued for ONT, which Permit allows the trapping and relocation of certain birds at ONT, including the burrowing owl, “to resolve or prevent threats to human safety and/or aircraft safety” at ONT (See *Appendix E, Attachment 1*).

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 that have been 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.

State

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.

California Endangered Species Act

The CESA is similar to the FESA in that it contains a process for 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. A 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 (CFG 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 California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) List 1A, 1B, 2A, 2B, or 3 species, as recognized in the CNPS's Inventory of Rare and Endangered Vascular Plants of California.

California Fish and Game Code

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.

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.

Local

ONT Wildlife Hazard Management Plan (WHMP)

Pursuant to CFR Title 14 Part 139.337(f), ONT developed a WHMP in cooperation with the U.S. Department of Agriculture Wildlife Services (USDA/WS) program in 2016. The plan places emphasis on identification and abatement of wildlife hazards within the airfield environment. The plan outlines steps for monitoring, documenting and reporting potential wildlife hazards and bird strikes at ONT. Additionally, the plan provides some coverage of migratory species related to ongoing operations, and is focused on flight safety rather than construction project activity.

3.5.2 Existing Conditions

Topographically, the study area 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 the study area consists of developed, disturbed, and ornamental habitat. Six soil types are mapped on the study area and shown on **Figure 3-1**, 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).¹³

Vegetation Communities

The study area supports three vegetation communities, which are shown on **Figure 3-2**, Vegetation and Sensitive Resources and listed in **Table 3-8**, Vegetation Communities. Plant communities are classified in accordance with Holland¹⁴ and Oberbauer.¹⁵ Community names consistent with A Manual of California Vegetation, Second Edition are also provided.¹⁶ Sensitive habitats pursuant to CDFW’s Natural Communities List were not observed on site.¹⁷

Table 3-8: 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

Note: (1) Manual of California Vegetation.

Source: HELIX Environmental Planning, 2022.

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 288.88 acres.

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 riggut 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.

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.*).

Plants

A total of 12 plant species were identified within the study area during surveys to date, of which 11 (92 percent) are non-native species (*Appendix E, Attachment 2*).

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 E, Attachment 2*). Common mammal species expected to use the study area species such as California ground squirrel (*Otospermophilus beecheyi*).

Sensitive Biological Resources

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 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.¹⁸

Eight rare plant species were recorded within the Guasti database search conducted on California Natural Diversity Database (CNDDDB)¹⁹ and CNPS.²⁰ These species are included in *Appendix E, Attachment 2, Rare Plant Species Potential to Occur*. None of the eight species have potential to occur on the study area based on the lack of suitable habitat and high level of disturbance within the study area.

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 Guasti quadrangle database search conducted on CNDDDB.²¹ These species are included in *Appendix E, Attachment 2, 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 E, Attachment 2* and discussed in further detail below.

Present

The Burrowing Owl (*Athene cunicularia*) (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 were observed on and adjacent to the study area, in limited locations, during non-breeding season focused surveys performed in 2019/ 2020 within the study area.²²

Potential to Occur

Of the 16 sensitive animal species recorded within the vicinity of the study area, two species were considered to have potential 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, Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) (DSFLF), has 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.²³ Focused surveys for DSFLF are recommended based on the results of a habitat assessment conducted in 2021.

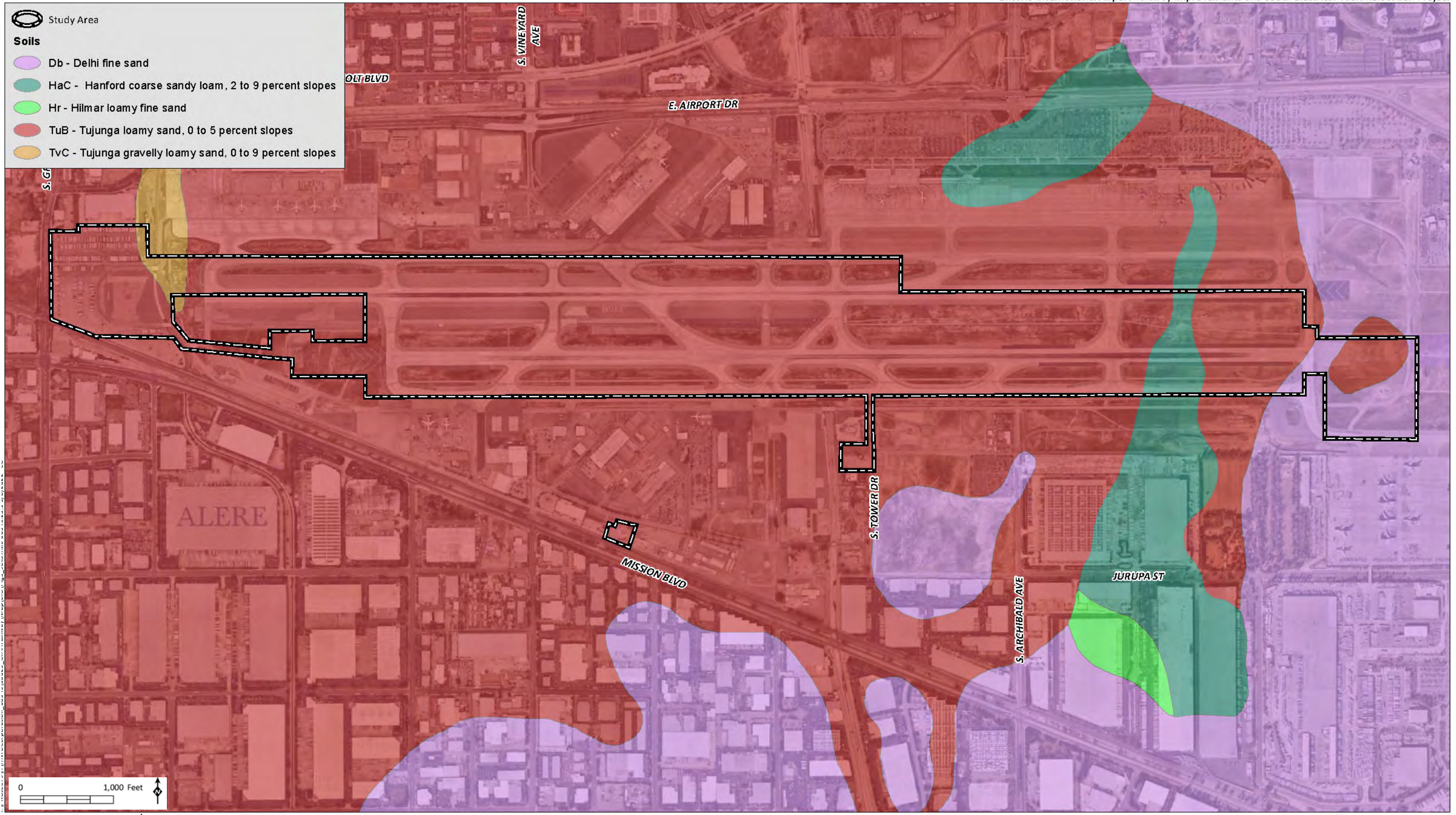


Figure 3-1





 Study Area
Vegetation and Land Use
 Developed
 Disturbed - Non-Native Vegetation
 Ornamental



Figure 3-2

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*], 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.

Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are considered either rare within the region or sensitive by CDFW.²⁴ 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.

Jurisdictional Waters and Wetlands

Three drainages, Cucamonga Creek Channel, Deer Creek Channel, and Western Cucamonga Creek Channel were observed on the study area (**Figure 3-3; Table 3-9**). A brief description of each drainage is provided below.

Table 3-9: Existing Jurisdictional Features

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

Source: HELIX Environmental Planning, 2021.

Cucamonga Creek Chanel

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 slopes²⁵; Figure 3-1). However, native soils are no longer present in Cucamonga Creek Channel due to the concrete channelization of the creek.

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 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; ²⁶ Figure 3-1). 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 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 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 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; ²⁷ Figure 3-1). However, native soils are no longer present in Western Cucamonga Creek Channel due to the concrete channelization of the creek.

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 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, 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.²⁸

The study area is not considered a regional wildlife movement corridor as the study area does support habitat suitable for local wildlife movement. Bird species may fly over the surrounding development to nest and/or forage within study area. As discussed above, the study area supports very limited opportunities for local wildlife habitat and does not function as a wildlife corridor since it does not directly connect to two or more blocks of large habitat



Figure 3-3

3.6 Greenhouse Gas Emissions

The 1991 Certified FEIR did not address potential impacts from GHG emissions, therefore this section provides a comprehensive analysis of GHG emissions impacts associated with the proposed project. The Certified 1991 FEIR, however, studied aircraft operations at ONT needed to serve 12 MAP, which is a greater number of aircraft operations than in the Baseline Conditions relating to potential GHG emissions impacts studied in this SEIR.

3.6.1 Greenhouse Gases and Climate Change

GHGs are those that trap heat in the Earth's atmosphere. The main GHGs include: CO₂, CH₄, N₂O, and fluorinated gases. As is customary for GHG emissions inventories, the results are reported in units of metric tons (MT) of carbon dioxide equivalents (CO₂e), by source, and on an annual basis. GHG emissions are converted to CO₂e using Global Warming Potential (GWP) values. GWP values are relative measures of how much heat a GHG traps in the atmosphere when compared to CO₂. The higher the GWP the more that gas warms the Earth compared to CO₂. Typical GWP values are of 1 for CO₂, 28-36 for CH₄, 265-298 for N₂O, and in the thousands for fluorinated gases.

Research has shown that the increase in atmospheric GHG emissions is significantly affecting the Earth's climate. These conclusions are based upon a scientific record that includes substantial contributions from the United States Global Change Research Program (USGCRP)—a program mandated by Congress in the Global Change Research Act to "assist the Nation and the world to understand, assess, predict, and respond to human-induced and natural processes of global change."²⁹ In 2009, based primarily on the scientific assessments of the USGCRP, as well as the National Research Council (NRC) and the Intergovernmental Panel on Climate Change (IPCC), the EPA issued a finding that it was reasonable to assume that changes in our climate caused by elevated concentrations of GHG in the atmosphere endanger the public health and public welfare of current and future generations.³⁰ In 2015, EPA acknowledged more recent scientific assessments that "highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere."³¹

Scientifically based measurements indicate many existing and expected impacts of global climate change on the state of California. California's Fourth Climate Change Assessment, published in January 2019, presents an overview of the state of climate change and how to take action to become more resilient. The assessment indicates that temperatures in California are expected to increase between 2.5 to 8.8 degrees Fahrenheit before 2100, dependent on reductions in GHG emissions. The report details specify impacts climate change will have on the state of California, including:

- Impacts on People:
 - o Climate change will impact public health in the form of heat-health events due to increased heat waves, and will result in greater impacts to disadvantaged communities and tribal and indigenous communities.
- Impacts on Infrastructure:

- Energy: Increased coastal flooding and wildfires threaten energy resources (i.e., docks, refineries, electrical lines and distribution systems)
- Transportation: Increased wildfires threaten transportation network (roads, rails, airports, etc.) and include cascading effects from landslides and mudslides. Major flooding and storm surge threatens airports along the coast.
- Water Infrastructure: Increased threats to the network that stores and distributes water, and reduced water supply due to droughts and reduced snowpack.
- Impacts on Natural and Working Lands and Waters
 - Forests: Increased risk of wildfires and potential for insect infestation
 - Agriculture: Lower crop yields due to increased heat waves, heat stress and increased water needs of crops and livestock, and changes in pest and disease threats
- Impacts on the Ocean and Coast
 - Ocean Warming: Climate change has resulted in historic marine heat wave, record harmful algal blooms, fisheries closures and significant loss of northern kelp forests
 - Rising Sea Levels: Climate model estimates that under mid to high sea-level rise scenarios, 31 to 67% of Southern California beaches may completely erode by 2100 without large-scale human intervention.³²

3.6.2 Regulatory Setting

There are numerous federal, state and local regulations, policies, and guidelines in place to address climate change and the impact of GHG emissions. The following summarizes regulations and policies that are most pertinent to the proposed project.

Federal

In 2009, based primarily on the scientific assessments of the USGCRP, the NRC and the IPCC, the EPA issued a finding that it was reasonable to assume that changes in our climate caused by elevated concentrations of GHGs in the atmosphere endanger the health and welfare of current and future generations.³³ By the summer of 2016, the EPA acknowledged that scientific assessments by that time “highlight the urgency of addressing the rising concentration of CO₂ in the atmosphere” and formally announced that GHG emissions from certain classes of aircraft engines contribute to climate change.^{34,35}

The USEPA and the FAA traditionally work within the standard-setting process of the International Civil Aviation Organization’s (ICAO) Committee on Aviation Environmental Protection (CAEP) to establish international emission standards and related requirements, which individual nations later adopt into domestic law. In February 2016, ICAO/CAEP agreed on a preliminary international standard to regulate CO₂ emissions from aircraft, which was formally adopted at the ICAO Assembly in October 2016. The new CO₂ standard mandates that new aircraft continue to achieve the 15-20 percent fuel efficiency gains seen in recent generations of aircraft engines and will be applied in the following three stages:

- Beginning in 2020, all new aircraft designs must comply to the new standard;
- From 2023 to 2028, all aircraft models currently being produced will have to meet a less stringent “in-production” standard if they undergo modification requiring re-certification; and
- Beginning in 2028, all new aircraft will have to meet the full standards.³⁶

Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures

On January 11, 2021, EPA published a final rule “*Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures*,” adopting GHG emission standards for certain new commercial airplanes. The standards align with those adopted by ICAO in 2017, providing global consistency to ensure aircraft manufacturers meet the same emissions standards.³⁷

Since publication of the final rule, critics, as well as USEPA, have projected that the standards will not result in any additional emission reductions. This is due to the fact aircraft manufacturers had already developed technologies to bring aircraft into compliance with ICAOs standards. For example, the average new aircraft delivered in 2016 were already in compliance with the 2028 standard requirements. Following the final rule, state attorney generals and environmental groups submitted comments and challenged the rule arguing that USEPA failed to consider feasible GHG reductions. The Biden administration issued an Executive Order on January 20, 2021 for USEPA to review the final rule.

Heavy Duty National Program

In August 2011, USEPA and the National Highway Traffic Safety Administration (NHTSA) adopted the Heavy-Duty National Program which aims to reduce fuel use and GHG emissions from medium and heavy-duty vehicles. The program initially included emission standards for vehicles model years 2014 through 2018. In 2016, the agencies adopted Final Phase 2 GHG and fuel efficiency standards for model years 2018 through 2027. These final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program³⁸

Federal Aviation Administration

The *U.S. Aviation Greenhouse Gas Emissions Reduction Plan* was published in 2015 and provided an overview of initiatives to reduce GHG emissions from U.S. aviation. On November 8, 2021, FAA published the *U.S. Aviation Climate Action Plan* which builds upon the 2015 plan and commitments made by the aviation industry to identify actions toward achieving net-zero emissions by 2050. The Plan includes specific actions and policy measures including but not limited to: development of new, more efficient aircraft and engine technologies; production and use of sustainable aviation fuels; international initiatives such as carbon offsetting; and support for further research into climate science.³⁹

The FAA encourages airports to reduce GHG emissions through federal programs, including providing Airport Improvement Program (AIP) grants for airports to develop sustainability plans, as well as FAA programs that provide funding for use of low or zero emission technologies, such as the Voluntary Airport Low Emissions (VALE) program⁴⁰ and the Airport Zero Emissions Vehicle and Infrastructure Pilot Program.⁴¹

State

Executive Order S-3-05

On June 1, 2005, Executive Order S-3-05 established GHG emission reduction goals for the state, including reducing GHG levels to 2000 levels by 2020, to 1990 levels by 2020 and to a level 80% below 1990 levels by 2050.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

State Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, codified EO S-3-05's 2020 reduction goal. AB 32 also gave the CARB the authority to develop and oversee the statewide GHG reduction program. AB 32 further required CARB to prepare a Scoping Plan to outline strategies for reducing GHGs by 2020, update the Scoping Plan every five years, and to adopt statewide GHG reporting requirements. CARB adopted a Scoping Plan in 2009 and approved updates to the Scoping Plan in 2014 and 2017. CARB currently is in the process of preparing the 2022 Scoping Plan.

Senate Bill 97

SB 97, passed in 2007, established that GHG emissions are an environmental issue requiring analysis and identification of feasible mitigation under CEQA. In 2010, the State CEQA Guidelines were amended to incorporate requirements pertaining to the analysis of GHG emission impacts. Some of those provisions also were later amended in 2018.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 set an interim GHG emissions reduction goal of 40% less than 1990 levels by 2030.

Senate Bill 32

SB 32, effective January 1, 2017, expanded upon AB 32 and codified the interim GHG reduction goal set by EO B-30-15. As such, SB 32 requires a further reduction in GHG emissions to 40% below 1990 levels by 2030.

Executive Order B-55-18

Signed in 2018, this EO established a goal of achieving statewide carbon neutrality by 2045 and to maintain net negative emissions thereafter.

Advanced Clean Truck Regulation

In June 2020, CARB adopted the Advanced Clean Trucks regulation which requires truck manufacturers to sell zero-emission vehicles in California and a one-time requirement for company and fleet reporting. The regulation aims to accelerate the transition of zero-emission medium and heavy-duty vehicles from Class 2b to Class 8, requiring manufacturers to sell zero-emission trucks at an increasing percentage of annual sales from 2024 to 2035. By 2035, zero-emission truck sales would need

to be 55% of Class 2b-3 sales, 75% of Class 4-8 sales and 40% of truck tractor sales.⁴²

Regional

The SCAQMD is currently in the process of developing an Air Quality Analysis Guidance Handbook to replace the 1993 CEQA Air Quality Handbook, as many sections of the 1993 handbook are now obsolete.⁴³ In 2008, SCAQMD adopted interim GHG significance thresholds developed by a SCAQMD Working Group applicable to stationary source projects for which SCAQMD is the CEQA lead agency.

Local

In 2014, the City of Ontario published a Community Climate Action Plan (CAP) to establish community strategies to reduce GHG emissions consistent with CARB statewide GHG reduction efforts. The CAP included a GHG inventory for 2008 and a forecasted inventory for 2020, analyzed GHG reduction measures for effectiveness and feasibility, and presented a list of measures for inclusion in the CAP. The CAP includes a GHG emission reduction target of 30% below business-as-usual 2020 levels.⁴⁴

In March 2021, the San Bernardino Council of Governments, led by the San Bernardino County Transportation Authority (SBCTA), developed a Regional Greenhouse Gas Reduction Plan. The final Plan includes an inventory of GHG emissions and evaluation of reduction measures to be adopted by the 25 Partnership Cities within the County.⁴⁵ The reduction measures set forth in the Plan are being and should be considered for adoption by agencies in the region that are developing jurisdiction-specific climate action plans.

As discussed above in the Air Quality portion of this Chapter, in 2019, ONT developed a voluntary AQIP as part of a collaborative effort between SCAQMD and other airports in the South Coast Air Basin to minimize and reduce emissions from mobile source activities at the Airport. As it relates to GHG emissions, the AQIP includes GSE and Fuel Truck Operation Policies (RM1 and RM2) which would likely result in a reduction of GHG pollutants.

3.6.3 Baseline Conditions

GHG are those gases that trap heat in the earth's atmosphere and warm the planet. Both naturally occurring and anthropogenic (man-made) GHG include CO₂, methane CH₄, N₂O, and fluorinated gases. Fluorinated gases are man-made powerful GHG emitted from industrial activities and include hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. While fluorinated gases are typically emitted in smaller quantities, they have a very high global warming potential. GWP factors are assigned to non-CO₂ GHGs and they reflect the degree to which these pollutants affect climate change, as compared to CO₂. The product of each GHG emissions and its GWP is known as CO_{2e}.

The value of GWPs is periodically modified by the IPCC as climate change science is refined. Although the IPCC has completed the Fifth Assessment Report, most

mandatory and voluntary reporting registries require the use of the GWPs published in the Fourth Assessment Report (Forster et al., 2007); therefore, the GWPs from the Fourth Assessment Report (i.e. 25 for CH₄) were used in this analysis to maintain consistency with the international convention.

Aircraft Taxiing GHG Emissions

Due to proposed runway closures during the construction period, the Proposed Project would temporarily impact aircraft taxiing times. More specifically, and of relevance to the GHG emission analysis, the Proposed Project would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. In 2025, aircraft taxiing times would be slightly greater than Baseline Conditions due to additional taxiing delay associated with background growth in operations. The Proposed Project would not result in any other changes to the landing take off (LTO) cycle accounted for GHG emission analysis. For this reason, Baseline Conditions GHG emissions are determined for aircraft taxiing operations as this is the only operational factor that would be affected by the Proposed Project. The Baseline Condition aircraft taxiing GHG emissions were determined using the hybrid base year (2019/2020) approach explained in *Section 3.2.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to correctly represent typical operations levels at ONT. See *Appendix D, Air Quality and GHG* for GHG modeling details.

Table 3-10 summarizes the Baseline Condition aircraft taxiing GHG emissions for 2019/2020, based on the hybrid base year modeled in AEDT.

Table 3-10: Baseline Conditions Aircraft Taxiing GHG Emissions

Year	Total CO ₂ e (MT/year)
Baseline Conditions	49,520

Note: MT = metric ton; CO₂e = carbon dioxide equivalent

The product of each GHG emission and its Global Warming Potential (GWP) is known as “carbon dioxide equivalent” (CO₂e).

Source: AEDT and HNTB analysis, 2022.

Federal

In 2020, the U.S. emitted about 5,973 million metric tons of CO₂ equivalent (CO₂e). Total U.S. emissions have decreased by 7.4 percent from 1990 to 2020 and decreased from 2019 to 2020 by 9.1 percent (599.5 million metric tons of CO₂e). The decrease in total GHG emissions between 2019 and 2020 was driven in large part by the impacts of the COVID-19 pandemic on travel and economic activity. However, the decrease in CO₂e emissions from 2019 to 2020 also reflects impacts of long-term trends, including energy market trends and technological changes including energy efficiency and the carbon intensity of energy fuel choices, such as substitution from coal to natural gas and other non-fossil energy sources in the electric power sector.⁴⁶

Of the six major economic sectors nationwide—residential, commercial, industry, agriculture, transportation, and electric power—transportation accounts for the highest fraction of GHG emissions nationwide in 2020 (approximately 27 percent), closely followed by electric power (approximately 25 percent) and by industry (approximately 24 percent).⁴⁷

The most recent EPA data indicate that in 2020, aircraft accounted for 10 percent of U.S. transportation GHG emissions and 3 percent of total U.S. GHG emissions.⁴⁸ Due to improvements in fuel efficiency over the years, the aviation sector has been able to move more passengers while using the same amount of energy. In 2018, the U.S. aviation sector carried approximately 32% more passengers than in the year 2000, while using almost the same amount of fuel (and producing the same amount of emissions).⁴⁹

State

As part of their mandatory GHG reporting program, CARB tracks statewide GHG emissions and provides annual inventory reports. On July 28, 2021, CARB published an inventory for GHG emissions from 2000 through 2019.⁵⁰ In 2019, California emitted 418.2 million metric tons of CO₂e, achieving its 2020 GHG emission limit of 431 MMT CO₂e. The annual report indicated that statewide GHG emissions dropped below this 2020 GHG limit beginning in 2016 and have generally declined since 2004. The transportation sector remains the largest source of GHG emissions in California, accounting for almost 40% of emissions in 2019. **Table 3-11** summarizes the 2019 GHG emissions by economic sector, and **Table 3-12** summarizes GHG emissions in the state over the last 10 years by economic sector.

Table 3-11: 2019 GHG Emissions in California by Economic Sector

Economic Sector	2019 Emissions (MMT CO ₂ e)	Percentage
Transportation	170.3	40.7%
Industrial	99.9	23.9%
Electricity (In State)	37.3	8.9%
Electricity (Imports)	21.7	5.2%
Agriculture & Forestry	31.8	7.6%
Commercial	24.2	5.8%
Residential	33.0	7.9%
Total	418.2	100%

Source: CARB (2021), California Greenhouse Gas Emission Inventory - 2021 Edition.
Data available at: <https://ww3.arb.ca.gov/cc/inventory/data/data.htm>

Table 3-12: 2010-2019 GHG Emissions in California by Economic Sector

Economic Sector	GHG Emissions (MMT CO ₂ e)									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Transportation	165.1	161.8	161.4	161.3	162.6	166.2	169.8	171.2	169.6	166.1
Electric Power	90.3	89.2	98.2	91.4	88.9	84.8	68.6	62.1	63.1	58.8
Industrial	91.1	89.4	88.9	91.7	92.5	90.3	89.0	88.8	89.2	88.2
Commercial & Residential	45.9	46.0	43.5	44.2	38.2	38.8	40.6	41.3	41.4	43.8
Agriculture	33.7	34.4	35.5	33.8	34.7	33.5	33.3	32.5	32.7	31.8
High GWP	13.5	14.5	15.5	16.8	17.7	18.6	19.2	20.0	20.4	20.6
Recycling & Waste	8.3	8.4	8.3	8.4	8.4	8.5	8.6	8.7	8.7	8.9
Total	447.9	443.7	451.3	447.6	443.0	440.7	429.1	424.6	425.1	418.2

Source: CARB (2021). California Greenhouse Gas Emission Inventory - 2021 Edition. Data available at: <https://ww3.arb.ca.gov/cc/inventory/data/data.htm>

3.7 Cultural Resources

Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance.⁵¹

3.7.1 Regulatory Setting

CEQA, PRC 21084.1, and CCR Title 14 Section 15064.5, address determining the significance of impacts to archaeological and historic resources, and discuss significant cultural resources as “historical resources,” which are defined as:

- Resource(s) listed or determined eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR; 14 CCR Section 15064.5[a][1])
- Resource(s) either listed in the National Register of Historic Places (NRHP) or in a “local register of historical resources” or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless “the preponderance of evidence demonstrates that it is not historically or culturally significant” (14 CCR Section 15064.5[a][2])
- Resource(s) determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3])

For listing in the CRHR, a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

- (1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- (2) It is associated with the lives of persons important to local, California, or national history;
- (3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values;
- (4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Under 14 CCR Section 15064.5(a)(4), a resource may also be considered a “historical resource” for the purposes of CEQA at the discretion of the lead agency. Significant resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Resource integrity, which is the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance, is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. In an archaeological deposit, integrity is assessed with reference to the preservation of material constituents and their culturally and historically meaningful spatial relationships. A resource must also be judged with reference to the particular CRHR criteria under which it is proposed for eligibility.

3.7.2 Existing Condition

A cultural resources study was produced to identify any cultural resources extant within the study area for the Project. The study included a review of site records and previous studies conducted within half-mile of the project site, accessed through the South Central Coastal Information Center (SCCIC) in August 2021, and a pedestrian field survey conducted with a Native American monitor of Gabrieleño descent to confirm the presence or absence of tribal, archaeological, and built environment resources (cultural resources) within the project area was conducted on October 5, 2021. The project area for the project is shown in **Figure 3-4** and includes 434.6 acres within the airport property.

The SCCIC records search results identified 14 previous cultural resource studies within the search limits, two of which overlap with the project area. However, these two studies did not identify any cultural resources within the project area. The records search results identified 20 previously recorded cultural resources within a 0.5-mile radius of the project area; none of the resources are located directly within the project area. Of the 20 resources identified in the vicinity, 15 are historic-period built-environment resources, three are historic-period archaeological sites, and two are historic districts. The record search did not identify any prehistoric sites.

An intensive pedestrian survey of the project site was conducted alongside a representative from the Gabrieleño Tongva Indians of California on October 5, 2021. No cultural resources were identified during the survey.

Appendix F, Cultural Resources provides a detailed account of the prehistoric and historic background at ONT, as well as a summary of the records search, previous surveys, and fieldwork conducted for this SEIR. *Section 3.10 Tribal Cultural Resources* summarizes the Sacred Lands File record search and tribal consultation completed for this SEIR.

3.8 Noise

Noise, often defined as unwanted sound, is one of the most common environmental issues associated with aircraft operations. Aircraft are not the only sources of noise in an urban or suburban surrounding, where interstate and local roadway traffic, industrial and neighborhood sources may also intrude on the everyday quality of life. Despite other sources of noise, aircraft are readily identifiable to those affected by their noise and are typically singled out for criticism. Consequently, aircraft noise problems often dominate analyses of environmental impacts. Refer to **Appendix G, Introduction to Noise** for additional information on how noise is measured.

The Certified 1991 FEIR studied projected aircraft operations at ONT at a 12 MAP level, which is a greater number of aircraft operations than in the Baseline Conditions relating to potential noise impacts studied in this SEIR.

3.8.1 Noise Metrics

A “metric” is defined as something “of, involving, or used in measurement.” As used in environmental noise analyses, a metric refers to the unit or quantity that quantitatively measures the effect of noise on the environment. Noise studies have typically involved a confusing proliferation of noise metrics used by individual researchers who have attempted to understand and represent the effects of noise. As a result, literature describing environmental noise or environmental noise abatement has included many different metrics.

The scientific unit of sound measurement is the decibel (dB). Our ears are sensitive to a wide range of sound pressures. The loudest sound that we hear without pain has about one trillion times more energy than the quietest sounds we hear. On a linear scale, this range is unwieldy. Therefore, we compress the total range of sound pressures to a more meaningful range by introducing the logarithmic unit of decibel.

Because decibels are logarithmic quantities, they require logarithmic math and not simple (linear) addition and subtraction. For example, if two sound sources each produce 100 dB and are operated together, they produce only 103 dB—not 200 dB as might be expected. Four equal sources operating simultaneously result in a total SPL of 106 dB. In fact, for every doubling of the number of equal sources, the SPL (of all of the sources combined) increases another three decibels. A ten-fold increase

in the number of sources makes the SPL increase by 10 dB. A hundredfold increase makes the level increase by 20 dB, and it takes a thousand equal sources to increase the level by 30 dB.

Noise impacts for this SEIR were evaluated in terms of the Community Noise Equivalent Level (CNEL) in decibels. The CNEL is the noise metric adopted by the State of California to assess cumulative noise (i.e., multiple aircraft events) near airports in California. The CNEL is a cumulative metric for an average annual day of aircraft operations with a 5- dB penalty applied to evening aircraft events (7:00 PM – 9:59 PM) and 10- dB penalty applied to nighttime aircraft events (10:00 pm – 6:59 am). The penalty applied for evening and nighttime hours is included to account for the assumption that aircraft operations occurring during those hours are more intrusive to the average person, as people are more likely to be home and/or sleeping.

3.8.2 Regulatory Setting

Federal

14 CFR Part 36 establishes noise limits for the certification of new passenger, cargo and general aviation aircraft by FAA. The FAR Part 36 standards include five “stages” that pertain to engine technology and noise level, with Stage 1 being the loudest and Stage 5 being the quietest. The main goal of FAR Part 36 is to reduce aircraft noise, with more restrictive noise limits adopted for each “stage” of certification. Through Part 36 certification, the FAA is able to phase out older, noisier aircraft and require new aircraft to meet more stringent noise standards.

14 CFR Part 150, *Airport Noise Compatibility Planning*, establishes criteria for measuring and predicting aircraft noise and a standardized airport noise compatibility planning program. The Part 150 program is voluntary and allows Airport sponsors to identify current and future noise exposure at the Airport, and to prepare a Noise Compatibility Program to identify noise abatement and mitigation projects eligible for federal funding. The purpose of the Part 150 program is to reduce noncompatible land uses and prevent the addition of noncompatible land uses around an airport. Mitigation programs under Part 150 include but are not limited to sound insulation, property acquisition, modification of flight paths and runway use patterns. ONT’s most recent update to its Part 150 Study Noise Exposure Map was completed in 2015.

State

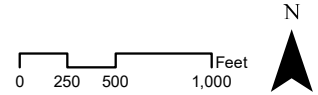
The California Division of Aeronautics sets noise standards to control noise in communities near Airports and identifies the 65 CNEL contours as the Noise Impact Boundary. The state regulations identify incompatible land uses within the noise impact boundary and require Airports to ensure land use compatibility unless certain conditions are met, including:⁵²

- (1) an aviation easement for aircraft noise has been acquired by the airport proprietor, or



LEGEND
 - - - - - Airport Property
 - - - - - Cultural Resources Project Area

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



Cultural Resources Project Area

Sources: OIAA, Nearmap, HNTB Analysis

Figure 3-4

DRAFT

- (2) the dwelling unit was in existence at the same location prior to January 1, 1989, and has adequate acoustic insulation to ensure an interior CNEL due to aircraft noise of 45 dB or less in all habitable rooms. However, acoustic treatment alone does not convert residences having an exterior CNEL of 75 dB or greater due to aircraft noise to a compatible land use if the residence has an exterior normally cognizable private habitable area such as a backyard, patio, or balcony. Or,
- (3) the residence is a high-rise apartment or condominium having an interior CNEL of 45 dB or less in all habitable rooms due to aircraft noise, and an air circulation or air conditioning system as appropriate, or
- (4) the airport proprietor has made a genuine effort as determined by the department in accordance with adopted land use compatibility plans and appropriate laws and regulations to acoustically treat residences exposed to an exterior CNEL less than 80 dB (75 dB if the residence has an exterior normally occupiable, private habitable area such as a backyard, patio, or balcony) or acquire avigation easements, or both, for the residences involved, but the property owners have refused to take part in the program, or
- (5) the residence is owned by the airport proprietor.

Local

Noise management at ONT includes noise monitoring, voluntary operational and aircraft restrictions, and noise mitigation programs.

Monitoring: ONT operates an ANOMS consisting of nine noise monitors located in the surrounding communities. ANOMS measures airport-generated noise, tracks and identifies aircraft around ONT and provides data for the generation of noise impact area maps. The ONT Noise Management Office publishes California State Airport Noise Standards Quarterly Report's, in accordance with the California Noise Standards (California Code of Regulations, Title 21, Section 5000 et seq.), which summarize the ANOMS data and cumulative noncompatible land uses within noise impact areas.

Voluntary Operational Restrictions: Aircraft operators must comply with FAA regulations for noise management, including Part 36 noise standards, and City of Ontario noise management policies. Existing operational policies at ONT include⁵³:

- Preferential runway and taxiway use procedures
- Operations of "contra-flow" from 10:00 PM and 7:00 AM where, depending on wind conditions and if weather permits, aircraft take off to the east while still landing to the west. Contra flow is used as a noise mitigation strategy to minimize noise over the residential areas west of the ONT at night.
- "Touch-and-go" operations by turbojet and turbo-fan aircraft are prohibited without special permissions

- Nighttime (10:00 PM and 7:00 AM) engine maintenance run-up operations are prohibited. Daytime run-up operations occur at specified locations.
- “Intersection departures” are prohibited (i.e. departures not starting at the end of the runway), except from 8L at Taxiway D and from 26R at Taxiway V. Departures must start at the end of runways to allow aircraft to pass higher over residential communities.

Voluntary Aircraft Restrictions: The City of Ontario encourages airlines to operate quieter aircraft, and to re-engine or retire older aircraft to meet more restrictive noise standards set by FAA.

Noise Compatibility Program: ONT has established a Sound Insulation and Property Acquisition program, called the Quiet Home Program, as part of the ONT Part 150 Noise Compatibility Program. The Quiet Home Program was established by the City of Ontario, City of Los Angeles and the FAA in the early 1990s to improve the quality of life in noise impacted neighborhoods. The Program provides sound insulation, avigation easements, and voluntary acquisition of eligible properties. As of 2016, the Quiet Home Program has sound insulated 1,599 dwelling units and acquired 256 properties (56 acres). As of 2016, there are 533 units which remain eligible for sound insulation and 88 parcels which remain eligible for voluntary acquisition.⁵⁴

3.8.3 Baseline Conditions

This section describes the noise sources and levels at ONT. In addition to aircraft noise, surface level noise including interstate and local roadway traffic, and industrial and neighborhood sources also influence noise levels.

Aircraft Noise

ONT operates ANOMS which measures and collects noise and aircraft operational data in the surrounding communities. The quarterly noise report illustrates the Noise Impact Area (65 dB CNEL contour) and summarizes the total number of dwelling units and population, and mitigated⁵⁵ dwelling units and population within the Noise Impact Area.

Surface Level Noise

ONT is located in an urbanized area. Vehicular traffic, industrial and neighborhood activities contribute greatly to the background noise levels around ONT. In addition to local roadways immediately adjacent to the Airport (Airport Drive and Mission Blvd), ONT is surrounded by four freeways: Interstate 10 to the north, Interstate 15 to the east, State Route 60 to the south and State Route 83 to the west.

Baseline Conditions Noise Contour

The Baseline Conditions noise contour for this SEIR was developed using the hybrid base year (2019/2020) approach explained in *Section 3.2.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to

correctly represent typical operations levels at ONT (e.g., a reduction in passenger carrier and air taxi operations, and the increase in all-cargo operations). See **Appendix H, Noise** for noise model details.

The Baseline Conditions noise contours were modeled using AEDT 3d, the most currently released version of the FAA’s Office of Environment and Energy tool. In addition to the 2019/2020 hybrid fleet mix, inputs to the noise model include facilities and runways at the Airport, stage length, day/evening/night split, engine maintenance run-up operations, runway use, track geometry and use, weather, and terrain. *Appendix H* provides details on the inputs of the noise model.

Figure 3-5 depicts the 65dB, 70dB, and 75dB CNEL noise contours for the Baseline Conditions. In general, the noise contours follow an east-west direction consistent with the runway orientation. The noise contour to the southeast of the Airport is primarily driven by departures from Runways 8L and 8R, especially at nighttime during the use of Contra Flow.⁵⁶

Table 3-13 summarizes the estimated land area (acres) within CNEL contours for 2021 Baseline Conditions along with the estimated number of residential dwelling units, schools, and churches located within the contours. Table 3-13 also provides an estimate of the residential population exposed to varying degrees of noise exposure based upon average household size by Census block. Residential dwelling units and population were initially determined using U.S. Census Bureau block data, with data verified using Google Earth.⁵⁷

Table 3-13: Baseline Conditions Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	4.3	0.0	0.0	4.3
Education	0.0	0.0	0.0	0.0
Mixed Use	33.8	0.2	0.0	34.0
Mobile Home	0.0	0.0	0.0	0.0
Open Space	0.0	0.0	0.0	0.0
Agriculture	3.0	0.0	0.0	3.0
Commercial	15.2	0.0	0.0	15.2
Facilities	0.0	0.0	0.0	0.0
General Office	3.2	0.0	0.0	3.2
Industrial	518.3	37.8	0.0	556.2
Transportation, Communications, and Utilities	587.7	394.3	550.6	1,532.6
Vacant	224.2	112.7	0.0	336.9
TOTAL	1,389.7	545.0	550.6	2,485.3

Table 3-13: Baseline Conditions Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	13	0	0	13
Population	59	0	0	59

Note:

Totals may not sum due to rounding.

(1) All residential dwelling units and population within the 65-69 CNEL are eligible for voluntary acquisition under ONT’s Quiet Home Program, with the exception of one dwelling unit (two people) accounted for at the Hofer Ranch property directly south of ONT.

(2) Of the 13 dwelling units with the 65 dB contour, seven are single family and six are multi-family (three duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2021.

3.9 Transportation/Traffic

3.9.1 Regulatory Setting

SCAG is the region’s surface transportation planning agency responsible for developing long-range transportation plans and a Sustainable Communities Strategy for the region, including San Bernardino County. The Agency developed “Connect SoCal (2020–2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS])” (adopted 9/3/2020) which is “a long-range visioning plan that builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern.”⁵⁸ As an MPO, SCAG does not have any regulatory, developmental, operational, or planning authority over airports. Therefore, SCAG is focused on air and passenger cargo activity from the perspective of how the traffic coming and going from southern California airports affects the region’s roads, highways, and transit system.⁵⁹

3.9.2 Existing Conditions

The Airport is generally bounded by Airport Drive the north, and Mission Boulevard on the south. Airport Drive is a 6-lane minor arterial and Mission Boulevard is a 6-lane principal arterial roadway. S. Grove Avenue, which is a 6-lane principal arterial, borders the airfield to the west and S. Haven Avenue, an 8-lane principal arterial borders the airfield to the east. Primary access to the Airport is from Interstate 10 (I-10) via Archibald Avenue from the north and California State Route 60 (SR-60) via Haven Avenue from the South. Land uses immediately surrounding the Airport are primarily airport-related, industrial and commercial uses. The regional and project location is shown on Figure 2-1.

CEQA Guidelines Section 15064.3 now specifies that VMT shall be the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. A project's effect on automobile delay and roadway congestion, previously measured by "level of service" (LOS), will no longer constitute an environmental impact.

The Governor's Office of Planning and Research (OPR) developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which states that rehabilitation, repair, replacement, and safety improvement projects for existing transportation assets that do not add additional capacity are projects that would not likely lead to a substantial or measurable increase in VMT.⁶⁰ Caltrans' Transportation Analysis under CEQA⁶¹ has the same standard, and ONT has a Caltrans-issued permit. Moreover, the City of Ontario Resolution No. 2020-071 adopted VMT Thresholds stating that transportation projects that do not add capacity can be screened from further VMT review during the CEQA process and are presumed to have a less than significant impact on transportation.⁶²

The Proposed Project is a rehabilitation, repair, replacement, and safety improvement project that does not add or increase capacity at ONT and would therefore not increase VMT.

3.10 Tribal Cultural Resources

3.10.1 Regulatory Setting

California State Assembly Bill 52 (AB 52) revised PRC Section 21074 to include Tribal Cultural Resources (TCRs) as an area of CEQA environmental impact analysis. As a general concept, a TCR is similar to the federally defined term Traditional Cultural Properties (TCP); however, it incorporates consideration of local and state significance and required mitigation under CEQA. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is derived from the role the property plays in a community's historically rooted beliefs, customs, and practices.

A TCR may be considered significant if it is:

- (1) included in a local or state register of historical resources;
- (2) determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1;
- (3) a geographically defined cultural landscape that meets one or more of these criteria;
- (4) a historical resource described in PRC Section 21084.1 or a unique archaeological resource described in PRC Section 21083.2; or
- (5) a non-unique archaeological resource if it conforms with the above criteria.

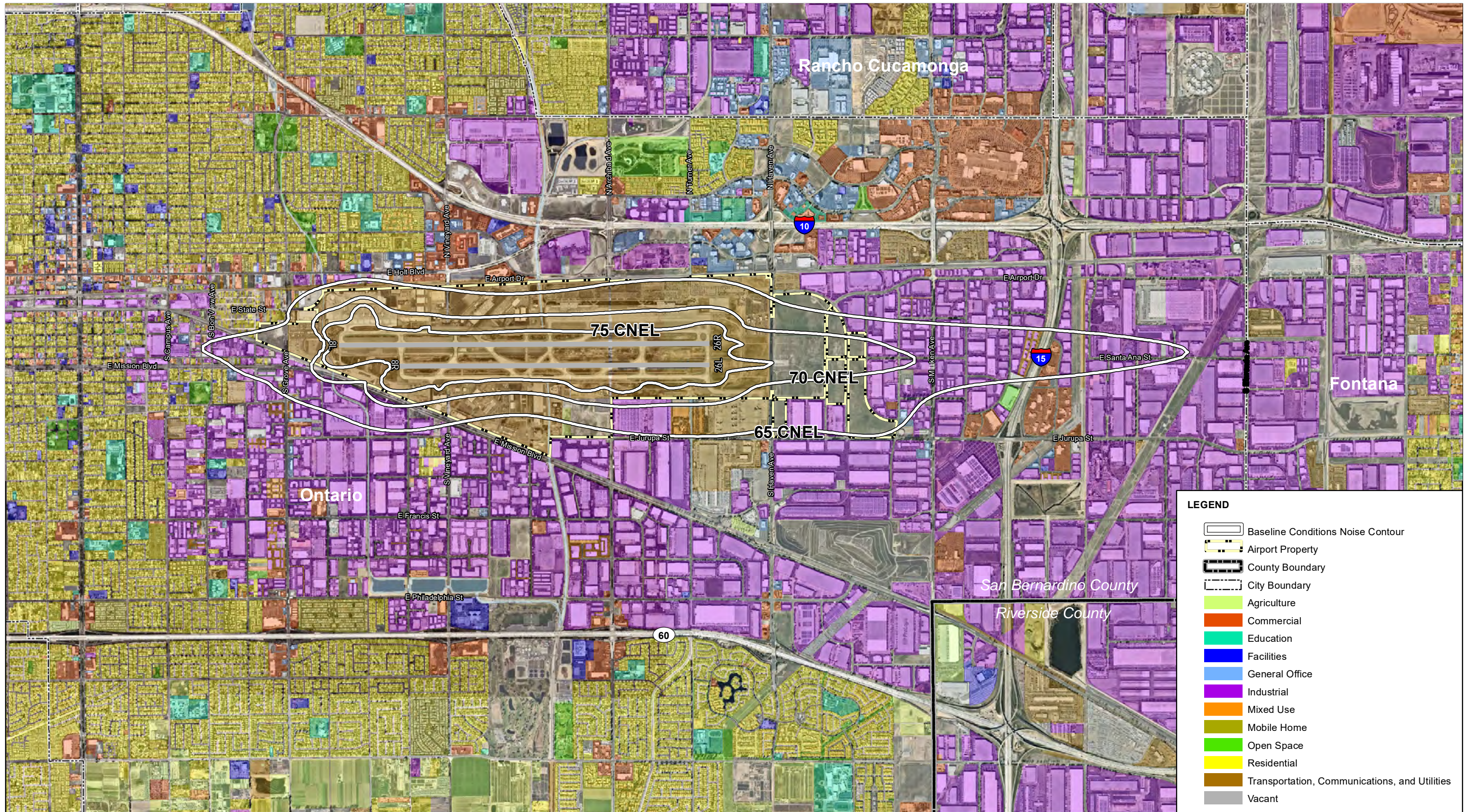


Figure 3-5

3.10.2 Existing Conditions

A Sacred Lands File search was requested by OIAA through the Native American Heritage Commission (NAHC). The Sacred Lands File search results were received on April 13, 2021 (provided in *Appendix F, Attachment C, Tribal [CONFIDENTIAL]*). The results indicated that no known sacred lands of Native American Cultural Resources are within the project area. The NAHC noted that negative results may not indicate the absence of Native American cultural resources in the area and provided a contact list of 12 Native American tribal organizations that may have knowledge of cultural resources in or near the study area.

In accordance with AB 52, on August 27, 2021, OIAA sent letters to the Native American representatives and interested parties as identified by the NAHC. Three responses were received. San Manuel Band of Mission Indians (SMBMI) responded via email on September 1, 2021, and Agua Caliente Band of Cahuilla Indians (ACBCI) responded via email on September 2, 2021 to indicate the project is not located within the boundaries of the Tribes' Traditional Use Area. The Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation) responded via email on September 17, 2021 to request a consultation with the lead agency.

OIAA initiated consultation on November 4, 2021 with Kizh Nation. Although no tribal resources have been identified within the project area, the tribe has knowledge of some isolated resources, including prehistoric isolates and fire hearths associated with habitation, within the airport property. A second meeting was held February 24, 2022 to discuss and finalize agreed upon mitigation measures. As such, the tribe requests Native American monitoring during all ground-disturbing activities related to the project. Mitigation measures intended to reduce the impact to potential tribal cultural resources were agreed upon by Kizh Nation and OIAA on March 30, 2022 and consultation was concluded.

Appendix F, Attachment C, Tribal [CONFIDENTIAL] provides a detailed account of the prehistoric and historic background at ONT, as well as a summary of the records search, previous surveys, fieldwork and tribal consultation conducted for this SEIR. *Section 3.7 Cultural Resources* summarizes the records search, previous surveys and fieldwork conducted for this SEIR.

ENDNOTES

- ¹City of Ontario, 2050 The Ontario Plan, https://www.ontarioplan.org/wp-content/uploads/sites/4/2021/08/ScopingMeeting_TOP_2050SEIR2.pdf, accessed 10/20/21.
- ²SCAG, Local Profiles, <https://scag.ca.gov/data-tools-local-profiles>, accessed 10/20/21.
- ³ Federal Aviation Administration. 2021. Terminal Area Forecast Executive Summary Fiscal Years 2020-2045. Retrieved from https://www.faa.gov/data_research/aviation/taf/. Accessed February 16, 2022.
- ⁴ Ibid. Data query for ONT accessed February 16, 2022.
- ⁵ ACI Disclaimer: "The information contained in the attachments has been compiled based on information submitted to Airports Council International (ACI). No user of the data should act on the basis of any such information without referring to applicable laws and regulations and/or without taking appropriate professional advice. Although every effort has been made to ensure accuracy, ACI shall not be held responsible for loss or damage caused by errors, omission, misprints or misinterpretation of the contents hereof."
- ⁶ Lead (Pb) is not analyzed because the Proposed Project would have minimal to zero impact on lead emissions. Construction activity would not result in lead emissions. Further, the only source of lead emissions at ONT is from aviation gasoline (AvGas) used in piston-powered general aviation aircraft. Piston-powered engine aircraft comprise a small fraction of the total aircraft operating at ONT and their activity levels would not change as a result of the Project.
- ⁷ USEPA, National Ambient Air Quality Standards (NAAQS), <https://www.epa.gov/criteria-air-pollutants/naqs-table>. (January 2017).
- ⁸ Federal Aviation Administration, Voluntary Airport Low Emissions Program (VALE), <https://www.faa.gov/airports/environmental/vale/>
- ⁹ Federal Aviation Administration, Airport Zero Emissions Vehicle and Infrastructure Pilot Program, https://www.faa.gov/airports/environmental/zero_emissions_vehicles/
- ¹⁰ [Advanced Clean Trucks Fact Sheet | California Air Resources Board](#)
- ¹¹ HELIX Environmental Planning, Inc. 2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11.
- ¹² DRAFT, Air Quality Improvement Plan, Ontario International Airport, September 17, 2019, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-aqip-ont.pdf?sfvrsn=7>
- ¹³ 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.
- ¹⁴ 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.
- ¹⁵ Oberbauer, T. 2008. Terrestrial vegetation communities in San Diego County based on Holland's Descriptions, San Diego Association of Governments, San Diego, CA.

-
- ¹⁶ Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A manual of California vegetation (MCV). 2nd Ed. Sacramento: California Native Plant Society.
- ¹⁷ California Department of Fish and Wildlife, California Natural Community List. The Vegetation Classification and Mapping Program. Wildlife & Habitat Data Analysis Branch. August 2021. Retrieved from: FileHandler.ashx (ca.gov) Accessed November 2, 2021.
- ¹⁸ 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.
- ¹⁹ 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.
- ²⁰ California Native Plant Society. 2021b. Inventory of Rare and Endangered Plants of California. California Native Plant Society. Retrieved from: <http://www.rareplants.cnps.org/>. Accessed November 2, 2021.
- ²¹ 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/CNDDDB/Maps-and-Data>. Accessed November 2, 2021.
- ²² HELIX Environmental Planning, Inc. 2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11.
- ²³ Osborne, Kendall H. 2021. Personal communication (email). December 20.
- ²⁴ CDFW, 2021b. California Natural Community List. The Vegetation Classification and Mapping Program. Wildlife & Habitat Data Analysis Branch. August 2021. Retrieved from: FileHandler.ashx (ca.gov) Accessed November 2, 2021.
- ²⁵ 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.
- ²⁶ 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.
- ²⁷ 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.
- ²⁸ South Coast Wildlands. 2008. South Coast missing linkages: A wildland network for the South Coast ecoregion. Retrieved from: [Microsoft Word - SCMLRegionalReportFINAL.doc \(scwildlands.org\)](#) March.
- ²⁹ Global Change Research Act of 1990, Pub. L. 101-606, Sec. 103 (November 16, 1990). For additional information on the United States Global Change Research Program, <http://www.globalchange.gov>. (January 2017)
- ³⁰ See generally Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496 (Dec. 15, 2009).
- ³¹ EPA, *Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units*, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015).

- ³² California Fourth Climate Change Assessment, California's Changing Climate 2018, https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf
- ³³ Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66496 (December 15, 2009).
- ³⁴ EPA, Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units, 80 Fed. Reg. 64661, 64677 (October 23, 2015).
- ³⁵ EPA finalized findings that GHG emissions from certain classes of engines used in aircraft contribute to the air pollution that causes climate change endangering public health and welfare under section 231(a) of the Clean Air Act.
- ³⁶ Center for Climate and Energy Solutions. *International Civil Aviation Organization (ICAO)*. <https://www.c2es.org/international/icao>. (January 2017).
- ³⁷ EPA, Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures - Final Rulemaking, January 11, 2021. <https://www.epa.gov/regulations-emissions-vehicles-and-engines/control-air-pollution-airplanes-and-airplane-engines-ghg>.
- ³⁸ EPA, [Final Rule for Phase 2 Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, January 25, 2016](https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards), <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards>.
- ³⁹ HELIX Environmental Planning, Inc. 2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11.
- ⁴⁰ Federal Aviation Administration, Voluntary Airport Low Emissions Program (VALE), <https://www.faa.gov/airports/environmental/vale/>
- ⁴¹ Federal Aviation Administration, Airport Zero Emissions Vehicle and Infrastructure Pilot Program, https://www.faa.gov/airports/environmental/zero_emissions_vehicles/
- ⁴² [Advanced Clean Trucks Fact Sheet | California Air Resources Board](#)
- ⁴³ HELIX Environmental Planning, Inc. 2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11.
- ⁴⁴ City of Ontario, Community Climate Action Plan, November 2014.
- ⁴⁵ SBCTA, Region Greenhouse Gas Reduction Plan, Final, March 2021, <https://www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/>, accessed 2/23/22.
- ⁴⁶ EPA, Draft Inventory of U.S. Greenhouse Gas Emission and Sinks: 1990-2020, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>. The Draft U.S. Inventory of Greenhouse Gas Emissions and Sinks: 1990-2020 is under public review through March 11, 2022.
- ⁴⁷ EPA, Draft Inventory of U.S. Greenhouse Gas Emission and Sinks: 1990-2020, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>.
- ⁴⁸ EPA, EPA Finalizes Airplane Greenhouse Gas Emission Standards, [EPA Proposes Airplane Greenhouse Gas Emission Standards – Resource Information \(EPA-420-F-20-057, December 2020\)](#), December 2020.

⁴⁹ ICAO, "United States Efforts to Address Aviation's Climate Impact," A40-WP/531, ICAO 40th General Assembly, Executive Committee, www.icao.int/Meetings/a40/Documents/WP/wp_531_en.pdf, accessed 12/15/21.

⁵⁰ CARB, 2000-2019 GHG Inventory (2021 Edition), <https://ww2.arb.ca.gov/ghg-inventory-data>, accessed 11/19/2021.

⁵¹ California Office of Historic Preservation (OHP), Instructions for Recording Historical Sources, March 1995, <https://ohp.parks.ca.gov/pages/1054/files/manual95.pdf>.

⁵² California Code of Regulations Title 21, Division 2.5, Chapter 6, Article 1, Incompatible Land Uses Within the Noise Impact Boundary.

⁵³ ONT Rules and Regulations, Section 3 – Aircraft Operations, and Section 5 – Aircraft Noise Mitigation Operating Procedures and Restrictions, September 2020, <https://www.flyontario.com/corporate/rules-and-regulations>

⁵⁴ Ontario Quiet Home Program Status Map, 6/20/2016, "Parcels with Completed Dwelling Units" and "Acquired Properties."

⁵⁵ "Mitigated" includes both sound insulated and acquired parcels.

⁵⁶ During the nighttime hours, depending on wind condition, ONT operates contraflow where aircraft takes off to the east while still landing to the west. Contra-flow is utilized to alleviate noise impacts to the residential area to the west of the Airport.

⁵⁷ Population and housing units within the contours were first determined using [2010 U. S. Census Bureau block data \(TIGER/Line with Selected Demographic and Economic Data \(census.gov\)\)](https://www.census.gov). At the time of this analysis, 2020 data was not available down to the block level. Total housing units and population by block were adjusted to remove the number of acquired properties in the Ontario Quiet Home Program. The population and housing units initially calculated within a contour were based on the assumption that housing units and population within a block were evenly distributed by area. (Note: These population and housing unit counts are not associated with the acreage of residential land use types.) Provided that the initial estimate of housing units based on block data was low, Google earth was then utilized to confirm the actual number of housing units occurring within the contour in a given block (2021 aerial). The average population per housing unit determined from the census block data was used to determine the estimated population. It was also noted whether the housing units within the contour have been mitigated (sound insulated) or are eligible for voluntary acquisition.

⁵⁸ SCAG, "Adopted Final Connect SoCal," <https://scag.ca.gov/read-plan-adopted-final-plan> (accessed 3/4/22).

⁵⁹ SCAG, "Transportation System: Aviation and Airport Ground Access," 9/3/2020, p. 1.

⁶⁰ Governor's Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA, April 2018, p. 20.

⁶¹ Caltrans, "Transportation Analysis Under CEQA," September 2020, p. 13.

⁶² Ontario City Council, City of Ontario Resolution No. 2020-071, June 16, 2020, <https://www.ontarioca.gov/sites/default/files/Ontario-Files/City-Clerk-Records-Management/Minutes%2020200616.pdf>, p. 4.

4.0 Environmental Impacts and Mitigation

This chapter addresses potential environmental impacts associated with the Proposed Project described in SEIR *Chapter 2.0, Project Description*, as it relates to construction and operation of the Proposed Project. For each environmental resource or issue area included in this chapter, the following information will be provided: a summary of the methodology used to gather data and analyze potential Proposed Project impacts; a description of Existing Conditions or Baseline Conditions; listing of significance criteria by which potential Proposed Project impacts were evaluated; a description of the potential effects of the Proposed Project and, where applicable, identifies mitigation that would help to reduce the environmental effects of the Proposed Project. The significance of potential Project impacts will be addressed pre-mitigation and, as applicable, post-mitigation.

The following issue areas are addressed in detail in this chapter:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Cultural Resources
- Noise
- Transportation/Traffic
- Tribal Cultural Resources
- Health Risk Assessment

Refer to *Section 3.2, Existing vs. Baseline Conditions* for detailed information on the development of the Existing Conditions or Baseline Conditions used for each resource category. As discussed, the Existing Condition describes existing physical conditions in the year 2021 for biological resources, cultural resources, transportation/traffic and tribal cultural resources, as detailed in *Section 3.2.1*. The Baseline Condition is applied for discussion of the hybrid 2019/2020 base year condition, as it relates to the air quality, GHG, and noise environments, as detailed in *Section 3.2.2*. The resource categories that use the Baseline Conditions apply a hybrid of 2019 and 2020 operations to more accurately represent historically consistent existing conditions at ONT, and to avoid a potentially misleading comparison of project impacts. These resource categories (noise, air quality, and greenhouse gas emissions) are described and compared using a hybrid of 2019 and 2020 operations as the Baseline Conditions.

In addition to this chapter of the SEIR, environmental impacts are also addressed in *Chapter 5.0, Cumulative Impacts*, *Chapter 6.0: Growth Inducing Impacts*, and *Chapter 7.0, Effects Found Not to be Significant*.

4.1 Air Quality

This air quality analysis examines criteria pollutant emissions that result from temporary construction activity and temporary operational changes associated with the Proposed Project during construction years 2023, 2024 and 2025. There are no emissions impacts associated with the Proposed Project beyond the construction period.

4.1.1 Methodology

Direct Construction Emissions

Direct construction-related emissions are typically associated with the exhaust from heavy-duty equipment (e.g., backhoes, graders, etc.), delivery trucks (e.g., dump trucks, construction materials delivery), and construction worker vehicles traveling to and from the construction site. There are also emissions (i.e., dust) associated with site preparation, land clearing, and equipment traversing unpaved areas. Construction emissions are temporary in nature and generally confined to the construction site and roads used to enter and exit the construction site. Emissions of CO, NO_x, VOC, SO_x, PM_{2.5}, PM₁₀ were evaluated for the proposed project's three-year construction period, 2023, 2024 and 2025.

The Airport Construction Emissions Inventory Tool (ACEIT), developed by the Transportation Research Board's (TRB) Airport Cooperative Research Program (ACRP), was used to identify the types of construction activities and equipment/vehicle activity data for the air quality analysis. For this analysis, ACEIT was also used to derive the hours of operation for off-road construction equipment and vehicle miles traveled (VMT) for on-road trucks and employee vehicles. Construction activities are based upon conceptual phasing plans, including the known areas (square feet) associated with the various project types (i.e., proposed pavement, pavement demolition, and building area). The construction activity levels developed in the ACEIT model were then used to model emissions in California Emissions Estimator Model® (CalEEMod) version 2020.4.0.¹ See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 1 – Construction Emissions*, for more details.

A concrete batch plant also is proposed to be located on Airport property in an industrial area along E. Avion Street to facilitate Project-related construction activities. A concrete batch plant would reduce the total VMT needed for concrete delivery trucks, but would still require delivery of raw materials (i.e., Portland cement and aggregate) to mix the concrete on-site. The construction activity levels developed in ACEIT and modeled in CalEEMod do not account for the use of a concrete batch plant and instead assume a conservative 40-mile roundtrip for concrete delivery. The health risk assessment completed as part of this Supplemental Environmental Impact Report (SEIR) includes an analysis of particulate matter (PM_{2.5} and PM₁₀) emissions associated with operation of the concrete batch plant. These emissions are summed with the construction emissions developed in CalEEMod to represent the full potential direct construction emissions for the Proposed Project.

Indirect Construction Emissions

Indirect construction-related emissions are associated with temporary, operational changes on the airfield necessary during Proposed Project construction. More specifically, as explained in *Chapter 2.0, Project Description*, the Proposed Project would require temporary runway closure periods in 2023, 2024 and 2025 to allow for runway rehabilitation and taxiway improvements. As a result, aircraft taxiing times will be impacted during the proposed runway closure periods. In order to determine the impact these temporary changes in aircraft taxiing times would have on

operational emissions, air emissions from aircraft taxiing activities were modeled using FAA's Aviation Environmental Design Tool (AEDT) version 3d. Operational emissions from engine maintenance run-up, Ground Support Equipment (GSE), and Auxiliary Power Unit (APU) usage were also modeled in AEDT, but are not discussed further herein as they would not be impacted from the temporary runway closures.

The aircraft emissions inventories were prepared for CO, NO_x, VOC, SO₂, PM_{2.5}, and PM₁₀. Lead (Pb) is also considered a criteria air pollutant; however, it is not evaluated in the SEIR's air quality analysis.² Note, however, a discussion of lead and the trace amounts of lead emissions present at ONT is included in *Section 4.8, Health Risk Assessment*, of this SEIR.

The aircraft fleet mixes were developed based on ONT's Airport Noise Monitoring System (ANOMS), FAA Terminal Area Forecast (TAF), Air Traffic Activity System (ATADS), and DOT's T100 data. Engine types were assigned to the fleet mixes based on FAA's aircraft registration database. Aircraft with at least 183 operations annually (more than 0.5 operations daily) were retained in the fleet mix for air quality analysis as they represent the majority of the operations. The retained operations were scaled up to match the total number of operations developed in the fleet mix. Default GSE and APU assignments in AEDT were applied. The existing condition taxi times were obtained from the FAA Aviation System Performance Metrics (ASPM). Simulations were conducted to project future taxi times for different scenarios. It was also assumed that the mixing height would be 2,402 feet to be consistent with previous SCAQMD analyses. See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 2 – Operational Emissions*, for more details.

Operational Emissions

The Proposed Project would have no impact on operations at the Airport beyond the three-year construction period. The Proposed Project would not increase Airport capacity and would not result in increases in local traffic as described in *Section 3.9*. Therefore, emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed.

4.1.2 Baseline Conditions

ONT is located in San Bernardino County within the South Coast Air Basin. Ambient concentrations of air contaminants are measured within the Basin and compared to Federal (NAAQS) and State (CAAQS) standards to determine air quality. As it relates to NAAQS and CAAQS, the South Coast Air Basin (Basin) is currently designated:

- NAAQS: nonattainment for O₃ and PM_{2.5} and maintenance for CO, NO₂ and PM₁₀
- CAAQS: nonattainment for O₃, PM_{2.5}, and PM₁₀

The SCAQMD maintains a network of air monitoring stations throughout the Basin, with eight monitors located within San Bernardino County. The monitors nearest to ONT have indicated exceedances of the federal and state ozone standards on average 20% and 13% of the time between 2018 and 2020. *Section 3.4.2* provides additional details on the existing ambient concentrations near ONT.

ONT's existing aircraft taxiing emissions were determined using the hybrid base year (2019/2020) approach explained in *Section 3.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to correctly represent typical operation levels at ONT. For this reason, existing conditions aircraft taxiing emissions are referred to as the Baseline Conditions.

As detailed in *Chapter 3.0, Environmental Setting*, operational emissions were modeled in AEDT for emissions from aircraft activities for the Baseline Conditions. Aircraft taxiing during construction is the only aspect of the Proposed Project that impacts emissions. Therefore, these emissions represent the Baseline Conditions aircraft taxiing emissions at ONT prior to the Proposed Project being implemented. **Table 4-1** summarizes the Baseline Conditions aircraft taxiing emissions.

Table 4-1: Baseline Conditions Aircraft Taxiing Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9

Source: FAA ASPM and HNTB analysis, 2022.

4.1.3 Thresholds of Significance

Air quality thresholds of significance are based on Appendix G of the CEQA Guidelines. The Proposed Project would result in significant impacts related to air quality if it would:

- Impact 4.1-1 Conflict with or obstruct implementation of the SCAQMD AQMP.
- Impact 4.1-2 Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Impact 4.1-3 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- Impact 4.1-4 Expose sensitive receptors to substantial pollutant concentrations.
- Impact 4.1-5 Create objectionable odors affecting a substantial number of people.

With respect to Impact 4.1-2, the USEPA and SCAQMD set thresholds of significance designed to align with the NAAQS and CAAQS, respectively. USEPA criteria pollutant and precursor General Conformity *de minimis* thresholds for NAAQS are summarized in **Table 4-2**. SCAQMD criteria pollutant and precursor thresholds of significance for construction are summarized in **Table 4-3**.

Table 4-2: General Conformity *de minimis* Levels

Pollutant	Tons per year
O ₃ (extreme)	10 for NO _x and 10 for VOCs
CO (maintenance)	100
NO ₂ (maintenance)	100
PM ₁₀ (maintenance)	100
PM _{2.5} (serious)	70

Source: EPA, *de minimis* emission levels, <https://www.epa.gov/general-conformity/de-minimis-tables>, December 2021.

Table 4-3: SCAQMD Thresholds of Significance for Construction Criteria Air Pollutants and Precursors

Pollutant/Precursor	Construction Daily Thresholds (lbs/day)
NO _x	100
VOC	75
PM ₁₀	150
PM _{2.5}	55
SO _x	150
CO	550

Notes: VOC and NO_x are precursors to ozone.

Source: South Coast AQMD CEQA Handbook (South Coast AQMD, 1993), <https://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2>

The analysis of construction emission impacts includes both direct impacts associated with Proposed Project construction activity, and indirect impacts associated with a change in aircraft taxiing patterns due to temporary construction-related runway closures in 2023, 2024 and 2025. The direct and indirect construction emissions are summed to determine total construction impacts in 2023, 2024 and 2025, and are compared to the above referenced significance thresholds to determine the Proposed Project’s impact.

4.1.4 Impacts

Construction Impacts

The tables presented below summarize the direct, indirect and total construction emissions. The determination of significance was based on the Proposed Project’s total construction emissions.

Direct Construction Emissions

A construction emissions inventory was prepared for the Proposed Project for the construction years 2023, 2024, and 2025. Construction emissions typically include emissions from on-road vehicles (vehicles miles traveled) and off-road equipment (equipment hours). ONT requires the use of Tier 4 final engine emission standards for all off-road construction equipment, which serves to significantly reduce NO_x and PM emissions. To ensure implementation, Tier 4 engine requirements are included by ONT in all applicable construction contracts, plans and specifications. Therefore, the construction emissions inventory was developed in CalEEMod with a Tier 4 final engines input for all off-road construction equipment. The construction emissions also include PM emissions associated with the operation of the concrete batch plant proposed to be located on Airport property in an industrial area along E. Avion Street.

Table 4-4 presents the Proposed Project's direct construction emissions, as compared to the NAAQS and SCAQMD thresholds of significance. As shown, the direct construction-related emissions are below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and construction years. See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 1 – Construction Emissions* for details on the modeling of construction activity emissions.

Table 4-4: Proposed Project Direct Construction Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 Proposed Project	12	2	<1	<1	1	2	125	24	4	<1	8	18
2024 Proposed Project	18	3	1	<1	1	2	178	32	7	1	9	23
2025 Proposed Project	5	1	<1	<1	<1	1	56	11	2	<1	4	8
<i>NAAQS or SCAQMD threshold of significance</i>	<i>100</i>	<i>10</i>	<i>10</i>	<i>--</i>	<i>70</i>	<i>100</i>	<i>550</i>	<i>100</i>	<i>75</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeds Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>--</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>--</i>	<i>--</i>	<i>No</i>	<i>No</i>

Notes:

Volatile organic compounds (VOCs) are referred as reactive organic gases (ROG) in CalEEMod.

Source: CalEEMod, HNTB analysis 2022.

Indirect Construction Emissions

The Proposed Project would require the following temporary runway closures in 2023, 2024 and 2025 during construction:

- 2023 – maximum nine months of runway closure
 - Runway 8L-26R will be closed for four months (from mid-January to mid-May)
 - Runway 8R-26L will be closed for five months (from June to October)
- 2024 – maximum nine months of runway closure
 - Runway 8R-26L will be closed for nine months (from mid-January to mid-October)
- 2025 – maximum five months of runway closure
 - Runway 8L-26R will be closed for five months (from mid-January to mid-June)

While operational levels would be identical in each future year whether or not the Proposed Project is implemented, due to these necessary runway and taxiway closures, aircraft taxiing times would vary. More specifically, the Proposed Project would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. The most prevalent reason for reduced taxi times in 2023 and 2024 is due to the fact that, without the requirement to operate with Contra Flow, aircraft that would have necessarily traveled to Runways 8L and 8R to depart will be allowed to depart on either Runway 26L or 26R, depending on the runway that is open. This will reduce taxi distance for many operations. While runway closures proposed in 2025 would also impact taxiing times, additional taxiing delay associated with background growth in operations would result in 2025 aircraft taxing times being slightly greater than Baseline Conditions.

Table 4-5 provides a comparison of the total aircraft taxiing emissions with implementation of the Proposed Project in 2023, 2024 and 2025 as compared to the Baseline Conditions aircraft taxiing emissions. These incremental differences represent the indirect Proposed Project-related construction emissions associated with temporary runway closures.

Total Construction Emissions

As presented in **Table 4-6**, when taking into consideration the temporary increases in emissions from construction equipment and the temporary decreases in aircraft taxiing emissions in 2023 and 2024, and temporary increases in aircraft taxiing emissions in 2025 associated with the temporary runway closures through the construction years, the total construction emissions remain below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and years. Therefore, the Proposed Project would result in a ***less than significant impact*** from construction-related emissions.

Table 4-5: Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to Baseline Conditions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2023 Proposed Project	490	60	90	17	1	1	2,686	328	493	95	8	8
2023 Incremental Changes	-27	-3	-6	-1	<0	<0	-146	-18	-34	-5	-1	-1
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2024 Proposed Project	510	63	94	18	2	2	2,790	342	511	99	8	8
2024 Incremental Changes	-6	-1	-3	<0	<0	<0	-43	-4	-16	-1	<0	<0
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2025 Proposed Project	563	69	103	20	2	2	3,083	379	562	110	9	9
2025 Incremental Changes	46	6	6	2	<1	<1	251	33	35	9	1	1

Source: FAA ASPM and HNTB analysis, 2022.

Table 4-6: Total Proposed Project Construction Emissions Compared to Baseline Conditions

Year	Emission Source	Pollutants (tons/year)						Pollutants (lbs/day)					
		CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023	Direct - Construction	12	2	<1	<1	1	2	125	24	4	<1	8	18
	Indirect - Aircraft Taxiing	-27	-3	-6	-1	<0	<0	-146	-18	-34	-5	-1	-1
	Total	-14	-1	-6	-1	1	2	-21	6	-29	-5	7	17
2024	Direct - Construction	18	3	1	<1	1	2	178	32	7	1	9	23
	Indirect - Aircraft Taxiing	-6	-1	-3	<0	<0	<0	-43	-4	-16	-1	<0	<0
	Total	11	3	-2	<0	1	2	136	28	-9	-1	9	23
2025	Direct - Construction	5	1	<1	<1	<1	1	56	11	2	<1	4	8
	Indirect - Aircraft Taxiing	46	6	6	2	<1	<1	251	33	35	9	1	1
	Total	51	7	7	2	<1	1	307	44	37	9	4	9
<i>NAAQS or SCAQMD threshold of significance</i>		<i>100</i>	<i>10</i>	<i>10</i>	<i>--</i>	<i>100</i>	<i>70</i>	<i>550</i>	<i>100</i>	<i>75</i>	<i>150</i>	<i>150</i>	<i>55</i>
<i>Exceeds Thresholds?</i>		<i>No</i>	<i>No</i>	<i>No</i>	<i>--</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: FAA ASPM and HNTB analysis, 2022.

Additional Analysis for Informational Purposes

As noted above, CEQA requires that a proposed project be compared to baseline conditions for the purpose of making a significance determination. For the Proposed Project, the incremental aircraft taxiing emissions would be influenced by factors that are not exclusively attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Proposed Project, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background growth and differences in emission factors, this analysis also compares aircraft taxiing emissions of the Proposed Project in a given year with the aircraft taxiing emissions from the No Project Alternative in the same year. The No Project Alternative, in this context, acts as a modified baseline under CEQA Guidelines Section 15125(a)(1), as it allows for a comparison of the Proposed Project to the airfield conditions expected at the time of its implementation (calendar years 2023, 2024 and 2025). This comparison is made for informational purposes only.

Table 4-7 provides a comparison of the total aircraft taxiing emissions with and without implementation of the Proposed Project in 2023, 2024 and 2025, as well as the incremental differences between the two conditions each year. These incremental differences represent the indirect Proposed Project-related construction emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Proposed Project result in decreases of emissions when compared to the No Project Alternative. This is a result of the suspension of Contra Flow, which improves departure taxi efficiency.

As presented in **Table 4-8**, when taking into consideration the emissions decreases associated with the temporary runway closures through the construction years, there is a net decrease in total construction emissions when comparing the Proposed Project to the No Project Alternative, and no exceedances of NAAQS or SCAQMD thresholds. As the Proposed Project itself does not induce operational growth, this comparison provides a more realistic look at the impacts of the Proposed Project aircraft taxiing emissions.

Table 4-7: Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to No Project Alternative

Year	Pollutants (tons/year)						Pollutants (lbs./day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 No Project	551	67	101	20	2	2	3,019	369	554	107	9	9
2023 Proposed Project	490	60	90	17	1	1	2,686	328	493	95	8	8
2023 Incremental Changes	-61	-7	-11	-2	<0	<0	-333	-41	-61	-12	-1	-1
2024 No Project	572	70	105	20	2	2	3,125	383	573	111	9	9
2024 Proposed Project	510	63	94	18	2	2	2,790	342	511	99	8	8
2024 Incremental Changes	-61	-8	-11	-2	<0	<0	-336	-41	-62	-12	-1	-1
2025 No Project	597	73	109	21	2	2	3,270	402	596	116	10	10
2025 Proposed Project	563	69	103	20	2	2	3,083	379	562	110	9	9
2025 Incremental Changes	-34	-4	-6	-1	<0	<0	-187	-23	-34	-7	-1	-1

Source: FAA ASPM and HNTB analysis, 2022.

Table 4-8: Total Proposed Project Construction Emissions Compared to No Project Alternative

Year	Emission Source	Pollutants (tons/year)						Pollutants (lbs./day)					
		CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023	Direct - Construction	12	2	<1	<1	1	2	125	24	4	<1	8	18
	Indirect – Aircraft Taxiing	-61	-7	-11	-2	<0	<0	-333	-41	-61	-12	-1	-1
	Total	-49	-5	-11	-2	1	2	-208	-16	-56	-12	7	17
2024	Direct - Construction	18	3	1	<1	1	2	178	32	7	1	9	23
	Indirect – Aircraft Taxiing	-61	-8	-11	-2	<0	<0	-336	-41	-62	-12	-1	-1
	Total	-44	-4	-11	-2	1	2	-158	-9	-55	-11	8	22
2025	Direct - Construction	5	1	<1	<1	<1	1	56	11	2	<1	4	8
	Indirect – Aircraft Taxiing	-34	-4	-6	-1	<0	<0	-187	-23	-34	-7	-1	-1
	Total	-29	-3	-6	-1	<1	1	-131	-12	-32	-7	3	8
<i>NAAQS or SCAQMD threshold of significance</i>		100	10	10	--	100	70	550	100	75	150	150	55
<i>Exceeds Thresholds?</i>		No	No	No	--	No	No	No	No	No	No	No	No

Source: FAA ASPM and HNTB analysis, 2022.

Impact 4.1-1

Summary Conclusion for Impact 4.1-1: Implementation of the Proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP or applicable portions of an SIP. The Proposed Project would not increase operational activities at the Airport and would result in a *less than significant impact* from construction emissions. As such, this would be a *less than significant impact*.

Construction of the Proposed Project would result in emissions associated with construction activities (direct emissions) as well as emissions associated with temporary changes in aircraft taxiing times from proposed runway closures (indirect emissions). The total construction emissions do not exceed NAAQS or SCAQMD thresholds of significance in any construction year and therefore would not conflict with implementation of the SCAQMD AQMP or applicable SIPs. After construction of the Proposed Project, there would be no impact to operational emissions at ONT.

Impact 4.1-2

Summary Conclusion for Impact 4.1-2: Implementation of the Proposed Project would result in direct and indirect construction-related emissions; however, as detailed in *Section 4.1.4*, the total construction emissions would be below all NAAQS and SCAQMD thresholds. Therefore, the project would have a *less than significant impact* from construction-related criteria pollutant emissions and would not violate any air quality standard.

It should be noted that the Proposed Project's incremental aircraft taxiing emissions would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Proposed Project, as well as lower emission factors for aircraft from improved engine technology.

In order to remove the influence of background growth and differences in emission factors, a comparison of aircraft taxiing emissions of the Proposed Project in a given year with the aircraft taxiing emissions from the No Project Alternative in the same year was also completed (see Table 4-7). Under this comparison, the Proposed Project results in net decreases in total construction emissions and does not result in any exceedances of NAAQS or SCAQMD thresholds (see Table 4-8). This comparison is made for informational purposes only.

Impact 4.1-3

Summary Conclusion for Impact 4.1-3: Construction of the Proposed Project in conjunction with other projects anticipated to be under construction during the same period relative to cumulative emissions is discussed in *Chapter 5.0, Cumulative Impacts*.

Impact 4.1-4

Summary Conclusion for Impact 4.1-4: Implementation of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. As such, the Proposed Project would have a *less than significant impact*.

As detailed in *Section 4.8.4, Health Risk Assessment, Impacts*, construction of the Proposed Project would not expose sensitive receptors to pollutant concentrations that exceed SCAQMD thresholds.

The Proposed Project site is located entirely within Airport property. There are no sensitive receptors including, but not limited to homes, schools, hospitals, resident care facilities, or day-care centers, located within the Proposed Project site. The closest sensitive receptors are residential homes located along E. Airport Drive and S Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively.³ The closest sensitive receptors to the construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north off of E. Nocta Street. As summarized under Impact 4.1-2, when taking into consideration the totality of the Proposed Project's construction-related effects (emission increases from construction equipment and emission decreases from aircraft taxiing), the total construction emissions remain below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and years. Therefore, construction of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and construction would have a *less than significant* impact.

Aircraft taxiing operations under the Proposed Project would be conducted in the same general location as with Baseline Conditions. The Proposed Project temporarily requires that operations shift between existing runways when individual runways are closed for construction purposes and when Contra Flow cannot be implemented when compared to the Baseline Conditions. The Proposed Project would not bring aircraft taxiing operations any closer to sensitive receptors, including but not limited to homes, schools, hospitals, resident care facilities, or day-care centers than Baseline Conditions. Therefore, the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations and would have a *less than significant* impact.

[Impact 4.1-5](#)

Summary Conclusion for Impact 4.1-5: Implementation of the Proposed Project would not result in objectionable odors adversely affecting a substantial number of people, therefore, the Proposed Project would result in a *less than significant* impact.

Exhaust from the use of diesel equipment during construction would generate odors within the project area. However, the closest sensitive receptors to the project area are residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively.⁴ The closest sensitive receptors to the construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north off of E. Nocta Street. Dispersion of construction odors is variable based on wind direction and speed, but would not affect a substantial number of people given the distance from sensitive receptors. Therefore, construction of the Proposed Project would not result in objectionable odors adversely affecting a substantial number of people and impacts would be *less than significant*.

Temporary changes in aircraft taxiing times due to proposed runway closures also would not notably change existing odors at or in the vicinity of the Airport. While

total aircraft activity is projected to increase at ONT over the course of implementation of the Proposed Project (in 2023, 2024 and 2025), the increase in aircraft activity would occur regardless of the Proposed Project. Therefore, aircraft taxiing operations during implementation of the Proposed Project would not result in objectionable odors adversely affecting a substantial number of people and impacts would be *less than significant*.

4.1.5 Mitigation Measures

The Proposed Project results in a less than significant impact on air quality emissions during the construction period. Therefore, no mitigation measures are necessary.

4.2 Biological Resources

This section provides an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy within the study area. Existing biological conditions on and in the immediate vicinity of the study area are discussed in *Chapter 3.0, Environmental Setting*.

4.2.1 Methodology

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 in the study area are discussed in this section.

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 (CNDDDB; 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 California Natural Diversity Database (CDFW 2021a). Soil classifications were obtained from the Web Soil Survey (Natural Resources Conservation Service [NRCS] 2021).

Literature Review

Prior to conducting the site visit, 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), CNDDDB (CDFW 2021a), and critical habitat maps for endangered and threatened

species (U.S. Fish and Wildlife Service [USFWS] 2021a) were reviewed. A one-quadrangle database search was conducted on CNDDDB and CNPS, which consisted of the Guasti quadrangle.

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 in 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 in *Appendix E, Attachment 2, Plant Species Observed and Animal Species Observed and/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 DSFLF and a habitat assessment for BUOW were conducted. A jurisdictional assessment was also conducted to determine the existing jurisdictional limits regulated by the USACE, Regional Water Quality Control Board (RWQCB), and CDFW.

General Biological Survey

A qualified Biologist and Regulatory Specialist 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 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 E, Attachment 2, 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 DSFLF 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 DSFLF. A BUOW habitat assessment was conducted by a qualified biologist to determine whether the project site supports 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 burrows, fence posts, rocks, or other low perching locations, and man-made structures, such as earthen berms, debris piles, and cement culverts.

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. A jurisdictional assessment field work was conducted on January 12, 2021. The assessment was conducted to identify any 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 CFG Code. Data collection was targeted in areas that were 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 E, Attachment 2, Jurisdictional Delineation Memo*.

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; 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.

USFWS Permit

The USFWS issued Permit No. MBPER0037939 (USFWS Permit) for ONT, which USFWS Permit allows the trapping and relocation of certain birds at ONT, including the BUOW, “to resolve or prevent threats to human safety and/or aircraft safety” at ONT. (See *Appendix E, Attachment 1*.)

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.

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.

4.2.2 Existing Conditions

Refer to *Section 3.5.2, Biological Resources, Existing Conditions*, for discussion of the Existing Conditions for biological resources.

4.2.3 Thresholds of Significance

For the purpose of determining the significance of the project’s impacts on biological resources, a significant impact would occur if the project would:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- 3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

- 5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- 6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.2.4 Impacts

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 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.

Sensitive Species

Rare Plant Species

No Impacts

No rare plant surveys were performed since no rare plant species have a potential to occur in the study area. Additionally, none have been previously documented within the study area based on CNDDDB and CNPS database review. Due to 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 on January 12, 2021. Therefore, the project is not expected to impact any rare plant species.

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 E, Attachment 2*). One species (BUOW) is considered present based on positive focused non-breeding season surveys. Subject to the USFWS Permit, 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 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.

Sensitive Vegetation Communities

*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 4-1**, Impacts to Vegetation; **Table 4-9**, Impacts to Vegetation Communities).

Table 4-9: Impacts to Vegetation Communities

Habitat Type	Existing (acres)	Permanent Impacts (acres)
Developed	290.33	290.33
Disturbed/Non-native Vegetation	132.95	132.95
Ornamental	0.63	0.00
TOTAL	423.91	423.28

Source: HELIX Environmental Planning, 2021.

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 3-3). These jurisdictional features are underground through the extent of the study area.






 Study Area
 Impact Limits
Vegetation and Land Use
 Developed
 Disturbed - Non-Native Vegetation
 Ornamental



Figure 4-1

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

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 3-3). These jurisdictional features are underground through the extent of the study area.

The Proposed Project would not result in any impacts to Cucamonga Creek Channel, Deer Creek Channel, or West Cucamonga Creek Channel. The project would 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 removal and installation activities will not result in direct or indirect impacts to downstream jurisdictional waters, the project would not 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.

Wildlife Movement and Migratory Species

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 being 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 implementation of the project may result in some temporary disturbance to local wildlife movement on site no regional movement corridors would be impacted.

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. Except as allowed under the USFWS Permit discussed above, 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.

Local Policies and Ordinances

No Impacts

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

Adopted Plans

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. The study 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 study 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 Proposed 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 Impacts

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, implementation of the project would not conflict with any adopted habitat conservation plans.

4.2.5 Mitigation Measures

Subject to the USFWS Permit as to BIO-1 and BIO-2, the following provides recommended measures intended to minimize or avoid impacts to biological resources:

BIO-1 Burrowing Owl: Prior to 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 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). 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 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 results of the pre-construction survey shall be documented by the qualified biologist. 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 construction activities shall be allowed to proceed without any further requirements.

If focused surveys are positive, mitigation measures would be required and would be 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.

4.3 Greenhouse Gases

This analysis examines greenhouse gas (GHG) emissions that result from temporary construction activity and temporary operational changes associated with the Proposed Project during construction years 2023, 2024 and 2025. There are no GHG emission impacts associated with the Proposed Project beyond the construction period.

4.3.1 Methodology

Direct Construction GHG Emissions

Direct construction-related GHG emissions are typically associated with the exhaust from heavy-duty equipment (e.g., backhoes, graders, etc.), delivery trucks (e.g., dump trucks, construction materials delivery), and construction worker vehicles traveling to and from the construction site. Construction emissions are temporary in nature and generally confined to the construction site and roads used to enter and exit the construction site. Emissions of GHGs (i.e., CO₂, CH₄, N₂O, and CO_{2e}) were

evaluated for the Proposed Project's three-year construction period, 2023, 2024 and 2025.

For this analysis, ACEIT was also used to derive the hours of operation for off-road construction equipment and VMT for on-road trucks and employee vehicles. Construction activities are based upon conceptual phasing plans, including the known areas (square feet) associated with the various project types (i.e., proposed pavement, pavement demolition, and building area). The construction activity levels developed in the ACEIT model were then used to model GHG emissions in California Emissions Estimator Model® (CalEEMod) version 2020.4.0.⁵ See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 1 – Construction Emissions*, for more details.⁶

Indirect Construction GHG Emissions

Indirect construction-related GHG emissions are associated with temporary, operational changes on the airfield necessary during Proposed Project construction. More specifically, as explained in *Chapter 2.0, Project Description*, the Proposed Project would require temporary runway closure periods in 2023, 2024 and 2025 to allow for runway rehabilitation and taxiway improvements. As a result, aircraft taxiing times will be impacted during the proposed runway closure periods. In order to determine the impact these temporary changes in aircraft taxiing times would have on operational GHG emissions, GHG emissions from aircraft taxiing activities were modeled using FAA's AEDT version 3d. Operational emissions from engine maintenance run-up, Ground Support Equipment (GSE), and Auxiliary Power Unit (APU) usage were also modeled in AEDT, but are not discussed further herein as they would not be impacted from the temporary runway closures.

The GHG emission inventories were prepared for CO₂ using the same methodology outlined in *Section 4.1.1* for Air Quality Indirect Construction Emissions. See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 2 – Operation Emissions*, for more details.

Operational GHG Emissions

The Proposed Project will have no impact on operations at the Airport beyond the three-year construction period. The Proposed Project would not increase Airport capacity and would not result in increases in local traffic as described in *Section 3.9, Transportation/Traffic*. Therefore, GHG emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed.

4.3.2 Baseline Conditions

The existing aircraft taxiing GHG emissions were determined using the hybrid base year (2019/2020) approach explained in *Section 3.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to correctly represent typical operation levels at ONT. For this reason, existing aircraft taxiing GHG emissions are referred to as the Baseline Conditions.

As detailed in *Chapter 3.0 Environmental Setting*, operational GHG emissions were modeled in AEDT for GHG emissions from aircraft activities for the Baseline Conditions. Aircraft taxiing during construction is the only aspect of the Proposed Project that impacts GHG emissions. Therefore, these emissions represent the Baseline Conditions aircraft taxiing GHG emissions at ONT prior to the Proposed Project being implemented. **Table 4-10** summarizes the Baseline Conditions aircraft taxiing GHG emissions.

Table 4-10: Baseline Conditions Aircraft Taxiing GHG Emissions

Alternative	Total CO ₂ e (MT/year)
Baseline Conditions	49,520

Note: MT = metric ton; CO₂e = carbon dioxide equivalent

The product of each GHG emission and its Global Warming Potential (GWP) is known as “carbon dioxide equivalent” (CO₂e).

Source: AEDT and HNTB analysis, 2022.

4.3.3 Thresholds of Significance

GHG thresholds of significance are based on Appendix G of the CEQA Guidelines. The Proposed Project would result in significant impacts related to GHG if it would:

- Impact 4.3-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- Impact 4.3-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

CEQA allows lead agencies to develop and publish thresholds of significance, or consider thresholds adopted or recommended by other public agencies. Neither USEPA nor CARB nor SCAQMD have adopted project-level numeric thresholds of significance for GHG emissions.

The analysis of construction GHG emission impacts includes both direct impacts associated with Proposed Project construction activity, and indirect impacts associated with a change in aircraft taxiing patterns due to temporary construction-related runway closures in 2023, 2024 and 2025. The direct and indirect GHG construction emissions are summed to determine total GHG construction emissions in 2023, 2024 and 2025.

In order to identify if the Proposed Project would “generate GHGs, either directly or indirectly, that may have a significant impact on the environment” (Impact 4.3-1), this analysis looks at whether the Proposed Project would result in a net increase in GHG emissions. This approach reflects the fact that neither USEPA nor CARB nor SCAQMD have established a numeric threshold for determining the significance of GHG emissions. It is noted that SCAQMD has established a general GHG threshold of 10,000 MT/yr CO₂e for industrial facilities. To be conservative, however, that

numeric threshold is not applied here (based on the nature of the Proposed Project) and the impact determination is based on whether the Proposed Project results in a net increase in GHG emissions.

4.3.4 Impacts

Construction Impacts

The tables presented below summarize the direct, indirect and total construction GHG emissions. The determination of significance was based on the Proposed Project’s total construction GHG emissions.

Direct Construction GHG Emissions

A construction GHG emissions inventory was prepared for the Proposed Project for the construction years 2023, 2024 and 2025. Construction GHG emissions typically include emissions from on-road vehicles (vehicles miles traveled) and off-road equipment (equipment hours). **Table 4-11** presents the Proposed Project’s direct construction GHG emissions in units of metric tons/year.⁷

Table 4-11: Proposed Project Direct Construction GHG Emissions (MT/Year)

Year	CO ₂	CH ₄	N ₂ O	CO ₂ e
2023	2,869	0.6	0.1	2,918
2024	4,086	0.8	0.1	4,147
2025	1,307	0.3	0.04	1,327

Sources: CalEEMod and HNTB Analysis, 2022.

Indirect Construction GHG Emissions

The Proposed Project would require temporary runway closures in 2023, 2024 and 2025 during construction, as detailed in *Section 4.1.4*. While operational levels would be identical in each future year whether or not the Proposed Project is implemented, due to these necessary runway and taxiway closures, aircraft taxiing times would vary. More specifically, the Proposed Project would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. The most prevalent reason for reduced taxi times in 2023 and 2024 is due to the fact that, without the requirement to operate with Contra Flow, aircraft that would have necessarily traveled to Runways 8L and 8R to depart will be allowed to depart on either Runway 26L or 26R, depending on the runway that is open and this will reduce taxi distance for many operations. While runway closures proposed in 2025 would also impact taxiing times, additional taxiing delay associated with background growth in operations would result in 2025 aircraft taxiing times being slightly greater than Baseline Conditions

Table 4-12 provides a comparison of the total aircraft taxiing GHG emissions with implementation of the Proposed Project in 2023, 2024 and 2025, as compared to the Baseline Conditions aircraft taxiing GHG emissions. The incremental differences represent the indirect Proposed Project related GHG construction emissions associated with temporary runway closures.

Table 4-12: Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to Baseline Conditions

Alternative	CO ₂ e (MT/year)
Baseline Conditions	49,520
2023 Proposed Project	46,919
2023 Incremental Changes	-2,601
No Project	49,520
2024 Proposed Project	48,958
2024 Incremental Changes	-562
No Project	49,520
2024 Proposed Project	53,944
2024 Incremental Changes	4,424

Source: AEDT and HNTB analysis, 2022.

Total Construction GHG Emissions

As presented in **Table 4-13**, when taking into consideration the temporary increases in GHG emissions from construction equipment and the temporary decreases in aircraft taxiing GHG emissions in 2023 and 2024, and temporary increases in aircraft taxiing GHG emissions in 2025 associated with the temporary runway closures through the construction years, the total construction GHG emissions are greater than zero. Therefore, the Proposed Project would result in a **significant, unavoidable temporary impact** from construction GHG emissions.

Table 4-13: Total Proposed Project Construction GHG Emissions Compared to Baseline Conditions

Year	Alternative	CO ₂ e (MT/year)
2023	Direct - Construction	2,918
	Indirect - Aircraft Taxiing	-2,601
	Total	317
2024	Direct - Construction	4,147
	Indirect - Aircraft Taxiing	-562
	Total	3,585
2025	Direct - Construction	1,327
	Indirect - Aircraft Taxiing	4,424
	Total	5,751
Total Project GHG Emissions		9,653

Source: AEDT and HNTB analysis, 2022.

Additional Analysis For Informational Purposes

As noted above, CEQA requires that a proposed project be compared to baseline conditions for the purpose of making a significance determination. For the Proposed Project, the incremental aircraft taxiing GHG emissions would be influenced by factors that are not exclusively attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Proposed Project, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background growth and differences in emission factors, this analysis also compares aircraft taxiing GHG emissions of the Proposed Project in a given year with the aircraft taxiing GHG emissions from the No Project Alternative in the same year. The No Project Alternative, in this context, acts as a modified baseline under CEQA Guidelines Section 15125(a)(1), as it allows for a comparison of the Proposed Project to the airfield conditions expected at the time of its implementation (calendar years 2023, 2024 and 2025). This comparison is made for informational purposes only.

Table 4-14 provides a comparison of the total aircraft taxiing GHG emissions with and without implementation of the Proposed Project in 2023, 2024 and 2025, as well as the incremental differences between the two conditions each year. These incremental differences represent the indirect Proposed Project-related construction GHG emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Proposed Project result in decreases of GHG emissions in all years when compared to the No Project Alternative. This is a result of the suspension of Contra Flow, which improves departure taxi efficiency.

As presented in **Table 4-15**, when taking into consideration the emission decreases associated with the temporary runway closures through the construction years, there is a net decrease in total construction GHG emissions when comparing the Proposed Project to the No Project Alternative. As the Proposed Project itself does not induce operational growth, this comparison provides a more realistic look at the impacts of the Proposed Project on aircraft taxiing GHG emissions.

Table 4-14: Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to the No Project Alternative

Year	Alternative	CO ₂ e (MT/year)
2023	No Project	52,700
	Proposed Project	46,919
	Project Related	-5,781
2024	No Project	54,849
	Proposed Project	48,958
	Project Related	-5,891
2025	No Project	57,217
	Proposed Project	53,944
	Project Related	-3,273

Source: AEDT and HNTB analysis, 2022.

Table 4-15: Total Proposed Project Construction GHG Emissions Compared to the No Project Alternative

Year	Alternative	CO ₂ e (MT/year)
2023	Direct - Construction	2,918
	Indirect – Aircraft Taxiing	-5,781
	Total	-2,863
2024	Direct - Construction	4,147
	Indirect – Aircraft Taxiing	-5,891
	Total	-1,744
2025	Direct - Construction	1,327
	Indirect – Aircraft Taxiing	-3,273
	Total	-1,946
Total Project GHG Emissions		-6,553

Source: AEDT and HNTB analysis, 2022.

Impact 4.3-1

Summary Conclusion for Impact 4.3-1: Implementation of the Proposed Project would result in total net positive construction-related GHG emissions in years 2023, 2024 and 2025. Therefore, the Proposed Project would result in *significant, unavoidable temporary impact* due to construction-related GHG emissions.

It should be noted that the Proposed Project incremental aircraft taxiing GHG emissions would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Proposed Project, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background

growth and differences in emission factors, a comparison of aircraft taxiing GHG emission of the Proposed Project in a given year with the aircraft taxiing GHG emissions from the No Project Alternative in the same year was completed (see Table 4-15). Under this comparison, the Proposed Project results in net decreases in total construction GHG emissions in all construction years. This comparison is made for informational purposes only.

Impact 4.3-2

Summary Conclusion for Impact 4.3-2: The Proposed Project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG. Therefore, it would be a *less than significant impact*.

Several local plans address GHGs and measures to reduce GHG emissions.

First, the 2014 City of Ontario Community Climate Action Plan (CAP) establishes community strategies to reduce GHG emissions consistent with CARB's statewide GHG reduction efforts. The CAP included a GHG inventory for 2008 and a forecasted inventory for 2020, analyzed GHG reduction measures for effectiveness and feasibility, and presented a list of measures for inclusion in the CAP. The CAP includes a GHG emission reduction target of 30% below business-as-usual 2020 levels.⁸

Second, the 2016 SCAQMD AQMP is based upon the adopted general plans (and resulting vehicular trip generation) from the local jurisdictions that were in place when the AQMP was developed. Proposed land uses that are consistent with such adopted general plans are considered consistent with the AQMP and will not conflict with or obstruct implementation of the applicable air quality plan. The 2016 AQMP includes the strategies and measures needed to meet the NAAQS and CAAQS. Many of these measures and programs also serve to reduce GHG emissions.

Third, the 2019 ONT AQIP includes measures to minimize and reduce emissions from mobile source activities at the Airport. As it relates to GHG emissions, the AQIP includes GSE and Fuel Truck Operation Policies (RM1 and RM2), which would likely result in a reduction of GHG pollutants.⁹

Fourth, the 2021 San Bernardino County Regional Greenhouse Gas Reduction Plan includes an inventory of GHG emissions and evaluation of reduction measures to be adopted by 25 Partnership Cities within the County.¹⁰ The reduction measures set forth in the Plan are being and should be considered for adoption by agencies in the region that are developing jurisdiction-specific climate action plans. The Regional GHG Reduction Plan includes reduction measures evaluated for the City of Ontario. Measures which could assist in reducing GHG emissions expected from the Proposed Project, if adopted by the relevant agencies, include State fuel efficiency measures, electric-powered construction equipment, and idling ordinances.

The Proposed Project results in significant, unavoidable temporary impacts to GHG emissions during the construction period, based on its incremental increase in GHG emissions. However, there are no specific GHG policies mandated in the above-referenced plans, as it relates to construction at ONT. Further, it is noted that

construction equipment and aircraft would be in compliance with applicable fuel efficiency and emission standards.

Based on the absence of specific construction-related policies for the reduction of GHG emissions in the referenced plans, and compliance with other existing standards for construction equipment and aircraft, the Proposed Project itself would not conflict with any applicable local plans, policies or regulations related to the reduction of GHG emissions.

Additionally, as summarized above, when compared to the Baseline Conditions, the Proposed Project construction GHG emissions would result in a significant impact due to construction activity and aircraft taxiing as compared to the Baseline Conditions. However, this comparison is influenced by factors that are not attributable to the Proposed Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Proposed Project, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of these factors, a comparison is made of aircraft taxiing GHG emissions of the Proposed Project in a given year with the aircraft taxiing GHG emissions from the No Project Alternative in the same year. In this comparison, total construction GHG emissions decrease in all construction years.

4.3.5 Mitigation Measures

As discussed above, the Proposed Project would result in a significant and unavoidable temporary impact associated with the release of additional GHG emissions during the three-year construction period (Impact 4.3-1). At this point in time, there are no feasible mitigation measures available to further reduce the Proposed Project's direct construction GHG emissions.

As discussed under Impact 4.3-2, there are several local plans which address GHGs and measures to reduce GHG emissions. While there are no feasible measures that can be assumed and quantified in this analysis, regional and local measures, if implemented, should serve to further reduce overall GHG emissions.

It is worth noting that the GHG analysis assumes a conservative 40-mile roundtrip for concrete delivery for the Proposed Project construction. However, as part of the Proposed Project, a concrete batch plant is proposed to be located on Airport property in an industrial area along E. Avion Street, which would likely reduce the total VMT assumed for concrete delivery trucks but would still include delivery of raw materials (i.e., Portland cement and aggregate) to mix the concrete on-site. A closer look at the CalEEMod output indicates CO₂ emissions specific to on-road hauling accounts for, on average, 20% of the total direct GHG construction emissions in each construction year. Utilizing a concrete batch plant on-site would likely serve to reduce total on-road hauling VMT, and thus reduce total GHG emissions, but the Proposed Project would still result in a net increase in total GHG emissions during the construction period.

As for the Proposed Project's other source of GHG emissions – indirect construction emissions from the taxiing of aircraft on the airfield, it is well established that the

regulation of aircraft tailpipe emissions is federally preempted and cannot be addressed at the local level.

4.4 Cultural Resources

This section provides an analysis of potential impacts to cultural resources with respect to local, state, and federal policy within the Cultural Resources project area. Existing cultural resources on and in the immediate vicinity of the project area are discussed in Chapter 3.0, Environmental Setting.

4.4.1 Methodology

The study included a review of site records and previous studies conducted within half-mile of the project area, accessed through the SCCIC; a pedestrian field survey conducted with a Native American representative from the Gabrieleño Tongva Indians of California to confirm the presence or absence of tribal, archaeological, and built environment resources (cultural resources) within the project area; and coordination between OIAA, its tribal resources consultant, and the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation), to facilitate tribal consultation.

Records Search

A confidential search of the CHRIS records at the SCCIC, located on the campus of California State University, Fullerton, on August 12, 2021. The SCCIC maintains records of previously documented cultural resources and technical studies; it also maintains copies of the OHP's portion of the statewide Historical Resources Inventory. The search included any previously recorded cultural resources within the project area and surrounding 0.5-mile area. The purpose of the CHRIS records search is to identify whether any cultural resources have been documented in the project area and assess the potential for undocumented resources to be present by comparison to adjacent areas. Due to Covid-19 protocols, the SCCIC was only able to provide data that is already digital, meaning that additional studies and resources may be present within the search radius. The results of the SCCIC record search were received on November 4, 2021.

Previous Surveys

As discussed in *Section 3.7*, the records search results identified 14 previous cultural resource studies within the record search limits, two of which overlap with the project area, however these two studies did not identify any cultural resources within the project area. *Appendix F, Cultural Resources*, details the studies.

Previously Recorded Sites

The records search results identified 20 previously recorded cultural resources within a 0.5-mile radius of the project area; none of the resources are located directly within the project area. Of the 20 resources identified in the vicinity, 15 are historic-period built-environment resources, three are historic-period archaeological sites, and two are historic districts. The record search did not identify any prehistoric sites. As only digitized resources were provided, there is the possibility of additional resources being present within a half-mile of the project area.

Fieldwork

A qualified archaeologist conducted an intensive pedestrian survey of the project area along with a Native American representative from the Gabrieleño Tongva Indians of California. The pedestrian survey consisted of a systematic surface inspection of all accessible project areas with transects walked at 15-meter intervals or less to ensure that any surface-exposed artifacts and cultural resources could be identified. The ground surface was inspected for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools); historic artifacts (e.g., metal, glass, ceramics); sediment discoloration that might indicate the presence of a cultural midden; roads and trails; and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations).

In inaccessible areas that were unsafe for a pedestrian survey due to airport activities, a reconnaissance-level survey was undertaken. The reconnaissance survey consisted of inspecting the area from within a vehicle and at a safe distance, looking for indications that cultural resources were present. The project area was photographed using a digital camera, and property boundaries were identified with a handheld global positioning system unit.

No cultural resources were identified during the survey. Ground visibility was excellent (76 to 100 percent) across the surveyed area. The project area is primarily level open space, though there are some buildings and a parking lot. Modern refuse, comprised of plastic fragments, was noted across the project area. Soil was consistent across the surveyed area and was imported fill used to cap the project area as part of the historic construction of the airport and associated structure.

4.4.2 Existing Conditions

Refer to *Section 3.7.2* for discussion of the Existing Conditions for cultural resources.

4.4.3 Thresholds of Significance

For the purpose of determining the significance of the project's impacts on cultural resources, a significant impact would occur if the project would:

- 1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5;
- 2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5; or
- 3) Disturb any human remains, including those interred outside of dedicated cemeteries.

4.4.4 Impacts

A records search was requested through the SCCIC, a review of the Sacred Lands File was completed, archival research was completed, and a pedestrian field survey of the project area was conducted. The SCCIC record search did not identify any

cultural resources within the project area. Furthermore, the Sacred Lands File search, conducted through the NAHC, failed to identify any tribal cultural resources within the project area, thus no impacts to Cultural Resources are anticipated related to the Proposed Project. Refer to *Section 4.7, Tribal Cultural Resources* for discussion of potential impacts and proposed mitigation measures related to Tribal Cultural Resources.

4.4.5 Mitigation Measures

No mitigation is proposed as there are no anticipated impacts to cultural resources as a result of the Proposed Project.

4.5 Noise

This section provides an analysis of potential impacts due to noise with respect to CEQA Guidelines. Runway use and flight patterns would be temporarily impacted during runway closures due to the lack of ability to operate in Contra Flow conditions, as discussed in *Chapter 2.0, Project Description*. Therefore, noise impacts during construction in 2023, 2024 and 2025 were analyzed. There are no noise impacts associated with the Proposed Project beyond the construction period.

4.5.1 Methodology

Noise impacts were modeled using AEDT version 3d and were represented by the Community Noise Equivalent Level (CNEL). Fleet mixes for the hybrid existing condition (2019/2020), 2023, 2024, and 2025 were developed for the purposes of noise analysis which included information on aircraft types, operation types (arrival or departure), and departure flight distance (stage length). In addition, the CNEL metric takes into consideration the time of day of aircraft operations. In the noise analysis, daytime is defined as 7:00 AM to 6:59 PM, evening is defined as 7:00 PM to 9:59 PM, and nighttime is defined as 10:00 PM to 6:59 AM. The 5-dB and 10-dB penalties during evening and nighttime hours are intended to account for the added intrusiveness of aircraft noise during time periods when ambient noise due to vehicle traffic and other sources is typically less than during the daytime, and when people are more likely to be resting. There is no penalty for daytime operations (7 AM – 7 PM). Therefore, the fleet mixes included operation breakdowns by day, evening, and nighttime periods.

The engine maintenance run-up operations represent another source of noise impacts. In this study, the Baseline Conditions run-up operations were based on the run-up logs at the Airport. For future scenarios, it was assumed the number of run-up operations would increase at the same rate of the operation increase for a particular aircraft. The locations, power settings, and orientations were assumed to be the same as the existing condition.

The Baseline Conditions runway uses discussed in *Chapter 3.0, Environmental Setting*, were based on the ANOMS data. For review of future alternatives, simulation results were used to adjust runway uses. During the runway rehabilitation, Contra Flow would not be implemented.

To determine projected noise levels experienced on the ground, it is necessary to determine not only the frequency of aircraft operations, but also the altitude and location in which they fly. Flight routes to and from an airport (tracks) are generally a function of the geometry of the airport's runways and the surrounding airspace structure near the airfield. To develop representative tracks and calculate track use, eight weeks of representative radar data were selected. Track use percentages were also calculated for the noise analysis.

The Proposed Project occurs during years 2023, 2024, and 2025, encompassing the entire proposed construction periods. The Proposed Project assumes the following runway closure and construction phasing:

- 2023 – maximum nine months of runway closure
 - Runway 8L-26R will be closed for four months (from mid-January to mid-May)
 - Runway 8R-26L will be closed for five months (from June to October)
- 2024 – maximum nine months of runway closure
 - Runway 8R-26L will be closed for nine months (from mid-January to mid-October)
- 2025 – maximum five months of runway closure
 - Runway 8L-26R will be closed for five months (from mid-January to mid-June)

4.5.2 Baseline Conditions

The existing condition noise impacts were determined using the hybrid base year (2019/2020) approach explained in *Section 3.2.2, Baseline Conditions*, which normalizes the temporary impact of the COVID-19 pandemic in order to correctly represent typical operation levels at ONT. For this reason, existing conditions noise is referred to as the Baseline Conditions.

Noise exposure was modeled in AEDT for aircraft activities, engine maintenance run-up, GSE, and APU for the Baseline Conditions. Baseline Conditions noise levels are discussed in *Section 3.8.3, Noise, Baseline Conditions* and illustrated on Figure 3-5. Details on the development of the noise contours is included in *Appendix H, Noise*.

4.5.3 Thresholds of Significance

According to Appendix G of the State CEQA guidance, the noise threshold of significance is established as follows:

- Impact 4.5-1 Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies
- Impact 4.5-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels

Impact 4.5-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

4.5.4 Impacts

Construction Impacts

Runway use and flight patterns would be temporarily impacted during construction in 2023, 2024 and 2025 due to runway closures, as detailed in *Section 4.5.1*. During these runway closure periods, all operations would occur on a single open runway. Due to the two runways being parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. The only change in flight patterns during temporary runway closure periods in 2023, 2024 and 2025, may result from FAA Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations during nighttime (10:00 PM to 7:00 AM), as defined in *Section 2.2.3, Airfield Operations*. Since Contra Flow would not be used by ATC when operating on a single open runway, the Proposed Project would result in temporary increases in noise exposure to the west of the Airport during the nighttime hours during these construction periods.

As required by CEQA, the noise levels associated with the Proposed Project in 2023, 2024 and 2025 were compared to the noise levels associated with the Baseline Conditions. **Figures 4-2, 4-3, and 4-4** show the expected noise exposure contours under the Proposed Project in 2023, 2024, and 2025 in comparison with the Baseline Conditions.

The estimated land area (acres) within CNEL contours for the Baseline Conditions and Proposed Project in 2023, 2024 and 2025 along with the estimated number of residential dwelling units, schools, churches, residential population and dwelling units located within the contours are provided in Table 3-13 (*Section 3.8.3, Noise, Baseline Conditions*) and **Tables 4-16, 4-17 and 4-18**, respectively.

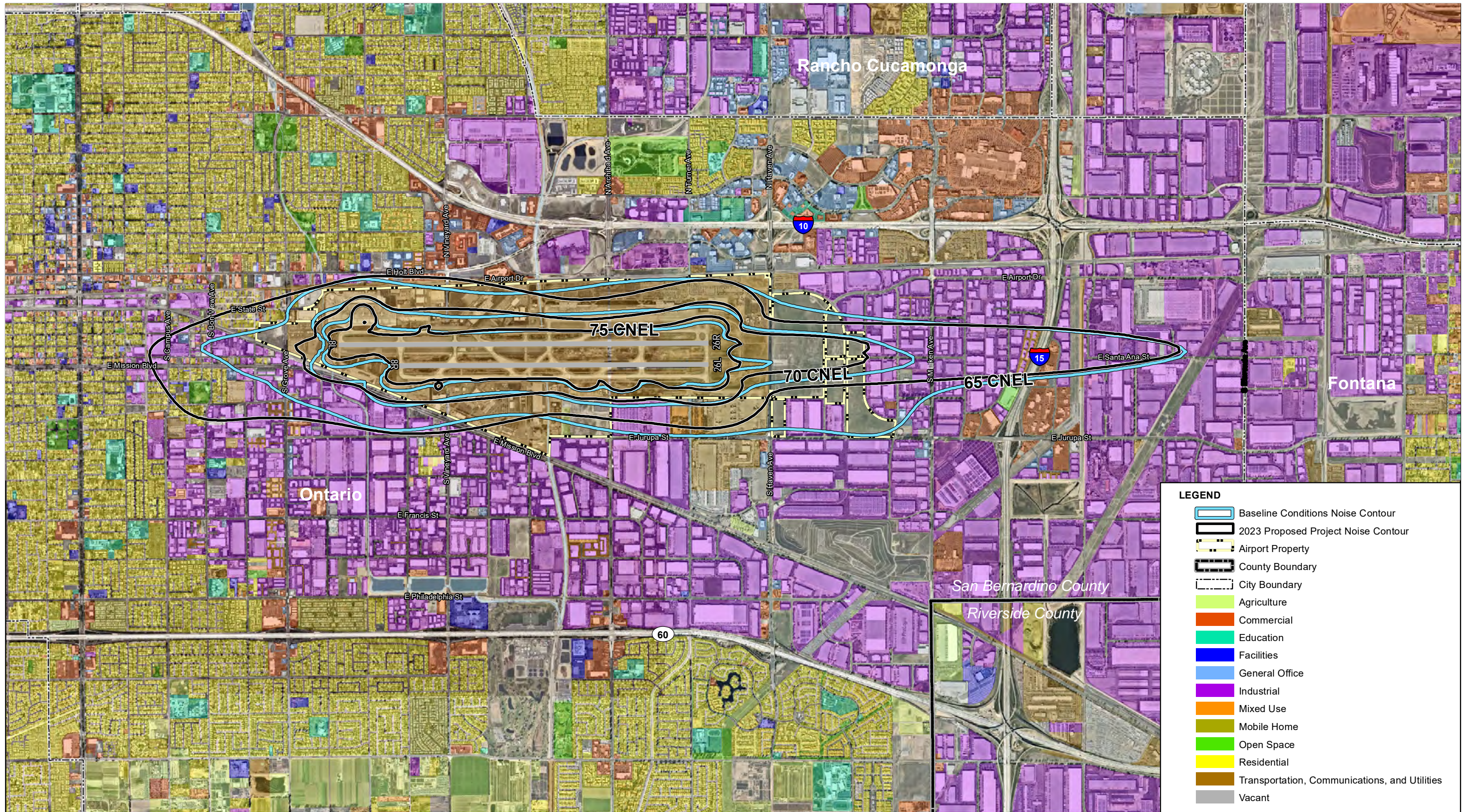


Figure 4-2

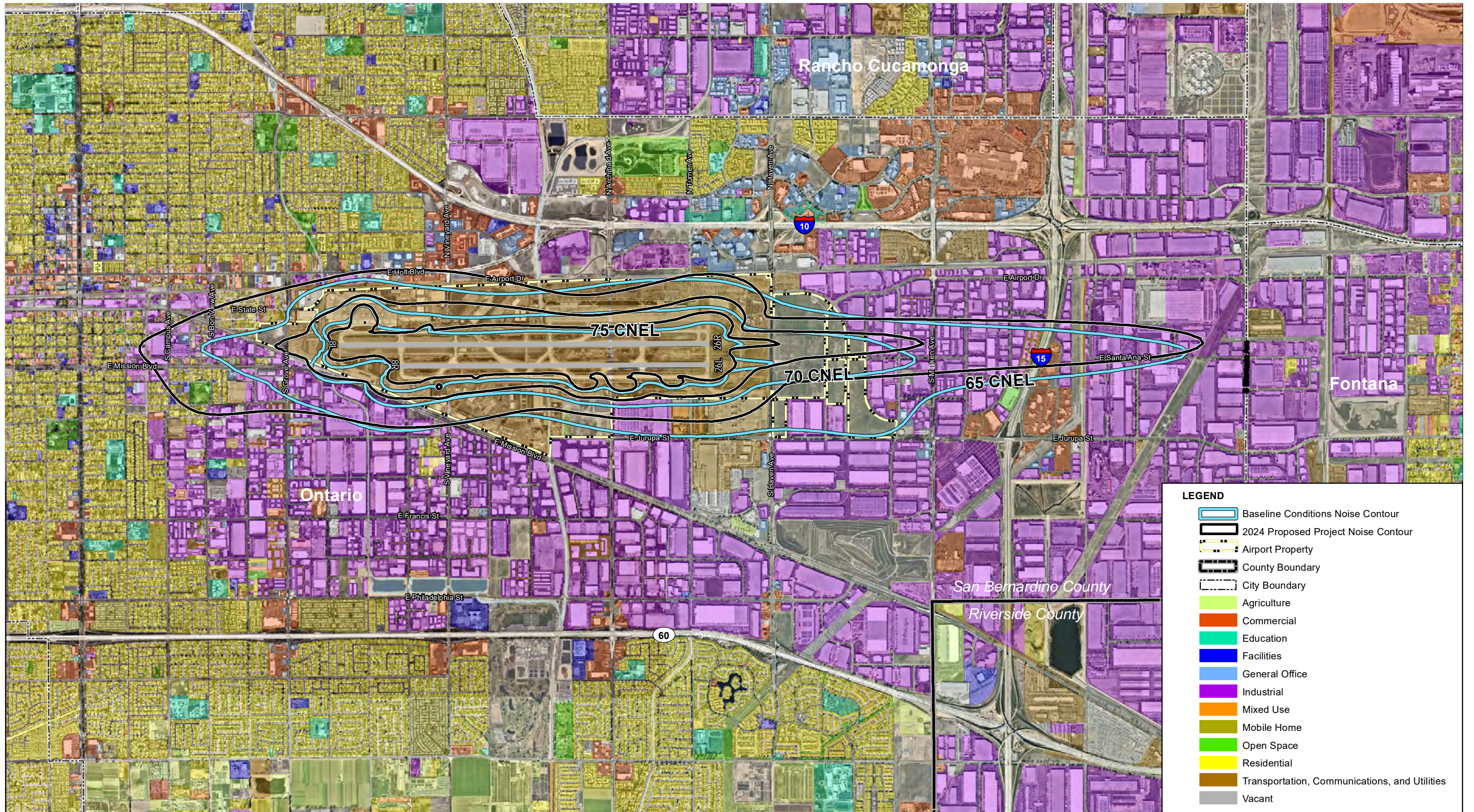


Figure 4-3

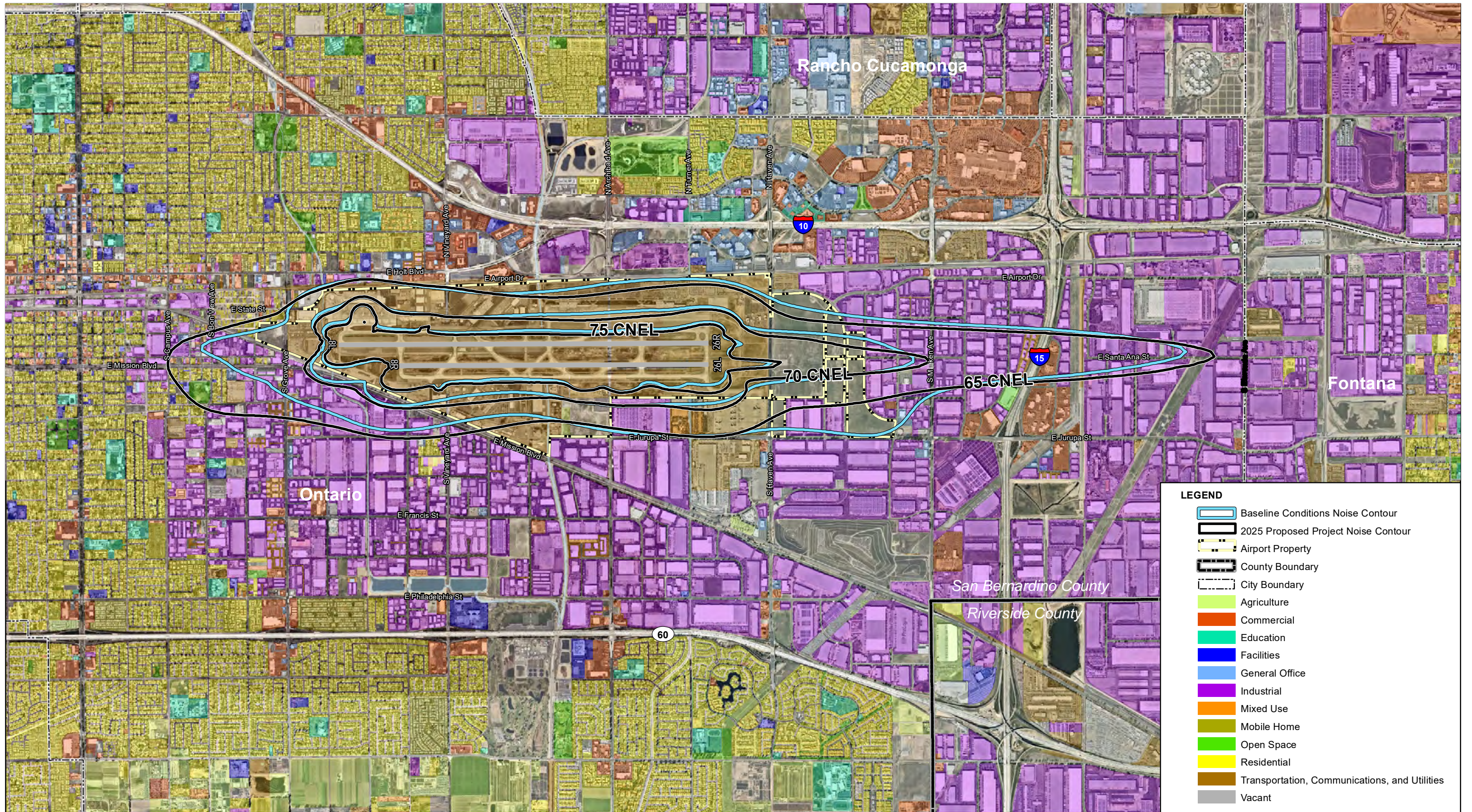


Figure 4-4

Table 4-16: 2023 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	49.8	0	0	49.8
Education	0	0	0	0.0
Mixed Use	34.2	0.2	0	34.4
Mobile Home	0	0	0	0
Open Space	11.8	0	0	11.8
Agriculture	1.4	0	0	1.4
Commercial	19.6	0	0	19.6
Facilities	3.6	0	0	3.6
General Office	7.4	0	0	7.4
Industrial	516.0	6.1	0	522.1
Transportation, Communications, and Utilities	592.5	429.8	522.9	1,545.2
Vacant	194.1	82.4	0	276.5
TOTAL	1,430.4	518.5	522.9	2,471.8
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	225	0	0	225
Population	1,014	0	0	1,014

Note:

Totals may not sum due to rounding.

(1) Of the 225 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 147 sound insulated (~667 population)
- 27 eligible for sound insulation (~116 population)
- 34 eligible for voluntary acquisition (~161 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 225 dwelling units with the 65 CNEL contour, 213 are single family and 12 are multi-family (six duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 4-17: 2024 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	Total
Residential	52.0	0	0	52.0
Education	0	0	0	0
Mixed Use	25.8	0	0	25.8
Mobile Home	0	0	0	0
Open Space	11.8	0	0	11.8
Agriculture	1.1	0	0	1.1
Commercial	23.6	0	0	23.6
Facilities	3.4	0	0	3.4
General Office	6.9	0	0	6.9
Industrial	503.0	18.9	0	521.9
Transportation, Communications, and Utilities	598.7	441.8	526.1	1,566.6
Vacant	218.2	63.6	0.3	282.2
TOTAL	1,444.5	524.4	526.4	2,495.3
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	215	0	0	215
Population	948	0	0	948

Note:

Totals may not sum due to rounding.

(1) Of the 215 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 128 sound insulated (~566 population)
- 26 eligible for sound insulation (~111 population)
- 44 eligible for voluntary acquisition (~202 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 215 dwelling units with the 65 dB contour, 203 are single family and 12 are multi-family (six duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 4-18: 2025 Proposed Project Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	31.6	0	0	31.6
Education	0	0	0	0
Mixed Use	38.2	1.5	0	39.7
Mobile Home	0	0	0	0
Open Space	11.3	0	0	11.3
Agriculture	3.0	0	0	3.0
Commercial	16.0	0	0	16.0
Facilities	2.6	0	0	2.6
General Office	6.0	0	0	6.0
Industrial	529.3	46.2	0	575.4
Transportation, Communications, and Utilities	616.2	390.8	546.0	1,552.9
Vacant	212.5	95.8	0.8	309.1
TOTAL	1,466.6	534.3	546.8	2,547.7
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	165	0	0	165
Population	703	0	0	703

Note:

Totals may not sum due to rounding.

(1) Of the 165 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 111 sound insulated (~465 population)
- 19 eligible for sound insulation (~78 population)
- 18 eligible for voluntary acquisition (~90 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 165 dwelling units with the 65 dB contour, 161 are single family and four are multi-family (two duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2021.

Table 4-19 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between each Proposed Project year and the Baseline Conditions. The total acreage within the 65+ CNEL noise contours varies between -0.5 to +2.5% in the Proposed Project contours as compared to the Baseline Condition contour. The change in Proposed Project noise conditions compared to the Baseline Conditions is attributable to three factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the Proposed Project.

2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.
3. Runway closure periods associated with the Proposed Project construction that results in ONT operating on a single-runway for periods of 2023, 2024 and 2025, as compared to the 2019/2020 Baseline Conditions where both runways are operational. The impact of these runway closure periods is detailed and illustrated under the following section, Construction Impacts.

Table 4-19: Noise Inputs and Outputs for Baseline Conditions and Proposed Project

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area Compared to Baseline Conditions
2019/2020	Baseline Conditions	106,026	No closure	2,485	--
2023	Proposed Project	110,368	8L-26R – 4 months 8R-26L – 5 months	2,472	-0.5%
2024	Proposed Project	113,826	8R-26L – 9 months	2,497	+0.5%
2025	Proposed Project	117,625	8L-26R – 5 months	2,548	+2.5%

Note: (1) Aircraft operations are not influenced by the Proposed Project. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Proposed Project.

Source: HNTB analysis, 2022.

Table 4-20 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Proposed Project year and provides a comparison of the Proposed Project in each year to the Baseline Conditions.

As indicated in Table 4-20, there would be a net increase in population and housing units within the 65-69 CNEL contour for all Proposed Project construction years, as compared to the Baseline Conditions. This increase in population/housing units is largely due to increased operations due to background growth and to the shift in the Proposed Project noise contours to the west of ONT, towards residential areas, as a result of the suspension of Contra Flow operations during proposed runway closures.

Table 4-20: Estimated Population, Housing Units and Acreage within Proposed Project and Baseline Conditions Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
Baseline Conditions	59	0	0	59	13	0	0	13	1,390	545	551	2,485
2023 Conditions												
Proposed Project	1,014	0	0	1,014	225	0	0	225	1,430	519	523	2,472
<i>Difference Between 2023 Proposed Project and Baseline Conditions</i>	<i>+955</i>	<i>0</i>	<i>0</i>	<i>+955</i>	<i>+212</i>	<i>0</i>	<i>0</i>	<i>+212</i>	<i>+41</i>	<i>-26</i>	<i>-28</i>	<i>-14</i>
2024 Conditions												
Proposed Project	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between 2024 Proposed Project and Baseline Conditions</i>	<i>+889</i>	<i>0</i>	<i>0</i>	<i>+889</i>	<i>+202</i>	<i>0</i>	<i>0</i>	<i>+202</i>	<i>+55</i>	<i>-21</i>	<i>-24</i>	<i>+10</i>
2025 Conditions												
Proposed Project	703	0	0	703	165	0	0	165	1,467	534	547	2,548
<i>Difference Between 2025 Proposed Project and Baseline Conditions</i>	<i>+644</i>	<i>0</i>	<i>0</i>	<i>+644</i>	<i>+152</i>	<i>0</i>	<i>0</i>	<i>+152</i>	<i>+77</i>	<i>-11</i>	<i>-4</i>	<i>+62</i>

Note: Aircraft operations are not influenced by the Proposed Project. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Proposed Project.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

For Informational Purposes

CEQA requires that a Proposed Project be compared to baseline conditions for the purpose of making a significance determination. For the Proposed Project, the future noise exposure would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth that is projected to occur with or without the Proposed Project, as well changes in fleet mix that can impact overall noise levels. In order to remove the influence of background growth and differences in aircraft fleet noise levels, this analysis also compares noise exposure of the Proposed Project in a given year with the noise exposure from the No Project Alternative in the same year. This analysis is provided for informational purposes.

Figures 4-5, 4-6, and 4-7 show the expected Proposed Project noise exposure contours in 2023, 2024, and 2025 in comparison with the No Project Alternative in the same year. Under the No Project Alternative there would be no runway closures, and Contra Flow would continue during nighttime operations. In comparison with the No Project Alternative, the Proposed Project increases the size of the contours to the west of the Airport whereas the size of the contours to the east of the Airport decreases.

Tables 4-21, 4-22, and 4-23 summarize the estimated land area (acres) within CNEL contours for the No Project Alternative in 2023, 2024 and 2025 along with the estimated number of residential dwelling units, schools, and churches located within the contours (see Tables 4-16, 4-17, and 4-18 for the Proposed Project summaries). The tables also provide an estimate of the residential population exposed to varying degrees of noise exposure based upon average household size by Census block. Residential dwelling units and population were initially determined using U.S. Census Bureau block data, with data verified using Google Earth.¹¹

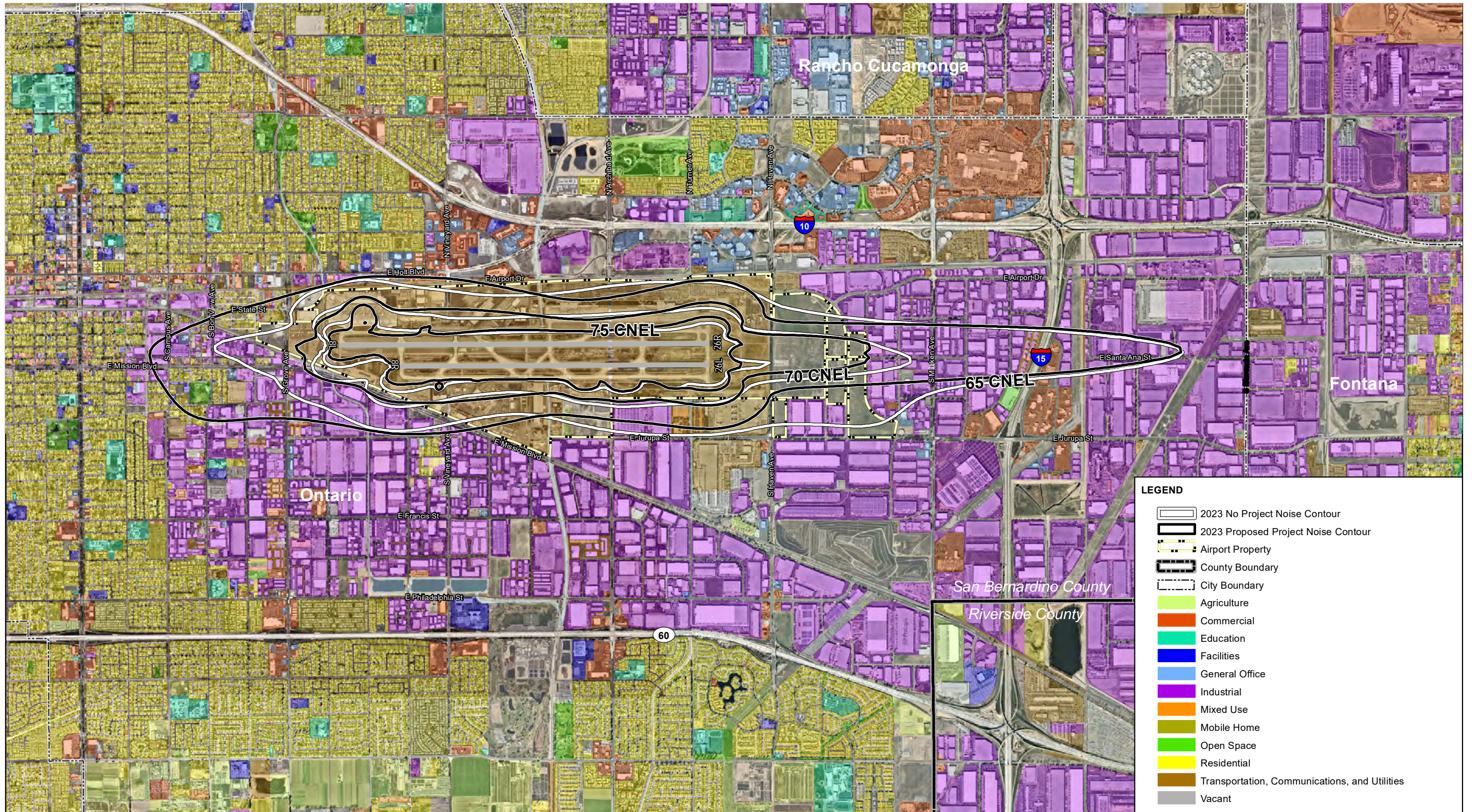
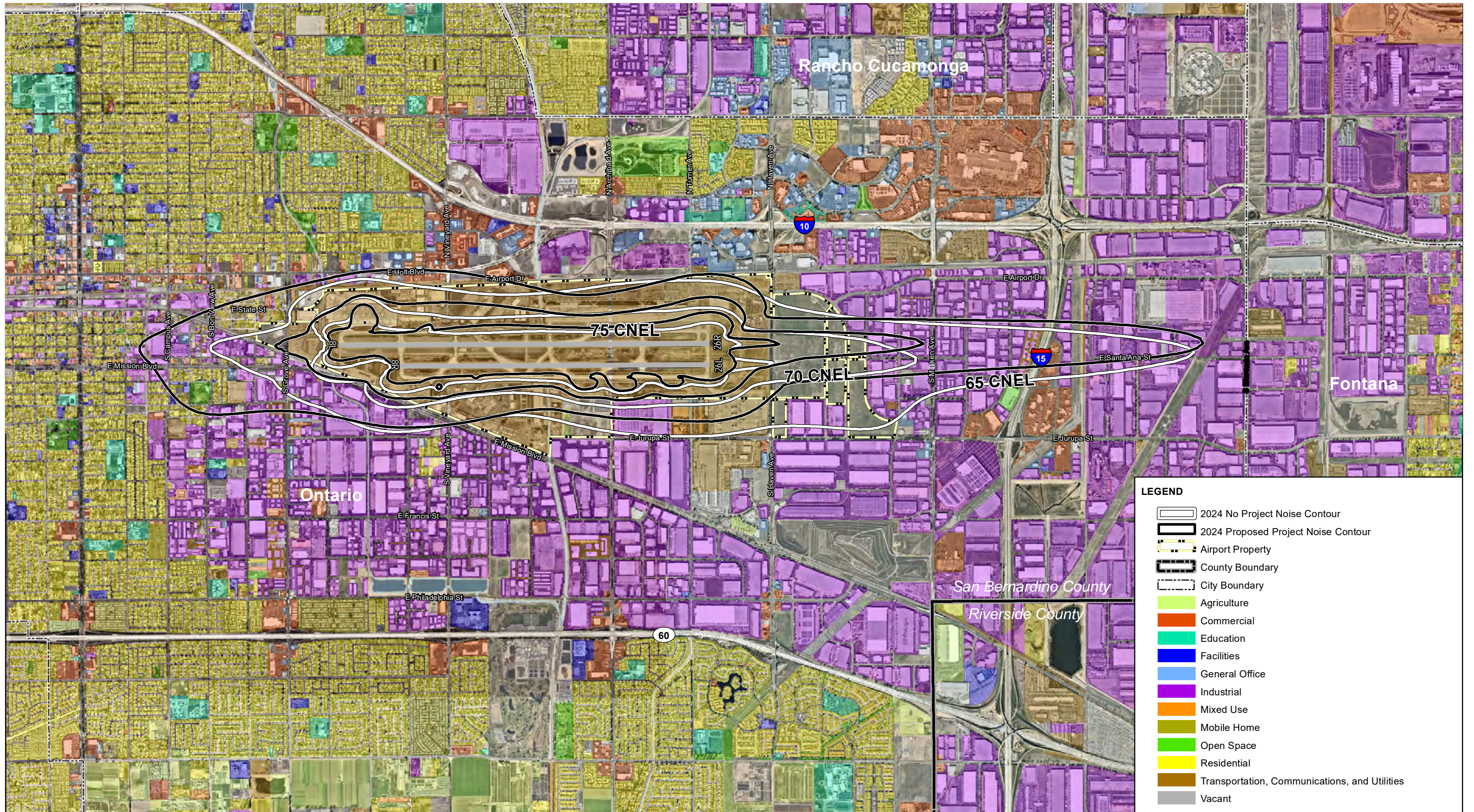
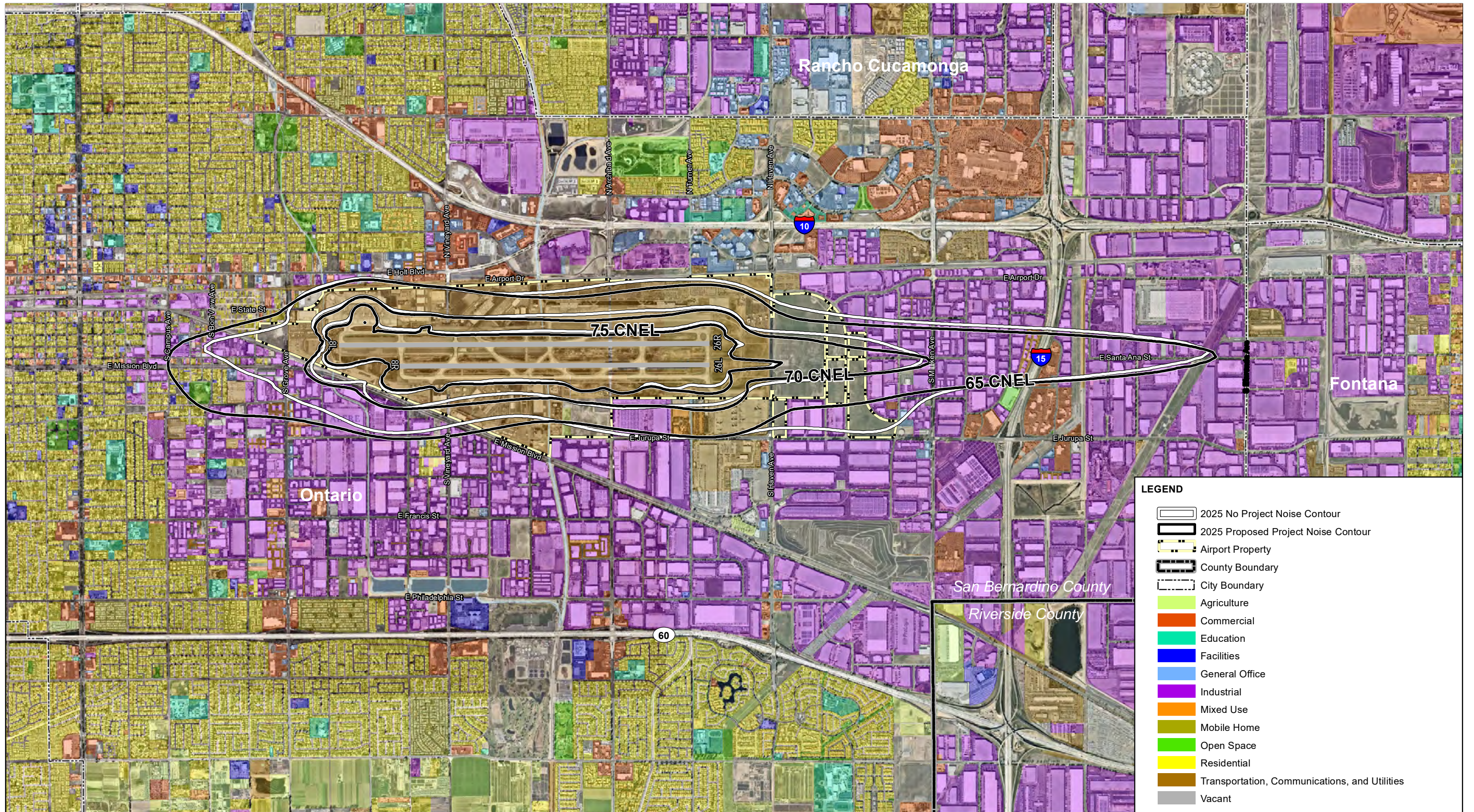


Figure 4-5



LEGEND

- 2024 No Project Noise Contour
- 2024 Proposed Project Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant



LEGEND

- 2025 No Project Noise Contour
- 2025 Proposed Project Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

Table 4-21: 2023 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	Total
Residential	2.8	0	0	2.8
Education	0	0	0	0.0
Mixed Use	32.1	0.1	0	32.1
Mobile Home	0	0	0	0.0
Open Space	0	0	0	0.0
Agriculture	2.9	0	0	2.9
Commercial	14.9	0	0	14.9
Facilities	0	0	0	0.0
General Office	0.4	0	0	0.4
Industrial	480.7	33.2	0	513.8
Transportation, Communications, and Utilities	568.7	384.2	543.1	1,496.0
Vacant	202.7	105.5	0.0	308.2
TOTAL	1,305.1	523.0	543.1	2,371.1
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	7	0	0	7
Population	29	0	0	29

Note:

Totals may not sum due to rounding.

(1) All residential dwelling units and population within the 65-69 CNEL are eligible for voluntary acquisition under ONT's Quiet Home Program, with the exception of one dwelling unit (two people) accounted for at the Hofer Ranch property directly south of ONT.

(2) Of the seven dwelling units with the 65 CNEL contour, five are single family and two are multi-family (one duplex). Google earth was utilized to confirm housing counts and types.

Source: Southern California Association of Governments (SCAG) 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 4-22: 2024 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	3.5	0	0	3.5
Education	0	0	0	0.0
Mixed Use	33.2	0.1	0	33.3
Mobile Home	0	0	0	0.0
Open Space	0	0	0	0.0
Agriculture	3.1	0	0	3.1
Commercial	15.3	0	0	15.3
Facilities	0	0	0	0.0
General Office	1.2	0	0	1.2
Industrial	505.0	39.1	0.0	544.1
Transportation, Communications, and Utilities	577.4	387.6	552.9	1,517.8
Vacant	210.2	110.1	0	320.3
TOTAL	1,348.8	536.9	552.9	2,438.5
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	10	0	0	10
Population	44	0	0	44

Note:

Totals may not sum due to rounding.

(1) All residential dwelling units and population within the 65-69 CNEL are eligible for voluntary acquisition under ONT's Quiet Home Program, with the exception of one dwelling unit (two people) accounted for at the Hofer Ranch property directly south of ONT.

(2) Of the 10 dwelling units with the 65 CNEL contour, six are single family and four are multi-family (two duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 4-23: 2025 No Project Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	4.0	0	0	4.0
Education	0	0	0	0.0
Mixed Use	34.2	0.2	0	34.4
Mobile Home	0	0	0	0.0
Open Space	0	0	0	0.0
Agriculture	3.3	0	0	3.3
Commercial	15.8	0	0	15.8
Facilities	0	0	0	0.0
General Office	2.3	0	0	2.3
Industrial	532.9	45.8	0	578.8
Transportation, Communications, and Utilities	585.6	391.2	563.4	1,540.1
Vacant	219.5	114.8	0.1	334.3
TOTAL	1,397.6	552.0	563.4	2,513.0
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	12	0	0	12
Population	54	0	0	54

Note:

Totals may not sum due to rounding.

(1) All residential dwelling units and population within the 65-69 CNEL are eligible for voluntary acquisition under ONT's Quiet Home Program, with the exception of one dwelling unit (two people) accounted for at the Hofer Ranch property directly south of ONT.

(2) Of the 12 dwelling units with the 65 CNEL contour, six are single family and six are multi-family (three duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 4-24 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between the Proposed Project and No Project in a given year. While the total aircraft operation levels remain the same between the Proposed Project and No Project Alternatives in a given year, the total acreage within the 65+ CNEL noise contours increases between 1-4% in the Proposed Project contours as compared to the No Project Alternative contours in the same year.

Table 4-24: Noise Inputs and Outputs for No Project and Proposed Project

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area
2023	No Project	110,368	No closure	2,371	+4.3%
	Proposed Project		8L-26R – 4 months 8R-26L – 5 months	2,472	
2024	No Project	113,826	No closure	2,439	+2.4%
	Proposed Project		8R-26L – 9 months	2,497	
2025	No Project	117,625	No closure	2,513	+1.4%
	Proposed Project		8L-26R – 5 months	2,548	

Note: (1) Aircraft operations are not influenced by the Proposed Project. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Proposed Project, as shown with the same level of operations modeled in the No Project Alternative and Proposed Project in a given year.

Source: HNTB analysis, 2022.

Table 4-25 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Proposed Project construction year and provides a comparison of the Proposed Project in each construction year to the No Project Alternative in the same year.

As indicated in Table 4-25, there would be a net increase in population and housing units within the 65-69 CNEL contour for all Proposed Project construction years, as compared to the No Project Alternative. This increase in population/housing units is due to the shift in the Proposed Project noise contours to the west of ONT, towards residential areas, as a result of the suspension of Contra Flow operations during proposed runway closures.

Table 4-25: Estimated Population, Housing Units and Acreage within Proposed Project and No Project Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
2023 Conditions												
No Project	29	0	0	29	7	0	0	7	1305	523	543	2371
Proposed Project	1,014	0	0	1,014	225	0	0	225	1,430	519	523	2,472
<i>Difference Between Proposed Project and No Project</i>	+985	0	0	+985	+218	0	0	+218	+125	-4	-20	+101
2024 Conditions												
No Project	44	0	0	44	10	0	0	10	1,349	537	553	2,439
Proposed Project	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between Proposed Project and No Project</i>	+904	0	0	+904	+205	0	0	+205	+96	-12	-26	+57
2025 Conditions												
No Project	54	0	0	54	12	0	0	12	1,398	552	563	2,513
Proposed Project	703	0	0	703	165	0	0	165	1,467	534	547	2,548
<i>Difference Between Proposed Project and No Project</i>	+649	0	0	+649	+153	0	0	+153	+69	-18	-17	+35

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Impact 4.5-1

Summary Conclusion for Impact 4.5-1: The Proposed Project would result in temporary noise exposure changes during the construction period of 2023, 2024 and 2025 due to the suspension of nighttime Contra Flow operations during proposed runway closure periods. Therefore, the Proposed Project would have a *significant, unavoidable temporary impact* on noise levels in the vicinity of the project.

The Proposed Project would result in changes in noise exposure as compared to the Baseline Conditions. The change in Proposed Project noise conditions compared to the Baseline Conditions is attributable to three factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the Proposed Project.
2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.
3. Runway closure periods associated with the Proposed Project construction that results in ONT operating on a single-runway for periods of 2023, 2024 and 2025, as compared to the Baseline Conditions where both runways are operational.

During the proposed runway closure periods, all operations would occur on a single runway. Due to the two runways being parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. As described above, Contra Flow operations will be prohibited during construction periods. Figures 4-2, 4-3 and 4-4 illustrate the expected noise exposure contours in 2023, 2024, and 2025 in comparison with the Baseline Conditions.

The Proposed Project would result in temporary increases in noise exposure to the west of the Airport during nighttime hours during these construction periods. This would result in a *significant, unavoidable temporary impact on noise levels* in the vicinity of the project.

Impact 4.5-2

Summary Conclusion for Impact 4.5-2: The Proposed Project would result in groundborne vibration and noise levels, but construction activity would not expose sensitive receptors. The Proposed Project would result in a *less than significant impact* from groundborne vibration and noise levels.

Construction of the Proposed Project may result in substantial vibration impacts. However, the project area is located within the active airfield and adjacent airport property. The properties immediately surrounding ONT are zoned industrial or commercial. The closest sensitive receptors are residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively. It should be noted that these residential homes are eligible for acquisition under ONT's Quiet Home Program. The closest

sensitive receptors to construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north, off of E. Nocta Street.

Between the Proposed Project site and the residential receivers off of E. Nocta Street, there are two major roadways, industrial and commercial facilities, and a tow yard. Due to distance, the existing noise environment, and obstructions between noise sources and the residential receptors, construction noise levels would not be discernable over the existing ambient noise environment. Therefore, the Proposed Project would result in a *less than significant impact* from groundborne vibration and noise levels.

Impact 4.5-3

Summary Conclusion for Impact 4.5-3: The Proposed Project would result in *significant, unavoidable temporary impacts* to people residing or working around the Airport from excessive noise levels, as described below.

During runway closure periods in 2023, 2024 and 2025, all operations would occur on a single runway. During single runway operation, Contra Flow operations would be suspended at nighttime which is typically used as a noise mitigation strategy to minimize noise over residential areas at night. As described above, the Proposed Project would temporarily expose additional people to excessive noise during the construction period when compared to Baseline Conditions. Therefore, the Proposed Project would result in *significant, unavoidable temporary impacts* to people residing or working around the Airport from excessive noise levels.

4.5.5 Mitigation Measures

The Proposed Project would result in significant but unavoidable temporary impacts to noise levels when compared to Baseline Conditions. There are no mitigation measures proposed as the impacts are temporary and noise levels will not be impacted following completion of Proposed Project construction.

While Contra Flow operations would be suspended during the runway closure periods for construction of the Proposed Project, ONT would continue to implement other Voluntary Operational Restrictions for noise management during implementation of the Proposed Project, including but not limited to: ¹²

- “Touch-and-go” operations by turbojet and turbo-fan aircraft are prohibited without special permissions
- Nighttime (10:00 PM and 7:00 AM) engine maintenance run-up operations are prohibited. Daytime run-up operations occur at specified locations.
- “Intersection departures” are prohibited (i.e., departures not starting at the end of the runway), except from 8L at Taxiway D and from 26R at Taxiway V. Departures must start at the end of runways to allow aircraft to pass higher over residential communities.

4.6 Transportation/Traffic

4.6.1 Methodology

Any potential impacts to transportation or traffic were considered as part of the Proposed Project. Because there would be less than significant impacts to this resource category, no traffic analysis was undertaken. However, consistent with Public Resources Code section 21099(b)(3), this SEIR also analyzes the Proposed Project's potentially significant transportation impacts related to air quality, noise, and greenhouse gas emissions.

4.6.2 Existing Conditions

Refer to *Section 3.9.2, Transportation/Traffic, Existing Conditions*, for discussion of the Existing Conditions for transportation/traffic resources.

4.6.3 Thresholds of Significance

The Governor's OPR developed a Technical Advisory on Evaluating Transportation Impacts in CEQA, which states that rehabilitation, repair, replacement, and safety improvement projects for existing transportation assets that do not add additional capacity are projects that would not likely lead to a substantial or measurable increase in VMT.¹³ Caltrans' Transportation Analysis under CEQA¹⁴ has the same standard, and ONT has a Caltrans-issued permit. Moreover, the City of Ontario Resolution No. 2020-071 adopted VMT Thresholds stating that transportation projects that do not add capacity can be screened from further VMT review during the CEQA process and are presumed to have a less than significant impact on transportation.¹⁵

Further, CEQA Guidelines section 15064.3 now specifies that VMT shall be the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. A project's effect on automobile delay and roadway congestion, previously measured by "level of service" (LOS), will no longer constitute an environmental impact.

4.6.4 Impacts

The Proposed Project would have less than significant impacts to transportation and traffic. Any temporary surface traffic changes associated with construction of the Proposed Project would be minor and mitigated, if necessary, by a required construction traffic plan. Construction vehicles would use existing airport roadways and service roads, and/or adjacent airfield area for access regardless of the construction staging area used.

Here, the Proposed Project is a rehabilitation, repair, replacement, and safety improvement project that does not add or increase capacity at ONT and would therefore not increase VMT. Consistent with Public Resources Code section 21099(b)(3), this SEIR also analyzes the Proposed Project's potentially significant transportation impacts related to air quality, noise, and greenhouse gas emissions.

4.6.5 Mitigation Measures

No mitigation is proposed as there are no anticipated impacts to traffic/transportation as a result of the Proposed Project.

4.7 Tribal Cultural Resources

This section provides a summary of tribal consultation and an analysis of potential impacts and mitigation measures associated with tribal cultural resources with respect to local, state, and federal policy. Tribal cultural resources on and in the immediate vicinity of the project area are discussed in Chapter 3.0, Environmental Setting.

4.7.1 Methodology

Records Search, Previous Surveys and Fieldwork Survey

Refer to *Section 4.4.1, Cultural Resources, Methodology* for details related to the records search, previous surveys, previously recorded sites within a half-mile of the project area, and the fieldwork survey.

Native American Contact Program

A Sacred Lands File search was requested by OIAA through the Native American Heritage Commission (NAHC). The Sacred Lands File search results were received on April 13, 2021 (provided in *Appendix F, Attachment C, Tribal [CONFIDENTIAL]*). The results indicated that no known sacred lands of Native American Cultural Resources are within the project area. The NAHC noted that negative results may not indicate the absence of Native American cultural resources in the area and provided a contact list of 12 Native American tribal organizations that may have knowledge of cultural resources in or near the study area.

Additionally, in accordance with AB 52, on August 27, 2021, OIAA sent letters to the Native American representatives and interested parties as identified by the NAHC. Three responses were received. San Manuel Band of Mission Indians (SMBMI) responded via email on September 1, 2021, and Agua Caliente Band of Cahuilla Indians (ACBCI) responded via email on September 2, 2021 to indicate the project is not located within the boundaries of the Tribes' Traditional Use Area. The Kizh Nation responded via email on September 17, 2021 to request a consultation with the lead agency.

OIAA initiated consultation on November 4, 2021 with Kizh Nation. Although no tribal resources have been identified within the project area, the tribe has knowledge of some isolated resources, including prehistoric isolates and fire hearths associated with habitation within Airport property. A second meeting was held February 24, 2022 to discuss and finalize agreed upon mitigation measures. As such, the tribe requests Native American monitoring during all ground-disturbing activities related to the project. Mitigation measures intended to reduce the impact to potential tribal cultural resources were agreed upon by Kizh Nation and OIAA on March 30, 2022 and consultation was concluded.

4.7.2 Existing Conditions

Refer to *Section 3.10.2, Tribal Cultural Resources, Existing Conditions* for discussion of the Existing Conditions for tribal cultural resources.

4.7.3 Thresholds of Significance

A significant impact would occur if the Proposed Project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the significance of the resource to a California Native American tribe shall be considered.

4.7.4 Impacts

No tribal cultural resources have been identified within the project area. During AB 52 consultation with Kizh Nation, although not recorded at the SCCIC, the Nation has knowledge of some isolated prehistoric isolates and a fire hearth located within the airport property. As such, there is potential for the Proposed Project to impact buried prehistoric archaeological and tribal cultural resources if found during construction.

4.7.5 Regulatory Requirements

As part of the project design and planning, OIAA will implement the following regulatory requirement (RR) as part of the Proposed Project:

RR-1: In the event that human remains are discovered, the County Coroner shall be contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. All requirements of Health & Safety Code §7050.5 and PRC §5097.98 shall be followed prior to the implementation of a testing or treatment plan.

4.7.6 Mitigation Measures

To reduce the potential for impacting buried archaeological and tribal cultural resources (TCRs), the following mitigation measures are proposed:

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

- A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.
- B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.
- C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.
- D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.
- E. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe’s sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-2: Unanticipated Discovery of Human Remains and Associated Funerary Objects

- A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

- B. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.
- C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).
- D. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)
- E. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods, if feasible. Any historic archaeological material that is not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.
- F. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

TCR-3: Procedures for Burials and Funerary Remains:

- A. As the Most Likely Descendant ("MLD"), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.
- B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.
- C. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed

to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.

- D. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.
- E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.
- F. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.
- G. The Tribe will work closely with the project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains

4.8 Health Risk Assessment

This analysis examines potential health risks that result from temporary construction activity and temporary operational changes associated with the Proposed Project during construction years 2023, 2024 and 2025. There are no health risk impacts associated with the Proposed Project beyond the construction period.

4.8.1 Methodology

Potential temporary changes in health risks to nearby sensitive receptors from the emission of Toxic Air Contaminants (TACs) during construction of the Proposed Project were analyzed in accordance with applicable portions of the Office of Environmental Health Hazard Assessment (OEHHA) *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*¹⁶ and the SCAQMD *Modeling Guidance for AERMOD*.¹⁷

Sensitive Receptors

CARB and OEHHA have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.^{18,19} Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. For health risk assessments, the health impacts are analyzed for individual residents assumed to be standing in their primary outdoor spaces closest to the source of TACs and for individual off-site workers assumed to be standing outside of a commercial or industrial building.

Land uses surrounding ONT are primarily industrial/commercial. Distances from the ONT boundary to residential zoned areas are approximately 1,200 feet (0.23 miles) to the northwest, 1,300 feet (0.25 miles) to the southwest, 2,800 feet (0.53 miles) to the north, 3,600 feet (0.68 miles) to the west, and 6,500 feet (1.2 miles) to the south. However, there also are some residences located within the industrial/commercial areas to the west and south. The closest existing sensitive receptor to the project is a single-family residence on South Grove Avenue, approximately 200 feet north of the airport boundary (approximately 2,000 feet northwest of Runway 8L – 26R). The closest school to ONT is the Mariposa Elementary School, approximately 2,000 feet (0.38 miles) north of the airport boundary. The closest hospital to ONT is the Kaiser Permanente Ontario Vineyard hospital approximately 5,300 feet (1 mile) south of the airport boundary. See **Figure 4-8**, *Receptor Locations*.

Dispersion Modeling

Localized concentrations of pollutants were modeled using Lakes AERMOD View version 10.2.1. The Lakes program utilizes the USEPA's AERMOD gaussian air dispersion model version 21112. Plot files from AERMOD using unitized emissions (one gram per second) for each TAC source were imported into CARB's Hotspots Analysis and Reporting Program (HARP), Air Dispersion Modeling and Risk Tool (ADMRT) version 21081. Using the AERMOD plot files and the emissions inventory, The ADMRT calculates ground-level concentrations of TACs. TACs sources were modeled for those aircraft movement paths that have the potential to result in shifts of emission dispersion during Proposed Project implementation, including taxi-out, takeoff roll, climb, approach, landing roll, and taxi-in. In addition, emissions from








-  Airport Property
 -  Modeled Receptor
 -  Modeled Receptor - Maximally Exposed Individual Resident (MEIR)
 -  Modeled Receptor - Maximally Exposed Individual Worker (MEIW)/Point of Maximum Impact (PMI)
- Sensitive Areas**
-  Hospital
 -  Residence
 -  School



Figure 4-8

diesel-powered construction equipment used at ONT during Proposed Project implementation and emissions from the concrete batch plant were modeled.

Note that the air quality and GHG emissions analysis prepared for this SEIR addresses those aircraft movement paths that would experience changes in mass emissions (taxi-out and taxi-in) as a result of the Proposed Project, specifically attributable to changes in aircraft taxiing times resulting from temporary runway closures and suspension of Contra Flow. The mass emissions attributable to other aircraft movement paths (takeoff roll, climb, approach, and landing roll) would not be impacted by the Proposed Project's implementation; however, the pollutant dispersion pattern would change due to shifts in aircraft flight locations during temporary runway closures and suspension of Contra Flow. Therefore, the Proposed Project's health risk analysis considers the full landing-takeoff cycle for purposes of dispersion modeling.

Operational emissions sources at ONT which are not anticipated to change substantially during construction of the Proposed Project (including helicopter operations, ground support equipment, and on-road vehicles) were not included in the modeling. Source parameters for the dispersion modeling are fully described in *Appendix I, Health Risk Assessment, Attachment A, Dispersion Modeling Input*.

Risk Determination

Health risks resulting from localized concentrations of TACs were estimated using the ADMRT. The latest cancer slope factors, chronic Recommended Exposure Limits (RELS), and exposure paths for all TACs designated by CARB are included in the ADMRT. For the residential cancer risk, each year of Proposed Project implementation was evaluated separately with an exposure duration of one year, starting with the age bin for infants in utero in the third trimester of pregnancy. The cancer risk results for each year were summed to calculate the total cancer risk during the Proposed Project construction period. The Proposed Project's incremental increase in cancer risk is based on the emissions associated with the Proposed Project's implementation. For non-cancer chronic and acute health risks, the maximum hazard index (HI) was calculated for each year of construction for the Proposed Project. The highest HI for all years would be the maximum HI during the Proposed Project construction period. The Proposed Project's incremental increase in non-cancer chronic and acute health risks is based on the emissions associated with the Proposed Project's implementation.

The model conservatively assumes that residents would be standing and breathing outdoors at the location of the property line or primary outdoor space closest to the airport or flight paths between 17 and 21 hours per day (depending on the age group), starting with infants in utero in the third trimester of pregnancy for the first year of Proposed Project implementation (2023), then infants age 0 for the second year (2024), and infants age 1 for the third year (2025). Although the Proposed Project is not subject to the *Air Toxics "Hot Spots" Information and Assessment Act*, or to the SCAQMD Rule 1402, the applicable portions of the SCAQMD's *AB 2588 and Rule 1402 Supplemental Guidelines* were followed in selecting parameters in the ADMRT²⁰. In accordance with the SCAQMD's supplemental guidelines, the following

non-default ADMRT options were selected: the RMP derived intake rate percentile method (for residential risks only); mandatory minimum pathways plus the home grown produce pathway (for residential risks only); 0.02 m/s deposition rate (for non-inhalation pathways); and warm climate (for the dermal pathway). For off-site worker cancer risk, an exposure duration of one year was selected with an assumption of eight hours per day, five days per week of exposure while standing outside, in accordance with the OEHHA guidelines.

4.8.2 Existing Conditions

Health risks were not quantified for Existing Conditions as the specific health risks associated with the Airport cannot be assessed independent of all sources of pollutants which contribute to the community's overall risk. However, SCAQMD has conducted studies on carcinogenic risk from exposure to air toxics in the SCAB. The most recent is the Multiple Air Toxics Exposure Study V (MATES V). According to the MATES Data Visualization interactive tool, the area around ONT has a cumulative cancer risk of 600 in 1 million.²¹

4.8.3 Thresholds of Significance

To assess exposure to substantial TAC concentrations, the SCAQMD recommends the following thresholds for the Proposed Project's incremental contribution to community health risks:²²

- Impact 4.8-1 Maximum Incremental Cancer Risk – An increased risk equal or greater than of 10 in 1 million for the maximally exposed individual to Proposed Project emissions is considered to result in a significant impact.
- Impact 4.8-2 Chronic and Acute Health Risk – An HI equal to or greater than 1 for the maximally exposed individual to Proposed Project emissions is considered to result in a significant impact.
- Impact 4.8-3 Cancer Burden – 0.5 or more excess cancer cases in areas exposed to an incremental cancer risk greater than 1 in million over a 70-year exposure is considered to result in a significant impact.

4.8.4 Impacts

The incremental excess cancer risk is an estimate of the chance a person exposed to a specific source of a TAC may have of developing cancer from that exposure beyond the individual's risk of developing cancer from existing background levels of TACs in the ambient air. For context, the average cancer risk from TACs in the ambient air for an individual living in an urban area of California is 830 in 1 million.²³ The SCAQMD has conducted studies on carcinogenic risk from exposure to air toxics in the SCAB. The most recent is the Multiple Air Toxics Exposure Study V (MATES V). According to the MATES Data Visualization interactive tool, the area around ONT has a cumulative cancer risk of 600 in 1 million.²⁴ Cancer risk estimates do not mean, and should not be interpreted to mean, that a person will develop cancer from estimated exposures to toxic air pollutants.

[Impact 4.8-1 and 4.8-2](#)

MEIR and MEIW

The maximum estimated community health risks are determined by evaluating the increased cancer risk and non-cancer chronic risks for the maximally exposed individual resident (MEIR) and off-site maximally exposed individual worker (MEIW). To be conservative (health protective), sensitive receptors located at the closest school and closest hospital were evaluated using the residential risk parameters (age bins starting utero in the third trimester of pregnancy; 17 to 21 hours per day exposure).

The incremental excess cancer and chronic risks for the MEIR resulting from implementation of the Proposed Project are presented in **Table 4-26**. These estimates are conservative (health protective) and assume that the resident is outdoors for the entire exposure period. The locations of the MEIR are shown in Figure 4-8. As shown in Table 4-26, health risks for the MEIR would not exceed the SCAQMDs thresholds during implementation of the Proposed Project.

**Table 4-26
Proposed Project Maximally Exposed Individual Resident Incremental Health Risk**

	MEIR Cancer Risk	MEIR Chronic HI	MEIR Acute HI
Proposed Project	3.0 in 1 million	0.11	0.45
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

The incremental excess cancer and chronic risks for the MEIW resulting from implementation of the Proposed Project are presented in **Table 4-27**. These estimates are conservative (health protective) and assume that the worker is outdoors for the entire exposure period. The locations of the MEIW are shown in Figure 4-8. As shown in Table 4-27, health risks for the MEIW would not exceed the SCAQMDs thresholds during implementation of the Proposed Project.

**Table 4-27
Proposed Project Maximally Exposed Individual Worker Incremental Health Risk**

	MEIW Cancer Risk	MEIW Chronic HI	MEIW Acute HI
Proposed Project	0.4 in 1 million	0.18	0.54
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

The point of maximum impact (PMI; off-site) for cancer risks would be the location of the MEIR, near the intersection of East California Street and South Greenwood Avenue, at approximately Universal Transverse Mercator (UTM) coordinates Zone 11,

441411 meters East, 3768406 meters North. The location of the PMI is shown in Figure 4-8.

Sensitive Receptor Health Risks

The estimated incremental excess cancer risks due to exposure to the Proposed Project’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) are presented in **Table 4-28**. The model inputs, outputs, and risk isopleth figures are available in *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output*. As shown in Table 4-28, the incremental increase in cancer risk would not exceed the SCAQMD threshold of 10 in 1 million for any sensitive receptor during implementation of Proposed Project.

Table 4-28
Proposed Project Discrete Sensitive Receptor Incremental Cancer Risk

Receptor	Proposed Project Risk(chances per million)
R1, Residence	-0.4
R2, Residence	-0.5
R3, Residence	-0.3
R4, Residence	-0.2
R5, Residence	-0.1
R6, Residence	0.1
R7, Residence	2.6
R8, Residence	0.4
R9, Residence	3.0
R10, Residence	3.0
R11, Residence	0.5
R12, Residence	0.4
R13, Residence	0.2
R14, Residence	0.1
R15, Residence	<0.1
R16, Residence	-0.2
R17, Residence	-0.2
R18, Residence	-0.3
R19, Residence	-0.2
R20, Residence	1.0
R21, Residence	0.6
R22, Residence	0.4
S1, School	1.7
S2, School	1.5
S3, School	1.5
S4, School	<0.1
S5, School	0.1
H1, Hospital	-0.1

Source: Lakes AERMOD View and CARB ADMRT. See *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

The estimated incremental non-cancer chronic risk due to exposure to the Proposed Project’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) is presented in **Table 4-29**. The model inputs, outputs, and risk isopleth figures are available in *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output*. As shown in Table 4-29, the incremental increase in non-cancer chronic HI would not exceed the SCAQMD threshold of 1 for any sensitive receptor during implementation of the Proposed Project.

**Table 4-29
Proposed Project Discrete Sensitive
Receptor Incremental Chronic Risk**

Receptor	Proposed Project HI
R1, Residence	0.01
R2, Residence	<0.01
R3, Residence	<0.01
R4, Residence	<0.01
R5, Residence	<0.01
R6, Residence	0.01
R7, Residence	0.08
R8, Residence	0.02
R9, Residence	0.11
R10, Residence	0.08
R11, Residence	0.02
R12, Residence	0.02
R13, Residence	0.01
R14, Residence	0.01
R15, Residence	0.01
R16, Residence	0.01
R17, Residence	<0.01
R18, Residence	<0.01
R19, Residence	<0.01
R20, Residence	0.06
R21, Residence	0.04
R22, Residence	0.04
S1, School	0.02
S2, School	0.04
S3, School	0.05
S4, School	<0.01
S5, School	0.01
H1, Hospital	<0.01

Source: Lakes AERMOD View and CARB ADMRT. See *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

The estimated incremental non-cancer chronic risk due to exposure to the Proposed Project’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) is presented in **Table 4-30**. The model inputs, outputs, and risk isopleth figures

are available in *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output*. As shown in Table 4-30, the incremental increase in non-cancer acute HI would not exceed the SCAQMD threshold of 1 for any sensitive receptor during implementation of the Proposed Project.

**Table 4-30
Proposed Project Discrete Sensitive
Receptor Incremental Acute Risk**

Receptor	Proposed Project HI
R1, Residence	0.07
R2, Residence	-0.05
R3, Residence	<0.01
R4, Residence	0.01
R5, Residence	0.01
R6, Residence	0.01
R7, Residence	0.14
R8, Residence	0.05
R9, Residence	0.45
R10, Residence	0.27
R11, Residence	<0.01
R12, Residence	-0.03
R13, Residence	<0.01
R14, Residence	0.05
R15, Residence	0.05
R16, Residence	0.10
R17, Residence	0.05
R18, Residence	0.03
R19, Residence	0.03
R20, Residence	0.15
R21, Residence	-0.03
R22, Residence	-0.03
S1, School	0.17
S2, School	0.18
S3, School	0.22
S4, School	0.01
S5, School	0.02
H1, Hospital	0.01

Source: Lakes AERMOD View and CARB ADMRT. See *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

Impact 4.8-3

Cancer Burden

The cancer burden is the estimated increase in the occurrence of cancer cases from a source or facility over a 70-year exposure duration. The Proposed Project would involve short-term and temporary airport runway rehabilitation and associated improvement activities, anticipated to last a maximum duration of three years. Once implementation of the Proposed Project is complete, the project would not result in

any long-term changes in emissions at ONT. Therefore, an analysis of cancer burden is not applicable to the Proposed Project.

4.8.5 Mitigation Measures

No mitigation is proposed as there are no anticipated health risks as a result of the Proposed Project.

4.9 Significant Irreversible Environmental Changes

CEQA and the CEQA Guidelines require that an EIR address “significant irreversible environmental changes which would be involved in the proposed Project, should it be implemented.” The environmental effects related to the implementation of the Proposed Project are discussed in *Section 4.1 through 4.8*.

The project area is already developed and dedicated to airport uses, and the Proposed Project would not result in a new commitment of land. However, implementation of the Proposed Project would require the long-term commitment of natural resources to construct the proposed projects such as asphalt and concrete (cement and aggregate). This would represent the loss of renewable and nonrenewable resources that are generally not retrievable.

Construction and operation of the Project would also require energy resources such as electricity, natural gas, and various fuels. Operations-related energy demands would include temporary additional energy needs for a short period during the relocation of the electrical vault and taxiway lighting, however once implemented the lights will be more energy efficient. This would represent the loss of non-renewable resources, which are generally not retrievable, however there are sufficient resources to serve the Project.

Nonrecoverable materials and energy would be used during construction and operation activities; however, the amounts needed would be accommodated by existing supplies. Further, ONT is committed to construct the proposed facilities to meet high standards for efficiency and environmental design.

Implementation of best practices and standards that emphasize strategies for sustainable site development, water savings, energy efficiency, materials selection, and environmental quality would reduce the use of renewable and nonrenewable resources that would continue over time through construction and long-term operation of the Project.

Although sustainability measures would reduce the use of materials and energy during construction and operation of the Project, they would nevertheless be unavailable for other uses. The resources utilized for the Project would be permanently committed to the Airport and, therefore, be considered irreversible.

4.10 Significant and Unavoidable Impacts

A significant unavoidable impact is an impact that cannot be mitigated to a less than significant level if the project is implemented as it is proposed. The following significant unavoidable impacts have been identified as a result of the Proposed Project:

GHG Emissions: The Project would result in the following temporary significant unavoidable GHG emissions impacts:

- Net increase in construction-related GHG emissions.

Noise: The Project would result in the following temporary significant unavoidable noise impacts:

- Increased noise levels in the vicinity of the project due to construction-related aircraft operation changes (due to proposed runway closures and suspension of Contra Flow)

All other significant impacts of the Proposed Project would be reduced to a less than significant level with the implementation of mitigation measures identified in this SEIR.

4.11 Areas of Public Controversy

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, OIAA prepared a Notice of Preparation (NOP) for this SEIR. In response to the NOP, five comments were received from groups and individuals related to potential impacts to the Burrowing Owl, a California State Species of Special Concern, which has been known to occur on Airport property during certain periods.

ENDNOTES

¹ CalEEMod emission factors include OFFROAD2011 emission factors for non-road equipment and EMFAC2017 emission factors for on-road vehicles.

² Lead (Pb) is not analyzed because the Proposed Project would have minimal to zero impact on lead emissions. Construction activity would not result in lead emissions. Further, the only source of lead emissions at ONT is from aviation gasoline (AvGas) used in piston-powered general aviation aircraft. Piston-powered engine aircraft comprise a small fraction of the total aircraft operating at ONT and their activity levels would not change as a result of the Project.

³ The residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, are eligible for voluntary acquisition under ONT's Quiet Home Program.

⁴ The residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, are eligible for voluntary acquisition under ONT's Quiet Home Program.

⁵ CalEEMod emission factors include OFFROAD2011 emission factors for non-road equipment and EMFAC2017 emission factors for on-road vehicles.

⁶ As noted in *Section 4.1.1, Air Quality, Methodology*, a concrete batch plant is proposed to be located on Airport property in an industrial area along E. Avion Street. Operation of the concrete batch plant results in particulate matter emissions, which are included as part of the Air Quality impact analysis. However, the concrete batch plant would not result in GHG emissions, and therefore is not analyzed as part of GHG emissions.

⁷ As with the air quality emissions analysis, the construction GHG emissions inventory was developed in CalEEMod with the assumption that all off-road construction equipment would use Tier 4 final engines. However, use of Tier 4 off-road equipment does not reduce in any reduction in GHG emissions.

⁸ City of Ontario, Community Climate Action Plan, November 2014.

⁹ DRAFT, Air Quality Improvement Plan, Ontario International Airport, September 17, 2019, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-aqip-ont.pdf?sfvrsn=7>,

¹⁰ SBCTA, Region Greenhouse Gas Reduction Plan, Final, March 2021, <https://www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/>, accessed 2/23/22.

¹¹ Population and housing units within the contours were first determined using 2010 U. S. Census Bureau block data ([TIGER/Line with Selected Demographic and Economic Data \(census.gov\)](https://www.census.gov/tigerline)). At the time of this analysis, 2020 data was not available down to the block level. Total housing units and population by block were adjusted to remove the number of acquired properties in the Ontario Quiet Home Program. The population and housing units initially calculated within a contour were based on the assumption that housing units and population within a block were evenly distributed by area. (Note: These population and housing unit counts are not associated with the acreage of residential land use types.) Provided that the initial estimate of housing units based on block data was low, Google earth was then utilized to confirm the actual number of housing units occurring within the contour in a given block (2021 aerial). The average population per housing unit determined from the census block data was used to determine the estimated population. It was also noted whether the housing units within the contour have been mitigated (sound insulated) or are eligible for voluntary acquisition.

¹² ONT Rules and Regulations, Section 3 – Aircraft Operations, and Section 5 – Aircraft Noise Mitigation Operating Procedures and Restrictions, September 2020, <https://www.flyontario.com/corporate/rules-and-regulations>

¹³ Governor's Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA, April 2018, p. 20.

¹⁴ Caltrans, "Transportation Analysis Under CEQA," September 2020, p. 13.

¹⁵ Ontario City Council, City of Ontario Resolution No. 2020-071, June 16, 2020, <https://www.ontarioca.gov/sites/default/files/Ontario-Files/City-Clerk-Records-Management/Minutes%2020200616.pdf>, p. 4.

¹⁶ OEHHA, 2015, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*,: <https://oehha.ca.gov/air/cnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

¹⁷ SCAQMD, 2022, *Modeling Guidance for AERMOD*, <http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance>. Accessed March 2022

¹⁸ CARB, 2005, *Air Quality and Land Use Handbook: A Community Health Perspective*, <https://www.arb.ca.gov/ch/handbook.pdf>

¹⁹ OEHHA, 2015, *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*,: <https://oehha.ca.gov/air/cnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

²⁰ SCAQMD, October 2020, *AB 2588 and Rule 1402 Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act)*, <https://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=13>

²¹ SCAQMD, 2022, *MATES V Multiple Air Toxics Exposure Study*, <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>, accessed April 4, 2022.

²² SCAQMD, 2019, *Air Quality Significance Thresholds*, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>

²³ CARB, 2015, *Risk Management Guidance for Stationary Sources of Air Toxics*, <https://www.arb.ca.gov/toxics/rma/rmqssat.pdf>

²⁴ SCAQMD, *MATES V Multiple Air Toxics Exposure Study*. Available at: <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>. Accessed April 4, 2022.

5.0 Cumulative Impacts

5.1 Introduction

In accordance with CEQA and pursuant to Public Resources Code section 21083(b)(2), the effects of a proposed project may be “individually limited but cumulatively considerable ... when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.” This SEIR addresses the incremental contribution of the Proposed Project to cumulative impacts. *CEQA Guidelines* Section 15130 provides guidance for consideration of cumulative impacts within an EIR. Further, *CEQA Guidelines* Section 15355 defines “cumulative impacts” as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time.

CEQA Guidelines Section 15130 states that an EIR should discuss cumulative impacts “when the project’s incremental effect is cumulatively considerable.” Per *CEQA Guidelines* Section 15130(b) the discussion does not need to be in as great detail as is necessary for project impacts but is to be “guided by the standards of practicality and reasonableness.” To analyze a proposed project’s contribution to cumulative impacts, CEQA requires that the lead agency identify past, present, and probable future projects in the vicinity of the Proposed Project; summarize their effects, and identify the contribution of the Proposed Project to cumulative impacts in the region. *CEQA Guidelines* section 15130(b)(3) indicates that feasible options for mitigating or avoiding the project’s contribution to any significant cumulative effects should be recommended. Cumulative impacts should be considered separately for each resource area addressed in an EIR. However, when the combined cumulative impacts associated with the project’s environmental effect and the effect of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and why it is not discussed in further detail in the EIR.

5.2 Methodology

This cumulative impacts analysis considers, to the extent reasonable and practical, the potential impacts of the Proposed Project and other developments, both on and off the Airport, which could contribute to cumulative effects.

Per *CEQA Guidelines* Section 15130(b)(1) the identification of reasonably foreseeable growth may be based on either:

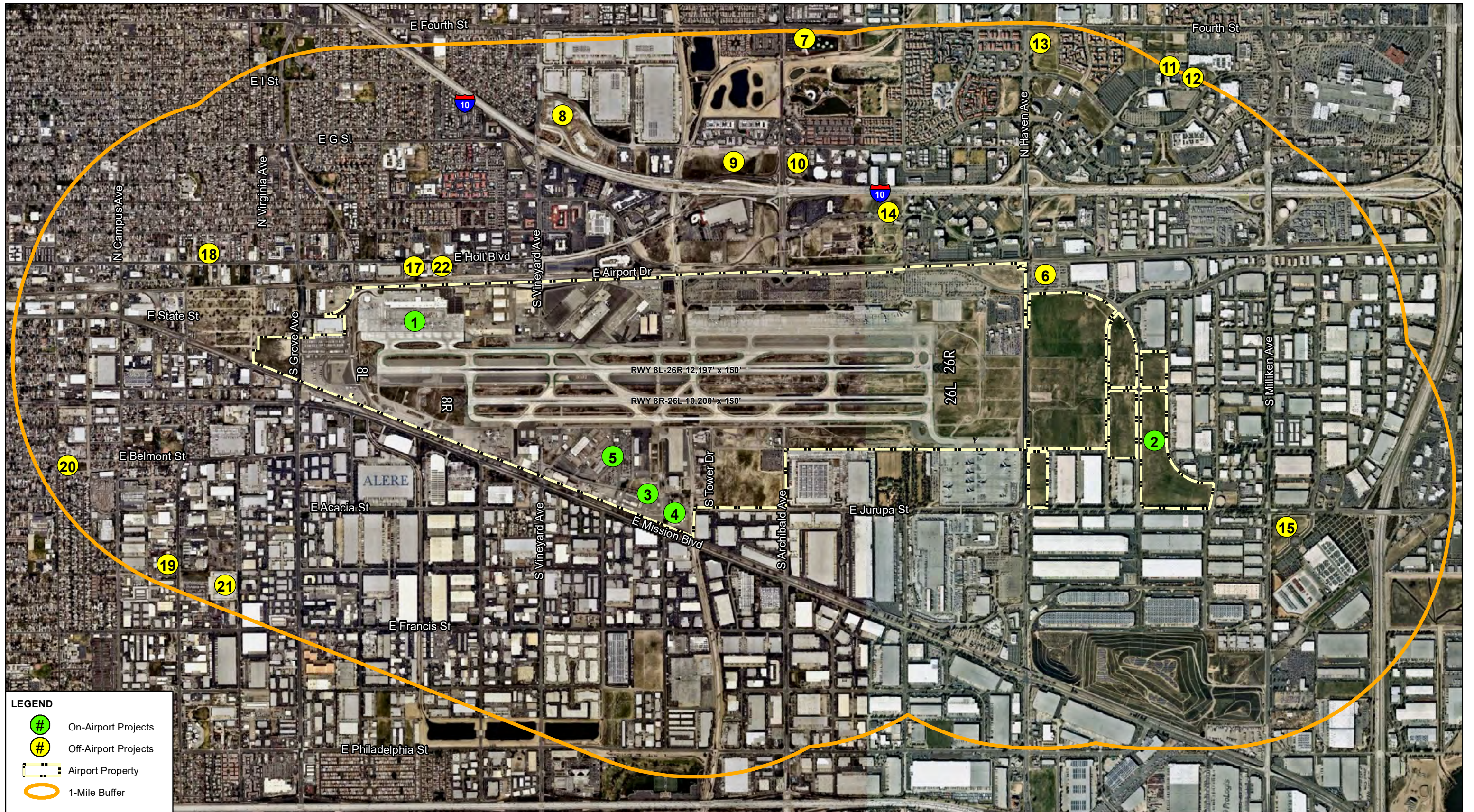
- A list of past, present, and probable future projects producing related or cumulative impacts; or
- A summary of projects contained in an adopted local, regional, or statewide plan, or related planning document designed to evaluate regional or area-wide conditions.

Because impacts of the Proposed Project will be experienced specifically during construction, the review of on- and off-airport projects that will potentially produce a cumulative impact is focused on the Proposed Project construction years 2023, 2024 and 2025. A review of recent on-airport projects (2020-present) with the potential to impact operations at ONT also is included.

The approach to analyzing potential cumulative impacts in this SEIR varies according to the environmental category being reviewed. For environmental categories where potential cumulative impacts would be localized, such as biological resources impacts, the analysis of potential cumulative impacts was limited to projects at or adjacent to ONT. For environmental categories whose cumulative impacts would accumulate on a regional basis, such as air quality, planning documents that evaluate regional and area-wide conditions were used to determine potential cumulative impacts.

The analysis begins by listing recent (2020-present) on-airport projects and probable future on-airport projects expected to be constructed and/or operational within 2023, 2024, or 2025. Probable future projects identified on-airport are in the planning stage but have not progressed their environmental review beyond issuance of a Notice of Preparation (NOP) to complete an EIR, in the case of the South Airport Cargo Center (SACC). **Table 5-1** provides the list of on-airport projects reviewed qualitatively for potential cumulative impacts. **Figure 5-1** depicts the locations of the on-airport projects.

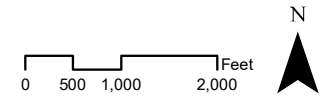
For identification of off-airport projects with the potential to cause cumulative impacts, coordination with the City of Ontario Planning Department was undertaken. The project list provided by the City of Ontario Planning Department was reviewed for those project located within one mile of ONT (see **Appendix J, City of Ontario Planning Department Coordination**). These projects were then reviewed for progress toward implementation, including City Council and Development Advisory Board approvals and publicly available environmental reviews or planning documentation specific to the years 2023, 2024, and 2025. If no details were available for the project's implementation timeline, no potential for cumulative impacts was identified. While limited information was available for off-airport projects provided by the City Planning Department, a summary is provided in Section 5.3. **Table 5-2** provides the list of off-airport projects reviewed qualitatively for potential cumulative impacts. Figure 5-1 depicts the location of the off-airport projects.



LEGEND

- # On-Airport Projects
- # Off-Airport Projects
- Airport Property
- 1-Mile Buffer

Figure 5-1



Sources: OIAA, Nearmap, City of Ontario Planning Department, 2022, HNTB Analysis

Table 5-1: Projects Reviewed for Cumulative Impacts (On-Airport)

#	Project Name and Description	Year Complete or Anticipated	CEQA Status	Potential Impact Categories
1	FedEx Express – Consolidate FedEx and multiple tenant operations in an air cargo facility located in the northwest sector of ONT and provide a taxiway adjacent and parallel to the air cargo facility.	2020	Pacific Gateway Cargo Center FEIR (Certified 2008), Addendum #1 June 26, 2018 Addendum determined no new significant impacts than identified in FEIR and some impacts would be lessened with updated project.	Air Quality, Noise, Transportation/Traffic in EIR; Air Quality (Construction emissions) ONLY in Addendum (reduced project impacts)
2	California Logistic Center 'Boot Property'– approximately 4 million SF of Industrial Development	2025	No Initial Study or Notice of Preparation issued.	Air Quality, Transportation/Traffic
3	Avion Roadway Realignment - Realignment of E. Avion from S. Vineyard to Cucamonga Channel, new bridge across Cucamonga Channel, and improvements to E. Jurupa from Cucamonga Channel to S. Archibald	2024	Anticipated Categorical Exemption pursuant to Section 15300.2 (Class 15301, Existing Facilities and Class 15302, Replacement or Reconstruction)	No cumulative impacts
4	Golden Bridge Project - Freight Forwarding Facility Development (non-aeronautical)	2024	No Initial Study or Notice of Preparation issued.	Air Quality, Transportation/Traffic
5	South Airport Cargo Center (SACC) & RTR Relocation	2024/2025	Notice of Preparation issued October 2021	Air Quality, Noise, Transportation/Traffic

Table 5-2: Projects Reviewed for Cumulative Impacts (Off-Airport)

#	Project Name and Description	Location	City of Ontario/San Bernardino County Project Development No.	Year Complete or Anticipated	CEQA Status	Potential Impact Categories
6	Industrial Development – 200,291 SF building	NEC of Airport Drive/Haven	PDEV20-008	No timeline available	Addendum to Ontario Plan FEIR Project introduces no new significant impacts	No cumulative impacts
7	Topgolf Los Angeles – Ontario – 100 golfing bays, bar and restaurant, event spaces 600,000 SF	2714 East 4 th Street	APNs: 0210-181-34 and -45	Completed 2022 (opened March 11, 2022)	Impacts analyzed in MND	No cumulative impacts
8	Palmer Apartments – 950 units/ Commercial Retail – 5,000 SF	NWC of Archibald Ave and Inland Empire Blvd	APNs: 0110-311-52, -53, -54 and -55	Completed 2020	Meredith International Centre Specific Plan Amendment FEIR	No cumulative impacts
9	IKEA – 329,850 SF	SWC of Archibald Ave and Inland Empire Blvd	PDEV19-024	PA 3 of Meredith center, no timeline available	Meredith International Centre Specific Plan Amendment FEIR	No cumulative impacts
10	Hyatt Dual Hotel - 265 rooms	SEC of Archibald/Inland Empire Blvd	PDEV19-067	Under construction, expect completion prior to 2023	Categorically Exempt from CEQA pursuant to Section 15332 (Class 32, In-Fill Development Projects)	No cumulative impacts
11	72 Townhomes (Ontario Center Specific Plan - Piemonte Overlay)	SWC of Via Alba /Via Villagio	PDEV19-054	No timeline available	No Initial Study or Notice of Preparation issued.	No cumulative impacts

Table 5-2: Projects Reviewed for Cumulative Impacts (Off-Airport)

#	Project Name and Description	Location	City of Ontario/San Bernardino County Project Development No.	Year Complete or Anticipated	CEQA Status	Potential Impact Categories
12	110 Townhomes (Ontario Center Specific Plan - Piemonte Overlay)	NEC of Ontario Center Pkwy/Via Alba	PDEV19-061	No timeline available	Impacts analyzed in Mitigated Negative Declaration adopted 5/16/17, No. PSPA16-003 Project introduces no new significant impacts	No cumulative impacts
13	Retail Shopping Center – 101,163 SF (Ontario Center Specific Plan - Piemonte Overlay)	SEC of Haven Ave. and 4 th Street	PDEV21-013	Not constructed, no timeline available	Impacts analyzed in Mitigated Negative Declaration adopted 5/16/17, No. PSPA16-003 Project introduces no new significant impacts	No cumulative impacts
14	Cambria Hotel – 124 rooms	535 N. Turner Ave	PDEV17-016	No timeline available	No Initial Study or Notice of Preparation issued.	No cumulative impacts
15	Industrial Development, 168,172 SF	SEC of Jurupa/Milliken	PDEV21-018	No timeline available	NOD 3/16/22, Addendum to The Ontario Plan EIR, significant impact	No cumulative impacts
16	Adept – 691 residential units and 70,538 SF commercial space	4 th Street south to Concourses' between Via Asti and Via Oiemonte	--	Not constructed, no timeline available	No Initial Study or Notice of Preparation issued.	No cumulative impacts

Table 5-2: Projects Reviewed for Cumulative Impacts (Off-Airport)

#	Project Name and Description	Location	City of Ontario/San Bernardino County Project Development No.	Year Complete or Anticipated	CEQA Status	Potential Impact Categories
17	Industrial - 26,000 SF	Subdivide parcel at 1486 East Holt Blvd	PDEV21-003	No timeline available	Categorically Exempt from CEQA pursuant to Section 15332 (Class 32, In-Fill Development Projects)	No cumulative impacts
18	Residential - 42 units/ Commercial - 12,119 SF	1001 East Holt Blvd	PDEV21-038	No timeline available	--	No cumulative impacts
19	Industrial - 31,500 SF	1516 South Bon View	PDEV21-007	No timeline available	--	No cumulative impacts
20	Industrial - 60,455 SF	SEC of Sultana Ave and Belmont	PDEV21-035	No timeline available	--	No cumulative impacts
21	Industrial - 211,358 SF	1610 and 1612 South Cucamonga Ave	PDEV19-040	Under construction, expect completion prior to 2023	Project previously analyzed under The Ontario Plan EIR (SCH# 2008101140)	Project introduces no new significant impacts
22	Industrial - 83,416 SF (two buildings)	1650 East Holt Blvd	PDEV19-048	No timeline available	Categorically Exempt from CEQA pursuant to Section 15332 (Class 32, In-Fill Development Projects)	No cumulative impacts

Source: Off-airport projects provided by City of Ontario Planning Department, February 15, 2022.

5.3 Off-Airport Project Summary

With the exception of two off-airport projects (#10 - Hyatt Dual Hotel and #21 - 211,358 SF Industrial property), the off-airport projects have either already been developed or the construction timeline is unavailable at this time according to the City and desktop research efforts. The Hyatt Dual Hotel was categorically exempt and the 211,358 SF industrial property was previously analyzed as part of The Ontario Plan EIR (SCH# 2008101140). An Addendum to the EIR was issued April 2020 which found no new significant environmental impacts, and all previously adopted mitigation measures were a condition of project approval. The industrial development is located within the Airport Influence Area of ONT and was evaluated and found to be consistent with the policies and criteria of the Ontario International Airport Land Use Compatibility Plan (ALUCP). For the reasons explained, the off-airport projects assumed to be constructed during or before the Proposed Project, would not result in a cumulative impact, construction or operationally, when combined with the Proposed Project.

The majority of the off-airport projects identified by the City are categorically exempt from CEQA, approved as part of a mitigated negative declaration (MND), or approved under an Addendum to the 2010 Ontario Plan EIR or the Meredith International Centre Specific Plan Amendment (SPA) EIR (2020). Projects eligible for categorical exemptions are generally considered not to have potential impacts on the environment; an MND is a negative declaration (ND) that incorporates revisions (mitigation measures) in the proposed project that will avoid or mitigate impacts to a point where no significant impacts on the environment would occur. The off-airport projects included as part of an Addendum to Ontario Plan EIR are industrial and were determined to introduce no new significant impacts. Impacts associated with these developments were disclosed and mitigation measures were adopted.

The projects included as part of the Meredith International Centre SPA EIR were completed in 2020 (#8 - Palmer Apartments) or do not yet have a construction timeline (#9 - IKEA). While there were significant impacts for several resource categories as part of the Meredith International Centre SPA EIR, mitigation measures reduced the impacts to below significance thresholds. The Meredith International Centre SPA EIR identified significant impacts related to transportation/traffic and proposed mitigation with two new access roadways to the site. This SEIR's Proposed Project does not impact transportation/traffic and thus no cumulative impacts related to traffic would occur. Air quality was also determined to be a potentially significant impact and mitigation measures were developed. The project proponent was required to work with the SCAQMD and document and mitigate the production of additional criteria air pollutants that could interfere with, or obstruct, the SCAQMD's implementation of the AQMP. This SEIR's Proposed Project results in a less than significant impact from criteria air pollutants.

For the reasons explained, none of the off-airport projects would have a cumulative impact, construction or operationally, when combined with the Proposed Project.

5.4 Qualitative Review

The following is a qualitative assessment of environmental categories for which there is potential for cumulative impacts associated with past, current and probable future projects when considered along with the Proposed Project which is to be constructed in 2023, 2024, and 2025. As such, this assessment includes the same environmental categories analyzed in *Chapter 4.0, Environmental Impacts and Mitigation*.

5.4.1 Air Quality

To begin, as a general matter, cumulative air quality conditions in the South Coast Air Basin are considered significant, as the air basin is in nonattainment with certain federal and state ambient air quality standards discussed in *Chapter 3.0* of this SEIR. This cumulative analysis, therefore, is conducted in accordance with SCAQMD guidance on addressing cumulative impacts for air quality: "Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."¹

As detailed in *Section 4.1.4*, total construction emissions for the Proposed Project would not exceed NAAQS or SCAQMD thresholds. As a result, the contribution of the Proposed Project to cumulative construction-related emissions impacts would *not be considered to be cumulatively significant* under SCAQMD guidance.

Nonetheless, for additional context and information, on-airport construction projects at ONT would be subject to the same regulatory and standards rubric as the Proposed Project, including the requirement to use off-road equipment with Tier 4 Final engines. Past, current and probable future on-airport projects projected to be constructed in the same time frame as the Proposed Project (2023, 2024 and/or 2025) are discussed qualitatively below:

- FedEx Express Project: The FedEx Project is an air cargo facility located in the northwest quadrant of ONT that was constructed in 2020. An addendum to the Pacific Gateway Cargo Center (PGCC) FEIR was issued in June 2018 for a revised project, which proposed to consolidate the operations of one of ONT's existing cargo operators to a 51-acre site located in the northwest corner of ONT, within the previously evaluated 96-acre PGCC site, as well as the construction of a new taxiway. The addendum found that impacts would either be consistent with the EIR or less than those described in the EIR. The addendum found that NO_x levels during construction would be significant and mitigation measures were applied. Once operational, no significant impacts to air quality were identified. Because construction was completed at the end of 2020, this project's construction emissions would not combine with those of the Proposed Project.
- California Logistic Center "Boot Property"–Industrial Development: The Boot Property is located on OIAA property, east of the airfield. Approximately 4

million SF of industrial development is proposed at this site. As of April 2022, it is not expected that construction of this project would occur before 2025. No CEQA document or NOP of a CEQA document has been completed at this time.

- E. Avion Roadway Realignment: OIAA is currently completing a CEQA Categorical Exemption for an approximately one-mile stretch of E. Avion Avenue and E. Jurupa Street to be reconstructed and realigned in one section; however, construction emissions have not been calculated as the project is eligible for a CEQA exemption.
- Golden Bridge Project: A CEQA document is currently being prepared for the construction of a freight forwarding facility proposed on E. Avion Street on Airport property, south of the airfield. OIAA is the lead agency; however, OIAA is not the project applicant and project materials have not been provided at this time. This project will be evaluated as a connected action in a Categorical Exclusion in accordance with the National Environmental Policy Act of 1969 (NEPA) as part of a release of federal obligations for several on-airport parcels.
- South Airport Cargo Center (SACC): The NOP of a Draft EIR for the SACC was published on October 14, 2021. The project includes the proposed relocation of the OIAA Administrative Offices and the South Airport South Secured Area Access Point (SAAP) to other locations at the Airport, demolition of the existing buildings, site improvements on the Project site, and development of an air cargo facility. OIAA is the lead agency; however, it is not the project applicant. As of April 2022, no environmental documentation beyond the NOP for development of an EIR has been submitted to OIAA by the project applicant and analysis of construction emissions by the applicant's consultant has not been finalized. Based on the applicant's schedule, and if approved by OIAA, SACC construction will begin in late 2022 with completion in 2024, with associated cargo operations scheduled to begin in late 2024. Thus, the SACC project's years of construction and operational overlap could include 2023 through 2025. It is anticipated that the EIR for the SACC project will include a comprehensive analysis of potential cumulative impacts.

Additionally, for the reasons explained under *Section 5.2*, none of the off-airport projects are anticipated to result in the Proposed Project making a cumulatively considerable contribution of construction emissions.

In summary, due to the Proposed Project resulting in a *less than significant impact* on construction-related emissions, it is not considered to be cumulatively significant under SCAQMD guidance. And, as previously discussed, the Proposed Project would not impact aircraft operational emissions beyond the construction period and does not result in operational emissions.

5.4.2 Biological Resources

As discussed in *Section 4.2.4*, the Proposed Project would result in a *less than significant impact with mitigation incorporated* to sensitive animal species and migratory species. Development projects on- and off-airport property involving ground-disturbing activities to sensitive habitat and species would not occur within

the project study area, and thus when combined with the Proposed Project, cumulative impacts would remain *less than significant impact with mitigation incorporated*.

OIAA would continue to implement its active and aggressive wildlife management program, and the applicable mitigation measures specified in Section 4.2.5 would be implemented as part of the Proposed Project to minimize or avoid impacts to biological resources.

5.4.3 Greenhouse Gas Emissions

In 2009, the California Natural Resources Agency published a notice for proposed amendments to CEQA Guidelines which noted that the impacts of GHG emissions should be considered in the context of a cumulative impact, rather than a project impact:

“Greenhouse Gas Emissions Should be Analyzed as a Cumulative Impact: While the Proposed Amendments do not foreclose the possibility that a single project may result in greenhouse gas emissions with a direct impact on the environment, the evidence before the Resources Agency indicates that in most cases, the impact will be cumulative. Therefore, the Proposed Amendments emphasize that the analysis of greenhouse gas emissions should center on whether a project’s incremental contribution of greenhouse gas emissions is cumulatively considerable.”²

Consistent with the above findings made during the regulatory proceedings culminating in adoption of the GHG-related provisions of the CEQA Guidelines, the GHG impacts addressed in *Section 4.3.4* are treated exclusively as cumulative impacts as there are no non-cumulative GHG emissions impacts from a climate change perspective. Global climate change is the result of the accumulation of GHGs in the atmosphere, which is cumulative in nature and thus a single project’s emissions will be small relative to total global or statewide GHG emissions.

As indicated in *Section 4.3.4*, implementation of the Proposed Project would result in a temporary, *significant and unavoidable impact* related to GHG emissions. Therefore, the Proposed Project’s incremental contribution of GHG emissions is considered to be *cumulatively considerable*.

5.4.4 Cultural Resources

As discussed in *Section 4.4.4*, there are no anticipated impacts to cultural resources as a result of the Proposed Project and no mitigation is proposed. Therefore, when combined with other project construction anticipated to occur during the same time period, there would be no cumulative impacts related to cultural resources. Refer to *Section 5.3.6, Tribal Cultural Resources* for discussion of potential impacts and proposed mitigation measures related to Tribal Cultural Resources.

5.4.5 Transportation/Traffic

Consistent with the City of Ontario Resolution No. 2020-071 adopted VMT Thresholds,³ rehabilitation, repair, replacement, and safety improvement projects for existing transportation assets that do not add additional capacity are projects that would not likely lead to a substantial or measurable cumulative increase in VMT provided the project is consistent with the Southern California Association of Government (SCAG) Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS). SCAG's focus in aviation planning is to ensure adequate ground transportation planning and improving ground access to the region's airports in response to potential future aviation demands. An Aviation Element was prepared as part of the RTP/SCS (also known as Connect SoCal). In preparing the Aviation Technical Report, SCAG staff gathered data from ONT, other airports in the region, other relevant data sources such as the FAA's Terminal Area Forecast (TAF), conducted analyses and engaged the Aviation Technical Advisory Committee (ATAC). ONT is an active participant in the ATAC, which meets on a quarterly basis to provide SCAG with technical and professional expertise on regional aviation issues. SCAG is required to include an airport ground access improvement program as part of Connect SoCal. A significant part of addressing airport ground access improvement is maintaining an updated list of airport ground access projects. ONT works with SCAG to provide updated project lists regularly for airport ground access projects and proposed improvements to the roadway network in the vicinity of the Airport are included in SCAG's Transportation System Project List. Because the Proposed Project would not modify any ground access to or from ONT, the project is not included on the list, however any airport or City projects that would impact airport roadways are included in the list and taken into account as part of SCAG's regional transportation planning efforts. The Proposed Project is a rehabilitation, repair, replacement, and safety improvement project that does not add or increase capacity at ONT and would therefore not increase VMT.

A significant part of addressing airport ground access improvement is maintaining an updated list of airport ground access projects. Due to the interdependent relationship between the air passenger and cargo activity traveling on the roads, highways, and transit systems, planning for the region's surface transportation system also includes analyzing historic and current airport passenger and cargo activity, as well as forecasting and planning for that future activity. The SCAG RTP/SCS addresses airport ground access and aviation systems planning improvements in the RTP/SCS. SCAG's primary interest in the region's airports is focused on air and passenger cargo activity from the perspective of how the traffic coming and going from the airports affects the region's roads, highways, and transit system. Connect SoCal states that "given the current passenger and cargo traffic to ONT, there is plenty of room for growth. The airport has a potential capacity of over 33 MAP." ONT is currently operating at 5.0 MAP.

Given the Airport's participation in SCAG's transportation planning for the region and the fact that the Proposed Project would not affect either aviation activity or influence airport capacity, the project would not cumulatively affect transportation/traffic. The forthcoming EIR for the SACC project will analyze potential cumulative impacts to

transportation/traffic however for the reasons stated previously the Proposed Project is not expected to contribute to cumulative impacts.

5.4.6 Tribal Cultural Resources

As discussed in *Section 4.7.4*, no tribal cultural resources have been identified within the project area. During AB 52 consultation with the Kizh Nation, although not recorded at the SCCIC, the Nation has knowledge of prehistoric isolates and a fire hearth located within the airport property. As such, there is potential for the Proposed Project to impact buried prehistoric archaeological and tribal cultural resources if found during construction. Projects reviewed on- and off-airport property involving ground-disturbing activities would not occur within the project area, and thus when combined with the Proposed Project, cumulative impacts would not be anticipated related to Tribal Cultural Resources.

Applicable regulatory requirements and mitigation measures specified in *Section 4.7.5* and *Section 4.7.6* respectively, would be implemented during construction of the Proposed Project to reduce the potential for impacting buried archaeological and TCRs.

5.4.7 Health Risk Assessment

As discussed in *Section 4.8.4*, the Proposed Project would not result in significant health risk impacts. Air quality cumulative health risks are the total risks from all sources of pollutants affecting a community or individual sensitive receptor. Cumulative sources of pollutants in the vicinity of ONT include on-road vehicles (e.g., high volume roadways), aircraft emissions, off-road equipment (e.g., airport ground support equipment, construction equipment), permitted stationary sources (e.g., gas stations), diesel-powered emergency generators, and other industrial sources. As discussed above, the SCAQMD has conducted studies on carcinogenic risk from exposure to air toxics in the SCAB. According to the MATES V Data Visualization interactive tool, the area around ONT has a cumulative cancer risk of 600 in 1 million⁴.

Multiple future development projects are planned or approved for the City of Ontario, as well as ONT itself. For example, the proposed SACC project would develop a new air cargo facility at ONT. If approved, the SACC project would include additional short-term construction emissions, and long-term operational emissions (including additional aircraft and ground support equipment operating at ONT, and additional vehicles on area roads). Construction and operation of the SACC project has the potential to overlap with the ONT Rehabilitation of Runway 8R-26L and Associated Improvements Project. However, the results of the SACC project's health risk assessment were not available at the time of preparation of this analysis. And, due to the large number of project-specific inputs and detail needed to complete health risk analysis, it would be speculative to undertake further quantitative analysis of the SACC project at this time.

While the SCAQMD has not adopted any cumulative health risk thresholds at this time, the SCAQMD's thresholds (10 in 1 million cancer risk, non-cancer HI of 1) are used for evaluating the impact from a single project's incremental increase in health

risks. The SCAQMD considers that, if a project's emissions do not result in incremental health risks exceeding the thresholds, then the project's cumulative health risk impact would be less than cumulatively considerable.

Based on the SCAQMD's approach, the project's less-than-significant health risk impacts and related factors (such as the project's temporary duration), this analysis concludes that the project would not result in a cumulatively considerable health risk impact.

5.5 Quantitative Review of Noise

5.5.1 Noise

As detailed in *Section 4.5.4*, the Proposed Project results in a *significant, unavoidable temporary impact* from noise, and thus the contribution of the Proposed Project to cumulative noise impacts would be cumulatively considerable. As it relates to cumulative impacts associated with noise, the greatest potential for impacts is associated with aircraft operational noise at ONT. Given that ONT and the Proposed Project area is surrounded by industrial land uses, and that the majority of the cumulative projects listed in Table 5-1 are located far enough away from ONT, there is little potential for cumulative impacts resulting from direct construction activity noise impacts.

The impacts of the Proposed Project on temporary aircraft operational noise levels are attributable to three factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the Proposed Project.
2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.
3. Runway closure periods associated with the Proposed Project construction that results in ONT operating on a single runway for periods of 2023, 2024 and 2025, as compared to the Baseline Conditions (the hybrid 2019/2020 base year condition discussed in *Section 3.2.2*) where both runways are operational. The impact of these runway closure periods is detailed and illustrated under the following section, Construction Impacts.

As noted above, the Proposed Project noise analysis accounts for the reasonably foreseeable future operations at ONT (based on the FAA's Draft 2020 TAF). With respect to cumulative projects listed in Table 5-1, there is one project, the SACC project, with the potential to further increase operational noise levels at ONT. As detailed under *Section 5.3.1*, the NOP of a EIR for the SACC was published on October 14, 2021. The SACC is proposed for construction in 2022-2024, with associated cargo operations scheduled to begin in late 2024.

Due to the overlap of proposed SACC operations with the analysis of Proposed Project noise levels in 2024 and 2025, an additional noise analysis was completed to model

the combined noise levels of the Proposed Project and SACC operations, herein referred as the “Proposed Project – Cumulative Impact” noise levels. Noise impacts were modeled using the methodology detailed in *Section 4.5.1*. As of March 2022, no environmental documentation beyond the NOP has been issued for public review. However because OIAA has been in close coordination with the applicant for the SACC to supply projected fleet mix information and other noise modeling input, OIAA was able to model the anticipated cumulative increase in aircraft operations due to the SACC project in the years 2024 and 2025.

As required by CEQA, the noise levels associated with the Proposed Project – Cumulative Impact are compared to the noise levels associated with the Baseline Conditions noise levels. **Figure 5-2** shows the expected noise exposure contours under the 2024 and 2025 Proposed Project - Cumulative Impact in comparison with the Baseline Conditions.

The estimated land area (acres) within CNEL contours for the Baseline Conditions and 2024 and 2025 Proposed Project - Cumulative Impact along with the estimated number of residential dwelling units, schools, churches, residential population and dwelling units located within the contours are provided in Table 3-13 (*Section 3.3.3*) and **Tables 5-3 and 5-4**, respectively.

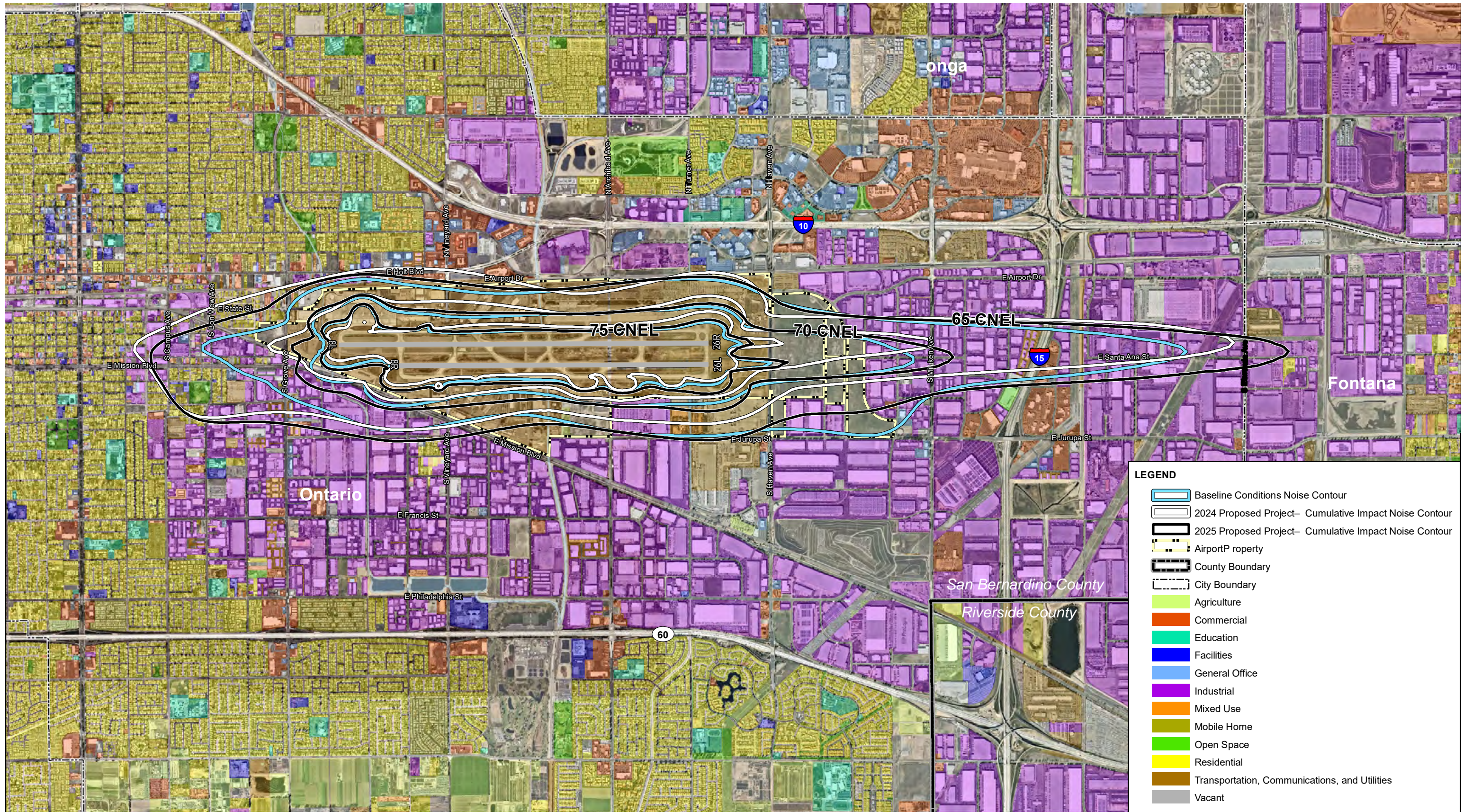


Table 5-3: 2024 Proposed Project - Cumulative Impact Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	Total
Residential	56.1	0	0	56.1
Education	0	0	0	0
Mixed Use	30.2	0	0	30.2
Mobile Home	0	0	0	0
Open Space	11.8	0	0	11.8
Agriculture	1.6	0	0	1.6
Commercial	26.0	0	0	26.0
Facilities	4.5	0	0	4.5
General Office	7.3	0	0	7.3
Industrial	558.8	27.3	0	586.1
Transportation, Communications, and Utilities	600.7	452.6	546.5	1,599.8
Vacant	230.9	79.3	1.0	311.2
TOTAL	1,527.9	559.2	547.4	2,634.5
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	245	0	0	245
Population	1,108	0	0	1,108

Note:

Totals may not sum due to rounding.

(1) Of the 245 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 151 sound insulated (~691 population)
- 31 eligible for sound insulation (~138 population)
- 46 eligible for voluntary acquisition (~209 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 245 dwelling units with the 65 dB contour, 233 are single family and 12 are multi-family (six duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Table 5-4: 2025 Proposed Project - Cumulative Impact Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	47.4	0	0	47.4
Education	0	0	0	0
Mixed Use	39.5	2.7	0	42.2
Mobile Home	0	0	0	0
Open Space	11.9	0	0	11.9
Agriculture	3.6	0	0	3.6
Commercial	24.8	0	0	24.8
Facilities	4.0	0	0	4.0
General Office	9.3	0	0	9.3
Industrial	690.5	87.8	0	778.3
Transportation, Communications, and Utilities	647.9	423.0	608.5	1,679.4
Vacant	246.9	121.1	1.8	369.8
TOTAL	1,725.8	634.6	610.2	2,970.6
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	232	0	0	232
Population	1,050	0	0	1,050

Note:

Totals may not sum due to rounding.

(1) Of the 234 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 150 sound insulated (~685 population)
- 27 eligible for sound insulation (~117 population)
- 38 eligible for voluntary acquisition (~178 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 232 dwelling units with the 65 dB contour, 220 are single family and 12 are multi-family (six duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2021.

Table 5-5 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between each Proposed Project – Cumulative Impact year and the Baseline Conditions. The total acreage within the 65+ CNEL noise contours is 6% to 20% greater in the 2024 and 2025 Proposed Project – Cumulative contours as compared to the Baseline Condition contour. The change in Proposed Project - Cumulative Impact noise conditions compared to the Baseline Conditions is attributable to the three factors listed above (i.e., baseline growth, changes in fleet mix, and runway closure periods), as well as the additional SACC operations proposed in 2024 and 2025. The increase in 65+CNEL contour area in 2024 is attributable to 4,576 additional cargo operations due to the SACC project.

The increase in 65+ CNEL contour area in 2025 is attributable to 13,728 additional cargo operations due to the SACC project.

Table 5-5: Noise Inputs and Outputs for Baseline Conditions and Proposed Project – Cumulative Impacts

Year	Scenarios	Aircraft Operations	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area Compared to Baseline
2019/2020	Baseline Conditions	106,026	No closure	2,485	--
2024	Proposed Project – Cumulative Impact	118,402	8R-26L – 9 months	2,637	+6.2%
2025	Proposed Project – Cumulative Impact	131,353	8L-26R – 5 months	2,971	+19.6%

Source: HNTB analysis, 2022.

Table 5-6 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Proposed Project – Cumulative Impact year and provides a comparison of the Proposed Project – Cumulative Impact in each year to the Baseline Conditions.

As indicated in Table 5-5, the Proposed Project – Cumulative Impact results in additional population and housing units within the 65-69 CNEL contour for all years, as compared to the Baseline Conditions. This increase in population/housing units is largely due to increased operations due to background growth and proposed SACC operations, and to the shift in the Proposed Project noise contours to the west of ONT, towards residential areas, as a result of the suspension of Contra Flow operations during proposed runway closures in 2024 and 2025. It should be noted that while the 65+ CNEL contour area significantly increases in 2025 compared to 2024, the total population and housing units decrease in 2025 as compared to 2024. This is due to the longer runway closure period in 2024 (9 months) as compared to 2025 (5 months), and the suspension of Contra Flow during these periods resulting in more operations over residential areas west of ONT in 2024 as compared to 2025.

The Proposed Project – Cumulative Impact would result in temporary (during construction) and permanent (due to background growth and SACC operations compared to baseline conditions) increases in noise exposure surrounding ONT and would therefore be a *cumulatively considerable significant impact* on noise levels.

Table 5-6: Estimated Population, Housing Units and Acreage within Proposed Project – Cumulative Impact and Baseline Conditions Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
Baseline Conditions	59	0	0	59	13	0	0	13	1,390	545	551	2,485
2024 Conditions												
Proposed Project – Cumulative Impact	1,108	0	0	1,108	245	0	0	245	1,528	559	547	2,635
<i>Difference Between 2024 Proposed Project – Cumulative Impact and Baseline Conditions</i>	<i>+1,049</i>	<i>0</i>	<i>0</i>	<i>+1,049</i>	<i>+232</i>	<i>0</i>	<i>0</i>	<i>+232</i>	<i>+138</i>	<i>+14</i>	<i>-3</i>	<i>+149</i>
2025 Conditions												
Proposed Project – Cumulative Impact	1,050	0	0	1,050	232	0	0	232	1,726	635	610	2,971
<i>Difference Between 2025 Proposed Project – Cumulative Impact and Baseline Conditions</i>	<i>+991</i>	<i>0</i>	<i>0</i>	<i>+991</i>	<i>+219</i>	<i>0</i>	<i>0</i>	<i>+219</i>	<i>+336</i>	<i>+90</i>	<i>+60</i>	<i>+485</i>

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

5.6 Cumulative Impact Summary

The Proposed Project results in significant, unavoidable temporary impacts to GHG emissions and noise levels at ONT. For this reason, the Proposed Projects impact on GHG emissions and noise is cumulatively considerable. Refer to *Section 4.3.5, Greenhouse Gases, Mitigation Measures*, and *Section 4.5.5, Noise, Mitigation Measures*, for explanation of the infeasibility to mitigate these cumulatively considerable impacts. This cumulative analysis considers the potential effects of on- and off-airport projects recently completed or probable future projects expected to be constructed and/or operational within 2023, 2024, or 2025.

A qualitative assessment of environmental categories for which there is potential for cumulative impacts associated with past, current and probable future projects when considered along with the Proposed Project was conducted. This review determined that on- and off-airport projects are expected to result in a *cumulatively considerable significant impact to GHG emissions*, from construction or operationally, when combined with the Proposed Project. All cumulative projects will be subject to CEQA requirements to identify feasible mitigation measures and alternatives for the reduction of GHG emissions.

A quantitative assessment was completed for cumulative noise impacts. As it relates to cumulative impacts associated with noise, the greatest potential for impacts is associated with aircraft operational noise at ONT. Due to the overlap of proposed SACC operations with the analysis of Proposed Project noise levels in 2024 and 2025, an additional noise analysis was completed to model the combined noise levels of the Proposed Project and SACC operations, herein referred as the "Proposed Project – Cumulative Impact" noise levels. The analysis determined that the "Proposed Project – Cumulative Impact" would result in temporary (during construction) and permanent (due to background growth and SACC operations compared to baseline conditions) increases in noise exposure surrounding ONT and would therefore be a *cumulatively considerable significant impact on noise levels*.

While no additional cumulative impacts are anticipated from the combined impact of the Proposed Project and other projects other than to GHG emissions and noise, CEQA documentation for future projects will include a comprehensive analysis of potential cumulative construction impacts.

ENDNOTES

¹ SCAQMD, White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D – Cumulative Impact Analysis Requirements Pursuant to CEQA, August 2003, page D-3.

² California Natural Resources Agency, Notice of Public Hearings and Notice of Proposed Amendment of Regulations Implementing the California Environmental Quality Act, 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Notice_of_Proposed_Action.pdf

³ Ontario City Council, City of Ontario Resolution No. 2020-071, June 16, 2020, <https://www.ontarioca.gov/sites/default/files/Ontario-Files/City-Clerk-Records-Management/Minutes%2020200616.pdf>, p. 7.

⁴ South Coast Air Quality Management District (SCAQMD). 2022b. MATES V Multiple Air Toxics Exposure Study. Available at: <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>. Accessed April 4, 2022.

6.0 Growth-Inducing Impacts

Per *CEQA Guidelines* Section 15126.2, this SEIR addresses the ways in which the Proposed Project “could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” This information can be an important factor in a decision to approve a project. As stated in *CEQA Guidelines*, “It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”¹

6.1 Growth-Inducing Impacts of the Proposed Project

The Proposed Project would not facilitate any unplanned growth. The project is located entirely on developed and active airport property within an urbanized area of San Bernardino County, and its construction would not open additional areas to development. The Proposed Project includes the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation/replacement of several objects to outside of the RSA and/or ROFA, and the relocation of the south electrical vault. The individual projects that make up the Proposed Project, along with their connected actions and justification for each of the project components, are described in *Chapter 2.0, Project Description* and are illustrated on Figure 2-5.

The Proposed Project would not result in increased runway capacity. Runway use and flight patterns would not be impacted after the Proposed Project is implemented, however during runway closure periods as part of construction, all operations would occur on a single runway. The Proposed Project prioritizes future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, provides improvements to meet current FAA standards, improves airfield safety, enhances airfield efficiency and provides infrastructure needed to support airfield and navigational power requirements, including replacement of the south electrical vault.

The Proposed Project would not affect the number of employees required to operate Airport facilities. The number of passengers expected to use ONT and the number of air carrier operations using the Airport would not change as a result of the Proposed Project. It is not expected that the Proposed Project would affect population growth or tourism in Ontario and the surrounding region. The Proposed Project would therefore also not affect housing or the economy.

There would be short-term impacts during construction of the project elements, however the Proposed Project would be entirely within developed and active airport property. Land uses surrounding the project site include airport-related and industrial uses. No changes to land uses on or off airport property would occur. No land acquisition or new facilities are proposed in the surrounding communities as a result of, or to accommodate the Proposed Project. The Proposed Project is consistent with plans, goals, policies, zoning and local controls that have been adopted and govern over the project site.

The Proposed Project would not induce growth at the Airport beyond that which would occur without the improvements and therefore would not result in a significant growth-inducing impact.

ENDNOTES

¹ Association of Environmental Professionals, CEQA Guidelines, 2021, p. 211.

7.0 Effects Found Not to be Significant

This chapter identifies and explains the environmental resources for which the Proposed Project is expected to have no impact, less than significant impact, or less than significant impact with mitigation incorporated; and thus detailed analysis is not necessary. These resources include the following:

- Aesthetics
- Agricultural Resources
- Geology/Soils
- Hazard and Hazardous Materials
- Hydrology and Water Quality
- Land Use/Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Utilities/ Service Systems
- Wildfire

Section 15128 of the *State CEQA Guidelines* requires that an EIR “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the [Supplemental] EIR.” The absence of impact to these resources was discussed in the June 2021 IS. Per Section 15128, “such a statement can be contained in an attached copy of an Initial Study.” Therefore discussion of the effects found not to be significant is included in *Appendix A, Notice of Preparation (NOP) and Initial Study*, which contains the June 2021 IS, of which materials are incorporated here in full.

The Environmental Checklist topics not included in this chapter are addressed in SEIR *Chapters 3.0, Environmental Setting and 4.0, Environmental Impacts and Mitigation*. Additionally, while the biological resources, cultural resources, transportation/traffic, and tribal cultural resources findings (less than significant impact or less than significant impact with mitigation incorporated) included in the IS remain valid, additional discussion of these resources is included to support that determination in *Chapters 3.0 and 4.0*.

8.0 Alternatives

The 1991 Certified FEIR reviewed and certified project components similar to those being reviewed as part of this SEIR. The 1991 Certified FEIR stated that the environmental effects of the implementation of various airfield improvements, including a runway extension and construction and reconstruction of several taxiways with the objective of providing facilities to accommodate 12 MAP at ONT, “would have short-term impacts involving construction of the airport facilities and related projects. ONT surrounding is already planned for mixed-uses, including commercial, and industrial and office parks.”¹ As such, similar project components to the approved projects are being analyzed as part of this SEIR.

The Proposed Project includes the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation/replacement of several objects to outside of the RSA and/or ROFA, and the relocation of the south electrical vault. The individual projects that make up the Proposed Project, along with their connected actions and justification for each of the project components, are described in *Chapter 2.0, Project Description* and are illustrated on Figure 2-5. CEQA Guidelines Section 15126.6(a) states that an [S]EIR must address:

...a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.²

As described in *Chapters 4.0, Environmental Impacts and Mitigation and Chapter 5.0, Cumulative Impacts*, the Proposed Project would result in significant temporary noise and other impacts during construction in parts of 2023, 2024 and 2025. This SEIR chapter focuses on alternatives that would avoid or minimize these significant or potentially significant temporary environmental impacts. The alternatives carried forward for detailed evaluation for this SEIR therefore includes an alternative that would minimize potentially significant temporary environmental impacts, the Two-Year Program Alternative.

The No Project Alternative is also evaluated along with its impact compared to the Baseline Conditions. Per CEQA guidelines, “The purpose of describing and analyzing a No Project alternative is to allow decision makers to compare the impacts of approving the Proposed Project with the impacts of not approving the proposed

project.”³ Discussion of the alternatives that were considered but not carried forward for detailed evaluation are also discussed.

8.1 Alternatives Carried Forward for Detailed Evaluation

8.1.1 Two-Year Program Alternative

8.1.1.1 Description of Alternative

This alternative would include identical project components included as part of the Proposed Project and depicted in Figure 2-5: the rehabilitation and reconstruction of Runway 8R-26L, taxiway connector improvements and other associated airfield improvements, the relocation of objects located within the RSA and ROFA, and relocation of the south electrical vault. However, the Two-Year Program Alternative would implement all of the project components over a two-year schedule (2023 and 2024). For comparison, the Proposed Project is expected to be implemented over a three-year schedule (2023, 2024, and 2025). The Two-Year Program Alternative was considered during early planning efforts and proposed in OIAA’s January 2019 and January 2020 Airport Capital Improvement Plan (ACIP) submittals to the FAA. (See **Appendix K, Two-Year Program Alternative**).

A two-year construction schedule is considered to be physically possible assuming appropriate construction crew availability, usage and scheduling (which is not feasible), and is also financially or economically infeasible. As with the Proposed Project, the Two-Year Program Alternative would pause construction for holiday travel; construction would begin in mid-January 2023 and be complete in mid-October 2024. The preferred schedule would occur over nine months in 2023 (Year 1) with a closure of Runway 8L-26R for 6 months followed by 8R-26L for 3 months; and nine months of Runway 8R-26L being closed in 2024 (Year 2). This equates to a total of 18 months with one of the two runways being closed during a two-year period. As a comparison, construction of the Proposed Project would require one of the two runways to be closed for a total of 24 months, beginning in mid-January 2023 and continuing through mid-June 2025 with a pause in construction during holiday travel. This would occur over nine months in 2023 and 2024, and over six months in 2025 as explained in *Chapter 2.0, Project Description*.

As is the case with the Proposed Project, once the construction is complete, the airfield would operate as it did prior to construction of the Two-Year Program Alternative.

8.1.1.2 Comparison of Environmental Effects

This section considers the environmental effects of the Two-Year Program Alternative compared to the Proposed Project.

Aesthetics

The Two-Year Program Alternative would be consistent with the aesthetics of the existing Airport and would have less than significant impacts on aesthetics. Any necessary construction lighting would be properly shielded so as not to impact airfield operations or surrounding land uses. Minor upgrades to runway and taxiway lighting associated with runway rehabilitation and taxiway improvements would be the same

as the Proposed Project and similar to the lighting that exists on the airfield today. Thus, the Two-Year Program Alternative would have less than significant impacts as with the Proposed Project.

Agricultural and Forestry Resources

The Two-Year Program Alternative would have no impacts on agricultural and forestry resources. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Air Quality

This air quality analysis examines criteria pollutant emissions that result from temporary construction activity and temporary operational changes associated with the Two-Year Program Alternative during construction years 2023 and 2024. Like the Proposed Project, the Two-Year Program Alternative would have no impact on operations at the Airport beyond the construction period. The Two-Year Program Alternative would not increase Airport capacity and would not result in increases in local traffic as described in *Section 3.9, Transportation/Traffic*. Therefore, emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed. There are no emissions impacts associated with the Two-Year Program Alternative beyond the construction period.

Construction Impacts

The analysis of construction emission impacts includes both direct impacts associated with Two-Year Program Alternative construction activity, and indirect impacts associated with a change in aircraft taxiing patterns due to temporary construction-related runway closures in 2023 and 2024. The tables presented below summarize the direct, indirect and total construction emissions. The determination of significance was based on the Two-Year Program Alternative's total construction emissions.

Direct Construction Emissions

A construction emissions inventory was prepared for the Two-Year Program Alternative for the construction years 2023 and 2024. Construction emissions typically include emissions from on-road vehicles (vehicles miles traveled [VMT]) and off-road equipment (equipment hours). ONT requires the use of Tier 4 final engine emission standards for all off-road construction equipment, which serves to significantly reduce NO_x and PM emissions. To ensure implementation, Tier 4 engine requirements are included by ONT in all applicable construction contracts, plans and specifications. Therefore, the construction emissions inventory was developed in CalEEMod with a Tier 4 final engines input for all off-road construction equipment. The construction emissions also include PM emissions associated with the operation of the concrete batch plant proposed to be located on Airport property in an industrial area along E. Avion Street.

Table 8-1 presents the Two-Year Program Alternative direct construction emissions, as compared to the NAAQS and SCAQMD thresholds of significance. As shown, the direct construction-related emissions are below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and construction years. See *Appendix D, Air Quality and GHG Emissions Analysis, Attachment 1 – Construction Emissions* for details on the modeling of construction activity emissions.

Table 8-1: Two-Year Program Alternative Direct Construction Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 Two-Year Program Alternative	18	3	1	<1	1	3	182	36	6	1	12	26
2024 Two-Year Program Alternative	18	3	1	<1	1	2	178	32	7	1	9	23
<i>NAAQS or SCAQMD threshold of significance</i>	<i>100</i>	<i>10</i>	<i>10</i>	<i>--</i>	<i>70</i>	<i>100</i>	<i>550</i>	<i>100</i>	<i>75</i>	<i>150</i>	<i>55</i>	<i>150</i>
<i>Exceeds Thresholds?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>--</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>--</i>	<i>--</i>	<i>No</i>	<i>No</i>

Notes:

Volatile organic compounds (VOCs) are referred as Reactive organic gases (ROG) in CalEEMod.

Source: CalEEMod, HNTB analysis 2022.

Indirect Construction Emissions

The Two-Year Program Alternative would require the following temporary runway closures in 2023 and 2024 during construction:

- 2023 – maximum nine months of runway closure
 - Runway 8L-26R will be closed for six months (from mid-January to mid-July)
 - Runway 8R-26L will be closed for three months (from August to October)
- 2024 – maximum nine months of runway closure
 - Runway 8R-26L will be closed for nine months (from mid-January to mid-October)

While operational levels would be identical in each future year whether or not the Two-Year Program Alternative is implemented, due to these necessary runway and taxiway closures, aircraft taxiing times would vary. More specifically, the Two-Year Program Alternative would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. The most prevalent reason for reduced taxi times in 2023 and 2024 is due to the fact that, without the requirement to operate with Contra Flow, aircraft that would have necessarily traveled to Runways 8L and 8R to depart will be allowed to depart on either Runway 26L or 26R, depending on the runway that is open. This will reduce taxi distance for many operations.

Table 8-2 provides a comparison of the total aircraft taxiing emissions with implementation of the Two-Year Program Alternative in 2023 and 2024 as compared to the Baseline Conditions aircraft taxiing emissions. These incremental differences represent the indirect Two-Year Program Alternative related construction emissions associated with temporary runway closures.

Total Construction Emissions

As presented in **Table 8-3**, when taking into consideration the temporary increases in emissions from construction equipment and the temporary decreases in taxiing emissions associated with the temporary runway closures, the total construction emissions remain below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and years. Therefore, the Two-Year Program Alternative would result in a *less than significant impact* from construction-related emissions.

Table 8-2: Two-Year Program Alternative Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to Baseline Conditions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2023 Two-Year Program Alternative	490	60	90	17	1	1	2,686	328	493	95	8	8
2023 Incremental Changes	-27	-3	-6	-1	<0	<0	-146	-18	-34	-5	-1	-1
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2024 Two-Year Program Alternative	510	63	94	18	2	2	2,790	342	511	99	8	8
2024 Incremental Changes	-6	-1	-3	<0	<0	<0	-43	-4	-16	-1	<0	<0

Source: FAA ASPM and HNTB analysis, 2022.

Table 8-3: Total Two-Year Program Alternative Construction Emissions Compared to Baseline Conditions

Year	Emission Source	Pollutants (tons/year)						Pollutants (lbs/day)					
		CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023	Direct - Construction	18	3	1	<1	1	3	182	36	6	1	12	26
	Indirect – Aircraft Taxiing	-27	-3	-6	-1	<0	<0	-146	-18	-34	-5	-1	-1
	Total	-9	0	-6	-1	<1	1	36	17	-28	-5	11	25
2024	Direct - Construction	18	3	1	<1	1	2	178	32	7	1	9	23
	Indirect – Aircraft Taxiing	-6	-1	-3	<0	<0	<0	-43	-4	-16	-1	<0	<0
	Total	11	3	-2	<0	<1	2	136	28	-9	-1	9	23
NAAQS or SCAQMD threshold of significance		100	10	10	--	100	70	550	100	75	150	150	55
Exceeds Thresholds?		No	No	No	--	No	No	No	No	No	No	No	No

Source: FAA ASPM and HNTB analysis, 2022.

Additional Analysis For Informational Purposes

As noted above, CEQA requires that a proposed project be compared to baseline conditions for the purpose of making a significance determination. For the Two-Year Program Alternative, the incremental aircraft taxiing emissions would be influenced by factors that are not exclusively attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Two-Year Program Alternative, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background growth and differences in emission factors, this analysis also compares aircraft taxiing emissions of the Two-Year Program Alternative in a given year with the aircraft taxiing emissions from the No Project Alternative in the same year. The No Project Alternative, in this context, acts as a modified baseline under CEQA Guidelines Section 15125(a)(1), as it allows for a comparison of the Two-Year Program Alternative to the airfield conditions expected at the time of its implementation (calendar years 2023 and 2024). This comparison is made for informational purposes only.

Table 8-4 provides a comparison of the total aircraft taxiing emissions with and without implementation of the Two-Year Program Alternative in 2023 and 2024, as well as the incremental differences between the two conditions each year. These incremental differences represent the indirect Two-Year Program Alternative-related construction emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Two-Year Program Alternative result in decreases of emissions when compared to the No Project Alternative.

As presented in **Table 8-5**, when taking into consideration the emissions decreases associated with the temporary runway closures through the construction years, there is a net decrease in total construction emissions when comparing the Two-Year Program Alternative to the No Project Alternative, and no exceedances of NAAQS or SCAQMD thresholds. As the Two-Year Program Alternative itself does not induce operational growth, this comparison provides a more realistic look at the impacts of the Two-Year Program Alternative aircraft taxiing emissions.

Table 8-4: Two-Year Program Alternative Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to the No Project Alternative

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 No Project Alternative	551	67	101	20	2	2	3,019	369	554	107	9	9
2023 Two-Year Program Alternative	490	60	90	17	1	1	2,686	328	493	95	8	8
2023 Incremental Changes	-61	-7	-11	-2	<0	<0	-333	-41	-61	-12	-1	-1
2024 No Project Alternative	572	70	105	20	2	2	3,125	383	573	111	9	9
2024 Two-Year Program Alternative	510	63	94	18	2	2	2,790	342	511	99	8	8
2024 Incremental Changes	-61	-8	-11	-2	<0	<0	-336	-41	-62	-12	-1	-1

Source: FAA ASPM and HNTB analysis, 2022.

Table 8-5: Total Two-Year Program Alternative Construction Emissions Compared to the No Project Alternative

Year	Emission Source	Pollutants (tons/year)						Pollutants (lbs/day)					
		CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023	Direct - Construction	18	3	1	<1	1	3	182	36	6	1	12	26
	Indirect – Aircraft Taxiing	-61	-7	-11	-2	<0	<0	-333	-41	-61	-12	-1	-1
	Total	-43	-4	-11	-2	1	2	-151	-5	-55	-12	11	25
2024	Direct - Construction	18	3	1	<1	1	2	178	32	7	1	9	23
	Indirect – Aircraft Taxiing	-61	-8	-11	-2	<0	<0	-336	-41	-62	-12	-1	-1
	Total	-44	-4	-11	-2	1	2	-158	-9	-55	-11	8	22
NAAQS or SCAQMD threshold of significance		100	10	10	--	100	70	550	100	75	150	150	55
Exceeds Thresholds?		No	No	No	--	No	No	No	No	No	No	No	No

Source: FAA ASPM and HNTB analysis, 2022.

Impact Summary

This section summarizes the Two-Year Program Alternative's impacts as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.1.3* for Impact 4.1-1 through 4.1-5.

Impact 4.1-1

Summary Conclusion for Impact 4.1-1: Implementation of the Two-Year Program Alternative would not conflict with or obstruct implementation of the SCAQMD AQMP or applicable portions of an SIP. The Two-Year Program Alternative would not increase operational activities at the Airport and would result in a *less than significant impact* from construction emissions. As such, this would be a *less than significant impact*.

Construction of the Two-Year Program Alternative would result in emissions associated with construction activities (direct emissions) as well as emissions associated with temporary changes in aircraft taxiing times from proposed runway closures (indirect emissions). The total construction emissions do not exceed NAAQS or SCAQMD thresholds of significance in any construction year and therefore would not conflict with implementation of the SCAQMD AQMP or applicable SIPs. After construction of the Two-Year Program Alternative, there would be no impact to operational emissions at ONT.

Impact 4.1-2

Summary Conclusion for Impact 4.1-2: Implementation of the Two-Year Program Alternative would result in direct and indirect construction-related emissions; however, as detailed under *Construction Impacts*, the total construction emissions would be below all NAAQS and SCAQMD thresholds. Therefore, the project would have a *less than significant impact* from construction-related criteria pollutant emissions and would not violate any air quality standard.

It should be noted that the Two-Year Program Alternative's incremental aircraft taxiing emissions would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Two-Year Program Alternative, as well as lower emission factors for aircraft from improved engine technology.

In order to remove the influence of background growth and differences in emission factors, a comparison of aircraft taxiing emissions of the Two-Year Program Alternative in a given year with the aircraft taxiing emissions from the No Project Alternative in the same year was also completed (see Table 8-4). Under this comparison, the Two-Year Program Alternative results in net decreases in total construction emissions and does not result in any exceedances of NAAQS or SCAQMD thresholds (see Table 8-5). This comparison is made for informational purposes only.

Impact 4.1-3

Summary Conclusion for Impact 4.1-3: Construction of the Two-Year Program Alternative in conjunction with other projects anticipated to be under construction

during the same period relative to cumulative emissions is discussed in *Chapter 5.0, Cumulative Impacts*.

Impact 4.1-4

Summary Conclusion for Impact 4.1-4: Implementation of the Two-Year Program Alternative would not expose sensitive receptors to substantial pollutant concentrations. As such, the Two-Year Program Alternative would have a *less than significant impact*.

As detailed within this chapter under *Health Risk Assessment*, construction of the Two-Year Program Alternative would not expose sensitive receptors to pollutant concentrations that exceed SCAQMD thresholds.

The Two-Year Program Alternative site is located entirely within Airport property. There are no sensitive receptors including, but not limited to homes, schools, hospitals, resident care facilities, or day-care centers, located within the Two-Year Program Alternative site. The closest sensitive receptors are residential homes located along E. Airport Drive and S Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively.⁴ The closest sensitive receptors to the construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north off of E. Nocta Street. As summarized under Impact 4.1-2, when taking into consideration the totality of the Two-Year Program Alternative's construction-related effects (emission increases from construction equipment and emission decreases from aircraft taxiing), the total construction emissions remain below the applicable NAAQS and SCAQMD thresholds for all pollutants/precursors and years. Therefore, construction of the Two-Year Program Alternative would not expose sensitive receptors to substantial pollutant concentrations and construction would have a *less than significant impact*.

Aircraft taxiing operations under the Two-Year Program Alternative would be conducted in the same general location as with Baseline Conditions. The Two-Year Program Alternative temporarily requires that operations shift between existing runways when individual runways are closed for construction purposes and when Contra Flow cannot be implemented when compared to the Baseline Conditions. The Two-Year Program Alternative would not bring aircraft taxiing operations any closer to sensitive receptors, including but not limited to homes, schools, hospitals, resident care facilities, or day-care centers than Baseline Conditions. Therefore, the Two-Year Program Alternative would not expose sensitive receptors to substantial pollutant concentrations and would have a *less than significant impact*.

Impact 4.1-5

Summary Conclusion for Impact 4.1-5: Implementation of the Two-Year Program Alternative would not result in objectionable odors adversely affecting a substantial number of people, therefore, the Two-Year Program Alternative would result in a *less than significant impact*.

Exhaust from the use of diesel equipment during construction would generate odors within the project area. However, the closest sensitive receptors to the project area

are residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively.⁵ The closest sensitive receptors to the construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north off of E. Nocta Street. Dispersion of construction odors is variable based on wind direction and speed, but would not affect a substantial number of people given the distance from sensitive receptors. Therefore, construction of the Two-Year Program Alternative would not result in objectionable odors adversely affecting a substantial number of people and impacts would be *less than significant*.

Temporary changes in aircraft taxiing times due to proposed runway closures also would not notably change existing odors at or in the vicinity of the Airport. While total aircraft activity is projected to increase at ONT over the course of implementation of the Two-Year Program Alternative (in 2023 and 2024), the increase in aircraft activity would occur regardless of the Two-Year Program Alternative. Therefore, aircraft taxiing operations during implementation of the Two-Year Program Alternative would not result in objectionable odors adversely affecting a substantial number of people and impacts would be *less than significant*.

Mitigation Measures

The Two-Year Program Alternative results in a less than significant impact on air quality emissions during the construction period. Therefore, no mitigation measures are necessary.

Comparison to Proposed Project

Direct Construction Emissions

Table 8-6 compares the direct construction emissions between the Proposed Project and Two-Year Program Alternative. As shown, the total variation in direct construction emissions is minimal or zero. The Two-Year Program Alternative would have approximately the same total direct construction emissions as the Proposed Project, but the emissions would be incurred over a two-year period instead of a three-year period.⁶

Indirect Construction Emissions

Table 8-7 provides a comparison of the indirect construction emissions from the Proposed Project and Two-Year Program Alternatives (as originally compared to the Baseline Conditions for aircraft taxiing emissions in each year). Aircraft operational levels would be identical whether or not the Proposed Project or Two-Year Program Alternative is implemented. Due to necessary runway and taxiway closure periods totaling nine months in 2023 and 2024 during construction of both Alternatives, aircraft taxiing times would be almost identical in 2023⁷ and identical in 2024 between the Proposed Project and Two-Year Program Alternative. Therefore, indirect construction emission due to aircraft taxiing emissions would be identical in 2023 and 2024.

In 2025, the Proposed Project indirect construction emissions would be net positive due to background growth in operations resulting in minor additional taxiing delay in

2025. However, aircraft taxiing emissions in 2025 without the Proposed Project runway closures (No Project Alternative) would be greater. While the Proposed Project would result in direct construction emissions in 2025 that would not be experienced under the Two-Year Program Alternative in 2025 (because construction would be completed in 2024), the Proposed Project would continue to decrease the total aircraft taxiing emissions in 2025, while the Two-Year Program Alternative would not. In order to make a reasonable comparison of the aircraft taxiing emissions in 2025 between the alternatives, the 2025 Two-Year Program Alternative indirect emissions are represented by the 2025 No Project Alternative indirect emissions.

Total Construction Emissions

As shown in **Table 8-8**, the Proposed Project would result in less overall total construction emissions as compared to the Two-Year Program Alternative due to the extended runway closure periods into 2025 (i.e., indirect construction emissions are lower with the Proposed Project).

Table 8-6: Comparison of Proposed Project and Two-Year Program Alternative Direct Construction Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 Proposed Project	12	2	<1	<1	1	2	125	24	4	<1	8	18
2023 Two-Year Program Alternative	18	3	1	<1	1	3	182	36	6	1	12	26
2023 Variation	-6	-1	<0	0	0	-1	-57	-12	-2	<0	-4	-8
2024 Proposed Project/ Two Year Program Alternative	18	3	1	<1	1	2	178	32	7	1	9	23
2024 Variation	0	0	0	0	0	0	0	0	0	0	0	0
2025 Proposed Project	5	1	<1	<1	<1	1	56	11	2	<1	4	8
2025 Two-Year Program Alternative*	<i>n/a – no direct construction activity</i>											
2025 Variation	5	1	<1	<1	<1	1	56	11	2	<1	4	8
Total Direct Variation	-1	<0	0	<1	0	0	-1	-1	0	<1	0	0

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 direct emissions for the Two-Year Program Alternative would be zero.

Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: FAA ASPM and HNTB analysis, 2022.

Table 8-7: Comparison of Proposed Project and Two-Year Program Alternative Indirect Construction Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 Proposed Project/ Two Year Program Alternative	-27	-3	-6	-1	<0	<0	-146	-18	-34	-5	-1	-1
2023 Variation	0	0	0	0	0	0	0	0	0	0	0	0
2024 Proposed Project/ Two Year Program Alternative	-6	-1	-3	<0	<0	<0	-43	-4	-16	-1	<0	<0
2024 Variation	0	0	0	0	0	0	0	0	0	0	0	0
2025 Proposed Project	46	6	6	2	<1	<1	251	33	35	9	1	1
2025 Two-Year Program Alternative*	80	10	13	3	0	0	438	56	69	15	1	1
2025 Variation	-34	-4	-7	-1	0	0	-187	-23	-34	-6	0	0
Total Indirect Variation	-34	-4	-7	-1	0	0	-187	-23	-34	-6	0	0

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 indirect aircraft taxiing emissions for the Two-Year Program Alternative is represented by the indirect 2025 No Project Alternative incremental aircraft taxiing emissions as compared to the Baseline Conditions (see Table 8-35) in order to make a reasonable comparison of the aircraft taxiing emissions between the alternatives in 2025.

Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: FAA ASPM and HNTB analysis, 2022.

Table 8-8: Comparison of Proposed Project and Two-Year Program Alternative Total Construction Emissions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 Proposed Project	-14	-1	-6	-1	1	2	-21	6	-29	-5	7	17
2023 Two-Year Program Alternative	-9	0	-6	-1	1	2	36	17	-28	-5	11	25
2023 Variation	-5	-1	<0	0	<0	-1	-57	-11	-2	<0	-4	-8
2024 Proposed Project/ Two Year Program Alternative	11	3	-2	<0	1	2	136	28	-9	-1	9	23
2024 Variation	0	0	0	0	0	0	0	0	0	0	0	0
2025 Proposed Project	51	7	7	2	<1	1	307	44	37	9	4	9
2025 Two-Year Program Alternative*	80	10	13	3	0	0	438	56	69	15	1	1
2025 Variation	-29	-3	-6	-1	<1	1	-131	-12	-32	-6	3	8
Total Variation	-34	-4	-6	-1	0	0	-188	-23	-34	-6	-1	0

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 total emissions for the Two-Year Program Alternative is represented by zero direct construction emissions plus the indirect 2025 No Project Alternative incremental aircraft taxiing emissions as compared to the Baseline Conditions (see Table 8-35) in order to make a reasonable comparison of the aircraft taxiing emissions between the alternatives in 2025.

Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: FAA ASPM and HNTB analysis, 2022.

Biological Resources

The Two-Year Program Alternative would result in the same impacts to biological resources as with the Proposed Project since construction of the same project components would occur under both alternatives. Thus, the Two-Year Program Alternative would have less than significant impacts (with mitigation incorporated) as with the Proposed Project.

Cultural Resources

The Two-Year Program Alternative would result in the same impacts to cultural resources as with the Proposed Project since construction of the same project components would occur under both alternatives. Thus, the Two-Year Program Alternative would have no impacts as with the Proposed Project.

Energy

The Two-Year Program Alternative would have less than significant impacts on energy. Although consumption of resources and energy would be necessary during construction, impacts would be less than significant. Compared to the Proposed Project, impacts to energy would be of a shorter duration but would be more heavily utilized during the shorter time period. However, the Two-Year Program Alternative would have less than significant impacts as with the Proposed Project.

Geology and Soils

The Two-Year Program Alternative would have less than significant impacts on geology and soils. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Greenhouse Gas Emissions (GHGs)

This analysis examines GHG emissions that result from temporary construction activity and temporary operational changes associated with the Two-Year Program Alternative during construction years 2023 and 2024.

Like the Proposed Project, the Two-Year Program Alternative would have no impact on operations at the Airport beyond the construction period. The Two-Year Program Alternative would not increase Airport capacity, it would not result in increases in local traffic as described in *Section 3.9*. Therefore, GHG emissions associated with overall aircraft activity levels and passenger traffic arriving and departing ONT were not analyzed. There would be no GHG emissions impacts associated with the Two-Year Program Alternative beyond the construction period.

Construction GHG Impacts

The analysis of construction GHG emissions includes both direct GHG emissions associated with Two-Year Program Alternative construction activities and indirect GHG emissions associated with a change in aircraft taxiing patterns due to temporary construction-related runway closures in 2023 and 2024. The tables presented below summarize the direct, indirect and total construction GHG emissions. The

determination of significance was based on the Two-Year Program Alternative’s total construction GHG emissions.

Direct Construction GHG Emissions

A construction GHG emissions inventory was prepared for the Two-Year Program Alternative for the construction years 2023 and 2024. Construction GHG emissions typically include emissions from on-road vehicles (vehicles miles traveled) and off-road equipment (equipment hours). **Table 8-9** presents the Two-Year Program Alternative’s construction GHG emissions.⁸

Table 8-9: Two-Year Program Alternative Direct Construction GHG Emissions (MT/Year)

Year	CO ₂	CH ₄	N ₂ O	CO _{2e}
2023	4,200	0.9	0.1	4,267
2024	4,086	0.8	0.1	4,147

Sources: CalEEMod and HNTB Analysis, 2022.

Indirect Construction GHG Emissions

The Two-Year Program Alternative would require temporary runway closures in 2023 and 2024 during construction, as detailed in *Section 8.1.1.1*. While operational levels would be identical in each future year whether or not the Two-Year Program Alternative is implemented, due to these necessary runway and taxiway closures, aircraft taxiing times would vary. More specifically, the Two-Year Program Alternative would reduce the duration of taxiing times in construction years 2023 and 2024 as compared to the Baseline Conditions. The most prevalent reason for reduced taxi times is due to the fact that without the requirement to operate with Contra Flow, aircraft that would have necessarily traveled to Runways 8L and 8R to depart will be allowed to depart on either Runway 26L or 26R, depending on the runway that is open and this will reduce taxi distance for many operations.

Table 8-8 provides a comparison of the total aircraft taxiing GHG emissions with implementation of the Two-Year Program Alternative in 2023 and 2024 as compared to the Baseline Conditions aircraft taxiing GHG emissions. These incremental differences represent the indirect Two-Year Program Alternative related GHG construction emissions associated with temporary runway closures.

Table 8-10: Two-Year Program Alternative Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to Baseline Conditions

Year	CO ₂ e (MT/year)
Baseline Conditions	49,520
Two-Year Program	46,872
2023 Incremental Changes	-2,648
Baseline Conditions	49,520
Two-Year Program	48,958
2024 Incremental Changes	-562

Source: AEDT and HNTB analysis, 2022.

Total Construction GHG Emissions

As presented in **Table 8-11**, when taking into consideration the temporary increases in GHG emissions from construction equipment and the temporary decreases in aircraft taxiing GHG emissions associated with the temporary runway closures through the construction years, the total construction GHG emissions are greater than zero. Therefore, the Two-Year Program Alternative would result in a **significant, unavoidable temporary impact** from construction GHG emissions.

Table 8-11: Total Two-Year Program Alternative Construction GHG Emissions Compared to Baseline Conditions

Year	Alternative	CO ₂ e (MT/year)
2023	Direct - Construction	4,267
	Indirect - Aircraft Taxiing	-2,648
	Total	1,619
2024	Direct - Construction	4,147
	Indirect - Aircraft Taxiing	-562
	Total	3,585
Total GHG Emissions		5,204

Source: AEDT and HNTB analysis, 2022.

Additional Analysis for Informational Purposes

As noted above, CEQA requires that a proposed project be compared to baseline conditions for the purpose of making a significance determination. For the Two-Year Program Alternative, the incremental aircraft taxiing GHG emissions would be influenced by factors that are not exclusively attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Two-Year Program Alternative, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background growth and differences in emission factors, this analysis also compares aircraft taxiing GHG emissions of the Two-Year Program Alternative in a given year

with the aircraft taxiing GHG emissions from the No Project Alternative in the same year. The No Project Alternative, in this context, acts as a modified baseline under CEQA Guidelines Section 15125(a)(1), as it allows for a comparison of the Two-Year Program Alternative to the airfield conditions expected at the time of its implementation (calendar years 2023 and 2024). This comparison is made for informational purposes only.

Table 8-12 provides a comparison of the total aircraft taxiing GHG emissions with and without implementation of the Two-Year Program Alternative in 2023 and 2024, as well as the incremental differences between the two conditions each year. These incremental differences represent the indirect Two-Year Program Alternative-related construction GHG emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Two-Year Program Alternative result in decreases of GHG emissions in both years when compared to the No Project Alternative. This is a result of the suspension of Contra Flow, which improves departure taxi efficiency.

As presented in **Table 8-13**, when taking into consideration the emission decreases associated with the temporary runway closures through the construction years, there is a net decrease in total construction GHG emissions when comparing the Two-Year Program Alternative to the No Project Alternative. As the Two-Year Program Alternative itself does not induce operational growth, this comparison provides a more realistic look at the impacts of the Two-Year Program Alternative on aircraft taxiing GHG emissions.

Table 8-12: Two-Year Program Alternative Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures

Year	Alternative	CO ₂ e (MT/year)
2023	No Project	52,700
	Two-Year Program	46,872
	Project Related	-5,828
2024	No Project	54,849
	Two-Year Program	48,958
	Project Related	-5,891

Source: AEDT and HNTB analysis, 2022.

Table 8-13: Total Two-Year Program Alternative Construction GHG Emissions

Year	Emission Source	CO ₂ e (MT/year)
2023	Direct - Construction	4,267
	Indirect - Aircraft Taxiing	-5,828
	Total	-1,561
2024	Direct - Construction	4,147
	Indirect - Aircraft Taxiing	-5,891
	Total	-1,744

Source: AEDT and HNTB analysis, 2022.

Impact Summary

This section summarizes the Two-Year Program Alternative’s impacts as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.3.3* for Impact 4.3-1 and 4.3-2.

Impact 4.3-1

Summary Conclusion for Impact 4.3-1: Implementation of the Two-Year Program Alternative would result in total net positive construction-related GHG emissions in years 2023 and 2024. Therefore, the Two-Year Program Alternative would result in *significant, unavoidable temporary impact* due to construction-related GHG emissions.

It should be noted that the Two-Year Program Alternative incremental aircraft taxiing GHG emissions would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth at ONT that is projected to occur with or without the Two-Year Program Alternative, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of background growth and differences in emission factors, a comparison of aircraft taxiing GHG emission of the Two-Year Program Alternative in a given year with the aircraft taxiing GHG emissions from the No Project Alternative in the same

year was completed (see Table 8-12). Under this comparison, the Proposed Project results in net decreases in total construction GHG emissions in all construction years (see Table 8-13). This comparison is made for informational purposes only.

Impact 4.3-2

Summary Conclusion for Impact 4.3-2: The Two-Year Program Alternative would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG. Therefore, it would be a *less than significant impact*.

Several local plans address GHGs and measures to reduce GHG emissions.

First, the 2014 City of Ontario Community Climate Action Plan (CAP) establishes community strategies to reduce GHG emissions consistent with CARB's statewide GHG reduction efforts. The CAP included a GHG inventory for 2008 and a forecasted inventory for 2020, analyzed GHG reduction measures for effectiveness and feasibility, and presented a list of measures for inclusion in the CAP. The CAP includes a GHG emission reduction target of 30% below business-as-usual 2020 levels.⁹

Second, the 2016 SCAQMD AQMP is based upon the adopted general plans (and resulting vehicular trip generation) from the local jurisdictions that were in place when the AQMP was developed. Proposed land uses that are consistent with such adopted general plans are considered consistent with the AQMP and will not conflict with or obstruct implementation of the applicable air quality plan. The 2016 AQMP includes the strategies and measures needed to meet the NAAQS and CAAQS. Many of these measures and programs also serve to reduce GHG emissions.

Third, the 2019 ONT AQIP includes measures to minimize and reduce emissions from mobile source activities at the Airport. As it relates to GHG emissions, the AQIP includes GSE and Fuel Truck Operation Policies (RM1 and RM2), which would likely result in a reduction of GHG pollutants.¹⁰

Fourth, the 2021 San Bernardino County Regional Greenhouse Gas Reduction Plan includes an inventory of GHG emissions and evaluation of reduction measures to be adopted by 25 Partnership Cities within the County.¹¹ The reduction measures set forth in the Plan are being and should be considered for adoption by agencies in the region that are developing jurisdiction-specific climate action plans. The Regional GHG Reduction Plan includes reduction measures evaluated for the City of Ontario. Measures which could assist in reducing GHG emissions expected from the Two-Year Program Alternative, if adopted by the relevant agencies, include State fuel efficiency measures, electric-powered construction equipment, and idling ordinances.

The Two-Year Program Alternative would result in significant, unavoidable temporary impacts to GHG emissions during the construction period, based on its incremental increase in GHG emissions. However, there are no specific GHG policies mandated in the above-referenced plans, as it relates to construction at ONT. Further, it is noted that construction equipment and aircraft would be in compliance with applicable fuel efficiency and emission standards.

Based on the absence of specific construction-related policies for the reduction of GHG emissions in the referenced plans, and compliance with other existing standards for construction equipment and aircraft, the Two-Year Program Alternative itself would not conflict with any applicable local plans, policies or regulations related to the reduction of GHG emissions.

Additionally, as summarized above, when compared to the Baseline Conditions, the Two-Year Program Alternative construction GHG emissions would result in a significant impact due to construction activity and aircraft taxiing as compared to the Baseline Conditions. However, this comparison is influenced by factors that are not attributable to the Two-Year Program Alternative itself, specifically from background operational growth at ONT that is projected to occur with or without the Two-Year Program Alternative, as well as lower emission factors for aircraft from improved engine technology. In order to remove the influence of these factors, a comparison is made of aircraft taxiing GHG emissions of the Two-Year Program Alternative in a given year with the aircraft taxiing GHG emissions from the No Project Alternative in the same year. In this comparison, total construction GHG emissions would decrease in all construction years.

Mitigation Measures

As discussed above, the Two-Year Program Alternative would result in a significant and unavoidable temporary impact associated with the release of additional GHG emissions during the two-year construction period (Impact 4.3-1). At this point in time, there are no feasible mitigation measures available to further reduce the Two-Year Program Alternative's direct construction GHG emissions.

As discussed under Impact 4.3-2, there are several local plans which address GHGs and measures to reduce GHG emissions. While there are no feasible measures that can be assumed and quantified in this analysis, regional and local measures, if implemented, should serve to further reduce overall GHG emissions.

It is worth noting that the GHG analysis assumes a conservative 40-mile roundtrip for concrete delivery for the Two-Year Program Alternative construction. However, a concrete batch plant is proposed to be located on Airport property in an industrial area along E. Avion Street, which would likely reduce the total VMT assumed for concrete delivery trucks but would still include delivery of raw materials (i.e., Portland cement and aggregate) to mix the concrete on-site. A closer look at the CalEEMod output indicates CO₂ emissions specific to on-road hauling accounts for on average 20% of the total direct GHG construction emissions in each construction year. Utilizing a concrete batch plant on-site would likely serve to reduce total on-road hauling VMT, and thus reduce total GHG emissions, but the Two-Year Program Alternative would still result in a net increase in total GHG emissions during the construction period.

As for the Two-Year Program Alternative's other source of GHG emissions – indirect construction emissions from the taxiing of aircraft on the airfield, it is well established that the regulation of aircraft tailpipe emissions is federally preempted and cannot be addressed at the local level.

Comparison to Proposed Project

Direct Construction GHG Emissions

Table 8-14 compares the direct construction GHG emissions between the Proposed Project and Two-Year Program Alternative. As shown, the total variation in direct construction GHG emissions is minimal. The Two-Year Program Alternative would have approximately the same total direct construction GHG emissions as the Proposed Project, but the emissions would be incurred over a two-year period instead of a three-year period.¹²

Indirect Construction GHG Emissions

Table 8-15 provides a comparison of the indirect construction GHG emissions from the Proposed Project and Two-Year Program Alternatives (as originally compared to the Baseline Conditions for aircraft taxiing GHG emissions in each year). Aircraft operational levels would be identical whether or not the Proposed Project or Two-Year Program Alternative is implemented. Due to necessary runway and taxiway closure periods totaling nine months in 2023 and 2024 during construction of both Alternatives, aircraft taxiing times would be almost identical in 2023¹³ and identical in 2024 between the Proposed Project and Two-Year Program Alternative. Therefore, indirect construction GHG emissions due to aircraft taxiing emissions would be identical in 2023 and 2024 between the Alternatives.

In 2025, the Proposed Project indirect construction GHG emissions would be net positive due to background growth in operations resulting in minor additional taxiing delay in 2025. However, aircraft taxiing GHG emissions in 2025 without the Proposed Project runway closures (No Project Alternative) would be greater. While the Proposed Project would result in direct construction GHG emissions in 2025 that would not be experienced under the Two-Year Program Alternative in 2025 (because construction would be completed in 2024), the Proposed Project would continue to decrease the total aircraft taxiing GHG emissions in 2025, while the Two-Year Program Alternative would not. In order to make a reasonable comparison of the aircraft taxiing GHG emissions in 2025 between the alternatives, the 2025 Two Year Program Alternative indirect GHG emissions are represented by the 2025 No Project Alternative indirect GHG emissions.

Total Construction GHG Emissions

As shown in **Table 8-16**, the Proposed Project would result in less overall total construction GHG emissions as compared to the Two-Year Program Alternative due to the extended runway closure periods into 2025 (i.e., indirect construction emissions are lower with the Proposed Project).

Table 8-14: Comparison of Proposed Project and Two-Year Program Alternative Direct Construction GHG Emissions

Year	CO₂e (MT/year)
2023 Proposed Project	2,918
2023 Two Year Program Alternative	4,267
2023 Variation	-1,349
2024 Proposed Project / Two-Year Program Alternative	4,147
2024 Variation	0
2025 Proposed Project	1,327
2025 Two-Year Program Alternative	n/a – no direct construction activity
2025 Variation	1,327
Total Direct Variation	-22

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 direct GHG emissions for the Two-Year Program Alternative is zero. Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: AEDT and HNTB analysis, 2022.

Table 8-15: Comparison of Proposed Project and Two-Year Program Alternative Indirect Construction GHG Emissions

Year	CO₂e (MT/year)
2023 Proposed Project	-2,601
2023 Two Year Program Alternative	-2,648
2023 Variation	47
2024 Proposed Project / Two-Year Program Alternative	-562
2024 Variation	0
2025 Proposed Project	4,424
2025 Two-Year Program Alternative *	7,697
2025 Variation	-3,273
Total Indirect Variation	-3,226

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 indirect GHG emissions for the Two-Year Program Alternative is represented by the indirect 2025 No Project Alternative incremental aircraft taxiing GHG emissions as compared to the Baseline Conditions (see Table 8-37) in order to make a reasonable comparison of the aircraft taxiing emissions between the alternatives in 2025. Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: AEDT and HNTB analysis, 2022.

Table 8-16: Comparison of Proposed Project and Two-Year Program Alternative Total Construction GHG Emissions

Year	CO₂e (MT/year)
2023 Proposed Project	317
2023 Two Year Program Alternative	1,619
2023 Variation	-1,302
2024 Proposed Project / Two-Year Program Alternative	3,585
2024 Variation	0
2025 Proposed Project	5,751
2025 Two-Year Program Alternative *	7,697
2025 Variation	-1,946
Total Variation	-3,248

Note: *The Two-Year Program Alternative would complete construction in 2024, therefore, the 2025 total GHG emissions for the Two-Year Program Alternative is represented by zero direct construction emissions plus the indirect 2025 No Project Alternative incremental aircraft taxiing emissions as compared to the Baseline Conditions (see Table 8-37) in order to make a reasonable comparison of the aircraft taxiing emissions between the alternatives in 2025.

Variation represents the Proposed Project minus the Two-Year Program Alternative emissions.

Totals may not sum due to rounding.

Source: AEDT and HNTB analysis, 2022.

Hazards and Hazardous Materials

The Two-Year Program Alternative would result in the same impacts to hazards and hazardous materials as with the Proposed Project since construction of the same project components would occur under both alternatives. Thus, the Two-Year Program Alternative would have less than significant impacts as with the Proposed Project.

Hydrology and Water Quality

The Two-Year Program Alternative would have less than significant impacts to hydrology and water quality. Although surface water runoff would occur during construction, impacts would be less than significant with mitigation incorporated. Compared to the Proposed Project, impacts to hydrology and water quality would be of a shorter duration, however they would also be more intense during the shorter time period. Thus, the Two-Year Program Alternative would have less than significant impacts (with mitigation incorporated) as with the Proposed Project.

Land Use and Planning

The Two-Year Program Alternative would have no impacts on land use and planning. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Mineral Resources

The Two-Year Program Alternative would have no impacts on mineral resources. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Noise

This section provides an analysis of potential impacts due to noise with respect to CEQA Guidelines. Runway use and flight patterns would be temporarily impacted during runway closures due to the lack of ability to operate in Contra Flow conditions, as discussed in *Chapter 2.0, Project Description*. Therefore, noise impacts during construction in 2023 and 2024 were analyzed. There are no noise impacts associated with the Two-Year Program Alternative beyond the construction period.

Construction Impacts

Runway use and flight patterns would be temporarily modified during construction in 2023 and 2024 due to runway closures, as detailed in *Section 8.1.1.1*. During these runway closure periods, all operations would occur on a single runway. Due to the two runways being parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. The only change in flight patterns during temporary runway closure periods in 2023 and 2024, may result from FAA Air Traffic Control (ATC) imposed restrictions on the use of Contra Flow operations during nighttime (10:00 PM to 7:00 AM), as defined in *Section 2.2.3, Airfield Operations*. Since Contra Flow would not be used by ATC when operating on a single open runway, the Two-Year Program Alternative would result in temporary increases in noise exposure to the west of the Airport during the nighttime hours during these construction periods.

As required by CEQA, the construction noise levels associated with the Two-Year Program Alternative in 2023 and 2024 were compared to the noise levels associated with the Baseline Conditions noise levels. **Figures 8-1 and 8-2** show the expected noise exposure contours under the Two-Year Program Alternative in 2023 and 2024 in comparison with the Baseline Conditions.

The estimated land area (acres) within CNEL contours for the Baseline Conditions and Two-Year Program Alternative in 2023 and 2024 along with the estimated number of residential dwelling units, schools, churches, residential population and dwelling units located within the contours are provided in Table 3-13 (*Section 3.8.3, Noise, Baseline Conditions*) and **Tables 8-17 and 8-18**, respectively.

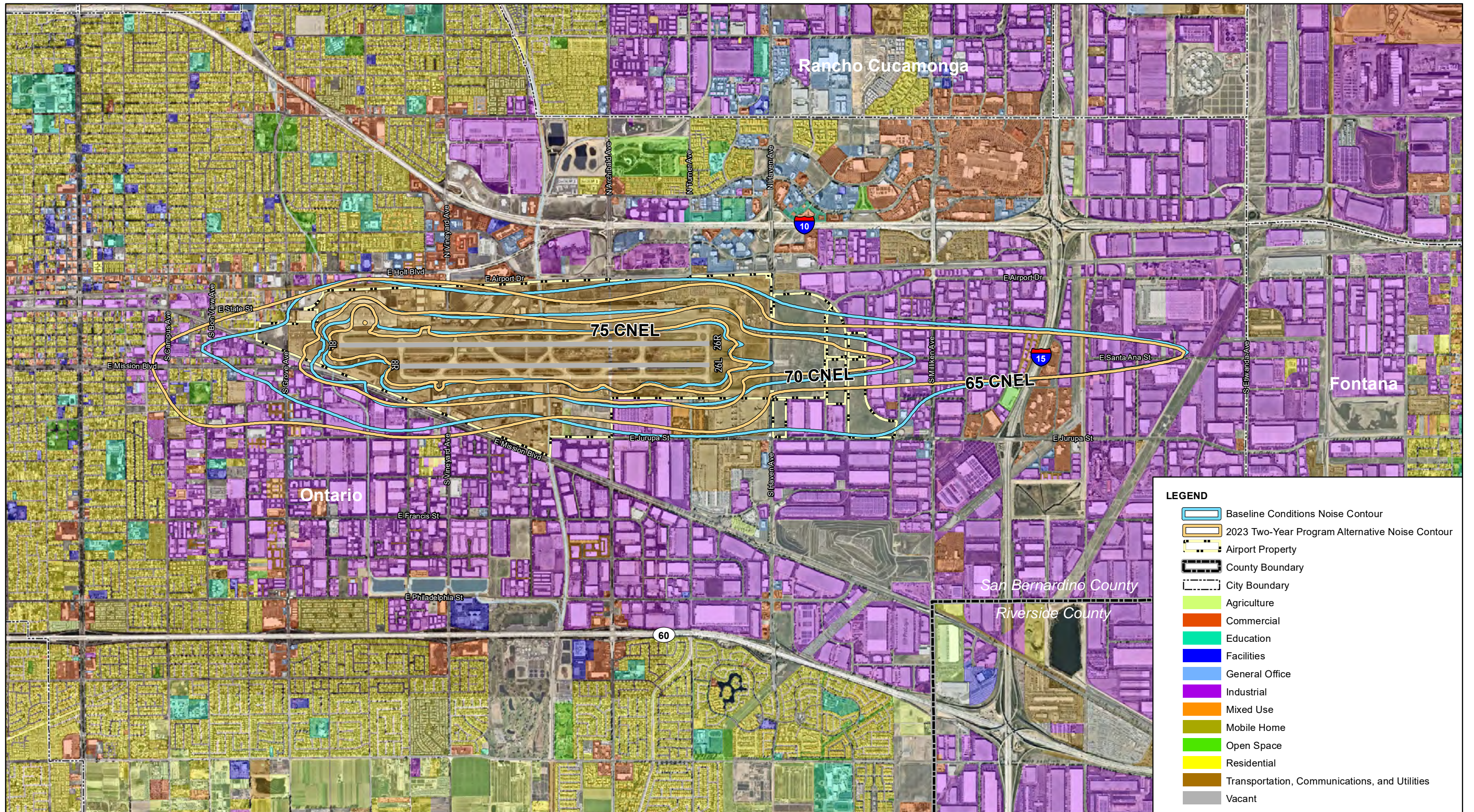
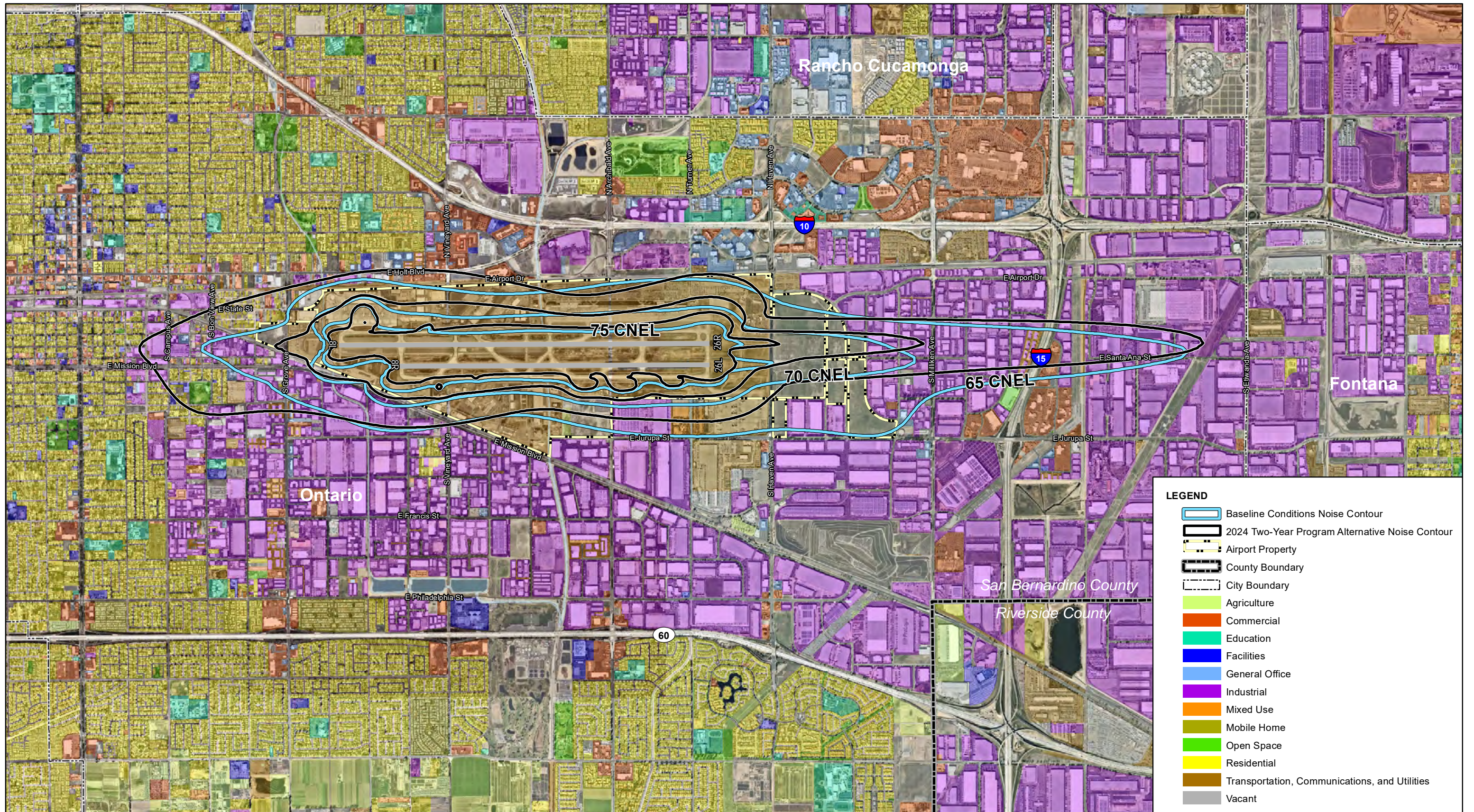


Figure 8-1



LEGEND

- Baseline Conditions Noise Contour
- 2024 Two-Year Program Alternative Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

Figure 8-2

Table 8-17: 2023 Two-Year Program Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	TOTAL
Residential	50.1	0	0	50.1
Education	0	0	0	0.0
Mixed Use	35.1	0.5	0	35.6
Mobile Home	0	0	0	0.0
Open Space	11.8	0	0	11.8
Agriculture	1.9	0	0	1.9
Commercial	17.6	0	0	17.6
Facilities	4.1	0	0	4.1
General Office	8.7	0	0	8.7
Industrial	510.5	18.9	0	529.4
Transportation, Communications, and Utilities	596.1	417.0	519.3	1,532.3
Vacant	196.0	80.5	0	276.5
TOTAL	1,431.8	516.8	519.3	2,468.0
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	239	0	0	239
Population	1,094	0	0	1,094

Note:

Totals may not sum due to rounding.

(1) Of the 239 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 160 sound insulated (~739 population)
- 30 eligible for sound insulation (~133 population)
- 31 eligible for voluntary acquisition (~146 population)
- 18 not eligible for insulation or acquisition (~76 population)

(2) Of the 239 dwelling units with the 65 CNEL contour, 229 are single family and 10 are multi-family (five duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2021.

Table 8-18: 2024 Two-Year Program Alternative Effects of Aircraft Noise Exposure on Land Uses (acres)

Land Use Category	Noise Exposure Range (CNEL, dB)			
	65-69	70-74	75+	Total
Residential	52.0	0	0	52.0
Education	0	0	0	0.0
Mixed Use	25.8	0	0	25.8
Mobile Home	0	0	0	0.0
Open Space	11.8	0	0	11.8
Agriculture	1.1	0	0	1.1
Commercial	23.6	0	0	23.6
Facilities	3.4	0	0	3.4
General Office	6.9	0	0	6.9
Industrial	503.0	18.9	0	521.9
Transportation, Communications, and Utilities	598.7	441.8	526.1	1,566.6
Vacant	218.2	63.6	0.3	282.2
TOTAL	1,444.5	524.4	526.4	2,495.3
Noise-Sensitive Land Uses (#)				
Hospitals	0	0	0	0
Schools	0	0	0	0
Religious (e.g., Church)	0	0	0	0
Residential (dwelling units)	215	0	0	215
Population	948	0	0	948

Note:

Totals may not sum due to rounding.

(1) Of the 215 dwelling units within the 65 dB contour, under ONT's Quiet Home Program:

- 128 sound insulated (~566 population)
- 26 eligible for sound insulation (~111 population)
- 44 eligible for voluntary acquisition (~202 population)
- 17 not eligible for insulation or acquisition (~70 population)

(2) Of the 215 dwelling units with the 65 CNEL contour, 203 are single family and 12 are multi-family (six duplexes). Google earth was utilized to confirm housing counts and types.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2021.

Table 8-19 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between each Two-Year Program Alternative year and the Baseline Conditions. The total acreage within the 65+ CNEL noise contours is very similar in the Two-Year Program Alternative contours as compared to the Baseline Condition contour, varying from -0.5% to +0.4%. The change in Two-Year Program Alternative noise conditions compared to the Baseline Conditions is attributable to three factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the Two-Year Program Alternative.

2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.
3. Runway closure periods associated with the Two-Year Program Alternative construction that results in ONT operating on a single-runway for periods of 2023 and 2024, as compared to the Baseline Conditions where both runways are operational. The impact of these runway closure periods is detailed and illustrated under the following section, Construction Impacts.

Table 8-19: Noise Inputs and Outputs for Baseline Conditions and Two-Year Program Alternatives

Year	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area Compared to Baseline Conditions
Baseline Conditions	106,026	No closure	2,485	--
2023 Two-Year Program Alternative	110,368	8L-26R – 6 months 8R-26L – 3 months	2,468	-0.7%
2024 Two-Year Program Alternative	113,826	8R-26L – 9 months	2,497	+0.5%

Note: (1) Aircraft operations are not influenced by the Two-Year Program Alternative. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Two-Year Program Alternative.

Source: HNTB analysis, 2022.

Table 8-20 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Two-Year Program Alternative year and provides a comparison of the Two-Year Program Alternative in each year to the Baseline Conditions.

As indicated in Table 8-20, construction of the Two-Year Program Alternative results in additional population and housing units within the 65-69 CNEL contour in 2023 and 2024, as compared to the Baseline Conditions. This increase in population/housing units is due to the shift in the Two-Year Program Alternative noise contours to the west of ONT, towards residential areas, as a result of the suspension of Contra Flow operations during proposed runway closures.

Table 8-20: Estimated Population, Housing Units and Acreage within Two-Year Program Alternative and Baseline Conditions Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
Baseline Conditions	59	0	0	59	13	0	0	13	1,390	545	551	2,485
2023 Conditions												
Two-Year Program	1,094	0	0	1,094	239	0	0	239	1,432	517	519	2,468
<i>Difference Between Two-Year Program and Baseline Conditions</i>	<i>+1,035</i>	<i>0</i>	<i>0</i>	<i>+1,035</i>	<i>+226</i>	<i>0</i>	<i>0</i>	<i>+226</i>	<i>+42</i>	<i>-28</i>	<i>-31</i>	<i>-17</i>
2024 Conditions												
Two-Year Program	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between Two-Year Program and Baseline Conditions</i>	<i>+889</i>	<i>0</i>	<i>0</i>	<i>+889</i>	<i>+202</i>	<i>0</i>	<i>0</i>	<i>+202</i>	<i>+55</i>	<i>-21</i>	<i>-24</i>	<i>+10</i>

Note: Aircraft operations are not influenced by the Proposed Project. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Proposed Project.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

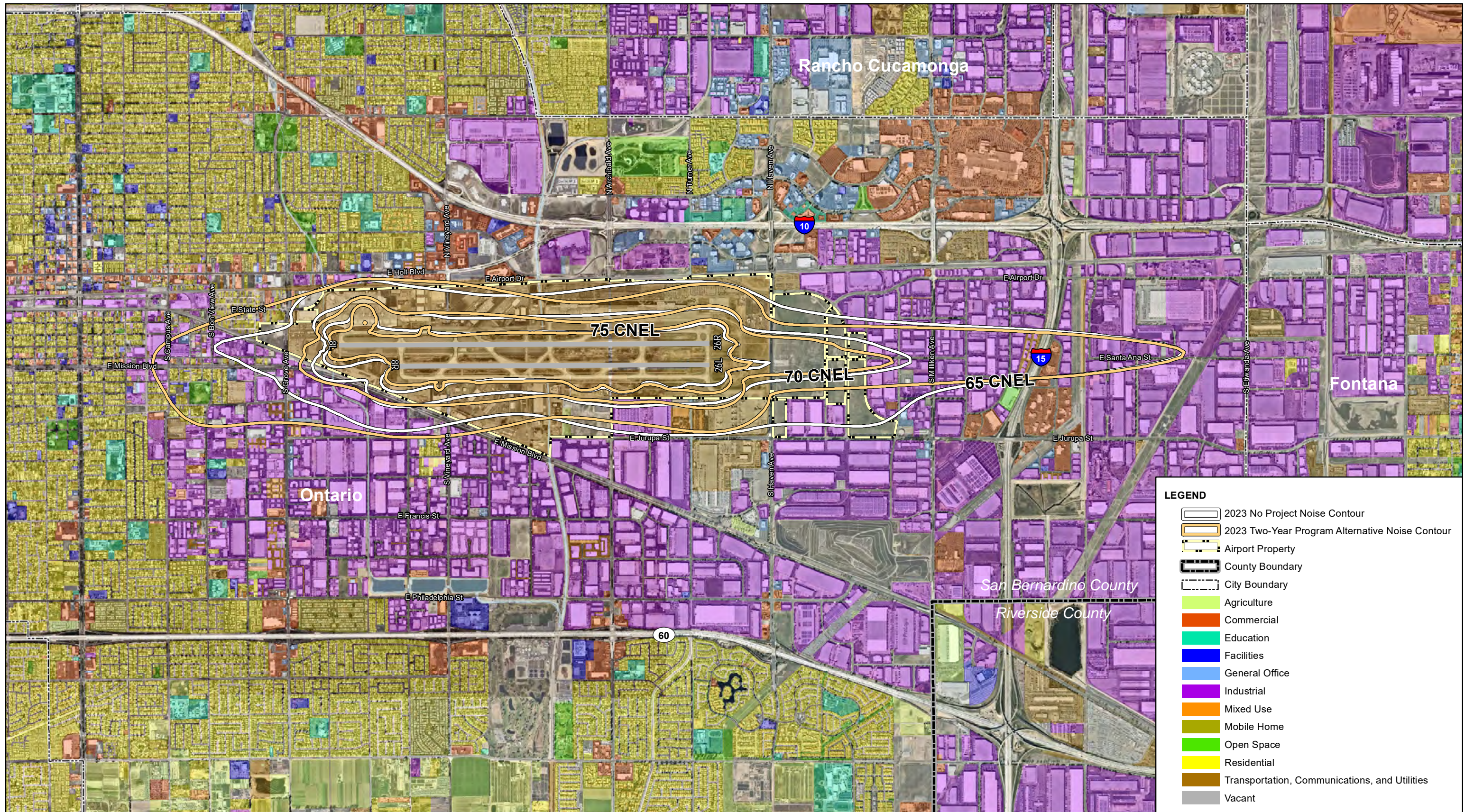
Additional Analysis for Informational Purposes

CEQA requires that the project alternative be compared to Baseline Conditions for the purpose of making a significance determination. For the Two-Year Program Alternative, the future noise exposure would be influenced by factors that are not attributable to the Project itself, specifically from background operational growth that is projected to occur with or without the Proposed Project, as well changes in fleet mix that can impact overall noise levels. In order to remove the influence of background growth and differences in aircraft fleet noise levels, this analysis also compares noise exposure of the Two-Year Program Alternative in a given year with the noise exposure from the No Project Alternative in the same year. This analysis is provided for informational purposes.

Figures 8-3 and 8-4 show the expected noise exposure contours in 2023 and 2024 in comparison with the No Project Alternative in the same year. Under the No Project Alternative there would be no runway closures, and Contra Flow would continue during nighttime operations. In comparison with the No Project Alternatives, the Two-Year Program Alternative increases the size of the contours to the west of the Airport whereas the size of the contours to the east of the Airport decreases.

Tables 4-21 and 4-22 summarize the estimated land area (acres) within CNEL contours for the No Project Alternative in 2023 and 2024 along with the estimated number of residential dwelling units, schools, and churches located within the contours (see Table 8-13 and Table 8-14 for the Two-Year Program Alternative summaries). The tables also provide an estimate of the residential population exposed to varying degrees of noise exposure based upon average household size by Census block. Residential dwelling units and population were initially determined using U.S. Census Bureau block data, with data verified using Google Earth.¹⁴

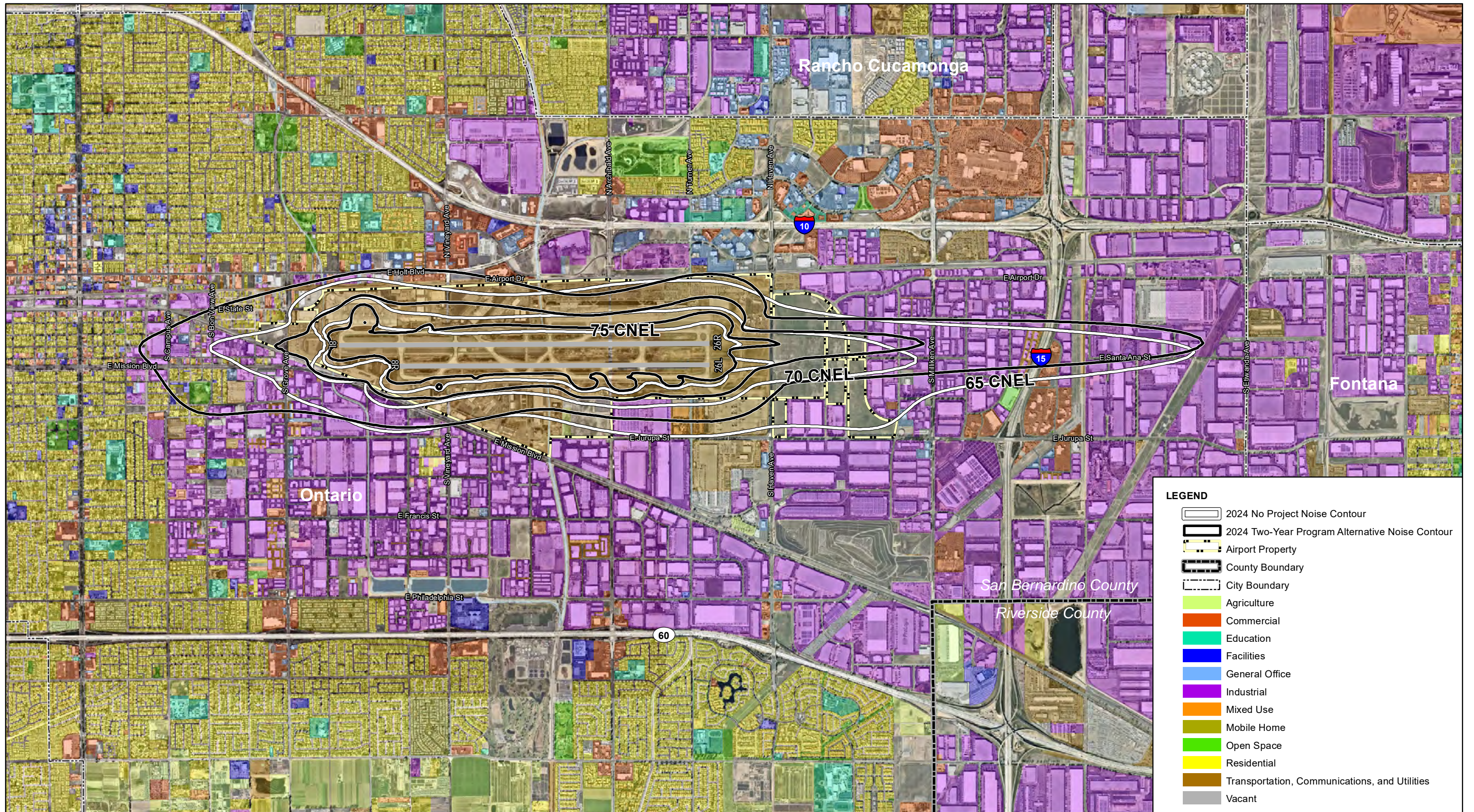
Table 8-21 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between the Two-Year Program Alternative and No Project in a given year. While the total aircraft operation levels remain the same between the Two-Year Program and No Project Alternatives in a given year, the total acreage within the 65+ CNEL noise contours increases between 2-4% in the Two-Year Program Alternative contours as compared to the No Project Alternative contours in the same year.



LEGEND

- 2023 No Project Noise Contour
- 2023 Two-Year Program Alternative Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

Figure 8-3



LEGEND

- 2024 No Project Noise Contour
- 2024 Two-Year Program Alternative Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

Table 8-21: Noise Inputs and Outputs for No Project and Two-Year Program Alternative

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area
2023	No Project	110,368	No closure	2,371	+4.1%
	Two-Year Program		8L-26R – 6 months 8R-26L – 3 months	2,468	
2024	No Project	113,826	No closure	2,439	+2.4%
	Two-Year Program		8R-26L – 9 months	2,497	

Note: (1) Aircraft operations are not influenced by the Two-Year Program Alternative. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Two-Year Program Alternative, as shown with the same level of operations modeled in the No Project Alternative and Two-Year Program Alternative in a given year.

Source: HNTB analysis, 2022.

Table 8-22 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Two-Year Program Alternative construction year and provides a comparison of the Two-Year Program Alternative in each construction year to the No Project Alternative in the same year.

As indicated in Table 8-22, construction of the Two-Year Program Alternative results in additional population and housing units within the 65-69 CNEL contour for all construction years, as compared to the No Project Alternative. This increase in population/housing units is due to the shift in the Two-Year Program Alternative noise contours to the west of ONT, towards residential areas, as a result of the suspension of contra flow operations during proposed runway closures.

Table 8-22: Estimated Population, Housing Units and Acreage within Two-Year Program Alternative Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
2023 Conditions												
No Project	29	0	0	29	7	0	0	7	1,305	523	543	2,371
Two-Year Program	1,094	0	0	1,094	239	0	0	239	1,432	517	519	2,468
<i>Difference Between Two-Year Program and No Project</i>	<i>+1,065</i>	<i>0</i>	<i>0</i>	<i>+1,065</i>	<i>+232</i>	<i>0</i>	<i>0</i>	<i>+232</i>	<i>+127</i>	<i>-6</i>	<i>-24</i>	<i>+97</i>
2024 Conditions												
No Project	44	0	0	44	10	0	0	10	1,349	537	553	2,439
Two-Year Program	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between Two-Year Program and No Project</i>	<i>+904</i>	<i>0</i>	<i>0</i>	<i>+904</i>	<i>+205</i>	<i>0</i>	<i>0</i>	<i>+205</i>	<i>+96</i>	<i>-12</i>	<i>-26</i>	<i>+57</i>

Source: SCAG, 2019 Annual Land Use Data, HNTB Analysis, 2022.

Impact Summary

This section summarizes the Two-Year Program Alternative's impacts as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.4.3* for Impact 4.5-1 through 4.5-3.

Impact 4.5-1

Summary Conclusion for Impact 4.5-1: The Two-Year Program Alternative would result in temporary noise exposure changes during the construction period in 2023 and 2024 due to the suspension of nighttime Contra Flow operations during proposed runway closure periods. Therefore, the Two-Year Program Alternative would have a *significant, unavoidable temporary impact* on noise levels in the vicinity of the project.

The Two-Year Program Alternative would result in changes in noise exposure as compared to the Baseline Conditions. The change in Two-Year Program Alternative noise conditions compared to the Baseline Conditions is attributable to three factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the Two-Year Program Alternative.
2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.
3. Runway closure periods associated with the Two-Year Program Alternative construction that results in ONT operating on a single-runway for periods of 2023 and 2024, as compared to the Baseline Conditions where both runways are operational.

During the proposed runway closure periods, all operations would occur on a single runway. Due to the two runways being parallel and closely spaced, temporarily operating on a single runway would not significantly alter flight patterns. As described above, Contra Flow operations would be suspended during construction periods. Figures 8-1 and 8-2 illustrate the expected noise exposure contours in 2023 and 2024 in comparison with the Baseline Conditions.

The Two-Year Program Alternative would result in temporary increases in noise exposure to the west of the Airport during nighttime hours during these construction periods. This would result in a *significant, unavoidable temporary impact on noise levels* in the vicinity of the project.

Impact 4.5-2

Summary Conclusion for Impact 4.5-2: The Two-Year Program Alternative would result in groundborne vibration and noise levels, but construction activity would not expose sensitive receptors. The Two-Year Program Alternative would result in a *less than significant impact* from groundborne vibration and noise levels.

Construction of the Two-Year Program Alternative may result in substantial vibration impacts. However, the project area is located within the active airfield and adjacent airport property. The properties immediately surrounding ONT are zoned industrial or commercial. The closest sensitive receptors are residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, respectively. It should be noted that these residential homes are eligible for acquisition under ONT's Quiet Home Program. The closest sensitive receptors to construction pavement area (proposed Taxiway N2) are residential homes located approximately 2,400 feet north, off of E. Nocta Street.

Between the Two-Year Program Alternative site and the residential receivers off of E. Nocta Street, there are two major roadways, industrial and commercial facilities, and a tow yard. Due to distance, the existing noise environment, and obstructions between noise sources and the residential receptors, construction noise levels would not be discernable over the existing ambient noise environment. Therefore, the Two-Year Program Alternative would result in a *less than significant impact* from groundborne vibration and noise levels.

Impact 4.5-3

Summary Conclusion for Impact 4.5-3: The Two-Year Program Alternative would result in *significant, unavoidable temporary impacts* to people residing or working around the Airport from excessive noise levels, as described below.

During runway closure periods in 2023 and 2024, all operations would occur on a single runway. During single runway operation, Contra Flow operations would be suspended at nighttime which is typically used as a noise mitigation strategy to minimize noise over residential areas at night. As described above, the Two-Year Program Alternative would temporarily expose additional people to excessive noise during the construction period when compared to Baseline Conditions. Therefore, the Two-Year Program Alternative would result in *significant, unavoidable temporary impacts* to people residing or working around the Airport from excessive noise levels.

Mitigation Measures

The Two-Year Program Alternative would result in significant but unavoidable temporary impacts to noise levels when compared to Baseline Conditions. There are no mitigation measures proposed as the impacts are temporary and noise levels will not be impacted following completion of Two-Year Program Alternative construction.

While Contra Flow operations would be suspended during the runway closure periods for construction of the Two-Year Program Alternative, ONT would continue to implement other Voluntary Operational Restrictions for noise management during implementation of the Two-Year Program Alternative, including but not limited to: ¹⁵

- "Touch-and-go" operations by turbojet and turbo-fan aircraft are prohibited without special permissions
- Nighttime (10:00 PM and 7:00 AM) engine maintenance run-up operations are prohibited. Daytime run-up operations occur at specified locations.

“Intersection departures” are prohibited (i.e., departures not starting at the end of the runway), except from 8L at Taxiway D and from 26R at Taxiway V. Departures must start at the end of runways to allow aircraft to pass higher over residential communities.

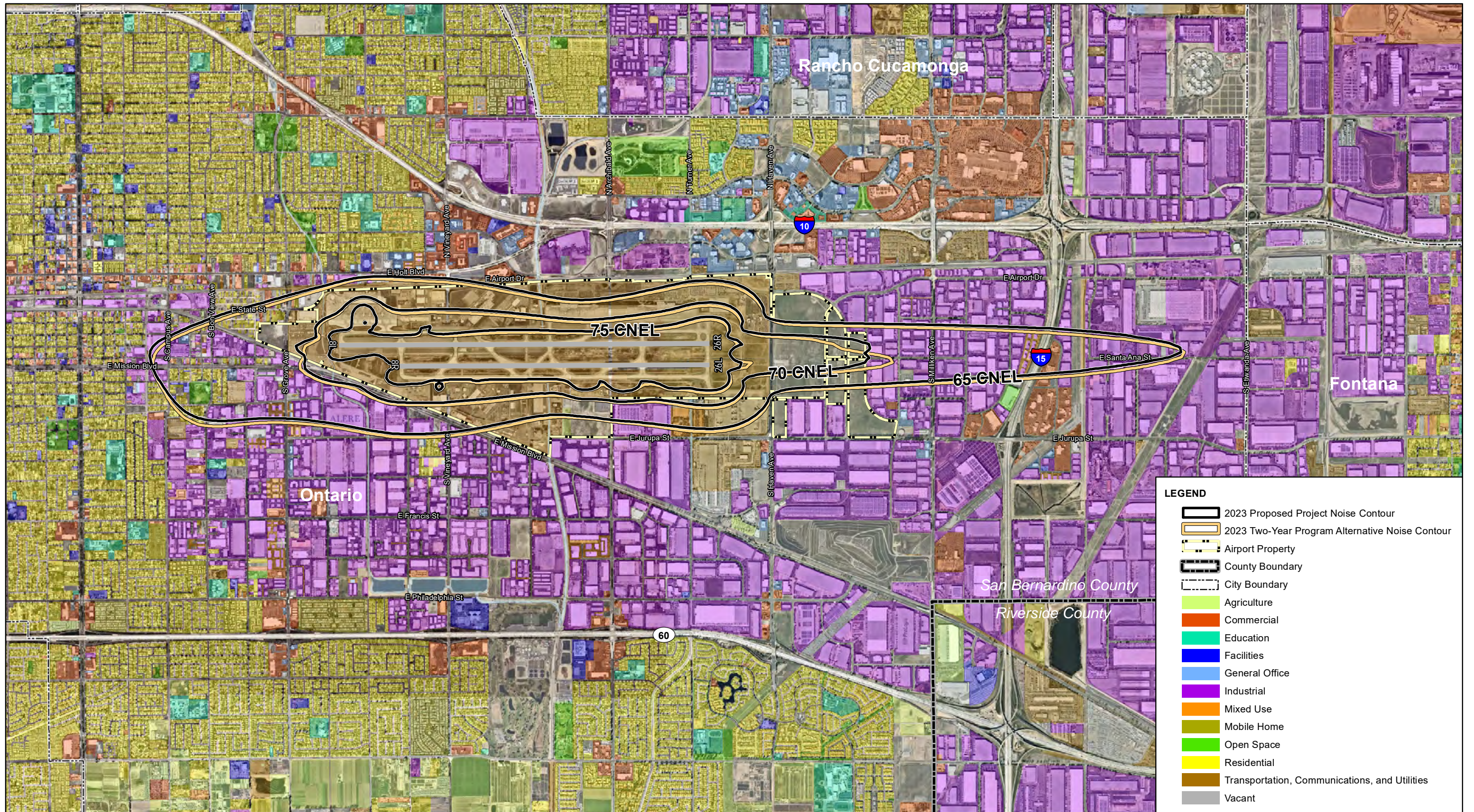
Comparison to Proposed Project

The Two-Year Program Alternative condenses the construction period to two years (2023 and 2024) as compared to the Proposed Project’s three-year construction period (2023, 2024 and 2025). As summarized in **Table 8-23**, runway closure schedules vary in 2023 between the two Alternatives but are identical in 2024. Therefore, the 2024 noise contour areas for both alternatives are identical. In 2025, the Two-Year Program Alternative implementation would be complete, therefore, the noise environment for the Two-Year Program Alternative in 2025 is represented by the 2025 No Project Alternative noise contour in order to make a reasonable comparison of the noise environment between the Proposed Project and Two-Year Program Alternative in 2025.

Figures 8-5 and 8-6 compare the expected noise exposure contours in 2023 and 2024 for the Two-Year Program Alternative and the Proposed Project, respectively. As illustrated in Figure 8-5, the Two-Year Program Alternative noise contours are shifted slightly south as compared to the Proposed Project noise contours, due to Runway 8L-26R (north runway) being closed for a greater period of the year and therefore more operations on Runway 8R-26L (south runway) as compared to Proposed Project in 2023. This minor shift south in the noise contours results in additional residential units/population within the Two-Year Program Alternative noise contours. As illustrated in Figure 8-6, the 2024 noise contours for both alternatives are identical due to the construction phasing and runway closure periods being the same.

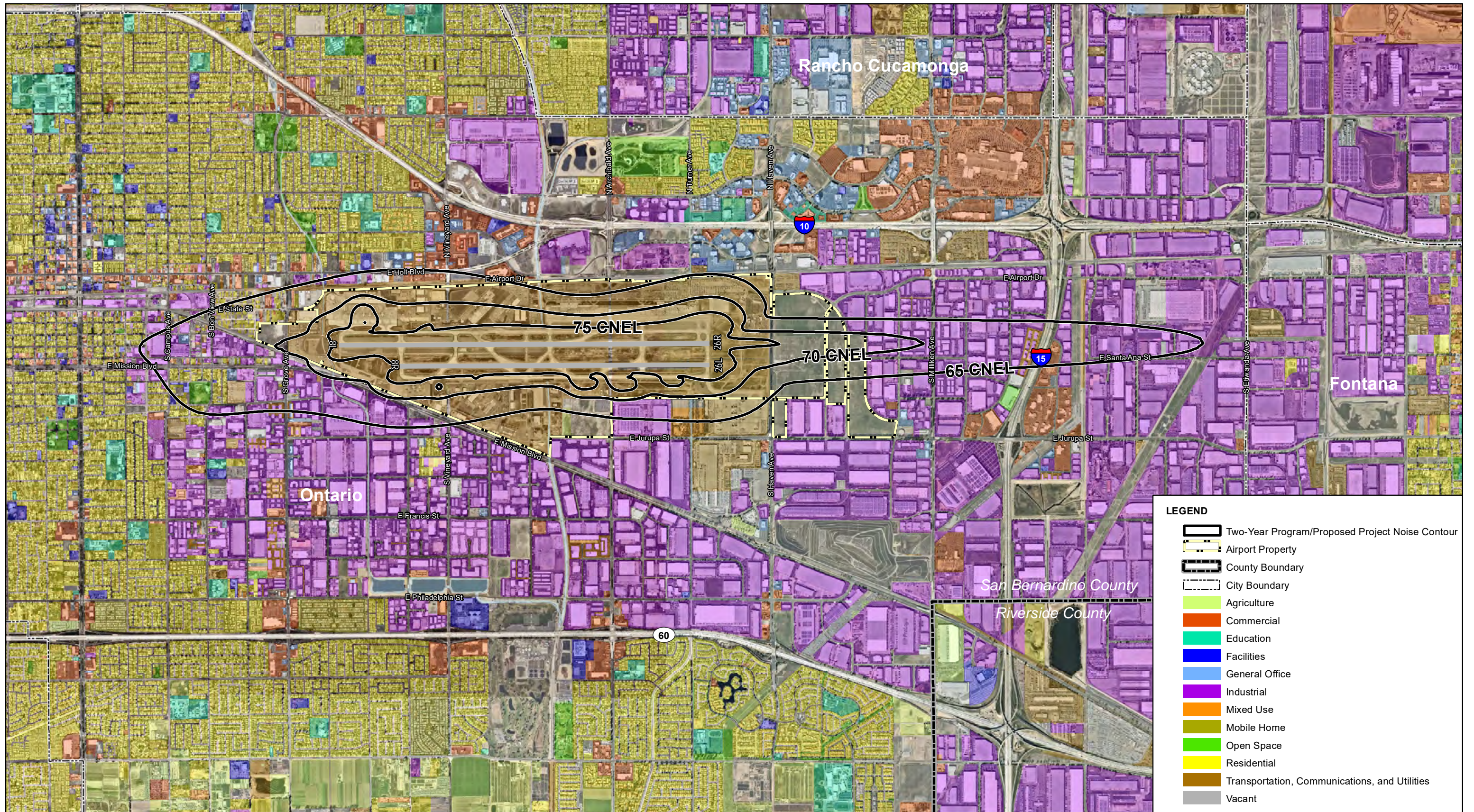
Table 8-24 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in the Two-Year Program Alternative and provides a comparison of the Two-Year Program Alternative in 2023 to the Proposed Project in 2023.

As indicated in Table 8-24, construction of the Two-Year Program Alternative results in additional population and housing units within the 65-69 CNEL contour in 2023, as compared to the Proposed Project. This increase in population/housing units is due to the longer closure of Runway 8L-26R under the Two-Year Program Alternative. This results in operations occurring on Runway 8R-26L for a greater period of the year as compared to the Proposed Project, with a higher concentration of residential houses location off the 8R end as compared to the 8L end. Because the Two-Year Program Alternative would be complete in 2024, the 2025 Proposed Project is compared to the 2025 No Project Alternative noise contour (to represent the Two-Year Program Alternative in 2025), in order to make a reasonable comparison of the noise environments between the alternatives in 2025. As shown, the Proposed Project would result in in additional population and housing units with the 65-69 CNEL contour in 2025. Overall, the Proposed Project would result in greater temporary



LEGEND

- 2023 Proposed Project Noise Contour
- 2023 Two-Year Program Alternative Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant



LEGEND

- Two-Year Program/Proposed Project Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

impacts to population and housing counts due to the extended construction period through 2025 as compared to the Two-Year Program Alternative that would be complete in 2024.

Table 8-23: Noise Inputs and Outputs for Proposed Project and Two-Year Program Alternative

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area Compared to Proposed Project
2023	Proposed Project	110,368	8L-26R – 4 months 8R-26L – 5 months	2,472	-0.2%
	Two-Year Program		8L-26R – 6 months 8R-26L – 3 months	2,468	
2024	Proposed Project/ Two Year Program	113,826	8R-26L – 9 months	2,497	--
2025	Proposed Project	117,625	8L-26R – 5 months	2,548	-1.4%
	Two-Year Program ²		No closure	2,513	

Note: (1) Aircraft operations are not influenced by the Two-Year Program Alternative. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Two-Year Program Alternative, as shown with the same level of operations modeled in the No Project Alternative and Two-Year Program Alternative in a given year.

(2) The Two-Year Program Alternative completes construction in 2024, therefore, the 2025 noise contour for the Two-Year Program Alternative is represented by the 2025 No Project Alternative noise contour in order to make a reasonable comparison of the noise environment between the Proposed Project and Two-Year Program Alternative in 2025.

Source: HNTB analysis, 2022.

**Table 8-24: Estimated Population, Housing Units and Acreage within the Proposed Project and Two-Year Program
Alternative Aircraft Noise Contours**

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
2023 Conditions												
Proposed Project	1,014	0	0	1,014	225	0	0	225	1,430	519	523	2,472
Two-Year Program	1,094	0	0	1,094	239	0	0	239	1,432	517	519	2,468
<i>Difference Between Proposed Project and Two-Year Program</i>	<i>-80</i>	<i>0</i>	<i>0</i>	<i>-80</i>	<i>-14</i>	<i>0</i>	<i>0</i>	<i>-14</i>	<i>-1</i>	<i>+2</i>	<i>+4</i>	<i>+4</i>
2024 Conditions												
Proposed Project/Two-Year Program	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between Proposed Project and Two-Year Program</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
2025 Conditions												
Proposed Project	703	0	0	703	165	0	0	165	1,467	534	547	2,548
Two-Year Program*	54	0	0	54	12	0	0	12	1,398	552	563	2,513
<i>Difference Between Proposed Project and Two-Year Program</i>	<i>+649</i>	<i>0</i>	<i>0</i>	<i>+649</i>	<i>+153</i>	<i>0</i>	<i>0</i>	<i>+153</i>	<i>+69</i>	<i>-18</i>	<i>-16</i>	<i>+35</i>

Note: *The Two-Year Program Alternative completes construction in 2024, therefore, the 2025 noise contour for the Two-Year Program Alternative is represented by the 2025 No Project Alternative noise contour in order to make a reasonable comparison of the noise environment between the Proposed Project and Two-Year Program Alternative in 2025.

Difference represents the Proposed Project minus the Two-Year Program Alternative counts.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Population and Housing

The Two-Year Program Alternative would have no impacts on population and housing. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Public Services

The Two-Year Program Alternative would have no physical impacts on public services. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Recreation

The Two-Year Program Alternative would have no impacts on recreation. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Transportation/Traffic

The Two-Year Program Alternative would have less than significant impacts to transportation and traffic. Any temporary surface traffic changes associated with construction of the Two-Year Program would be minor and mitigated, if necessary, by a required construction traffic plan. Construction vehicles would use existing airport roadways and service roads, and/or adjacent airfield area for access regardless of the construction staging area used. Compared to the Proposed Project, impacts to transportation and traffic due to construction would be of a shorter duration, however roadways may be more heavily used during the shorter time period.

Further, CEQA Guidelines section 15064.3 now specifies that VMT shall be the most appropriate measure of transportation impacts. VMT refers to the amount and distance of automobile travel attributable to a project. A project's effect on automobile delay and roadway congestion, previously measured by LOS, will no longer constitute an environmental impact. The Governor's OPR developed a *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which states that rehabilitation, repair and safety improvement projects for existing transportation assets that do not add additional capacity are projects that would not likely lead to a substantial or measurable increase in VMT.¹⁶ Caltrans' Transportation Analysis under CEQA¹⁷ has the same standard, and ONT has a Caltrans-issued permit. Here, both the Proposed Project and the Two-Year Program Alternative are rehabilitation, repair and safety improvement projects that do not add or increase capacity at ONT and would therefore not increase VMT. Moreover, the City of Ontario Resolution No. 2020-071 adopted VMT Thresholds stating that transportation projects that do not add capacity can be screened from further VMT review during the CEQA process and are presumed to have a less than significant impact on transportation.¹⁸

Thus, the Two-Year Program Alternative would have less than significant impacts as with the Proposed Project.

Tribal Cultural Resources

The Two-Year Program Alternative would result in the same impacts to cultural resources as with the Proposed Project since construction of the same project components would occur under both alternatives. Thus, the Two-Year Program Alternative would have less than significant impacts (with mitigation incorporated) as with the Proposed Project.

Utilities and Service Systems

The Two-Year Program Alternative would have less than significant impacts on utilities and service systems. Although increased use of utilities and service systems would be necessary during construction, impacts would be less than significant. Compared to the Proposed Project, impacts to utilities and service systems would be of a shorter duration, however they would also be more intense during the shorter time period. Thus, the Two-Year Program Alternative would have less than significant impacts as with the Proposed Project.

Health Risk Assessment

The incremental excess cancer risk is an estimate of the chance a person exposed to a specific source of a TAC may have of developing cancer from that exposure beyond the individual's risk of developing cancer from existing background levels of TACs in the ambient air. For context, the average cancer risk from TACs in the ambient air for an individual living in an urban area of California is 830 in 1 million.¹⁹ The SCAQMD has conducted studies on carcinogenic risk from exposure to air toxics in the SCAB. The most recent is the Multiple Air Toxics Exposure Study V (MATES V). According to the MATES Data Visualization interactive tool, the area around ONT has a cumulative cancer risk of 600 in 1 million.²⁰ Cancer risk estimates do not mean, and should not be interpreted to mean, that a person will develop cancer from estimated exposures to toxic air pollutants.

Impact Summary

This section summarizes the Two-Year Program Alternative's impacts as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.8.3* for Impacts 4.8-1 through 4.8-3.

Impact 4.8-1 and 4.8-2

MEIR and MEIW

The maximum estimated community health risks are determined by evaluating the increased cancer risk and non-cancer chronic risks for the maximally exposed individual resident (MEIR) and off-site maximally exposed individual worker (MEIW). To be conservative (health protective), sensitive receptors located at the closest school and closest hospital were evaluated using the residential risk parameters (age bins starting utero in the third trimester of pregnancy; 17 to 21 hours per day exposure).

The incremental excess cancer and chronic risks for the MEIR resulting from implementation of the Two-Year Program Alternative are presented in **Table 8-25**.

These estimates are conservative (health protective) and assume that the resident is outdoors for the entire exposure period. The locations of the MEIR are shown in Figure 4-8. As shown in Table 8-21, health risks for the MEIR would not exceed the SCAQMDs thresholds during implementation of the Two-Year Program Alternative.

Table 8-25
Two-Year Program Alternative Maximally Exposed Individual Resident Incremental Health Risk

	MEIR Cancer Risk	MEIR Chronic Hazard Index (HI)	MEIR Acute Hazard Index (HI)
Two-Year Program Alternative	2.2 in 1 million	0.08	0.22
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

The incremental excess cancer and chronic risks for the MEIW resulting from implementation of the Two-Year Program Alternative are presented in **Table 8-26**. These estimates are conservative (health protective) and assume that the worker is outdoors for the entire exposure period. The locations of the MEIW are shown in Figure 4-8. As shown in Table 8-22, health risks for the MEIW would not exceed the SCAQMDs thresholds during implementation of the Two-Year Program Alternative.

Table 8-26
Two-Year Program Alternative Maximally Exposed Individual Worker Incremental Health Risk

	MEIW Cancer Risk	MEIW Chronic HI	MEIW Acute HI
Two-Year Program Alternative	<0.1 in 1 million	0.27	0.54
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

The point of maximum impact (PMI; off-site) for cancer risks would be the location of the MEIW, at the airport property line near the location of the proposed concrete batch plant, at approximately Universal Transverse Mercator (UTM) coordinates Zone 11, 4443897 meters East, 3767796 meters North. The location of the PMI is shown in Figure 4-8. No sensitive receptors are located near the PMI for cancer risks.

Sensitive Receptor Health Risks

The estimated incremental excess cancer risks due to exposure to the Two-Year Program Alternative’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) are presented in **Table 8-27**. The model inputs, outputs, and risk isopleth figures are available in Appendix I, Health Risk Assessment, Attachment

B, Risk Modeling Input/Output. As shown in Table 8-23, the incremental increase in cancer risk would not exceed the SCAQMD threshold of 10 in 1 million for any sensitive receptor during implementation of Two-Year Program Alternative.

Table 8-27
Two-Year Program Alternative Discrete
Sensitive Receptor Incremental Cancer Risk

Receptor	Risk Two-Year Program Alternative (chances per million)
R1, Residence	-0.5
R2, Residence	-0.4
R3, Residence	-0.3
R4, Residence	-0.2
R5, Residence	-0.1
R6, Residence	<0.1
R7, Residence	2.2
R8, Residence	<0.1
R9, Residence	1.2
R10, Residence	1.6
R11, Residence	0.4
R12, Residence	0.3
R13, Residence	0.2
R14, Residence	0.1
R15, Residence	<0.1
R16, Residence	-0.2
R17, Residence	-0.2
R18, Residence	-0.2
R19, Residence	-0.2
R20, Residence	1.0
R21, Residence	0.6
R22, Residence	0.3
S1, School	1.1
S2, School	1.1
S3, School	1.4
S4, School	<0.1
S5, School	0.1
H1, Hospital	-0.1

Source: Lakes AERMOD View and CARB ADMRT. See Appendix I, *Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

The estimated incremental non-cancer chronic risk due to exposure to the Two-Year Program Alternative’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) is presented in **Table 8-28**. The model inputs, outputs, and risk isopleth figures are available in *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output*. As shown in Table 8-24, the incremental increase in non-cancer chronic HI would not exceed the SCAQMD threshold of 1 for any sensitive receptor during implementation of the Two-Year Program Alternative.

Table 8-28
Two-Year Program Alternative Discrete Sensitive Receptor Incremental Chronic Risk

Receptor	Two-Year Program Alternative HI
R1, Residence	<0.01
R2, Residence	-0.01
R3, Residence	<0.01
R4, Residence	<0.01
R5, Residence	<0.01
R6, Residence	<0.01
R7, Residence	0.08
R8, Residence	<0.01
R9, Residence	0.07
R10, Residence	0.04
R11, Residence	0.02
R12, Residence	0.02
R13, Residence	0.01
R14, Residence	0.01
R15, Residence	0.01
R16, Residence	<0.01
R17, Residence	<0.01
R18, Residence	<0.01
R19, Residence	<0.01
R20, Residence	0.06
R21, Residence	0.04
R22, Residence	0.03
S1, School	0.02
S2, School	0.04
S3, School	0.05
S4, School	<0.01
S5, School	0.01
H1, Hospital	<0.01

Source: Lakes AERMOD View and CARB ADMRT. See Appendix I, *Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

The estimated incremental non-cancer chronic risk due to exposure to the Two-Year Program Alternative’s TAC emissions for each modeled discrete sensitive receptor (shown in Figure 4-8) is presented in **Table 8-29**. The model inputs, outputs, and risk isopleth figures are available in *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output*. As shown in Table 8-25, the incremental increase in non-cancer acute HI would not exceed the SCAQMD threshold of 1 for any sensitive receptor during implementation of the Two-Year Program Alternative.

Table 8-29
Two-Year Program Alternative Discrete Sensitive Receptor Incremental Acute Risk

Receptor	Two-Year Program Alternative HI
R1, Residence	-0.03
R2, Residence	-0.07
R3, Residence	-0.01
R4, Residence	<0.01
R5, Residence	<0.01
R6, Residence	<0.01
R7, Residence	0.14
R8, Residence	-0.11
R9, Residence	0.13
R10, Residence	-0.01
R11, Residence	<0.01
R12, Residence	-0.03
R13, Residence	<0.01
R14, Residence	0.05
R15, Residence	0.05
R16, Residence	0.10
R17, Residence	0.05
R18, Residence	0.03
R19, Residence	0.03
R20, Residence	0.15
R21, Residence	-0.03
R22, Residence	-0.06
S1, School	0.13
S2, School	0.18
S3, School	0.22
S4, School	0.01
S5, School	0.13
H1, Hospital	<0.01

Source: Lakes AERMOD View and CARB ADMRT. See *Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

Impact 4.8-3

Cancer Burden

The cancer burden is the estimated increase in the occurrence of cancer cases from a source or facility over a 70-year exposure duration. The Two-Year Program Alternative would involve short-term and temporary airport runway rehabilitation and associated improvement activities, anticipated to last a maximum duration of two years. Once implementation of the Two-Year Program Alternative is complete, the project would not result in any long-term changes in emissions at ONT. Therefore, an analysis of cancer burden is not applicable to the Two-Year Program Alternative.

Mitigation Measures

No mitigation is proposed as there are no anticipated health risks as a result of the Two-Year Program Alternative.

Comparison to Proposed Project

The Two-Year Program Alternative condenses the construction period to two years (2023 and 2024) as compared to the Proposed Project's three-year construction period (2023, 2024 and 2025). Both the Proposed Project and the Two-Year Program Alternative would result in a less than significant human health risk impact, and the differences in associated risk between the Alternatives are minor.

The Two-Year Program Alternative would compress the anticipated project implementation period from three years to two years. For this reason, the Two-Year Program Alternative would result in a shorter exposure time for sensitive receptors to any project-related increases in TAC concentrations. However, the compressed implementation period would increase the intensity of diesel-powered construction equipment use and the annual concrete throughput for the batch plant.

As there are no existing sensitive receptor locations (residences, schools, and hospitals) in close proximity to the construction areas anticipated to have intense use of diesel-powered equipment, and more than 1,000 feet from the proposed batch plant location, the primary driver of health risks for sensitive receptors would be the change in aircraft emissions concentrations due to shifting aircraft movement patterns during project implementation. Compared to the Proposed Project three-year implementation, the Two-Year Program Alternative would result in slightly lower health risks for the MEIR (cancer risks lower by 0.8 in 1 million; non-cancer chronic HI lower by 0.03; acute HI lower by 0.23).

Potential existing off-site worker locations are much closer to the proposed staging area, construction areas, and batch plant. Therefore, health risks to off-site workers are more affected by increased intensity of diesel-powered construction equipment use and the annual concrete throughput for the batch plant. For the MEIW, compared to the Proposed Project three-year implementation, the Two-Year Program Alternative would result in slightly lower cancer risk risks (lower by 0.4 in 1 million), a slight increase in non-cancer chronic HI (increase by 0.09), and no change for acute HI.

Tables 8-30 through 8-34 present the comparison of potential health risk impacts between the Proposed Project and Two-Year Program Alternative and provide the difference in potential impacts between the two alternatives.

**Table 8-30
Proposed Project and Two-Year Program Alternative Maximally Exposed
Individual Resident Incremental Health Risk**

	MEIR Cancer Risk	MEIR Chronic HI	MEIR Acute HI
Proposed Project	3.0 in 1 million	0.11	0.45
Two-Year Program Alternative	2.2 in 1 million	0.08	0.22
<i>Difference</i>	<i>0.8 in 1 million</i>	<i>0.03</i>	<i>0.23</i>
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Note: Difference represents the Proposed Project minus the Two-Year Program Alternative risk.

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

**Table 8-31
Proposed Project and Two-Year Program Alternative Maximally Exposed
Individual Worker Incremental Health Risk**

	MEIW Cancer Risk	MEIW Chronic HI	MEIW Acute HI
Proposed Project	0.4 in 1 million	0.18	0.54
Two-Year Program Alternative	<0.1 in 1 million	0.27	0.54
<i>Difference</i>	<i>0.4 in 1 million</i>	<i>-0.09</i>	<i>0</i>
Threshold	10 in 1 million	1	1
Exceed Threshold?	No	No	No

Note: Difference represents the Proposed Project minus the Two-Year Program Alternative risk.

Source: Lakes AERMOD View, CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs and outputs.

**Table 8-32
 Proposed Project and Two-Year Program Alternative Discrete
 Sensitive Receptor Incremental Cancer Risk**

Receptor	Proposed Project Risk (chances per million)	Two-Year Program Alternative Risk (chances per million)	<i>Difference (chances per million)</i>
R1, Residence	-0.4	-0.5	0.1
R2, Residence	-0.5	-0.4	-0.1
R3, Residence	-0.3	-0.3	0
R4, Residence	-0.2	-0.2	0
R5, Residence	-0.1	-0.1	0
R6, Residence	0.1	<0.1	0.1
R7, Residence	2.6	2.2	0.4
R8, Residence	0.4	<0.1	0.4
R9, Residence	3.0	1.2	1.8
R10, Residence	3.0	1.6	1.4
R11, Residence	0.5	0.4	0.1
R12, Residence	0.4	0.3	0.1
R13, Residence	0.2	0.2	0
R14, Residence	0.1	0.1	0
R15, Residence	<0.1	<0.1	0
R16, Residence	-0.2	-0.2	0
R17, Residence	-0.2	-0.2	0
R18, Residence	-0.3	-0.2	-0.1
R19, Residence	-0.2	-0.2	0
R20, Residence	1.0	1.0	0
R21, Residence	0.6	0.6	0
R22, Residence	0.4	0.3	-0.1
S1, School	1.7	1.1	0.6
S2, School	1.5	1.1	0.4
S3, School	1.5	1.4	0.1
S4, School	0.1	<0.1	0.1
S5, School	0.1	0.1	0
H1, Hospital	-0.1	-0.1	0

Note: Difference represents the Proposed Project minus the Two-Year Program Alternative risk.

Source: Lakes AERMOD View and CARB ADMRT. See Appendix I, Health Risk Assessment, Attachment B, Risk Modeling Input/Output for model inputs, outputs, and risk isopleths.

Table 8-33
Proposed Project and Two-Year Program Alternative
Discrete Sensitive Receptor Incremental Chronic Risk

Receptor	Proposed Project HI	Two-Year Program Alternative HI	<i>Difference in HI</i>
R1, Residence	0.01	<0.01	0.01
R2, Residence	<0.01	-0.01	0.01
R3, Residence	<0.01	<0.01	0
R4, Residence	<0.01	<0.01	0
R5, Residence	<0.01	<0.01	0
R6, Residence	0.01	<0.01	0.01
R7, Residence	0.08	0.08	0
R8, Residence	0.02	<0.01	0.02
R9, Residence	0.11	0.07	0.04
R10, Residence	0.08	0.04	0.04
R11, Residence	0.02	0.02	0
R12, Residence	0.02	0.02	0
R13, Residence	0.01	0.01	0
R14, Residence	0.01	0.01	0
R15, Residence	0.01	0.01	0
R16, Residence	0.01	<0.01	0.01
R17, Residence	<0.01	<0.01	0
R18, Residence	<0.01	<0.01	0
R19, Residence	<0.01	<0.01	0
R20, Residence	0.06	0.06	0
R21, Residence	0.04	0.04	0
R22, Residence	0.04	0.03	0.01
S1, School	0.02	0.02	0
S2, School	0.04	0.04	0
S3, School	0.05	0.05	0
S4, School	<0.01	<0.01	0
S5, School	0.01	0.01	0
H1, Hospital	<0.01	<0.01	0

Note: Difference represents the Proposed Project minus the Two-Year Program Alternative risk.

Source: Lakes AERMOD View and CARB ADMRT. See Appendix I, *Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

**Table 8-34
Proposed Project and Two-Year Program Alternative
Discrete Sensitive Receptor Incremental Acute Risk**

Receptor	Proposed Project HI	Two-Year Program Alternative HI	Difference in HI
R1, Residence	0.07	-0.03	0.10
R2, Residence	-0.05	-0.07	0.02
R3, Residence	<0.01	-0.01	0.01
R4, Residence	0.01	<0.01	0.01
R5, Residence	0.01	<0.01	0.01
R6, Residence	0.01	<0.01	0.01
R7, Residence	0.14	0.14	0
R8, Residence	0.05	-0.11	0.16
R9, Residence	0.45	0.13	0.32
R10, Residence	0.27	-0.01	0.28
R11, Residence	<0.01	<0.01	0
R12, Residence	-0.03	-0.03	0
R13, Residence	<0.01	<0.01	0
R14, Residence	0.05	0.05	0
R15, Residence	0.05	0.05	0
R16, Residence	0.10	0.10	0
R17, Residence	0.05	0.05	0
R18, Residence	0.03	0.03	0
R19, Residence	0.03	0.03	0
R20, Residence	0.15	0.15	0
R21, Residence	-0.03	-0.03	0
R22, Residence	-0.03	-0.06	0.03
S1, School	0.17	0.13	0.04
S2, School	0.18	0.18	0
S3, School	0.22	0.22	0
S4, School	0.01	0.01	0
S5, School	0.02	0.13	-0.11
H1, Hospital	0.01	<0.01	0.01

Note: Difference represents the Proposed Project minus the Two-Year Program Alternative risk.

Source: Lakes AERMOD View and CARB ADMRT. See Appendix I, *Health Risk Assessment, Attachment B, Risk Modeling Input/Output* for model inputs, outputs, and risk isopleths.

Wildfire

The Two-Year Program Alternative would have no impacts to wildfire. The lack of impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Growth Inducement

The Two-Year Program Alternative would not induce growth because it would not directly or indirectly create jobs or entice new businesses to the area. The lack of

impacts regarding this category is the same with the Two-Year Program Alternative as with the Proposed Project.

Cumulative Impacts

As with the Proposed Project, implementation of all of the project components would contribute to cumulative impacts temporarily during construction. Similar to the Proposed Project, the Two-Year Program Alternative would result in less than significant project-level air emission impacts (with mitigation incorporated) and therefore would not be cumulatively considerable except for the requirement to consider cumulative impacts for EIR purposes. The Two-Year Program Alternative would have significant temporary noise impacts due to aircraft activity however the impacts would be less than the Proposed Project due to reduced construction years. Therefore, the Two-Year Program Alternative would have cumulatively less impact than the Proposed Project.

8.1.1.3 Ability of Alternative to Meet Basic Objectives of the Proposed Project and to be Feasibly Implemented

This alternative would only partially achieve the basic objectives of the Proposed Project in that it would prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, meet current FAA standards, improve safety on the airfield, enhance airfield efficiency, and provide adequate infrastructure to support airfield and navigational power requirements. However, and importantly, the Two-Year Program Alternative would not meet the objective to maximize available FAA funding for construction. Nor is the Two-Year Program Alternative feasible as explained below.

OIAA's airport revenue streams primarily originate from: aircraft landing fees, facilities rental fees, concessions (parking, food and beverage, news and gifts, advertising, etc.), and Passenger Facility Charges (PFC). These funding streams maintain and cover ONT's day-to-day operating costs. Large airfield projects, including the Proposed Project, are not able to be solely financed by the OIAA without significantly compromising the ability to operate ONT to its existing service levels. As such, the FAA has an Airport Improvement Program (AIP) that provides airport sponsors with entitlement and discretionary grants that can be used to substantially fund critical airfield infrastructure design and construction.²¹ Additional information on AIP funds is included in *Appendix K, Two-Year Program Alternative, Attachments K-1 through K-4*.

Additionally, a two-year construction program provides challenges in labor availability and funding to accomplish the work. Shortening the program would require construction activity for at least two, and likely three, shifts per day, up to seven days per week during some or all of the phases in order to accomplish the volume of work required to reconstruct the runway. Given the current construction outlook for the region, it is unlikely that a contractor would be able to secure enough labor to accomplish the runway work in one year. Labor shortages in the region mean that OIAA would not be able to staff multiple work crew shifts each day that would be needed to condense or accelerate the Project's construction into a two-year

timeframe versus a three-year duration. Also, such acceleration of the Project's construction timeframe would result in significantly higher costs due to higher pay required during non-standard work hours. According to an annual analysis of the Bureau of Labor Statistics' Job Openings and Labor Turnover Survey (JOLTS), "the construction industry continues to face a skilled labor shortage, with worker scarcity exacerbated since the onset of the pandemic. The resulting surge in construction wages, combined with climbing materials prices, has produced significant increases in the cost of delivering construction services."²² Refer to *Appendix K, Attachment K-5* for information related to construction workforce labor shortages. The three-year program allows the work to be accomplished with a more traditional construction schedule given labor availability. Chronic supply chain problems would also make it infeasible to provide timely goods and materials to allow the Project construction to be condensed to a two-year construction timeframe. (See *Appendix K, Attachment K-6*.)

Further, FAA funding availability dictates construction timeframes as OIAA is reliant on FAA funding through the AIP for large scale construction. Under the Two-Year Program Alternative, OIAA would not be able to utilize at least about \$20 million in FAA funding for the Project that would be available under the three-year construction timeframe of the Proposed Project. The funding amounts would come from (1) annual "entitlement" funding from the local Southern California FAA office for ONT capital project (about \$4.5 million each year to OIAA on average over the last three years), (2) annual funding of about \$9.685 million from the Bipartisan Infrastructure Law, and (3) annual "discretionary" funding from the local FAA office for ONT capital project (about \$5 million each year expected based on discussions with the FAA).

In 2019 and 2020, OIAA requested FAA funding assistance to complete the project over a two-year period, as included in the 2019 and 2020 ACIPs (*Appendix K, Attachment K-2*). The funding levels requested for a two-year program were relatively aligned with funding levels that had historically been requested and received for runway reconstruction programs at other medium hub airports. FAA indicated that no more than \$5 million in FAA discretionary funding would be available annually from the FAA in order to support the ACIP. However, FAA has indicated that the requested AIP funding is expected to be available to support the Proposed Project if completed over a three-year period (2023, 2024 and 2025). Specifically, the level of discretionary funding proposed by the OIAA in their annual ACIP submittals in 2019 and 2020 for a Two-Year Program is not available. Without Federal funding assistance, OIAA would not be able to complete this critical airfield project within a timespan that is needed to rehabilitate critical runway and taxiway pavement. The third year of construction would provide the airport with another year's worth of AIP entitlements to apply to the project. The airport would also seek additional discretionary AIP dollars in that third year to further offset Project construction costs. Accelerating the construction timeframe for the Project would require the airport to self-fund approximately \$20 million or more in construction costs to be expended in 2024, funding for which costs would be available with Federal grant monies in 2025 (but not 2024) under the Proposed Project's construction timeframe. This substantial amount is beyond the airport's ability to fund in 2024 due to other capital program requirements and operating budget obligations. The airport does not have existing

or available reserve or contingency funding to apply to the Project for construction costs that would be expended in 2024 under the Two-Year Program Alternative.

OIAA does not have funds available to cover the about \$20 million gap in Project funding that would exist, as discussed above, under the Two-Year Program Alternative versus the Proposed Project. Nor, according to OIAA CFO John Schubert, does OIAA have unrestricted and available cash, reserve, contingency, or bond funds available to fund any part of the \$20 million amount of Project construction costs to be expended in 2024 under the Two-Year Program Alternative, funding for which costs should be available with Federal grant monies in 2025 under the Proposed Project construction timeframe of three years.

Accordingly, the Two-Year Program Alternative both does not meet the Project Objective to maximize FAA funding for capital projects at ONT and is neither practically nor financially or economically feasible under CEQA Guidelines sections 15126(f)(1) and 15364. OIAA does not have available funds for the Proposed Project or any Alternative independent of FAA funding available during a three-year construction program for the Project. Without a funding commitment from FAA for the Two-Year Program Alternative, OIAA is financially unable to implement this alternative which makes it infeasible. Nor can this Alternative be feasibly implemented given construction labor shortages and supply chain problems for needed construction materials and goods.

8.1.2 No Project Alternative

CEQA and CEQA Guidelines require the evaluation of a No Project Alternative.

8.1.1.4 Description of Alternative

The No Project Alternative is the circumstance under which the project does not proceed. No rehabilitation or reconstruction of runways, taxiways, or other airfield improvements would occur. The airside pavement maintenance, rehabilitation and reconstruction projects recommended in the 2020 ONT PMP would not be implemented, and existing runway, taxiway and airfield conditions would remain and airfield efficiency would not be enhanced. Runway 8R-26L would continue to deteriorate beyond its intended design service life and airfield conditions would become a safety concern. None of the airfield improvements needed to address safety concerns and to meet FAA standards would occur, as objects would remain within the RSA and ROFA, and modifications needed to address hot spots at ONT would not occur.

8.1.1.5 Environmental Effects

This section considers the environmental effects of the No Project Alternative (e.g., the Airport/airfield remaining in its existing state).

Aesthetics

Under the No Project Alternative, there would be no construction or change to activities, and there would be no impacts to aesthetics or visual resources. The only variation in potential impact between the No Project Alternative and the Proposed

Project is that the Proposed Project would have a less than significant impact associated with creation of a new source of substantial light or glare whereas the No Project Alternative would have no impact.

Agricultural and Forestry Resources

Under the No Project Alternative, there would be no construction or change to activities, and there would be no impacts to agricultural or forestry resources. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Air Quality

The No Project Alternative would have no impact on operations at the Airport. The No Project Alternative would not increase Airport capacity, it would not result in increases in local traffic as described in *Section 3.9*, and therefore, emissions associated with passenger traffic arriving and departing ONT were not analyzed. Therefore, no operational analysis is completed as part of this EIR.

Construction Impacts

Under the No Project Alternative, the proposed airfield improvements would not be constructed. Therefore, there would be no direct construction emissions associated with the project. The No Project Alternative would have no runway closure periods and would therefore have no indirect construction emissions associated with changes in aircraft taxiing. The No Project Alternative would have *no impact* due to construction emissions.

For consistency in analysis of aircraft taxiing emissions, **Table 8-35** compares the No Project Alternative aircraft taxiing emissions to the Baseline Conditions aircraft taxiing emissions. As shown, aircraft taxiing emissions would increase under the No Project Alternative as compared to the Baseline Conditions in years 2023, 2024 and 2025, and exceed the NAAQS and SCAQMD thresholds of significance for NO_x and VOC in 2025. However, the increase in aircraft taxiing emissions is not a result of the No Project Alternative, but instead due to background growth in aircraft operations at ONT that would result in added taxiing delay and therefore increased aircraft taxiing emissions.

Comparison to Proposed Project

A comparison of the No Project Alternative and Proposed Project aircraft taxiing emissions is provided for informational purposes in *Chapter 4.0, Section 4.1.4*, Table 4-7. This comparison is provided again in **Table 8-36**. These incremental differences represent the indirect Proposed Project-related construction emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Proposed Project would result in decreases of emissions when compared to the No Project Alternative. This is a result of the suspension of Contra Flow, which improves departure taxi efficiency. This comparison further demonstrates the temporary reduction in emissions that would be experienced during implementation of the Proposed Project due to changes in aircraft taxiing.

Table 8-35: No Project Alternative Aircraft Taxiing Emissions Compared to Baseline Conditions

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NOx	VOC	SO ₂	PM _{2.5}	PM ₁₀
Baseline Conditions	517	63	96	18	2	2	2,832	346	527	101	9	9
2023 No Project	551	67	101	20	2	2	3,019	369	554	107	9	9
2023 No Project Incremental Changes	34	4	5	2	0	0	187	23	27	6	0	0
2024 No Project	572	70	105	20	2	2	3,125	383	573	111	9	9
2024 No Project Incremental Changes	55	7	9	2	0	0	293	37	46	10	0	0
2025 No Project	597	73	109	21	2	2	3,270	402	596	116	10	10
2025 No Project Incremental Changes	80	10	13	3	0	0	438	56	69	15	1	1
NAAQS or SCAQMD threshold of significance	100	10	10	--	100	70	550	55	55	150	150	55
Exceeds Thresholds?	No	Yes	Yes	--	No	No	No	Yes	Yes	--	No	No

Source: FAA ASPM and HNTB analysis, 2022.

Table 8-36: Proposed Project Aircraft Taxiing Indirect Construction Emissions from Temporary Runway Closures Compared to No Project Alternative

Year	Pollutants (tons/year)						Pollutants (lbs/day)					
	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀	CO	NO _x	VOC	SO ₂	PM _{2.5}	PM ₁₀
2023 No Project	551	67	101	20	2	2	3,019	369	554	107	9	9
2023 Proposed Project	490	60	90	17	1	1	2,686	328	493	95	8	8
2023 Incremental Changes	-61	-7	-11	-2	<0	<0	-333	-41	-61	-12	-1	-1
2024 No Project	572	70	105	20	2	2	3,125	383	573	111	9	9
2024 Proposed Project	510	63	94	18	2	2	2,790	342	511	99	8	8
2024 Incremental Changes	-61	-8	-11	-2	<0	<0	-336	-41	-62	-12	-1	-1
2025 No Project	597	73	109	21	2	2	3,270	402	596	116	10	10
2025 Proposed Project	563	69	103	20	2	2	3,083	379	562	110	9	9
2025 Incremental Changes	-34	-4	-6	-1	<0	<0	-187	-23	-34	-7	-1	-1

Source: FAA ASPM and HNTB analysis, 2022.

Impact Summary

As detailed above, the No Project Alternative would have *no impact* on operational of construction emissions. Therefore, the No Project Alternative would have no impact as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.1.3* for Impact 4.1-1 through 4.1-5. The construction impact summary above is provided for consistency with the analysis of aircraft taxiing emissions for the Proposed Project and Two-Year Program Alternative as compared to Baseline Conditions.

Biological Resources

Under the No Project Alternative, there would be no construction or change to activities, and there would be no impacts to biological resources. The Proposed Project would have a less than significant impact (with mitigation incorporated) associated with biological resources whereas the No Project Alternative would have no impact.

Cultural Resources

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to cultural resources. The SCCIC record search did not identify any cultural resources within the project area, thus the lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Energy

Under the No Project Alternative, there would be no construction or change to activities and there would be no impact on energy supply. The only variation in potential impact between the No Project Alternative and the Proposed Project is that Proposed Project would have a less than significant impact associated with the potential to consume energy resources inefficiently during construction of the project whereas the No Project Alternative would have no impact.

Geology and Soils

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to geology and soils. The Proposed Project would however have the potential for less than significant impact associated with constructions efforts such as soil erosion or soils that are unstable.

Greenhouse Gas Emissions

The No Project Alternative would have no impact on operations at the Airport. The No Project Alternative would not increase Airport capacity, it would not result in increases in local traffic as described in *Section 3.9*, and therefore, emissions associated with passenger traffic arriving and departing ONT were not analyzed. Therefore, no operational GHG analysis is completed as part of this EIR.

Construction Impacts

Under the No Project Alternative, the proposed airfield improvements would not be constructed. Therefore, there would be no direct construction GHG emissions associated with the project. The No Project Alternative would have no runway closure periods and would therefore have no indirect construction GHG emissions associated with changes in aircraft taxiing. The No Project Alternative would have *no impact* due to construction GHG emissions.

For consistency in analysis of aircraft taxiing GHG emissions, **Table 8-37** compares the No Project Alternative aircraft taxiing GHG emissions to the Baseline Conditions aircraft taxiing GHG emissions. As shown, aircraft taxiing GHG emissions would increase under the No Project Alternative as compared to the Baseline Conditions in years 2023, 2024 and 2025. However, the increase in aircraft taxiing GHG emissions is not a result of the No Project Alternative, but instead due to background growth in aircraft operations at ONT that would result in added taxiing delay and therefore increased aircraft taxiing GHG emissions.

Comparison to Proposed Project

A comparison of the No Project Alternative and Proposed Project aircraft taxiing GHG emissions is provided for informational purposes in *Chapter 4.0, Section 4.3.4*, Table 4-14. This comparison is provided again in **Table 8-38**. These incremental differences represent the indirect Proposed Project-related construction GHG emissions associated with temporary runway closures, removing background growth and differences in emission factors. As indicated, the temporary changes in aircraft taxiing during construction of the Proposed Project would result in decreases of GHG emissions when compared to the No Project Alternative. This is a result of the suspension of Contra Flow, which improves departure taxi efficiency. This comparison further demonstrates the temporary reduction in GHG emissions that would be experienced during implementation of the Proposed Project due to changes in aircraft taxiing.

Table 8-37: No Project Alternative Aircraft Taxiing GHG Emissions Compared to Baseline Conditions

Year	CO ₂ e (MT/year)
Baseline Conditions	49,520
2023 No Project Alternative	52,700
2023 Incremental Changes	3,180
Baseline Conditions	49,520
2024 No Project Alternative	54,849
2024 Incremental Changes	5,329
Baseline Conditions	49,520
2024 No Project Alternative	57,217
2025 Incremental Changes	7,697

Source: AEDT and HNTB analysis, 2022.

Table 8-38: Proposed Project Aircraft Taxiing Indirect Construction GHG Emissions from Temporary Runway Closures Compared to the No Project Alternative

Year	CO ₂ e (MT/year)
2023 No Project Alternative	52,700
2023 Proposed Project	46,919
2023 Incremental Changes	-5,781
2024 No Project Alternative	54,849
2024 Proposed Project	48,958
2024 Incremental Changes	-5,891
2025 No Project Alternative	57,217
2025 Proposed Project	53,944
2025 Incremental Changes	-3,273

Source: AEDT and HNTB analysis, 2022.

Impact Summary

As detailed above, the No Project Alternative would have no impact on operational of construction GHG emissions. Therefore, the No Project Alternative would have no impact as it relates to the thresholds of significance detailed in Chapter 4.0, Section 4.3.3 for Impact 4.3-1 and 4.3-2. The construction impact summary above is provided for consistency with the analysis of aircraft taxiing GHG emissions for the Proposed Project and Two-Year Program Alternative as compared to Baseline Conditions.

Hazards and Hazardous Materials

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to hazards or hazardous materials. The Proposed Project would however have the potential for less than significant impact associated with constructions efforts that might encounter hazards or hazardous materials.

Hydrology and Water Quality

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to hydrology or water quality. The Proposed Project would however have the potential for less than significant impacts such as water quality standards associated with construction and less than significant impacts (with mitigation incorporated) associated with a minor increase in impervious surface.

Land Use and Planning

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to land use and planning. The No Project Alternative would however not advance ONT’s planning goals and objectives. The lack

of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Mineral Resources

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to mineral resources. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Noise

Under the No Project Alternative, the proposed airfield improvements would not be constructed. There would be no changes to flight patterns or temporary runway closures. As a result, the No Project Alternative would have **no impact** on construction-related noise levels and would avoid the temporary significant impacts from aircraft noise that would occur under the Proposed Project and Two-Year Program Alternative.

Construction Impacts

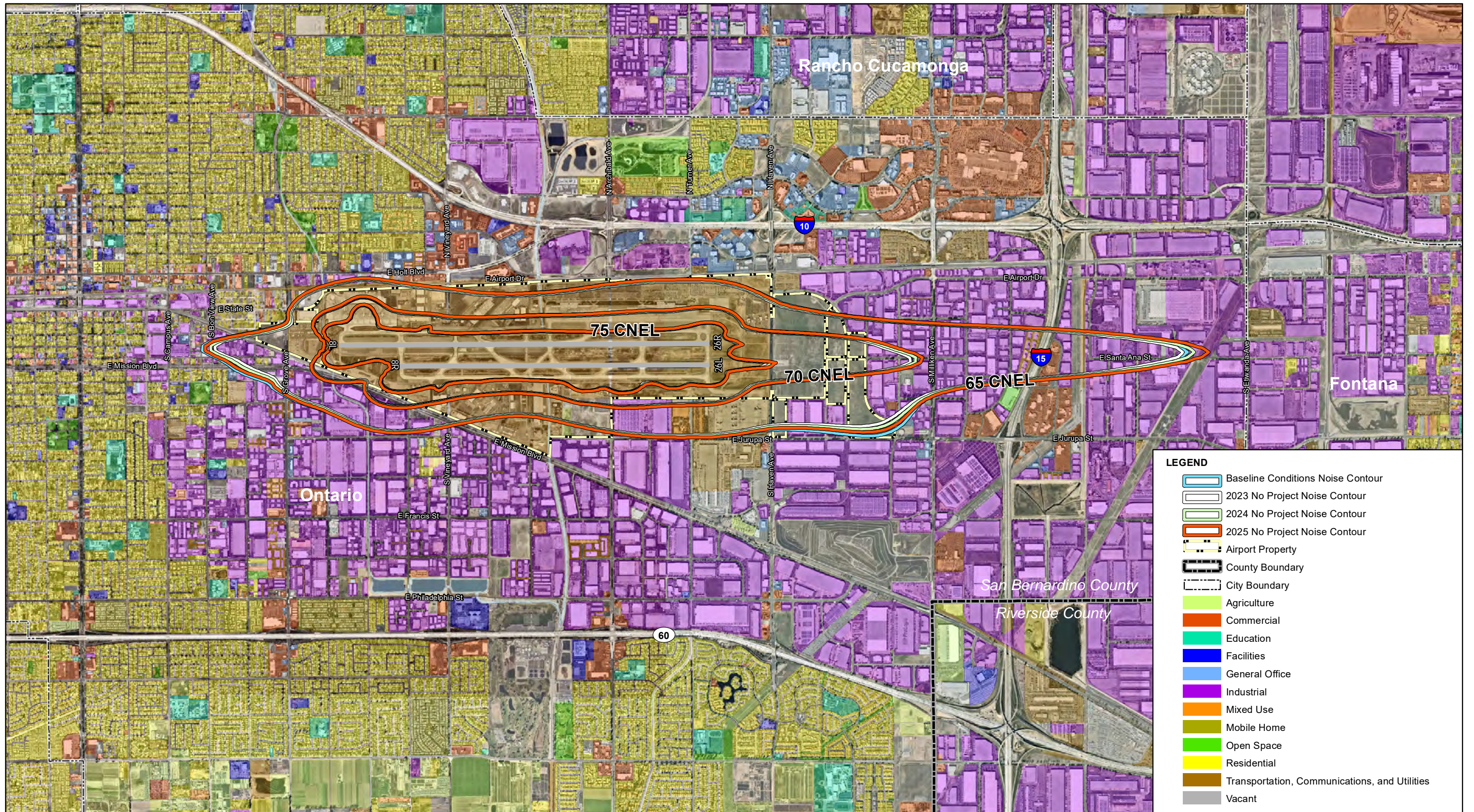
Under the No Project Alternative, the proposed airfield improvements would not be constructed. There would be no runway closure periods and therefore no temporary construction-related noise impacts associated with runway closures and suspension of Contra Flow.

For consistency in analysis of noise impacts, the No Project Alternative noise levels are compared to the Baseline Conditions noise levels. **Figure 8-7** show the expected noise exposure contours under the No Project Alternative in 2023, 2024, and 2025 in comparison with the Baseline Conditions.

The estimated land area (acres) within CNEL contours for the Baseline Conditions and No Project Alternative in 2023, 2024, and 2025 along with the estimated number of residential dwelling units, schools, churches, residential population and dwelling units located within the contours are provided in Table 3-13 (*Section 3.8.3, Noise, Baseline Conditions*) and Tables 4-21, 4-22, and 4-23 (*Section 4.5.4, Noise, Impacts*), respectively.

Table 8-39 summarizes the total aircraft operations and the change in 65 CNEL noise contour area between the No Project Alternative years and the Baseline Conditions. The total acreage within the 65+ CNEL noise contours varies from -4.6% to +1.1% when comparing the No Project Alternative years to the Baseline Conditions. The change in No Project Alternative noise conditions compared to the Baseline Conditions is attributable to two factors:

1. Background growth in passenger activity and aircraft operations that is anticipated at ONT with or without the No Project Alternative.
2. Changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years.



LEGEND

- Baseline Conditions Noise Contour
- 2023 No Project Noise Contour
- 2024 No Project Noise Contour
- 2025 No Project Noise Contour
- Airport Property
- County Boundary
- City Boundary
- Agriculture
- Commercial
- Education
- Facilities
- General Office
- Industrial
- Mixed Use
- Mobile Home
- Open Space
- Residential
- Transportation, Communications, and Utilities
- Vacant

Table 8-39: Noise Inputs and Outputs for Baseline Conditions and No Project Alternative

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area Compared to Baseline Conditions
2019/2020	Baseline Conditions	106,026	No closure	2,485	--
2023	No Project	110,368	No closure	2,371	-4.6%
2024	No Project	113,826	No closure	2,439	-1.9%
2025	No Project	117,625	No closure	2,513	+1.1%

Note: (1) Aircraft operations are not influenced by the No Project Alternative. Background growth in passenger activity and aircraft operations are anticipated at ONT under all project alternatives

Source: HNTB analysis, 2022.

Table 8-40 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each No Project Alternative year and provides a comparison in each year to the Baseline Conditions.

As indicated in Table 8-40, the No Project Alternative includes less population and housing units within the 65-69 CNEL contour in all years, as compared to the Baseline Conditions. This decrease in population/housing units is likely due to the changes in fleet mix projected in future years that can impact overall noise levels. Generally, operations from older and noisier aircraft are expected to decrease in future years .

Table 8-40: Estimated Population, Housing Units and Acreage within No Project Alternative and Baseline Conditions Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
Baseline Conditions	59	0	0	59	13	0	0	13	1,390	545	551	2,485
2023 Conditions												
No Project Alternative	29	0	0	29	7	0	0	7	1,305	523	543	2,371
<i>Difference Between 2023 No Project and Baseline Conditions</i>	-30	0	0	-30	-6	0	0	-6	-85	-22	-8	-114
2024 Conditions												
No Project Alternative	44	0	0	44	10	0	0	10	1,349	537	553	2,439
<i>Difference Between 2024 No Project and Baseline Conditions</i>	-15	0	0	-15	-3	0	0	-3	-41	-8	+2	-46
2025 Conditions												
No Project Alternative	54	0	0	54	12	0	0	12	1,398	552	563	2,513
<i>Difference Between 2025 No Project and Baseline Conditions</i>	-5	0	0	-5	-1	0	0	-1	+8	+7	+12	+28

Note: Aircraft operations are not influenced by the No Project Alternative. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the No Project Alternative.

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Comparison to Proposed Project

A comparison of the No Project Alternative and Proposed Project noise levels is provided for informational purposes in *Chapter 4.0, Section 4.5.4*, Table 4-24 and Table 4-25. This comparison is provided again in **Table 8-41** and **Table 8-42**.

Table 8-41 summarizes the total aircraft operations, runway closure periods, and the change in 65 CNEL noise contour area between the Proposed Project and No Project Alternatives in a given year. While the total aircraft operation levels remain the same between the Proposed Project and No Project Alternatives in a given year, the total acreage within the 65+ CNEL noise contours increases between 1-4% in the Proposed Project contours as compared to the No Project Alternative contours in the same year.

Table 8-41: Noise Inputs and Outputs for No Project and Proposed Project

Year	Alternative	Aircraft Operations ¹	Runway Closure	65 CNEL Noise Contour Area (acres)	Change in Area
2023	No Project	110,368	No closure	2,371	+4.3%
	Proposed Project		8L-26R – 4 months 8R-26L – 5 months	2,472	
2024	No Project	113,826	No closure	2,439	+2.4%
	Proposed Project		8R-26L – 9 months	2,497	
2025	No Project	117,625	No closure	2,513	+1.4%
	Proposed Project		8L-26R – 5 months	2,548	

Note: (1) Aircraft operations are not influenced by the Proposed Project. Background growth in passenger activity and aircraft operations are anticipated at ONT with or without the Proposed Project, as shown with the same level of operations modeled in the No Project Alternative and Proposed Project in a given year.

Source: HNTB analysis, 2022.

Table 8-38 provides the population, number of housing units and acreage within the various CNEL ranges that would be affected in each Proposed Project construction year and provides a comparison of the Proposed Project in each construction year to the No Project Alternative in the same year.

As indicated in Table 8-38, there would be a net increase in population and housing units within the 65-69 CNEL contour for all Proposed Project construction years, as compared to the No Project Alternative. This increase in population/housing units is due to the shift in the Proposed Project noise contours to the west of ONT, towards residential areas, as a result of the suspension of Contra Flow operations during proposed runway closures.

Table 8-42: Estimated Population, Housing Units and Acreage within Proposed Project and No Project Aircraft Noise Contours

Alternative	Population				Housing Units				Acreage			
	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL	65-69	70-74	75+	TOTAL
2023 Conditions												
No Project	29	0	0	29	7	0	0	7	1305	523	543	2371
Proposed Project	1,014	0	0	1,014	225	0	0	225	1,430	519	523	2,472
<i>Difference Between Proposed Project and No Project</i>	+985	0	0	+985	+218	0	0	+218	+125	-4	-20	+101
2024 Conditions												
No Project	44	0	0	44	10	0	0	10	1,349	537	553	2,439
Proposed Project	948	0	0	948	215	0	0	215	1,444	524	526	2,495
<i>Difference Between Proposed Project and No Project</i>	+904	0	0	+904	+205	0	0	+205	+96	-12	-26	+57
2025 Conditions												
No Project	54	0	0	54	12	0	0	12	1,398	552	563	2,513
Proposed Project	703	0	0	703	165	0	0	165	1,467	534	547	2,548
<i>Difference Between Proposed Project and No Project</i>	+649	0	0	+649	+153	0	0	+153	+69	-18	-17	+35

Source: SCAG 2019 Annual Land Use Data, HNTB Analysis, 2022.

Impact Summary

As noted above, the No Project Alternative would have *no impact* on construction-related noise levels. Therefore, the No Project Alternative would have no impact as it relates to the thresholds of significance detailed in *Chapter 4.0, Section 4.5.3* for Impact 4.5-1 through 4.5-3. The noise impact summary above is provided for consistency with the analysis of noise levels for the Proposed Project and Two-Year Program Alternative as compared to Baseline Conditions.

Population and Housing

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to population and housing. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Public Services

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to public services. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Recreation

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to recreation. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Transportation/Traffic

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to transportation or traffic. The lack of significant impacts regarding this category and the VMT standard is the same with the No Project Alternative as with the Proposed Project.

Tribal Cultural Resources

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to tribal cultural resources. The Proposed Project would have a less than significant impact (with mitigation incorporated) associated with tribal cultural resources whereas the No Project Alternative would have no impact.

Health Risk Assessment

Under the No Project Alternative, there would be no construction or change to activities. Therefore, there would be no anticipated health risks as a result of the No Project Alternative. The health risk impacts presented for the Proposed Project and Two-Year Program Alternative represent the projects incremental increase in risks based on emissions associated with project construction. Therefore, the No Project Alternative's incremental increase in risks associated with project construction would be considered to be zero.

Utilities and Service Systems

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to utilities and service systems. The only variation in potential impact between the No Project Alternative and the Proposed Project is that Proposed Project would have a less than significant impact associated with the potential to temporarily impact utilities and service systems whereas the No Project Alternative would have no impact.

Wildfire

Under the No Project Alternative, there would be no construction or change to activities and there would be no impacts to wildfire risks. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Growth Inducement

The No Project Alternative would not induce growth because it would not directly or indirectly create jobs or entice new businesses to the area. The lack of impacts regarding this category is the same with the No Project Alternative as with the Proposed Project.

Cumulative Impacts

Because the No Project Alternative would have virtually no impact on any of the topics discussed above, it would not contribute to cumulative impacts.

8.1.1.6 Ability of Alternative to Meet Basic Objectives of the Proposed Project

The No Project Alternative would fail to meet all the objectives of the Proposed Project. It would not prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, meet current FAA standards, improve safety on the airfield, enhance airfield efficiency, and provide adequate infrastructure to support airfield and navigational power requirements, or maximize the use of available FAA funding for construction.

8.1.3 Summary Comparison

Table 8-43 provides a summary comparison of the Two-Year Program Alternative, Proposed Project, and No Project regarding impact significance.

As indicated, both the Proposed Project and the Two-Year Program Alternative would result in temporary significant, unmitigable impacts to GHG emissions and noise. As indicated in Table 8-16, the Proposed Project would result in less overall construction related GHG emissions as compared to the Two-Year Program Alternative. However, the Proposed Project would result in greater temporary impacts to noise levels (and as a result additional population and housing counts) due to the extended construction period through 2025 as compared to the Two-Year Program Alternative that is complete in 2024.

Table 8-43: Summary Comparison of Alternatives' Impact Significance Compared to Baseline Conditions

Resource	Proposed Project	Two-Year Program	No Project
Aesthetics	Less than significant	Less than significant	No impact
Agricultural and Forestry Resources	No impact	No impact	No impact
Air Quality	Operations – No impact Construction – Less than significant	Operations – No impact Construction – Less than significant	Operations – No impact Construction – No impact
Biological Resources	Less than significant with mitigation	Less than significant with mitigation	No impact
Cultural Resources	No impact	No impact	No impact
Energy	Less than significant	Less than significant	No impact
Geology/Soils	Less than significant	Less than significant	No impact
Greenhouse Gas Emissions	Operations – No impact <i>Construction – Temporary Significant, unmitigable</i>	Operations – No impact <i>Construction – Temporary Significant, unmitigable</i>	Operations – No impact Construction – No impact
Hazards and Hazardous Materials	Less than significant	Less than significant	No impact
Hydrology and Water Quality	Less than significant	Less than significant	No impact
Land Use/Planning	No impact	No impact	No impact
Mineral Resources	No impact	No impact	No impact
Noise	Operations – No impact <i>Construction - Temporary Significant, unmitigable</i>	Operations – No impact <i>Construction - Temporary Significant, unmitigable</i>	Operations – No Impact Construction – No impact
Population/Housing	No impact	No impact	No impact
Public Services	No impact	No impact	No impact
Recreation	No impact	No impact	No impact
Transportation/Traffic	Less than significant	Less than significant	No impact

Table 8-43: Summary Comparison of Alternatives’ Impact Significance Compared to Baseline Conditions

Resource	Proposed Project	Two-Year Program	No Project
Tribal Cultural Resources	Less than significant with mitigation	Less than significant with mitigation	No impact
Utilities/Service Systems	Less than significant	Less than significant	No impact
Health Risk Assessment	Less than significant	Less than significant	No impact
Cumulative Impacts	Less than significant with mitigation	Less than significant with mitigation	No impact
Growth-Inducing Impacts	No impact	No impact	No impact

Note: The Proposed Project would result in less overall construction related GHG emissions as compared to the Two-Year Program Alternative. However, the Proposed Project would result in greater temporary impacts to noise levels (and as a result additional population and housing counts) due to the extended construction period through 2025 as compared to the Two-Year Program Alternative that is complete in 2024.

8.2 Alternatives Not Carried Forward for Detailed Evaluation

Three potential alternatives were initially considered and were not carried forward for more detailed evaluation. According to Section 15126.6(c), "Among the factors that may be used to eliminate alternatives from detailed consideration in an [S]EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts." Based on this guidance, the following alternatives were not carried forward for detailed evaluation due to the failure to meet most of the basic project objectives.

8.2.1 Continued Use of Contra Flow Operations During Construction

The alternative to continue the use of Contra Flow during construction was considered and requested by the OIAA. As explained in *Section 2.2.3, Airfield Operations*, Contra Flow is an operational noise mitigation strategy used at ONT to minimize noise over residential areas at night and thus occurs daily between 10:00 PM and 7:00 AM when weather and wind conditions allow. Since 1988, FAA has supported ONT's use of Contra Flow procedures. Per Section 5 of the ONT Rules and Regulations (8/16/19), by FAA letter of agreement (LOA), "ATC shall employ the noise abatement preferential runway use procedures specified [herein] and recognizing that under certain conditions it may be necessary to prescribe deviations because of aircraft emergencies, adverse weather, or field construction and maintenance work." This is followed by Section 5.3(b.), Runway Use Procedures, which explains "Between the hours of 2200 and 0700, aircraft operate in accordance with preferential runway use procedures known as 'Contra-flow.'" However, circumstances may prevent FAA from using this procedure. These circumstances are typically safety related and can include low visibility, wind direction and velocity, and runway and taxiway closures. Specifically, the ONT Rules and Regulations state that "Contra-flow procedures shall be discontinued when atmospheric conditions (wind and low cloud ceilings), or when aircraft operations and construction activities require."²³ Refer to **Appendix L, Contra Flow Decisions and Federal Guidance** for supporting information.

Although initial discussions between OIAA and FAA on this alternative strategy to continue Contra Flow during periods of construction indicated concern by FAA, the OIAA pursued this possibility with FAA. Because ONT's runways essentially operate as one runway during normal conditions due to their close spacing (i.e., they cannot operate independently), OIAA requested that FAA allow the continued use of Contra Flow during the construction periods when only one runway is open. This alternative strategy would avoid temporary increases in noise exposure to the west of the Airport during the nighttime hours.

A Safety Risk Management (SRM) panel was held with the FAA's ATO in July 2020 to discuss potential mitigation options for the temporary noise exposure impacts on several upcoming Airport projects. At this meeting, the FAA determined that Contra Flow operations would not be allowed during installation of another ONT construction project (Touchdown Zone Lights) and reemphasized their concern over the use of Contra Flow during the future runway rehabilitation project as well.²⁴ In November 2020, the FAA ATO informed OIAA that it will temporarily cease Contra Flow

operations during construction periods associated with the Proposed Project in 2023, 2024 and 2025 when the Airport is operating with a single open runway. The decision was made to ensure safe operations and reduce risk while operating with one available runway.²⁵

Therefore, this alternative is legally infeasible under CEQA Guidelines section 15364 given that the FAA has exclusive authority over aircraft operations, which includes control of the operation of aircraft both in the air and on the airport taxiways and runways. Per *49 U.S. Code § 40103 - Sovereignty and use of airspace*, the U.S. Government has exclusive sovereignty of airspace of the United States. State and local governments are not permitted to regulate any type of aircraft operations, such as flight paths or altitudes, or the navigable airspace. Documentation of the FAA's decision to prohibit the use of Contra Flow during construction periods and regulation related to the FAA's legal authority is included in *Appendix L*.

8.2.2 Partial Rehabilitation

The 2020 ONT PMP was developed for ONT in 2020 as a supplement to the 2011 APMS. The goals of these programs are to identify areas of airfield pavement that need rehabilitation and reconstruction work and prioritize construction projects based on the severity of distresses and available funding. The PMP allows OIAA to identify areas of work that require attention immediately and areas that if improved using preventative maintenance measures will allow for a longer life-cycle of the present infrastructure. Further, it identifies and prioritizes future maintenance, rehabilitation, and/or reconstruction projects for the airside pavements based on the Pavement Condition Index (PCI), which includes a visual pavement inspection, and the technical Pavement Classification Number (PCN) for the airfield pavements based on the current and projected fleet mix at ONT. Several alternatives were considered to reduce the duration of construction, and specifically partial runway rehabilitation to reduce the duration of runway closures during rehabilitation.

Thus, technical analysis has resulted in the most logical and feasible maintenance and rehabilitation alternatives possible to set forth as the Proposed Project. The project components included have been prioritized and are needed to meet the project objectives stated in *Chapter 1.0*. While other variations of the Proposed Project were considered, these alternatives were ultimately dismissed from consideration as these alternatives would not achieve any of the basic Project objectives to prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, nor would partial rehabilitation meet the immediate safety needs, current FAA standards, or enhance airfield efficiency.

8.2.3 Reduced Project Components

Several of the Proposed Project components are needed to meet current FAA standards and to improve safety and enhance efficiency on the airfield. While some of these taxiway and airfield improvements are not directly tied to the rehabilitation and could be implemented at a different time, it is prudent to complete these

improvements during the runway rehabilitation and reconstruction for purposes of efficiency and cost, and to avoid further later periods of runway closure that would likely result in more instances of Contra Flow being discontinued during nighttime hours.

Similar to the partial rehabilitation alternative, the project components included have been prioritized and are needed to meet the project objectives stated in *Chapter 1.0*. While other variations of the Proposed Project were considered, these alternatives were ultimately dismissed from consideration as these alternatives would not achieve any of the basic Project objectives to prioritize future maintenance, rehabilitation and/or reconstruction projects for airside pavement in accordance with the 2020 ONT PMP, nor would reduced project components meet the immediate safety needs, current FAA standards, or enhance airfield efficiency. Reducing the number or type of project components would not result in any substantial change to environmental effects and thus the alternative to reduce the number or type of project components was dismissed from consideration.

8.3 Environmentally Superior Alternatives

The No Project Alternative could be considered environmentally superior because it would avoid virtually all impacts associated with the Proposed Project. Of the alternatives that would at least partially meet the objectives of the Proposed Project and that were carried forward for detailed analysis, the Two-Year Program Alternative as discussed in *Section 8.1.1* could be considered environmentally superior due to reduced duration of noise impacts, however the total air quality and GHG emissions would be slightly greater than the Proposed Project. The Two-Year Program Alternative would have similar impacts to the Proposed Project, however it would reduce the duration of the noise exposure impacts associated with the Proposed Project during construction. However, the Two-Year Program Alternative would not experience the net benefit to indirect aircraft taxiing emissions in 2025 associated with the Proposed Project runway closures in 2025. As explained above, however, the Two-Year Program Alternative does not meet a key Project Objective to maximize available FAA funding and is not practically or economically or financially feasible.

ENDNOTES

¹ City of Los Angeles Department of Airports, "Ontario International Airport Final Environmental Impact Report for Terminals, Other Facilities and Operations to Support 12 Million Annual Passengers," November 1991, p. 5-2.

² Association of Environmental Professionals 2021, CEQA Guidelines, p. 214.

³ Ibid., p. 215.

⁴ The residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, are eligible for voluntary acquisition under ONT's Quiet Home Program.

⁵ The residential homes located along E. Airport Drive and S. Grove Avenue, approximately 700 feet north and 400 feet west of the contractor staging area, are eligible for voluntary acquisition under ONT's Quiet Home Program.

⁶ Total construction emissions for the Two-Year Program Alternative (2023-2024) are slightly greater than for the Proposed Project (2023-2025) emissions, which is likely due to constantly decreasing average emission factors for on-road and off-road equipment in future years. For this reason, the emission factors assumed for construction in 2025 would be slightly lower than those assumed for construction in 2023.

⁷ 2023 proposed taxi-out times vary by one second (11:02 vs 11:01) between the Proposed Project and Two-Year Program Alternative (taxi-in times are identical). This insignificant difference in taxi-out times results in equal indirect construction emissions for the two Alternatives in 2023.

⁸ As with the air quality emissions analysis, the construction GHG emissions inventory was developed in CalEEMod with the assumption that all off-road construction equipment would use Tier 4 final engines. However, use of Tier 4 off-road equipment does not reduce in any reduction in GHG emissions.

⁹ City of Ontario, Community Climate Action Plan, November 2014.

¹⁰ DRAFT, Air Quality Improvement Plan, Ontario International Airport, September 17, 2019, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-aqip-ont.pdf?sfvrsn=7>,

¹¹ SBCTA, Region Greenhouse Gas Reduction Plan, Final, March 2021, <https://www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/>, accessed 2/23/22.

¹² Total construction emissions for the Two-Year Program Alternative (2023-2024) are slightly greater than for the Proposed Project (2023-2025) emissions, which is likely due to constantly decreasing average emission factors for on-road and off-road equipment in future years. For this reason, the emission factors assumed for construction in 2025 would be slightly lower than those assumed for construction in 2023.

¹³ 2023 proposed taxi-out times vary by one second (11:02 vs 11:01) between the Proposed Project and Two-Year Program Alternative (taxi-in times are identical). This insignificant difference in taxi-out times results in equal indirect construction emissions for the two Alternatives in 2023.

¹⁴ Population and housing units within the contours were first determined using [2010 U. S. Census Bureau block data \(TIGER/Line with Selected Demographic and Economic Data \(census.gov\)\)](#). At the time of this analysis, 2020 data was not available down to the block level. Total housing units and population by block were adjusted to remove the number of acquired properties in the Ontario Quiet Home Program. The population and housing units initially calculated within a contour were based on the assumption that housing units and population within a block were evenly distributed by area. (Note: These population and housing unit counts are not associated with the acreage of residential land use types.) Provided that the initial estimate of housing units based on block data was low, Google earth

was then utilized to confirm the actual number of housing units occurring within the contour in a given block (2021 aerial). The average population per housing unit determined from the census block data was used to determine the estimated population. It was also noted whether the housing units within the contour have been mitigated (sound insulated) or are eligible for voluntary acquisition.

¹⁵ ONT Rules and Regulations, Section 3 – Aircraft Operations, and Section 5 – Aircraft Noise Mitigation Operating Procedures and Restrictions, September 2020, <https://www.flyontario.com/corporate/rules-and-regulations>

¹⁶ Governor’s Office of Planning and Research (OPR), Technical Advisory on Evaluating Transportation Impacts in CEQA, April 2018, p. 20.

¹⁷ Caltrans, “Transportation Analysis Under CEQA,” September 2020, p. 13.

¹⁸ Ontario City Council, City of Ontario Resolution No. 2020-071, June 16, 2020, <https://www.ontarioca.gov/sites/default/files/Ontario-Files/City-Clerk-Records-Management/Minutes%2020200616.pdf>, p. 4.

¹⁹ CARB, 2015, Risk Management Guidance for Stationary Sources of Air Toxics, <https://www.arb.ca.gov/toxics/rma/rmgssat.pdf>

²⁰ SCAQMD, MATES V Multiple Air Toxics Exposure Study. Available at: <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>. Accessed April 4, 2022.

²¹ FAA, “Order 5090.5: Formulation of the National Plan of Integrated Airport Systems (NPIAS) and the Airports Capital Improvement Plan (ACIP),” issued September 3, 2019.

²² Rental Equipment Register Magazine, “Skilled Labor Shortage is Contributing to Construction Services Costs, Marcum LLP Says,” <https://www.rermag.com/news-analysis/contractor-news/article/21235554/skilled-labor-shortage-is-contributing-to-construction-services-costs-marcum-llp-says> March 8, 2022 (accessed 4/17/22).

²³ OIAA, ONT Rules and Regulations, August 16, 2019, Section 5, pp. 1-3.

²⁴ ONT Runway 26R Touchdown Zone Light System Installation Safety Risk Management Panel Notes, 8/28/2020.

²⁵ Email from ONT Tower Manager (Sylvia Dee [FAA]) to Director of Planning (Michelle Brantley [OIAA]), 11/5/2020.

9.0 Mitigation Monitoring and Reporting Program

CEQA, Section 21081.6, requires that a mitigation monitoring and reporting program (MMRP) be adopted upon certification of an EIR to ensure that the mitigation measures are implemented. The mitigation monitoring and reporting program specifies what the mitigation is, the entity responsible for monitoring the program, and when in the process it should be accomplished. This MMRP is designed to ensure compliance with Public Resources Code Section 21081.6 during implementation of mitigation measures. A record of the MMRP will be maintained at the offices of the OIAA, 1923 East Avion Street, Ontario, CA 91761.

Table 9-1 summarizes the mitigation measures by environmental resource category, as identified throughout the Draft SEIR, and further refined during the Draft SEIR comment period in consultation with regulatory agencies. The table includes details on the timing of implementation, monitoring frequency, and reporting requirements. For mitigation measures to be implemented by construction contractors, contract specifications will specifically indicate compliance requirements. OIAA is ultimately responsible for ensuring implementation of all mitigation measures with the MMRP.

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
Biological Resources					
MM-BIO-1 (Revised by CDFW)	Impacts to Sensitive Animals Species during construction	<p>Burrowing Owl (BUOW)</p> <p>Prior to commencement of construction activities (i.e., demolition, earthwork, clearing, and grubbing), focused surveys, as defined by the Staff Report on Burrowing Owl Mitigation (CDFG 2012) will be conducted by a qualified biologist across all suitable breeding, wintering, and foraging habitat within the project and appropriate buffer. Take avoidance surveys will also be conducted within 14 days and repeated 24 hours prior to construction activities to determine presence of burrowing owl.</p> <p>If a burrowing owl is observed during focused surveys and/or take avoidance surveys, CDFW will be immediately informed of its location and status. The project will avoid all impacts to burrowing owls onsite. If this is not feasible, a Burrowing Owl Protection Plan (plan) will be prepared by a qualified biologist, which must be approved by CDFW prior to initiating the project. The plan will include conserving all nesting, occupied and satellite burrows and/or burrowing owl habitat such that the habitat acreage, number of burrows and burrowing owls impacted are maintained and/or replaced. Further coordination with CDFW will occur to mitigate for the loss of habitat through the acquisition, conservation, and management of in-kind habitat. Lands conserved will include 1) sufficiently large acreage with fossorial mammals present; 2) permanent protection through a conservation easement for the purpose of conserving burrowing owl habitat and prohibiting activities incompatible with burrowing owl use; 3) development and implementation of a mitigation land management plan to address long-term ecological sustainability and maintenance of the site for burrowing owls; and 4) funding for the maintenance and management of mitigation land through the establishment of a long-term funding mechanism such as an endowment (CDFW, 2012).</p> <p>OIAA will develop and maintain an interactive mapping and current inventory of burrowing owl occurrences within the active airport and adjacent airport owned parcels, along with an adequate buffer to provide analysis that burrowing owl distribution and cumulative impacts are not significantly impacted by past and present activities. Further, OIAA shall ensure adequate land is available and conserved before owls are relocated, and provide compensation for loss of all aspects of habitat types used (e.g., foraging, wintering, migratory stopovers, and breeding).</p> <p>* Mitigation is subject to USFWS Permit No. MBPER0037939</p>	<p>Focused survey – 1x:</p> <ul style="list-style-type: none"> during the breeding season (February 1 through August 31) prior to commencement of construction activities. <p>Take avoidance surveys – 2x:</p> <ul style="list-style-type: none"> once within 14 days of construction commencement; and once within 24 hours prior to construction activities. <p>Interactive Map and Inventory:</p> <ul style="list-style-type: none"> Initiate with previous survey results Update with focused surveys 	OIAA and qualified biologist, USFWS and CDFW if BUOW found	Survey reports and a BUOW Protection and Relocation Plan (if applicable)
MM-BIO-2 (Revised by CDFW)	Impacts to Migratory Species during construction	<p>Nesting Birds</p> <p>To the extent possible, construction activities (i.e., earthwork, vegetation clearing, and grubbing) will occur outside of the peak nesting season, or February 15 through August 31 for songbirds and January 15 to August 31 for raptors. During the duration of the Project:</p> <ul style="list-style-type: none"> Nesting bird surveys will be conducted by the qualified biologist no more than three days prior to any Project activities. The survey(s) will occur at the appropriate time of day/night, during appropriate weather conditions. Surveys will encompass all suitable areas, including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration will take into 	<p>During nesting season (January 15 through August 31):</p> <ul style="list-style-type: none"> Pre-construction survey no more than seven days prior to construction activities. Additional surveys required if 	OIAA and qualified biologist. USFWS if active nests found	Pre-construction survey report, and reports for any necessary subsequent surveys.

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>consideration the acreage of the Project impacts; density, and complexity of the habitat; number of survey participants; survey techniques employed; and will be sufficient to ensure the data collected is complete and accurate. Pre-construction surveys will focus on both direct and indirect evidence of nesting, including nest locations and nesting behavior (i.e., copulation, carrying of food or nest materials, nest building, removal of fecal sacks, flushing suddenly from atypically close range, agitation, aggressive interactions, feigning injury or distraction displays, or other behaviors). If a nest is suspected, but not confirmed, the qualified biologist will establish a disturbance-free buffer until additional surveys can be completed, or until the location can be inferred based on observations. The qualified biologist will not risk failure of the nest to determine the exact location or status and will make every effort to limit the nest to potential predation as a result of the survey/monitoring efforts (i.e., limit number of surveyors, limit time spent at/near the nest, scan the site for potential nest predators before approaching, immediately depart nest area if indicators of stress or agitation are displayed). If a nest is observed, but thought to be inactive, the qualified biologist will monitor the nest for 1 hour (4 hours for raptors during the non-breeding season) prior to approaching the nest to determine status. The qualified biologist will use their best professional judgement regarding the monitoring period and whether approaching the nest is appropriate.</p> <ul style="list-style-type: none"> • If active nests are located within the Project or buffer, the qualified biologist will immediately establish a conservative buffer surrounding the nest based on their best professional judgement and experience. The buffer will be delineated to ensure that its location is known by all persons working within the vicinity but will not be marked in such a manner that it attracts predators. • Once the buffer is established, the qualified biologist will document baseline behavior, stage of reproduction, and existing site conditions, including vertical and horizontal distances from proposed work areas, visual or acoustic barriers, and existing level of disturbance. Following documentation of baseline conditions, the qualified biologist may choose to make adjustments to the buffer based on site characteristics, stage of reproduction, and types of Project activities proposed at/near that location. The qualified biologist will monitor the nest at the onset of Project activities, and at the onset of any changes in Project activities (i.e., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the qualified biologist determines that Project activities may be causing an adverse reaction, the qualified biologist will adjust the buffer accordingly. • The qualified biologist will be onsite daily to monitor all existing nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist will document the status of all existing nests, including the stage of reproduction and the expected fledge date. If a nest is suspected to have been abandoned or failed, the qualified biologist will monitor the nest for a minimum of 1 hour (4 hours for raptors), uninterrupted, during favorable field conditions. If no activity is observed during that time, the qualified biologist may approach the nest to assess the status. Permittee, under the direction of the qualified biologist, may also take steps to discourage nesting on the Project site, including moving equipment and materials daily, covering material with tarps or fabric, and securing all open 	<p>construction is inactive for more than seven days during breeding season</p>		

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>pipes and construction materials. The qualified biologist will ensure that none of the materials used pose an entanglement risk to birds or other species.</p> <p>* Mitigation is subject to USFWS Permit No. MBPER0037939</p>			
MM-BIO-3	Impacts to Sensitive Animals Species during construction	<p>Delhi Sands Flower-loving Fly (DSFLF)</p> <p>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.</p> <p>If focused surveys are positive, mitigation measures would be required and would be 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:</p> <ul style="list-style-type: none"> • 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. 	Focused survey pursuant to USFWS protocols.	OIAA and qualified biologist, USFWS if DSFLF present	Survey report
Greenhouse Gases					
No feasible measures	Construction-related GHG emissions	As discussed under Impact 4.3-2, there are several local plans which address GHGs and measures to reduce GHG emissions. While there are no feasible measures that can be assumed and quantified in this analysis, regional and local measures, if implemented, should serve to further reduce overall GHG emissions.	n/a	n/a	n/a
Noise					
MM-N-1	Noise impacts to noise-sensitive areas during construction.	<p>Voluntary Operational Restrictions for Noise Management</p> <p>While Contra Flow operations would be suspended by the Federal Aviation Administration (FAA) during the runway closure periods for construction of the Proposed Project, ONT would continue</p>	Subject to special permissions or safety concerns, voluntary operational restrictions would be implemented	OIAA/FAA ATC	

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>to implement other Voluntary Operational Restrictions for noise management during implementation of the Proposed Project.</p> <p>ONT would continue to implement other Voluntary Operational Restrictions for noise management during implementation of the Proposed Project, including but not limited to: ¹</p> <ul style="list-style-type: none"> • “Touch-and-go” operations by turbojet and turbo-fan aircraft are prohibited without special permissions • Nighttime (10:00 PM and 7:00 AM) engine maintenance run-up operations are prohibited. Daytime run-up operations occur at specified locations. • “Intersection departures” are prohibited (i.e., departures not starting at the end of the runway), except from 8L at Taxiway D and from 26R at Taxiway V. Departures must start at the end of runways to allow aircraft to pass higher over residential communities. <p>There are no feasible mitigation measures within the control, authority, and jurisdiction of the OIAA that can be implemented to reduce Project-related noise impacts to below a level of significance. Any potential mitigation measures on this matter are within the jurisdiction and control of the FAA.</p>	throughout the construction period.		
Tribal Cultural Resources					
MM-TCR-1	Potential impacts to tribal cultural resources (TCR)	<p>Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities</p> <p>A. The project applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any “ground-disturbing activity” for the subject project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). “Ground-disturbing activity” shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching.</p> <p>B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of any ground-disturbing activity, or the issuance of any permit necessary to commence a ground-disturbing activity.</p> <p>C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or “TCR”), as well as any discovered Native American (ancestral) human remains and burial</p>	<p>A. Prior to issuing the grading permit</p> <p>B. Prior to issuing the grading permit</p> <p>C. Within 30 days of completing grading</p> <p>D. Within 30 days of completing grading</p> <p>E. Implemented at the time of discovery</p>	OIAA	<p>A. Monitoring Agreement</p> <p>B. Monitoring Agreement</p> <p>C. Monitoring Logs</p> <p>D. Written notification from Tribe</p> <p>E. n/a</p>

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>goods. Copies of monitor logs will be provided to the project applicant/lead agency upon written request to the Tribe.</p> <p>D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the project applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.</p> <p>E. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the Kizh monitor and/or Kizh archaeologist. The Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.</p>			
MM-TCR-2	Potential impacts to human remains and funerary objects	<p>Unanticipated Discovery of Human Remains and Associated Funerary Objects</p> <p>A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.</p> <p>B. If Native American human remains and/or grave goods discovered or recognized on the project site, then all construction activities shall immediately cease. Health and Safety Code Section 7050.5 dictates that any discoveries of human skeletal material shall be immediately reported to the County Coroner and all ground-disturbing activities shall immediately halt and shall remain halted until the coroner has determined the nature of the remains. If the coroner recognizes the human remains to be those of a Native American or has reason to believe they are Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, and Public Resources Code Section 5097.98 shall be followed.</p> <p>C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).</p> <p>D. Construction activities may resume in other parts of the project site at a minimum of 200 feet away from discovered human remains and/or burial goods, if the Kizh determines in its sole discretion that resuming construction activities at that distance is acceptable and provides the project manager express consent of that determination (along with any other mitigation measures the Kizh monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5(f).)</p> <p>E. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods, if feasible. Any historic archaeological material that is</p>	Within 24 hours of discovery of human remains	OIAA or authorized consultant or contractor	Treatment Plan

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>not Native American in origin (non-TCR) shall be curated at a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum, if such an institution agrees to accept the material. If no institution accepts the archaeological material, it shall be offered to a local school or historical society in the area for educational purposes.</p> <p>F. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.</p>			
MM-TCR-3	Potential impacts to human remains and funerary objects	<p>Procedures for Burials and Funerary Remains</p> <p>A. As the Most Likely Descendant (“MLD”), the Koo-nas-gna Burial Policy shall be implemented. To the Tribe, the term “human remains” encompasses more than human bones. In ancient as well as historic times, Tribal Traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains.</p> <p>B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery and a separate treatment plan shall be created.</p> <p>C. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials.</p> <p>D. In the case where discovered human remains cannot be fully documented and recovered on the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The Tribe will make every effort to recommend diverting the project and keeping the remains in situ and protected. If the project cannot be diverted, it may be determined that burials will be removed.</p> <p>E. In the event preservation in place is not possible despite good faith efforts by the project applicant/developer and/or landowner, before ground-disturbing activities may resume on the project site, the landowner shall arrange a designated site location within the footprint of the project for the respectful reburial of the human remains and/or ceremonial objects.</p> <p>F. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within six months of recovery. The site of reburial/repatriation shall be on the project site but at a location agreed upon between the Tribe and the landowner at a</p>	Prior to authorizing construction activities within 200 feet of human remains	OIAA	Treatment Plan Incorporate protection and avoidance measures into final plans or specifications

Table 9-1: Mitigation Monitoring and Reporting Program Matrix

Reference No	Impact Being Addressed	Mitigation Measure	Timeframe/Monitoring Milestone	Primary Responsible Monitoring Party	Reporting Requirements (if applicable)
		<p>site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered.</p> <p>G. The Tribe will work closely with the project’s qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the Tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery-related forms of documentation shall be approved in advance by the Tribe. If any data recovery is performed, once complete, a final report shall be submitted to the Tribe and the NAHC. The Tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.</p>			
Hydrology (*Note: Hydrology mitigation measures were identified in Section 4.0 of the Initial Study, X. Hydrology and Water Quality (Appendix A of the Draft EIR))					
MM-HYD-1	Construction Stormwater	General Stormwater Construction Permit compliance.	Prior to and during construction period	OIAA	
MM-HYD-2	Stormwater	Municipal Storm Drain Permit (MS4) compliance.	Prior to, during, and post construction	OIAA	
MM-HYD-3	Construction Stormwater	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.	Prior to and during construction period	OIAA	
MM-HYD-4	Construction Stormwater	A project-specific Construction SWPPP would address construction-related surface water quality impacts and delineate water quality control measures to address those impacts.	Prior to construction start	OIAA	
MM-HYD-5	Construction Stormwater	BMPs would include those outlined in FAA AC 150/5371-10, Standards for Specifying Construction of Airports, Item P-156, Temporary Air and Water pollution, Soil Erosion and Siltation Control.	Throughout construction period	OIAA	
MM-HYD-6	Construction Stormwater	Employees shall strictly limit their activities, vehicles, equipment, and construction material to the proposed project footprint, staging areas, and designated routes of travel.	Throughout construction period	OIAA	

ENDNOTES

¹ ONT Rules and Regulations, Section 3 – Aircraft Operations, and Section 5 – Aircraft Noise Mitigation Operating Procedures and Restrictions, September 2020, <https://www.flyontario.com/corporate/rules-and-regulations>

10.0 Consultation

The following people and agencies were consulted during the preparation of this SEIR and its supporting technical studies.

10.1 Notice of Preparation (NOP)

In accordance with Sections 15063 and 15082 of the CEQA Guidelines, OIAA prepared a Notice of Preparation (NOP) for this SEIR. The NOP was circulated to local, state, and federal agencies from June 17, 2021 through July 17, 2021 during the 30-day public review period regarding the scope and content of environmental information. The NOP provided a general description of the Proposed Project and identified possible environmental impacts that could result from implementation of the Project. The NOP and IS were published by the Office of Planning and Research State Clearinghouse and also posted on the OIAA website.

Eight (8) comments were received from agencies, groups and individuals. The main topic of concern from stakeholder is the potential impact to the Burrowing Owl, a California State Species of Special Concern, which has been known to occur on Airport property during certain periods. The six following agencies and organizations responded with comments:

- Native American Heritage Commission
- South Coast Air Quality Management District
- San Bernardino County Department of Public Works
- CDFW – Pomona Valley Audubon Society
- CBCM LLP (representing Audubon Society)
- Pomona Valley Audubon Burrowing Owl Committee

The two other comments were from members of the public related to the preservation of the burrowing owl. *Appendix A, NOP and Initial Study*, of this SEIR includes the NOP and June 2021 IS, and *Appendix B* contains the comments received on the NOP.

10.2 Tribal Consultation

As required by the State of California Public Resources Code and in accordance with Assembly Bill (AB) 52 Tribal Consultation, OIAA provided formal notification of the Proposed Project to the designated tribal representatives of California Native American tribes that may be traditionally and culturally affiliated with the geographic area. The initial notification was received by the Native American Heritage Commission (NAHC) on April 13, 2021. On August 27, 2021, OIAA sent letters to the Native American representatives and interested parties as identified by the NAHC. Three responses were received. San Manuel Band of Mission Indians (SMBMI) responded via email on September 1, 2021, and Agua Caliente Band of Cahuilla Indians (ACBCI) responded via email on September 2, 2021 to indicate the project is not located within the boundaries of the Tribes' Traditional Use Area. The Gabrieleño

Band of Mission Indians – Kizh Nation (Kizh Nation) responded via email on September 17, 2021 to request a consultation with the lead agency.

OIAA initiated consultation on November 4, 2021 with Kizh Nation. A second meeting was held February 24, 2022 to discuss and finalize agreed upon mitigation measures. As such, the tribe requests Native American monitoring during all ground-disturbing activities related to the project. Mitigation measures intended to reduce the impact to potential tribal cultural resources were agreed upon by Kizh Nation and OIAA on March 30, 2022 and consultation was concluded. The final mitigation measures on tribal cultural resources are documented in *Chapter 4.0, Environmental Impacts and Mitigation. Appendix F, Attachment C, Tribal [CONFIDENTIAL]*) provides tribal consultation conducted for this SEIR.

11.0 Lead Agency and Consultants

11.1 Lead Agency

Ontario International Airport Authority (OIAA)

The CEQA Lead Agency for this SEIR is the OIAA, which governs ONT. The OIAA was created in August 2012 under a Joint Powers Agreement between the City of Ontario, California and San Bernardino County. As a joint powers authority, the OIAA is a separate and independent “public agency” under State law. (Govt. Code, § 6500.) The OIAA “is a public entity separate from the parties to the agreement” that formed the OIAA as a joint powers authority. (Govt. Code, § 6507.) This SEIR reflects the OIAA’s independent review and judgment. Key OIAA team members for this SEIR include:

Michelle Brantley, Chief Planning Officer
Nicole Walker, Environmental Manager
Keith Owens, Director of Program Management
Kevin Keith, Planning Manager
Jeffrey Smith, Program Manager
Kevin Sullivan, Assistant General Counsel for OIAA

11.2 Consultants

HNTB Corporation

HNTB Corporation (HNTB) is the prime consultant for the development of the SEIR. HNTB provided project management, technical analysis, and overall SEIR preparation and document development. Key HNTB team members for this SEIR include:

Kim Hughes, Project Manager
Caroline Pinegar, SEIR Task Lead
Yue Xu, Noise and Air Quality
Ryan Lombardi, Construction Emissions Analysis, Document Development
Kent Miller, GIS and Graphics
Justin Bychek, Aviation Planning Lead
Ken Poon, Aviation Planning, Airfield Simulation

HELIX

Helix Environmental Consultants, Inc. (HELIX) prepared the cultural resources, biological resources, tribal cultural resources, water resources, and Health Risk Assessment components of the SEIR. Key HELIX team members for this SEIR include:

Kassie Sugimoto, Cultural and Tribal Cultural Resources
Stacie Wilson, Cultural Resources
Ezekiel Cooley, Biological Resources, Water Resources

Laura Moreton, Biological Resources
Martin Rolph, Health Risk Assessment
Victor Ortiz, Health Risk Assessment

12.0 Abbreviations and Acronyms and References

12.1 Abbreviations and Acronyms

AAM	Annual Arithmetic Mean
AB	Assembly Bill
AC	Advisory Circular
AC	Asphalt Concrete
ACI	Airports Council International
ACIP	Airport Capital Improvement Plan
ACBCI	Agua Caliente Band of Cahuilla Indians
ACRP	Airport Cooperative Research Program
ACEIT	Airport Construction Emissions Inventory Tool
ACI-NA	Airport Councils International-North America
ACBCI	Agua Caliente Band of Cahuilla Indians
ADMRT	Air Dispersion Modeling and Risk Tool
AEDT	Aviation Environmental Design Tool
AERMAP	AERMOD terrain preprocessor
AIP	Airport Improvement Program
AMSL	above mean sea level
ANOMS	Airport Noise & Operations Monitoring System
APU	Auxiliary Power Units
AQIP	Air Quality Improvement Plan
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ARFF	Aircraft Rescue and Firefighting
ATADS	Air Traffic Activity System
ATC	Air Traffic Control
ATCT	Airport Traffic Control Tower
ASPM	Aviation System Performance Metrics
avgas	Aviation gas
BACTs	best available control technologies
BUOW	Burrowing Owl
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAEP	Committee on Aviation Environmental Protection
CAP	Climate Action Plan
CalEEMod®	California Emissions Estimator Model
CAP	Community Climate Action Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game Code
CFR	Code of Federal Regulations
CL	Centerline

CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNS	Central Nervous System
CO	carbon monoxide
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibels
Db	Delhi fine sand
DPM	Diesel Particulate Matter
DSFLF	Delhi Sands Flower-loving Fly
°F	Fahrenheit
FAA	Federal Aviation Administration
FEIR	Final Environmental Impact Report
FESA	Federal Endangered Species Act
GA	General Aviation
GHG	Greenhouse Gas Emissions
GSE	Ground Support Equipment
H ₂ S	Hydrogen Sulfide
HaC	Hanford coarse sandy loam
HAP	Hazardous air pollutant
HARP	Hotspots Analysis and Reporting Program
HFC	hydrofluorocarbons
HI	hazard index
Hr	Hilmar loamy fine sand
HRA	health risk assessment
IARC	International Agency on Research for Cancer
ICAO	International Civil Aviation Organization
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
JOLTS	Job Openings and Labor Turnover Survey
JPA	joint powers authority
lbs	pounds
LOA	Letter of Agreement
LOS	Level of Service
MAP	million annual passengers
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation

MEIR	maximally exposed individual resident
MEIW	maximally exposed individual worker
MND	Mitigated Negative Declaration
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MT	Metric tons
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAVAIDS	Navigational Aids
NCP	Noise Compatibility Program
ND	Negative Declaration
NED	National Elevation Dataset
NHTSA	National Highway Traffic Safety Administration
NOD	Notice of Determination
NOP	Notice of Preparation
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPPA	Native Plant Protection Act
NRC	National Research Council
NRHP	National Register of Historic Places
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
OIAA	Ontario International Airport Authority
ONT	Ontario International Airport
OPR	Office of Planning and Research (California)
OSPNET	Operations Network
PAPI	precision approach path indicator
Pb	Lead
PCI	Pavement Condition Index
PCN	Pavement Classification Number
PFC	Passenger Facility Charge
PFC	perfluorocarbons
PMI	point of maximum impact
PMP	Pavement Management Program
PM _{2.5}	particulate matter equal to or less than 2.5 micrometers
PM ₁₀	particulate matter equal to or less than 10 micrometers
PMI	point of maximum impact
ppb	parts per billion
ppm	parts per million
REL	Recommended Exposure Limit
RM7	Construction Equipment Policy
ROC	Reactive organic gases

ROFA	Runway Object Free Area
ROG	Reactive organic gases
RSA	Runway Safety Area
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SACC	South Airport Cargo Center
SBCTA	San Bernardino County Transportation Authority
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCS	Sustainable Communities Strategy
SEIR	Supplemental Environmental Impact Report
SF	Square Feet
SF ₆	sulphur hexafluoride
SFP	State Fully Protected
SIP	State Implementation Plan
SMBMI	San Manuel Band of Mission Indians
SO ₂	sulfur dioxide
SR	State Route
SRM	Safety Risk Management
SSC	Species of Special Concern
TAC	Toxic Air Contaminants
TAF	Terminal Area Forecast
TCP	Traditional Cultural Properties
TCR	Tribal Cultural Resources
TDG	Taxiway Design Group
TFMSC	Traffic Flow Management System Count
TOFA	Taxiway Object Free Area
TOG	total organic gases
TRB	Transportation Research Board
TuB	Tujunga loamy sand
TvC	Tujunga gravelly loamy sand
TW	Taxiway
µg/m ³	microgram per cubic meter
USACE	U.S. Army Corps of Engineers
USDA/WS	U.S. Department of Agriculture Wildlife Services
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
USGCRP	United States Global Change Research Program
UTM	Universal Transverse Mercator
VALE	Voluntary Airport Low Emissions
VOC	volatile organic compounds

VMT	vehicle miles traveled
VSR	vehicle service road
WHMP	Wildlife Hazard Management Plan

12.2 List of References

- American Ornithological Society. 2021. AOS checklist of North and Middle America birds. July 1, 2021. Retrieved from: <http://checklist.aou.org/taxa/>.
- Association of Environmental Professionals, CEQA Guidelines, 2021, p. 211.
- 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 Air Resources Board. 2005. Air Quality and Land Use Handbook: A Community Health Perspective, <https://www.arb.ca.gov/ch/handbook.pdf>
2015. Risk Management Guidance for Stationary Sources of Air Toxics, <https://www.arb.ca.gov/toxics/rma/rmgssat.pdf>
- 2021a. Advanced Clean Trucks Fact Sheet, August 20, 2021, <https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-trucks-fact-sheet>.
- 2021b. 2000-2019 GHG Inventory (2021 Edition), <https://ww2.arb.ca.gov/ghg-inventory-data>, accessed 11/19/2021.
- California Code of Regulations Title 21, Division 2.5, Chapter 6, Article 1, Incompatible Land Uses Within the Noise Impact Boundary.
- California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency.
- California Department of Fish and Wildlife (CDFW). 2021a. California Natural Diversity Database and Rarefind. Sacramento, California. Retrieved from: <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed November 2, 2021.
- 2021b. California Natural Community List. The Vegetation Classification and Mapping Program.
- California Energy Commission, Office of Planning and Research, California Natural Resources Agency. 2018. "California's Fourth Climate Change Assessment, California's Changing Climate 2018, https://www.energy.ca.gov/sites/default/files/2019-11/Statewide_Reports-SUM-CCCA4-2018-013_Statewide_Summary_Report_ADA.pdf. Accessed 4/21/2022.
- 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.
- California Natural Resources Agency. 2009. Notice of Public Hearings and Notice of Proposed Amendment of Regulations Implementing the California Environmental Quality Act, 2009, https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/Notice_of_Proposed_Action.pdf.
- California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments, : <https://oehha.ca.gov/air/crn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>.
- California Office of Historic Preservation (OHP). 1995. Instructions for Recording Historical Sources, March 1995, <https://ohp.parks.ca.gov/pages/1054/files/manual95.pdf>.
- Caltrans, "Transportation Analysis Under CEQA," September 2020.
- City of Los Angeles Department of Airports. 1991. "Ontario International Airport Final Environmental Impact Report for Terminals, Other Facilities and Operations to Support 12 Million Annual Passengers," November 1991.
- City of Ontario. 2021. 2050 The Ontario Plan, https://www.ontarioplan.org/wp-content/uploads/sites/4/2021/08/ScopingMeeting_TOP_2050SEIR2.pdf, August 5, 2021. Accessed 10/20/21.
2014. Community Climate Action Plan, November 2014.
- Clean Air Act. 2009. 74 Fed. Reg. 66496 (Dec. 15, 2009), Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a).
- Dee, Sylvia (FAA). 2020. Email correspondence to Director of Planning (Michelle Brantley [OIAA]), 11/5/2020.
- 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.
- Environmental Protection Agency (EPA). 2015. Final Rule for Carbon Pollution Emission Guidelines for Existing Stationary Sources Electric Utility Generating Units, 80 Fed. Reg. 64661, 64677 (Oct. 23, 2015).
2020. EPA Finalizes Airplane Greenhouse Gas Emission Standards, EPA Proposes Airplane Greenhouse Gas Emission Standards – Resource Information (EPA-420-F-20-057, December 2020), December 2020.
2022. Draft Inventory of U.S. Greenhouse Gas Emission and Sinks: 1990-2020, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas->

- [emissions](#). The Draft U.S. Inventory of Greenhouse Gas Emissions and Sinks: 1990-2020 is under public review through March 11, 2022.
- Federal Aviation Administration. 2019. Order 5090.5: Formulation of the National Plan of Integrated Airport Systems (NPIAS) and the Airports Capital Improvement Plan (ACIP), issued September 3, 2019.
2021. Terminal Area Forecast Executive Summary Fiscal Years 2020-2045. Retrieved from https://www.faa.gov/data_research/aviation/taf/. Accessed February 16, 2022.
- 2022a. Voluntary Airport Low Emissions Program (VALE), <https://www.faa.gov/airports/environmental/vale/>.
- 2022b. Airport Zero Emissions Vehicle and Infrastructure Pilot Program, https://www.faa.gov/airports/environmental/zero_emissions_vehicles/.
- Global Change Research Act of 1990. Pub. L. 101-606, Sec. 103 (November 16, 1990). For additional information on the United States Global Change Research Program, <http://www.globalchange.gov>, January 2017.
- 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.
- Governor's Office of Planning and Research (OPR), "Frequently Asked Questions Regarding the Proposed Updates to the CEQA Guidelines," https://opr.ca.gov/ceqa/docs/20171127_FAQs_Nov_2017.pdf. (accessed 9/17/21).
- 2018a. Title 14, Division 6, Chapter 3 of the California Code of Regulations ("CEQA Guidelines").
- 2018b. "Technical Advisory on Evaluating Transportation Impacts in CEQA," April 2018.
- 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.
- 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, 2021.
2020. 2019/2020 Non-breeding Burrowing Owl Survey Report for Potential Development of Ontario International Airport's Parcel Study. February 11, 2020.
- HNTB. 2020. Construction Phasing Schedule, July 2020.
- Holland R.F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program. 2022. Sacramento, 156 pp.
- International Civil Aviation Organization (ICAO). 2017. Center for Climate and Energy Solutions, <https://www.c2es.org/international/icao>, January 2017.

2019. "United States Efforts to Address Aviation's Climate Impact," A40-WP/531, ICAO 40th General Assembly, Executive Committee, www.icao.int/Meetings/a40/Documents/WP/wp_531_en.pdf, accessed 12/15/21.
- Oberbauer, T. 2008. Terrestrial vegetation communities in San Diego County based on Holland's Descriptions, San Diego Association of Governments, San Diego, CA.
- Ontario City Council. 2020. City of Ontario Resolution No. 2020-071, June 16, 2020, <https://www.ontarioca.gov/sites/default/files/Ontario-Files/City-Clerk-Records-Management/Minutes%2020200616.pdf>.
- Ontario International Airport, Pavement Management Plan, March 2020.
2016. Ontario Quiet Home Program Status Map, 6/20/2016, "Parcels with Completed Dwelling Units" and "Acquired Properties."
2019. Air Quality Improvement Plan (AQIP), September 17, 2019, <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/facility-based-mobile-source-measures/draft-aqip-ont.pdf?sfvrsn=7>.
- 2020a. ONT Rules and Regulations, Section 3 – Aircraft Operations, and Section 5 – Aircraft Noise Mitigation Operating Procedures and Restrictions, September 2020, <https://www.flyontario.com/corporate/rules-and-regulations>.
- 2020b. Runway 26R Touchdown Zone Light System Installation Safety Risk Management Panel Notes, 8/28/2020.
- Osborne, Kendall H. 2021. Personal communication (email). December 20.
- Rental Equipment Register Magazine. 2022. "Skilled Labor Shortage is Contributing to Construction Services Costs, Marcum LLP Says," <https://www.rermag.com/news-analysis/contractor-news/article/21235554/skilled-labor-shortage-is-contributing-to-construction-services-costs-marcum-llp-says>, March 8, 2022.
- Riley, D.T. 2005. Ordinary High Water Mark. RGL No. 05-05. 4 p.
- San Bernardino County Transportation Authority (SBCTA). 2021. "Regional Greenhouse Gas Reduction Plan (March 2021), [Regional Greenhouse Gas Reduction Plan \(2021\) - SBCTA \(gosbcta.com\)](https://www.sbcta.com/Regional-Greenhouse-Gas-Reduction-Plan-(2021)-SBCTA-(gosbcta.com)).
- Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. A manual of California vegetation. 2nd Ed. Sacramento: California Native Plant Society.
- 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.
- Southern California Association of Governments (SCAG). 2019. Annual Land Use Data, 2019. Accessed January 2022.

- 2020a. "Adopted Final Connect SoCal," <https://scag.ca.gov/read-plan-adopted-final-plan> (accessed 3/4/22).
- 2020b. "Transportation System: Aviation and Airport Ground Access," 9/3/2020.
2021. Local Profiles, <https://scag.ca.gov/data-tools-local-profiles>, accessed 10/20/21.
- South Coast Air Quality Management District (SCAQMD), 2022, Modeling Guidance for AERMOD, <http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance>. Accessed March 2022
2003. White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, Appendix D – Cumulative Impact Analysis Requirements Pursuant to CEQA, August 2003, page D-3.
2019. Air Quality Significance Thresholds, <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>
2020. AB 2588 and Rule 1402 Supplemental Guidelines (Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act), <https://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines.pdf?sfvrsn=13>, October 2020.
2022. MATES V Multiple Air Toxics Exposure Study, <http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v>, accessed April 4, 2022.
- 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 United 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. Census Bureau. 2010. 2010 Census block data, TIGER/Line with Selected Demographic and Economic Data (census.gov), accessed March 2022.
- United States Department of Agriculture (USDA). 2021. Natural Resources Conservation Service. 2021. Web Soil Survey. Retrieved from: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed November 2, 2021.
- U.S. Environmental Protection Agency (EPA). 2017. National Ambient Air Quality Standards (NAAQS), <https://www.epa.gov/criteria-air-pollutants/naaqs-table>. (January 2017).
2016. Final Rule for Phase 2 Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, October 25, 2016. <https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-phase-2-greenhouse-gas-emissions-standards>
2021. Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedures - Final Rulemaking, January 11, 2021. <https://www.epa.gov/regulations-emissions-vehicles-and-engines/control-air-pollution-airplanes-and-airplane-engines-ghg>
- 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.
- Wildlife & Habitat Data Analysis Branch. August 2021. Retrieved from: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>. Accessed November 2, 2021.