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IRVINE ANIMAL CARE CENTER AND OPERATIONS SUPPORT FACILITY EXPANSION AND RENOVATION

City of Irvine

Prepared for:

City of Irvine

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Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
afy	acre-feet per year
AQMD	air quality management district
AQMP	air quality management plan
BMP	best management practices
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CGP	Construction General Permit
CNEL	community noise equivalent level
CNG	compressed natural gas
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
DCV	design capture volume
DMA	drainage management area
EAP	emergency action plan
EIR	environmental impact report
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
gpd	gallons per day
IACC	Irvine Animal Care Center
IPD	Irvine Police Department

Abbreviations and Acronyms

Leq	equivalent continuous noise level
Lmax	maximum noise level
LID	low impact development
LRA	local responsibility area
LST	localized significance thresholds
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MND	mitigated negative declaration
MS4	municipal separate storm sewer system
MT	metric ton
MWRP	Michelson Water Reclamation Plant
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O ₃	ozone
OCFA	Orange County Fire Authority
OCTA	Orange County Transportation Authority
OSF	Operation Support Facility
PM	particulate matter
PPV	peak particle velocity
PRC	(California) Public Resources Code
RCNM	Roadway Construction Noise Model
REC	recognized environmental condition
RPS	renewable portfolio standard
RTP/SCS	regional transportation plan / sustainable communities strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCE	Southern California Edison
SEP	Strategic Energy Plan (City of Irvine)
SF	square feet
SO ₂	sulfur dioxide
SO _x	sulfur oxides

Abbreviations and Acronyms

SoCAB	South Coast Air Basin
SRA	source receptor area (3.3, <i>Air Quality</i>)
SRA	state responsibility area (3.20, <i>Wildfire</i>)
SWPPP	Storm Water Pollution Prevention Plan
TGD	technical guidance document
VMТ	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan

1. Introduction

As proposed by the City of Irvine, the project involves an expansion and renovation of the Irvine Animal Care Center (IACC) and Operation Support Facility (OSF) and associated site features and improvements. Under the proposed project, the IACC expansion and renovation plans include an addition to the existing administration building (new entry building), a new clinic building, and an in-fill administration building addition. Also, renovation work is proposed for the existing IACC administration building, cats/small animals housing building, and kennel buildings. Other proposed IACC site improvements include modifications to the existing secured parking area, addition of a trash enclosure, re-grading and addition of drains for better site drainage and storm water treatment, facility entrance modifications, new activity yards, and miscellaneous landscaping.

The OSF expansion and renovation plans consist of the addition of new metal structures and interior remodels of existing buildings. The OSF plans includes removal of four pre-engineered/-fabricated metal structures and the addition of two pre-engineered/-fabricated metal structures for material storage. Also, the existing compressed natural gas and gas/diesel fueling islands would be relocated to a new location within the area of the Project Site currently housing the dog park. As a part of the project the existing dog park would be removed and relocated to the Oak Creek Community Park, which is in the process of undergoing an expansion and improvement plan that is being processed separately by the City. Once the new dog park at Oak Creek Community Park is constructed and operational, the existing dog park at the Project Site would be removed and replaced with a new surface parking area for City vehicles. Other proposed OSF site improvements include modifications to the existing secured parking areas, reconfiguration and optimization of the onsite circulation for better traffic flow, new and improved yard lighting, and miscellaneous hardscape and landscape improvements.

The project comprises all proposed buildings, facilities, supporting improvements, and associated City actions considered in this Initial Study.

1.1 PURPOSE OF CEQA AND THE INITIAL STUDY

CEQA (California Environmental Quality Act; Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (14 Cal. Code Regs. Section 15000 et seq.) require that before a lead agency* makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about and consider the project's potential environmental impacts, inform the public about the project's potential environmental impacts and provide an opportunity to comment on the environmental issues, and take feasible measures to avoid or reduce potential harm to the physical environment.

* Pursuant to Public Resources Code Section 21067, lead agency refers to the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment.

1. Introduction

The City of Irvine—in its capacity as lead agency pursuant to CEQA Guidelines Section 15050—is responsible for preparing environmental documentation in accordance with CEQA to determine if approval of the City actions and subsequent development associated with the proposed project would have a significant impact on the environment. As part of the project's environmental review and in its capacity as lead agency, the City authorized preparation of this Initial Study in accordance with the provisions of CEQA Guidelines Section 15063. Pursuant to Section 15063, purposes of an Initial Study are to:

- Provide the lead agency information to use as the basis for deciding whether to prepare an environmental impact report (EIR) or negative declaration.
- Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a negative declaration.
- Assist in the preparation of an EIR, if one is required.
- Facilitate environmental assessment early in the design of a project.
- Provide documentation of the factual basis for the finding in a negative declaration that a project will not have a significant effect on the environment.
- Eliminate unnecessary EIRs.
- Determine whether a previously prepared EIR could be used with the project.

As further defined by Section 15063, an Initial Study is prepared to provide the City with information to use as the basis for determining whether an EIR, Negative Declaration, or Mitigated Negative Declaration (MND) would be appropriate for providing the necessary environmental documentation and clearance for the proposed project.

In its preparation of this Initial Study, the City determined that the Initial Study has been prepared to support the adoption of an MND. An MND is a written statement by the lead agency that briefly describes the reasons why a project that is not exempt from the requirements of CEQA will not have a significant effect on the environment and, therefore, does not require preparation of an EIR (CEQA Guidelines Section 15371). The CEQA Guidelines require preparation of an MND if the Initial Study prepared for a project identifies potentially significant effects, but: 1) revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed MND and Initial Study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and 2) there is no substantial evidence, in light of the whole record before the Lead Agency, that the project may have a significant effect on the environment. (CEQA Guidelines Section 15070[b]).

The City has considered the information contained in this Initial Study in its decision-making processes. Although the Initial Study was prepared with consultant support, the analysis, conclusions, and findings made as part of its preparation fully represent the independent judgment and analysis of the City.

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Additionally, this Initial Study includes a Mitigation Monitoring and Reporting Program (MMRP), which was developed to provide a vehicle to monitor mitigation measures outlined in the Initial Study for the proposed project. The MMRP has been prepared in conformance with Section 21081.6 of the Public Resources Code and City of Irvine monitoring requirements. The MMRP will serve to document compliance with adopted/certified mitigation measures that are formulated to minimize impacts associated with the proposed project.

1.2 ENVIRONMENTAL SETTING

1.2.1 PROJECT LOCATION

The Project Site is in the central portion of the City of Irvine, which encompasses approximately 66 square miles of land (approximately 42,240 acres) in central Orange County, California. Irvine is bounded by Tustin to the northwest; unincorporated land to the northeast; Lake Forest, Laguna Hills, and Laguna Woods to the southeast; and Newport Beach to the southwest. John Wayne Airport abuts Irvine's southwestern boundary (see Figure 1, *Regional Location*).

As shown in Figures 2, *Local Vicinity*, and 3, *Aerial Photograph*, the Project Site is generally bounded by Oak Canyon to the west, the Orange County Transportation Authority (OCTA) Metrolink Railroad to the north and east, and Sand Canyon to the south. The Project Site consists of four addresses, 6405, 6411, 6427 and 6443 Oak Canyon, and is in the City's Oak Creek Planning Area (Planning Area 12).

1.2.2 Existing Land Use and Conditions

The 18.7-acre Project Site consists of four parcels, all of which are City owned and operated: the parcel at 6443 Oak Canyon (APN 466-01-135), which is developed with the Irvine Animal Care Center and related site improvements, and the parcels at 6405, 6411 and 6427 Oak Canyon (APNs 466-01-123, -133, and -114), which are developed with the Operations Support Facility, Irvine Household Hazardous Waste Collection Center, and Irvine Central Bark (a dog park) and related site improvements (herein referred to as the OSF). The current acreage of the IACC is approximately 3.7 acres and the acreage of the OSF is approximately 15 acres; combined they make up the 18.7-acre Project Site.

The IACC portion of the Project Site is developed with various buildings and structures, outdoor support spaces, and a surface parking lot. Specifically, the IACC facility consists of an administration building (Building 1: 3,519 square feet) and a cats/small animals housing building (Building 2: 7,062 square feet) where they also currently have clinic functions and a sally port. Additionally, there are two free-standing buildings for dog and cat housing utilizing indoor/outdoor kennels (Buildings 3 and 4: 5,032 square feet each) and enclosed support spaces, including lawn and play areas for dogs (see Figure 3). Currently, there are a total of 133 kennels.

The OSF portion of the Project Site is developed with the City's Public Works administrative offices, fleet buildings, operations facilities, and surface parking lots—it also contains the Irvine Household Hazardous Waste Collection Center and Irvine Central Bark. Other OSF site features include a fueling island, storage yards, and various hardscape and landscape improvements (see Figure 3). The fueling island contains pumps for both

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compressed natural gas (CNG) and gas/diesel. Specifically, there are two CNG pumps and three gas/diesel pumps.

A combination of chain-link fencing with wood slats and block walls lines the site perimeter.

1.2.3 Surrounding Land Use

As shown in Figure 3, the Project Site is generally bounded by Oak Canyon to the west, with office uses beyond; commercial and office uses and OCTA Metrolink Railroad to the north; and commercial and office uses to the south and east.

1.2.4 Existing Zoning and General Plan

The prevailing planning and regulatory plans that govern development and use of the Project Site are the Irvine General Plan and Irvine Zoning Ordinance. The development and design standards and regulations contained in the Irvine Zoning Ordinance, which implements the Irvine General Plan, constitute the zoning regulations that govern development of the Project Site. The Project Site is currently zoned 6.1 Institutional and 5.4B General Industrial, with corresponding General Plan Land Use designations of Public Facilities and Research and Industrial.

1.2.5 Environmental Resources

The Project Site consists of developed land that contains several buildings, structures, and site improvements. The Project Site contains no historic buildings, housing, scenic resources, mineral resources, or water bodies. Additional information regarding environmental resources on the Project Site—or the lack of such resources—is found in Section 3, *Environmental Analysis*, of this Initial Study under each respective environmental topic.

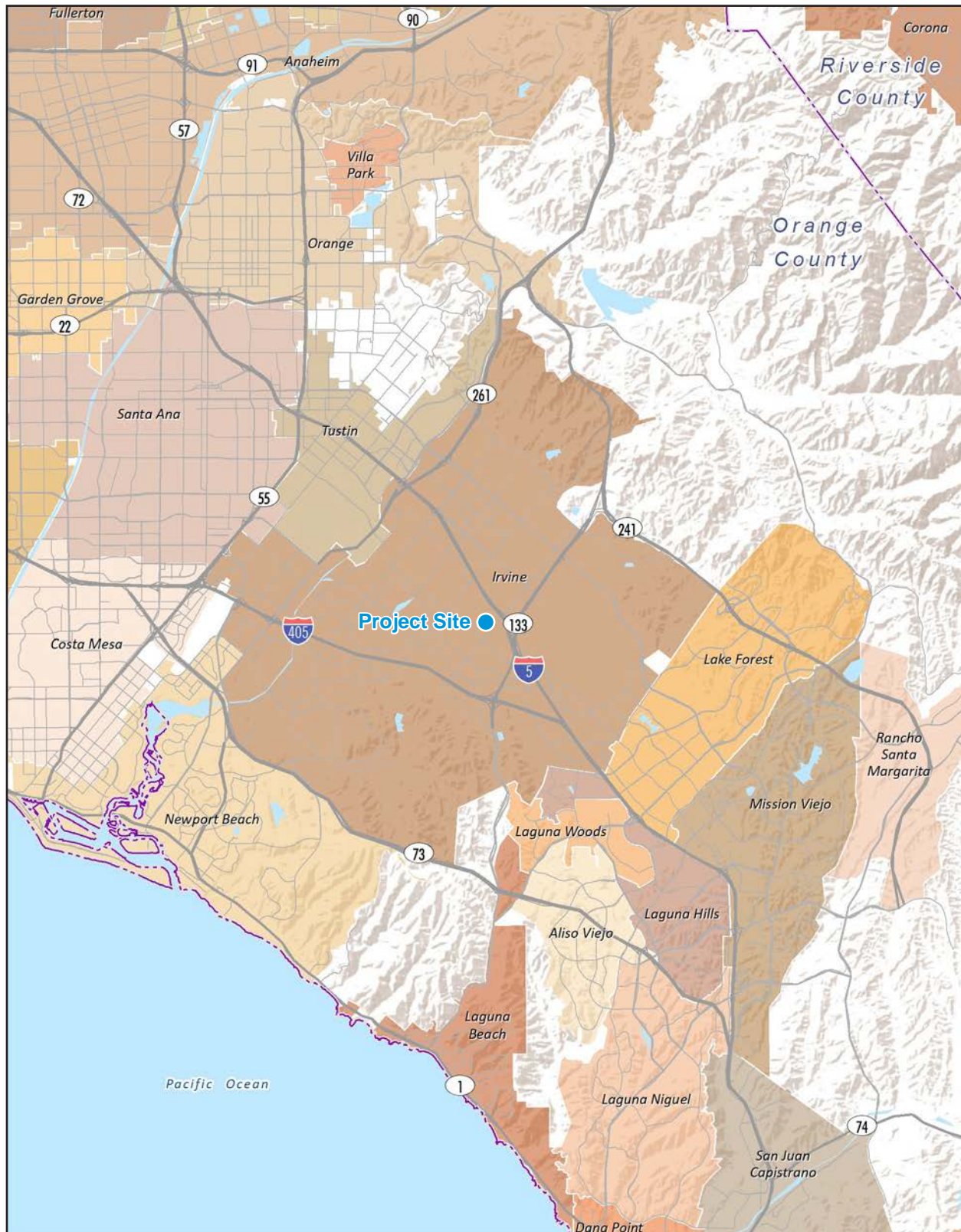
1.3 PROJECT DESCRIPTION

Following is a detailed description of the proposed project's overall site plan and character and the various development features and improvements that would be implemented as a part of the project.

1.3.1 Proposed Land Use

As proposed by the City of Irvine, the project involves an expansion and renovation of the IACC and OSF and associated site features and improvements, and removal of the existing dog park, as described below. The Irvine Household Hazardous Waste Collection Center would remain, and no expansion or improvements are proposed for this facility.

Figure 1 - Regional Location



Note: Unincorporated county areas are shown in white.

Source: ESRI, 2020

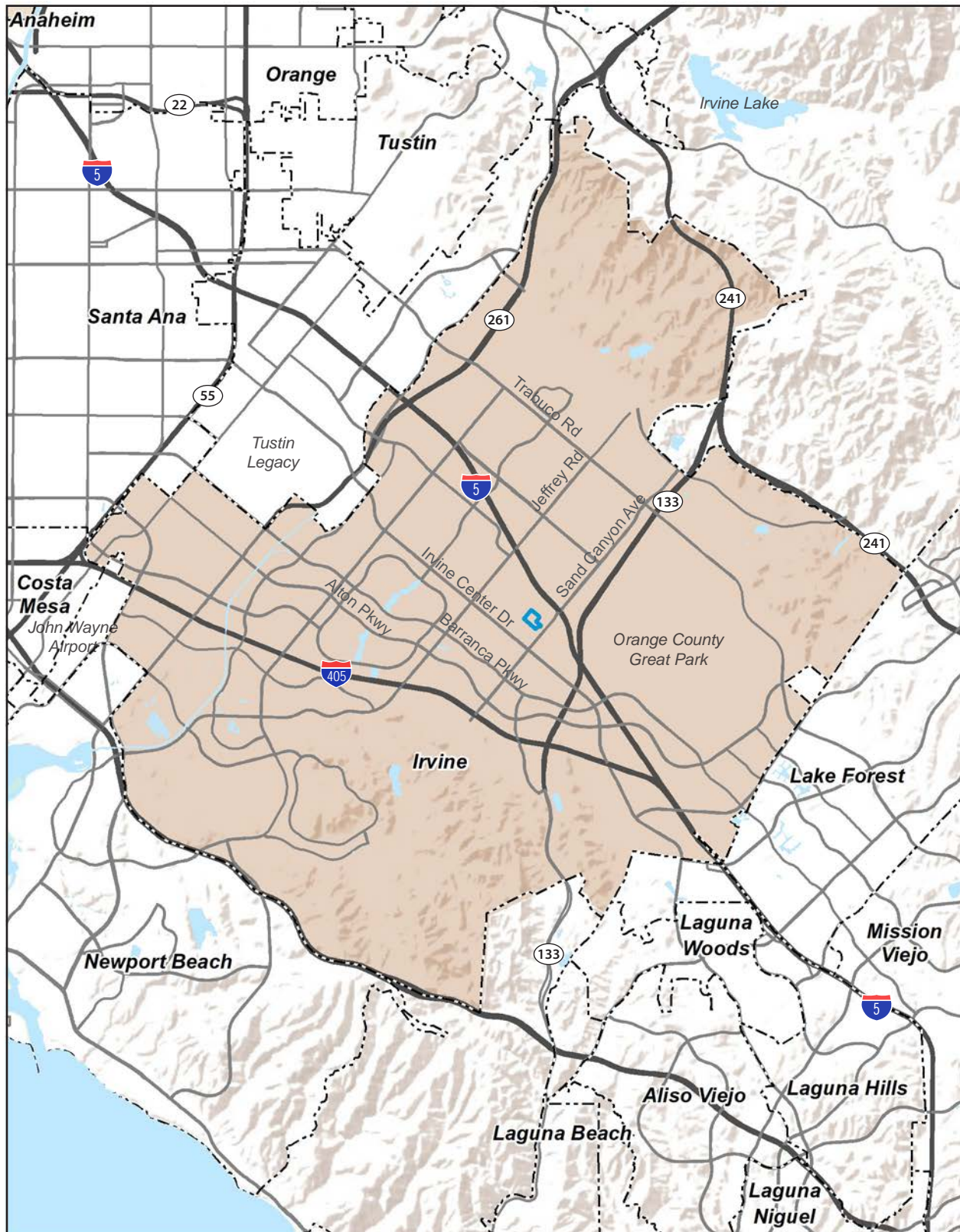
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Scale (Miles)



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Figure 2 - Local Vicinity



— Project Boundary

- - - City Boundary

Source: ESRI, 2022

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Scale (Mile)



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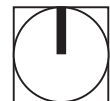
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Figure 3 - Aerial Photograph



— — — Project Boundary

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Scale (Feet)



Source: Nearmap, 2020

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1.3.1.1 IRVINE ANIMAL CARE CENTER

Figure 4, *Conceptual IACC Site Plan*, illustrates the location of the new building additions and proposed improvements for the IACC. Under the proposed project and as shown in Figure 4, an addition to the existing administration building (Building 1) totaling 9,540 square feet is proposed, which includes a new entry building (5,089 square feet), a new clinic building (3,866 square feet), and an in-fill administration building addition (585 square feet). The new entry building includes a lobby/retail, staff offices, a small kitchen, restrooms, and public spaces including a multipurpose room. The additional administrative functions include a staff break room and additional staff office space. The new clinic addition includes a surgery room, exam room, recovery housing rooms, restrooms, laundry room, and support spaces.

Also, renovation work is proposed for the existing administration building, cats/small animals housing building, and kennel buildings. Administration modifications include creating an open office workspace and modifying the locker/restrooms. The cats/small animals building modifications include adding a patio, rearranging spaces for housing and support spaces, and creating permanent space for ringworm isolation. Modifications for the kennel buildings includes enlarging kennels, adding an exam room, and refreshing kennels and support spaces. Under the project, a total of 103 kennels (including cats and dogs) would be provided, a reduction of 30 kennels compared to existing conditions.

Other proposed site improvements include modifications to the existing secured parking area, addition of a trash enclosure, re-grading and addition of drains for better site drainage and storm water treatment, facility entrance modifications, new activity yards, and miscellaneous landscaping.

1.3.1.2 OPERATIONS SUPPORT FACILITY

Figure 5, *Conceptual OSF Site Plan*, illustrates the location of the new buildings, structures, and proposed improvements for the OSF. As shown in Figure 5, the OSF expansion and renovations consists of the addition of new metal structures and interior remodels of existing buildings. The project includes removal of four pre-engineered/-fabricated metal structures (used for storage and maintenance purposes only) and a canopy, and the addition of two pre-engineered/-fabricated metal structures (one measuring 8,400 square feet and the other 8,700 square feet) for storage of material that is currently open to the elements or stored in shipping containers throughout the site. The smaller of the two metal structures would include restrooms and showers for City employee use. The proposed interior remodeling of existing buildings would mainly include restroom additions and reconstruction and replacement of water heaters.

Also, the existing fueling island would be removed and new fueling islands would be constructed within the area of the Project Site currently housing the dog park. Two fueling islands are proposed, one for CNG and the other for gas/diesel. The new CNG island would include two pumps, and the separate gas/diesel fueling island would include three pumps, which is the same number of pumps under existing conditions.

As a part of the project, the existing dog park would be removed and relocated to the Oak Creek Community Park, which is in the process of undergoing an expansion and improvement plan that is being processed separately by the City of Irvine. Once the new dog park at Oak Creek Community Park is constructed and

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operational, the existing dog park at the Project Site would be removed and replaced with a new surface parking area for City vehicles and the new fueling station.

A new dog path trail would be provided along the entire stretch of the western site boundary. The trail would connect the existing Walnut Trail, which abuts the northern site boundary, to the public sidewalk on Oak Canyon on the south. The trail would include fencing on both sides and include lighting to provide a safe and secure experience for individuals and their dogs using the trail.

New and improved yard lighting would also be provided throughout the site. The employee/visitor parking lot would be reconfigured to provide a new capacity of 194 parking spaces (which would be a shared use lot for IACC and OSF staff and visitors) with new photovoltaic canopies located over the parking spaces. The fleet parking areas within the yard would be redesigned and reconfigured to allow for 179 parking spaces for City vehicles. The remaining site improvements include mainly a reconfiguration and optimization for better traffic flow and a safer environment.

1.3.1.3 OPERATIONAL CHARACTERISTICS

The hours and days of operation and the total number of staff and volunteers for both facilities would remain the same and not change with project implementation. Following is a discussion of the operational characteristics of each facility.

Irvine Animal Care Center

Visitors, Workers, and Volunteers

General Public

- Monday-Friday (excluding Tuesday): 75–150 people per day
- Saturday and Sunday: 150–250 people per day

Employees

- Monday-Friday: 24–28 employees per day
- Saturday and Sunday: 12–18 employees per day

Volunteers

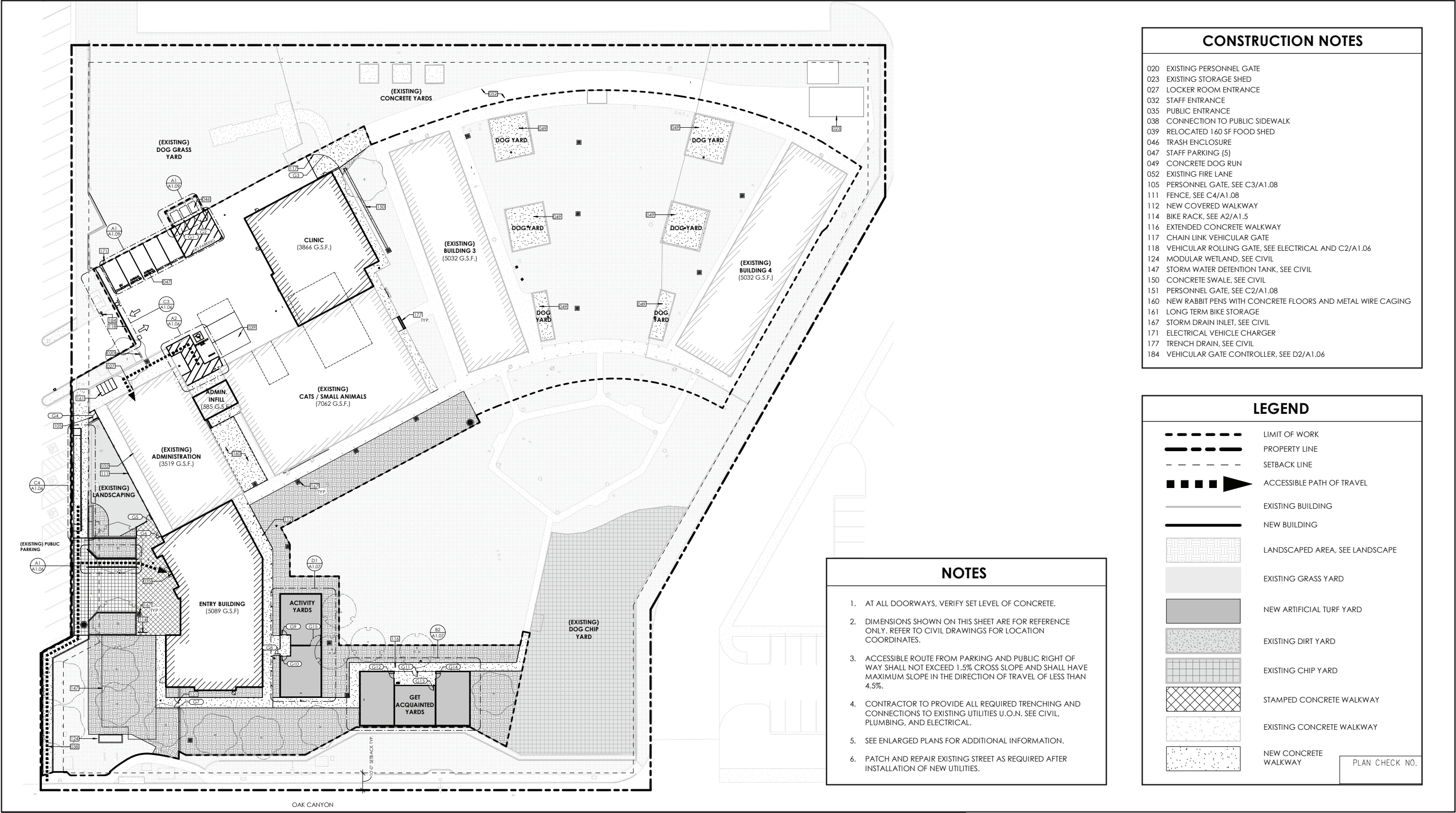
- Monday-Friday: 20–24 volunteers per day
- Saturday and Sunday: 29–48 volunteers per day

Hours of Operation

General Public

- Weekdays: 12pm to 6pm (closed on Tuesdays)
- Weekends: 10am to 4pm

Figure 4 - Conceptual IACC Site Plan

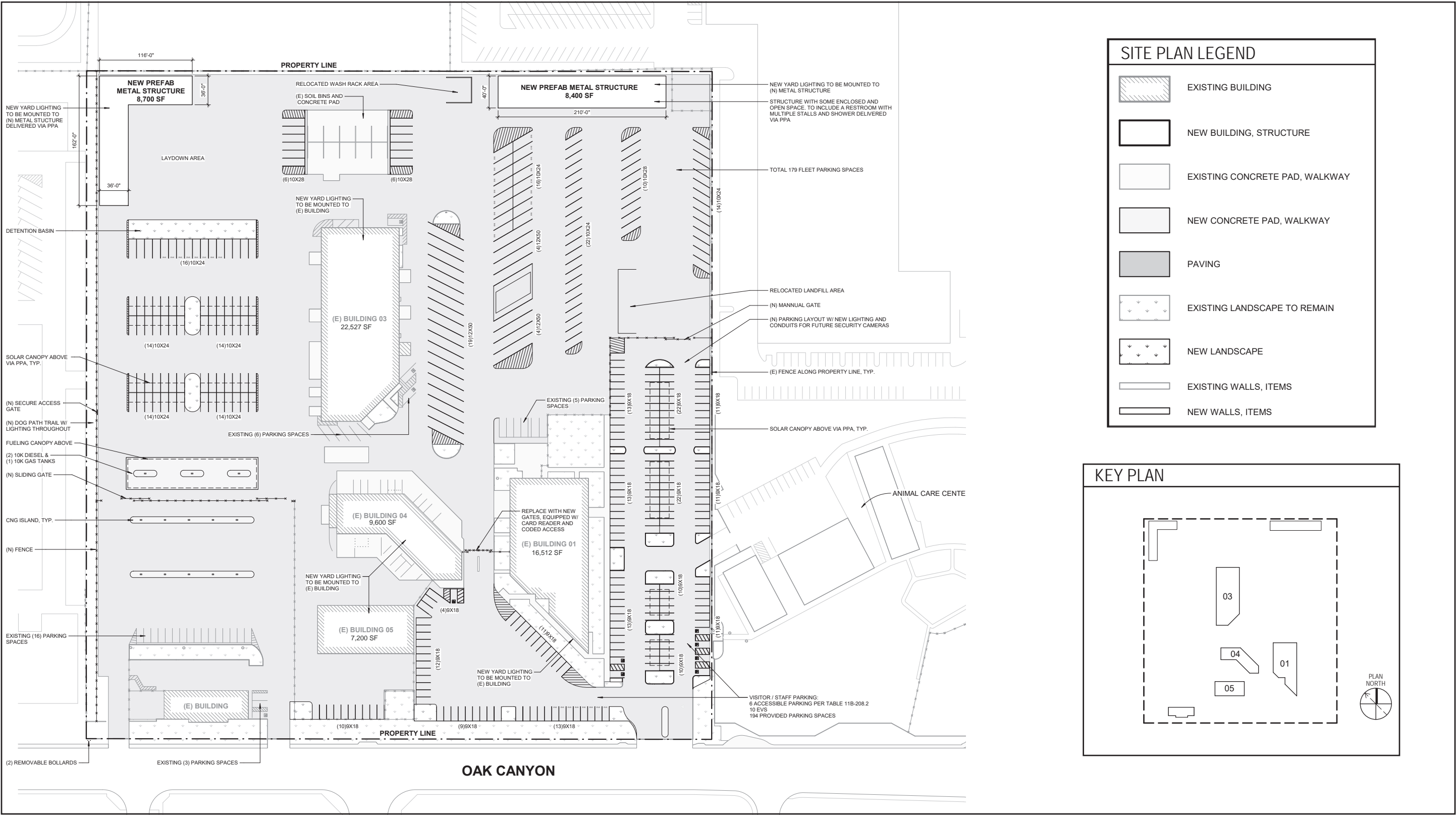


Source: JKA, 2021

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Figure 5 - Conceptual OSF Site Plan



Source: JKA, 2021

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Employees

- Weekdays: 7am to 6:30pm (except on Tuesdays)
- Weekends and Tuesdays: 7am to 5pm

Note: There are occasional special events with staff that start before 7am.

Volunteers

- Daily: 7:30am to 5pm

Operations Support Facility

The current hours of operation are 6:30am to 5:00pm from Monday through Friday, although it is used 24/7 by on-call staff. The hours of operation would remain the same with project implementation. Total existing staff is 135, which would not increase as a result of project implementation.

1.3.2 Landscaping, Fences, and Lighting

The project's landscape plan would not be extensive but would feature the provision of new trees, shrubs, and ground cover for both facilities. The majority of the new landscaping would be provided for the IACC, with minimal landscaping improvements proposed for the OSF. The majority of existing trees in the IACC area would be protected in place, with approximately 18 being removed to make room for the new building additions. For the OSF area, approximately 57 trees would be removed, which are mostly associated with the dog park to be removed. However, approximately 32 trees would be planted throughout the Project Site, 13 for the IACC area and 19 for the OSF area.

New sliding security gates would be provided for the OSF to secure the internal fleet parking and yard. The new gates would be equipped with a card reader and coded access. Also, a new fence would be provided along the entire western site boundary, which would feature a new dog path trail with lighting. The new fence would help provide a secure dog path. No new fencing or gates are proposed for the IACC.

Site lighting would consist of new exterior, building-mounted light fixtures; interior lighting for the new buildings and structures; lighting for work and common areas; lighting for the redesigned parking areas; and security lighting.

1.3.3 Access, Circulation, and Parking

Figures 4, *Conceptual IACC Site Plan*, and 5, *Conceptual OSF Site Plan*, illustrate the vehicular and pedestrian access and circulation plans. They also illustrate the proposed parking areas and improvements of the Project Site. Under the project there would be no changes to the existing driveway that serves the IACC and OSF (with the exception of a new landscaped finger to help direct vehicles), which currently share a common driveway on Oak Canyon for staff, volunteers, and the general public. The two existing driveways that provide access to the Irvine Household Hazardous Waste and Collection Center, and dog park would also remain the same. However, under the project, the two driveways would provide vehicular access to the City's fleet, which would enter the

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OSF yard via new gated entries. The internal vehicular circulation improvements mainly include a reconfiguration and optimization for better traffic flow and circulation.

Parking for the IACC would remain the same for the most part, with some minor modifications proposed for the existing secured parking for this facility. The existing employee and visitor parking lot of the OSF would be reconfigured to provide a new capacity of 194 parking spaces (which would be a shared use lot for IACC and OSF staff and visitors) with new photovoltaic canopies located over the parking spaces. The fleet parking areas in the OSF yard would be redesigned and reconfigured to allow for 179 parking spaces for City vehicles. The existing dog park would be removed and replaced with a new surface parking area for City fleet vehicles and the new fueling station. Access to the fleet parking area would be secured via new gated entries, as described in Section 1.4.2, *Landscaping, Fences, and Lighting*.

Pedestrian access to the Project Site would continue to be provided via the existing public sidewalk on Oak Canyon. A new walkway would be provided between the public sidewalk and the new entry building of the IACC; currently, there is no walkway that provides access to the IACC.

1.3.4 Infrastructure Improvements and Utility and Service Systems

Following is a discussion of the infrastructure improvements and utility and service systems needed to accommodate the project. All proposed improvements would require City approval and, where necessary, approval from the utility/service provider.

1.3.4.1 WATER SYSTEM

The Irvine Ranch Water District (IRWD) provides water delivery service to the existing uses of the Project Site, and would continue to do so after project implementation. As a part of the project and where necessary, new onsite water lines for general and fire suppression water use would be constructed and connect to the existing water lines onsite, which connect to the water main in Oak Canyon. No offsite water line construction or upsizing would be required to accommodate the project. The proposed water system improvements would be designed and constructed in accordance with City requirements and would require City approval.

1.3.4.2 WASTEWATER SYSTEM

IRWD provides wastewater collection and conveyance service to the existing uses of the Project Site and would continue to do so after project implementation. As a part of the project and where necessary, new onsite sewer lines would be constructed and connect to the existing sewer lines onsite, which connect to the sewer main in Oak Canyon. No offsite sewer line construction or upsizing would be required to accommodate the project. The proposed wastewater system improvements would be designed and constructed in accordance with City requirements and would require City approval.

1.3.4.3 DRAINAGE SYSTEM

Project development would be consistent with the existing drainage pattern, and drainage would continue to flow southerly to the municipal storm drain line on Oak Canyon via the existing and new onsite drainage collection, conveyance, and treatment systems that would be introduced to provide better site drainage and

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storm water treatment. Proposed drainage improvements include new inlets and drainpipes, as well as a modular wetland system for detention and treatment purposes. The proposed modular wetland system includes a detention chamber system that would be used for temporary storage of stormwater runoff prior to treatment through the modular wetland system. The detention system would also serve to reduce any increase in peak flows as a result of project implementation, as compared to existing conditions.

1.3.4.4 SOLID WASTE AND RECYCLING SYSTEM

Solid waste and recycling generated by the existing uses onsite are collected and hauled away by Waste Management and transported to the waste collection and disposal facilities serving Irvine. Additional solid waste generated as a result of project implementation would also be collected and hauled away by Waste Management. Additionally, existing solid waste and recycling bins located onsite would be adequate to serve the project's proposed uses.

1.3.4.5 UTILITIES AND SERVICE SYSTEM

Utilities and service systems that serve the existing uses onsite (and would serve the project's proposed uses) include electricity (Southern California Edison), natural gas (Southern California Gas Company), and telecommunications (Spectrum, Frontier, and AT&T). Any new utility infrastructure needed to serve the project uses would be installed underground or placed in enclosed spaces (e.g., utility closets).

1.3.5 Green Building Standards

According to the U.S. Green Building Council, green building is the practice of designing, constructing, and operating buildings to maximize occupant health and productivity, use fewer resources, reduce waste and negative environmental impacts, and decrease life cycle costs. The project would be designed and constructed using green building practices, including those of the most current California Building Energy Efficiency Standards (Title 24, California Code of Regulations [CCR], Part 6) and California Green Building Standards Code (CALGreen [24 CCR Part 11]), which is incorporated by reference in Section 5-9-403 (Green Building Code) of the Irvine Municipal Code. The Building Energy Efficiency Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. CALGreen is California's statewide "green" building code. Its purpose is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices in the categories of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality.

As proposed, project development would include mandatory standards from CALGreen Divisions 5.1, Planning and Design; 5.2, Energy Efficiency; 5.3, Water Efficiency and Conservation; 5.4, Material Conservation and Resource Efficiency; and 5.5, Environmental Quality. Some of the specific green building standards include but are not limited to:

- Bicycle parking

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- Building commissioning
- Designated parking for clean air vehicles
- Electric vehicle charging (facilitate future installation of electric vehicle supply equipment)
- Light pollution reduction
- Water-conserving plumbing fixtures and fittings
- Construction waste reduction, disposal, and recycling
- Recycling by occupants
- Finish material pollutant control

1.3.6 Project Construction and Phasing

Project development is anticipated to be completed in two development phases, one for the IACC and the other for the OSF. Overall construction for the IACC project improvements is estimated to take approximately 19 months, from January 2023 to July 2024. For the OSF project improvements, construction is anticipated to take approximately 16 months, from January 2023 to April 2024. No soil import or export would be required for the IACC project improvements. Also, no soil export would be required for the OSF project improvements; however, some soil import (approximately 510 cubic yards) would be required. The types and numbers of construction equipment expected to be used during construction activities are summarized in Section 3.3, *Air Quality*. All construction staging activities and areas would stay within the confines of the Project Site.

1.4 CITY ACTION REQUESTED

Under CEQA Guidelines Section 15357, a discretionary action means a project that calls for an exercise of judgment or deliberation when the public agency (for the project, the public agency is the City of Irvine) decides to approve or disapprove a particular activity, as distinguished from situations where the public agency or body merely has to determine whether there has been conformity with applicable statutes, ordinances, regulations, or other fixed standards. Irvine is the lead agency under CEQA and has the principal approval authority over the project. Following is a list of the discretionary actions and approvals required for project implementation.

- Adoption of a Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program

1.4.1 Nondiscretionary/Ministerial Actions and Approvals

Under CEQA Guidelines Section 15369, ministerial approvals are those that involve little or no discretion (e.g., connections to utility infrastructure), merely apply a checklist or clear requirements to the facts as presented and are often issued over the counter by a county or city staff. Following is a list of the nondiscretionary/ministerial actions and approvals required for project implementation.

- Approval and issuance of grading and building permits
- Approval and issuance of certificates of occupancy

1. Introduction

1.5 INCORPORATION BY REFERENCE

- **Irvine General Plan.** The Irvine General Plan is a policy document designed to give long-range guidance and direction for decisions affecting the future character of Irvine. It represents the blueprint and official statement of Irvine's physical development as well as its economic, social, and environmental goals. The Irvine General Plan was used throughout this Initial Study as the fundamental planning document governing development on the Project Site.
- **Irvine Zoning Ordinance.** The Irvine Zoning Ordinance is the regulating tool that the City uses to implement the Irvine General Plan; it establishes the basic regulations under which land in Irvine is developed and utilized. This includes but is not limited to regulations and controls for the design and improvement of development sites, allowable uses, building setback and height requirements, and other development standards. The basic intent of the ordinance is to promote and protect the public health, safety, convenience, and welfare of present and future citizens of Irvine. The Irvine Zoning Ordinance was used throughout this Initial Study as the fundamental regulatory document governing development on the Project Site.

1. Introduction

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2. Environmental Checklist

2.1 PROJECT INFORMATION

1. **Project Title:** Irvine Animal Care Center and Operations Support Facility Expansion and Renovation

2. **Lead Agency Name and Address:**

City of Irvine
Public Works Department
One Civic Center Plaza
Irvine, CA 92606

3. **Contact Person and Phone Number:**

Steve Carrillo, Manager of Engineering/City Engineer
949.724.7325

4. **Project Location:** The Project Site is generally bounded by Oak Canyon to the west, the OCTA Metrolink Railroad to the north and east, and Sand Canyon Avenue to the south. The Project Site consists of four addresses—6405, 6411, 6427 and 6443 Oak Canyon.

5. **Project Sponsor's Name and Address:**

City of Irvine
Public Works Department
One Civic Center Plaza
Irvine, CA 92606

6. **General Plan Designation:** Public Facilities and Research and Industrial

7. **Zoning:** 6.1 Institutional and 5.4B General Industrial

8. **Description of Project:** The project involves an expansion and renovation of the IACC and OSF and associated site features and uses. Under the proposed project, the IACC expansion and renovation plans include an addition to the existing administration building (new entry building), a new clinic building, and an in-fill administration building addition. Also, renovation work is proposed for the existing IACC administration building, cats/small animals housing building, and kennel buildings. The OSF expansion and renovation plans consist of the addition of new metal structures and interior remodels of existing buildings. The OSF project includes removal of four pre-engineered/-fabricated metal structures and the addition of two pre-engineered/-fabricated metal structures for material storage. Also, the existing compressed natural gas and gas/diesel fueling islands would be relocated to a new location within the area of the Project Site currently housing the dog park. As a part of the project, the existing dog park would be removed and relocated to the Oak Creek Community Park, which is in the process of undergoing an

2. Environmental Checklist

expansion and improvement plan that is being processed separately by the City. Refer to Section 1.4, *Project Description*, for a more detailed description of the project.

9. Surrounding Land Uses and Setting: The Project Site is generally bounded by Oak Canyon to the west, with office uses beyond; commercial and office uses and OCTA Metrolink Railroad to the north; and commercial and office uses to the south and east.

10. Other Public Agencies Whose Approval Is Required (e.g., permits, financing approval, or participating agreement): Not applicable.

2. Environmental Checklist

2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture / Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards and Hazardous Materials |
| <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

2. Environmental Checklist

2.4 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) **Earlier Analyses Used.** Identify and state where they are available for review.
 - b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) **Mitigation Measures.** For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

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8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
- the significance criteria or threshold, if any, used to evaluate each question; and
 - the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

2. Environmental Checklist

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				X
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) 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?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				X
c) 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?				X
d) 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?		X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	

2. Environmental Checklist

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?			X	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	

2. Environmental Checklist

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			X	
e) For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in a substantial erosion or siltation on- or off-site;			X	
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;			X	
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
iv) impede or redirect flood flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?				X
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				X

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Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X
XIII. NOISE. Would the project result in:				
a) 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?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) 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?			X	
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?			X	
Police protection?			X	
Schools?				X
Parks?				X
Other public facilities?				X
XVI. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X

2. Environmental Checklist

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			X	
d) Result in inadequate emergency access?			X	
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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:				
i) 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				X
ii) 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			X	
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?			X	

2. Environmental Checklist

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				X
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				X
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
b) Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?			X	
c) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

2. Environmental Checklist

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3. Environmental Analysis

Section 2.4 provided a checklist of environmental impacts. This section provides an evaluation of the impact categories and questions contained in the checklist and identifies mitigation measures, if applicable.

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. For purposes of determining significance under CEQA, a scenic vista is generally considered a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Some scenic vistas are officially designated by public agencies, and some are informally designated by tourist guides. Vistas provide visual access or panoramic views to a large geographic area and are generally located at a point where surrounding views are greater than one mile away. Panoramic views are usually associated with vantage points over a section of urban or natural areas that provides a geographic orientation not commonly available. Examples of panoramic views might include an urban skyline, valley, mountain range, a large open space area, the ocean, or other water bodies. A substantial adverse effect to a scenic vista is one that degrades the view from such a designated view spot.

Figure A-4, Scenic Highways, of the Irvine General Plan Land Use Element does not designate any scenic vistas or corridors on or near the Project Site. Neither the Project Site nor other properties in the project vicinity provide substantial views of any water bodies, mountains, hilltops, or any other significant visual resources. However, the Santiago Hills can be seen to the north of the site. Specifically, views of these hills are afforded to motorists and passersby traveling east-west on Oak Canyon, which forms the Project Site's southern boundary. However, project development would not affect any unobstructed expansive or panoramic views of the Santiago Hills, as no such views currently exist. Existing views are very limited due to development features (e.g., buildings, structures, walls) and mature landscaping that exist on the Project Site and beyond. In fact, only peek-a-boo views of the hills are available at the existing driveway locations. Also, project development would not introduce any building or structures that would obstruct the limited views of the Santiago Hills.

Additionally, the Project Site and areas immediately surrounding the site are in a highly urbanized area of Irvine and are developed with a mix of commercial and office uses that do not exhibit any significant visual resources or scenic vistas.

Furthermore, according to Figure L-2, Conservation and Open Space, of the Irvine General Conservation and Open Space Element, there are no designated open space resources onsite or in the vicinity of the Project Site, a designation typically used to determine the value of certain public vistas in order to gauge adverse effects.

Based on the preceding, no impacts to scenic vistas would occur, and no mitigation measures are necessary.

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b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. Scenic highways are a unique component of the region’s circulation system as they traverse areas of scenic or aesthetic value. According to the California Department of Transportation (Caltrans), a highway may be designated as scenic depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler’s enjoyment of the view (Caltrans 2022a).

The Project Site is in an urbanized area of Irvine and is not on or near a state-designated or -eligible scenic highway, as designated on Caltrans’s California State Scenic Highway System Map (Caltrans 2022b). In fact, no highways within Irvine are eligible or officially designated state scenic highways. Additionally, the Project Site is not visible from the nearest state-designated scenic highway (State Route 1, or Pacific Coast Highway), which is almost eight miles to the southwest of the Project Site. Due to distance and intervening land uses, no portion of the Project Site or surrounding area is viewable from Pacific Coast Highway.

Furthermore, there are no rock outcroppings or historic buildings onsite—the Project Site is developed with the IACC and OSF. Therefore, no impact would occur, and no mitigation measures are necessary.

c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refers to the identification of visual resources and their quality, as well as an overall visual perception of the environment. A project is generally considered to have a significant aesthetic impact if it substantially changes the character or quality of the Project Site such that the site becomes visually incompatible with or visually unexpected in its surroundings.

The Project Site is in an urbanized area of Irvine that is characterized by flat topography and urban development. Existing land use and conditions of the Project Site and surrounding area are depicted in Figure 3, *Aerial Photograph*. As shown in Figure 3, the Project Site is developed with the IACC and OSF and associated site features and improvements. Surrounding land uses consist of a mix of commercial and office uses.

Following is a discussion of the potential impact to the visual character or quality of the Project Site and its surrounding resulting from the construction and operational phases of the project.

Project Construction Phase

Project implementation would result in construction activities that would temporarily change the visual character of the Project Site and its surroundings. Construction activities would involve site clearing, grading, building, and site improvements. Construction staging areas, including earth stockpiling, storage of equipment and supplies, and related activities would contribute to a generally “disturbed site,” which may be perceived by some as a visual impact.

3. Environmental Analysis

However, these effects would be typical of any site in Irvine that undergoes development or redevelopment. Project development is anticipated to be completed in three phases—clearing, grading, and construction. Overall construction is estimated to take up to 19 months, extending from January 2023 to July 2024. Construction activities may be unsightly during the site preparation and construction phases; however, they would be temporary and would cease upon completion.

Also, the existing block wall and mature landscape hedges and trees that line the southern Project Site boundary, which is formed by Oak Canyon, would help buffer offsite views of the construction areas and activities that would take place onsite. Furthermore, and where necessary, construction fencing would be erected to help shield the construction areas and would also be temporary. Specifically, the typical fencing to be provided (i.e., chain-link fencing with mesh fabric or similar screening material) would screen views of the construction site, including the screening of stockpiles, graded areas, construction equipment, and building materials.

Therefore, project-related construction activities would not have a significant effect on the existing visual character or quality of the site and its surroundings. Impacts would be less than significant, and no mitigation measures are necessary.

Project Operation Phase

As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with the IACC and OSF and associated site features and improvements. The IACC portion of the Project Site is developed with various buildings and structures, outdoor support spaces, and a surface parking lot. The OSF portion of the Project Site is developed with the City's Public Works administrative offices, fleet buildings, operations facilities, and surface parking lots—it also contains the Irvine Household Hazardous Waste Collection Center and Irvine Central Bark. Surrounding land uses are predominantly commercial and office uses.

Figures 4, *Conceptual IACC Site Plan*, and 5, *Conceptual OSF Site Plan*, illustrate the location of the new buildings, structures, and proposed improvements for both facilities. Under the project, the IACC expansion and renovation plans involve new building additions to the existing main building. The OSF expansion and renovation plans include removal of four pre-engineered/-fabricated metal structures and the provision of three new metal pre-engineered/-fabricated metal structures. Other proposed IACC site improvements include modifications to the existing secured parking area, addition of a trash enclosure, regrading and addition of drains for better site drainage and storm water treatment, facility entrance modifications, new activity yards, and miscellaneous landscaping. For the OSF, other site improvements include modifications to the existing secured parking areas, reconfiguration and optimization of the onsite circulation for better traffic flow, new and improved yard lighting, and miscellaneous hardscape and landscape improvements.

Figures 4 and 5 demonstrate how project implementation would help create a more unified development plan for the IACC and OSF. The height and massing of the proposed building additions and structures would be similar to those existing onsite, and with those of the surrounding uses. They would help to visually enhance the aesthetics of the IACC and OSF and surrounding area. The design elements/features of the proposed building additions and structures would also be complimentary to and not detract from those of the existing buildings and structures onsite or with those of the commercial and office uses surrounding the Project Site.

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Overall, project development would enhance and strengthen the visual character of the Project Site and its surroundings through new architecture, landscaping, hardscape, and other improvements onsite. The proposed architectural and landscape elements and design would ensure that project development is not detrimental to the visual character or quality of the surrounding area or uses. The building masses, landscaping, and various hardscape and landscape improvements proposed throughout the Project Site would be designed to create a sense of cohesiveness on- and offsite and along the Project Site boundaries. Although newer than that of the existing uses onsite and surrounding area and uses, the proposed buildings, landscaping and site improvements would complement and not detract from the visual character of the site or surrounding area.

Based on the preceding, project development would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Lighting effects are associated with the use of artificial light during the evening hours. There are two primary sources of light: light emanating from building interiors passing through windows and openings, and light from exterior sources (i.e., street lighting, architectural building illumination, security lighting, parking lot lighting, landscape lighting, and signage). Excessive light and/or glare can impair vision, cause a nuisance, affect sleep patterns, and generate safety hazards when experienced by drivers. Uses such as residences, elderly care facilities, schools, and hotels are considered light sensitive, since occupants have expectations of privacy during evening hours and may be subject to disturbance by bright light sources. Light spill or trespass is considered a nuisance and is typically defined as the presence of unwanted light on properties adjacent to the property being illuminated. With respect to lighting, the degree of illumination may vary widely depending on the amount of light generated, height of the light source, presence of barriers or obstructions, type of light source, and weather conditions.

Glare is primarily a daytime occurrence caused by the reflection of sunlight or artificial light on surfaces of buildings or objects, including highly polished surfaces such as glass windows or reflective materials and, to a lesser degree, from broad expanses of light-colored surfaces. Perceived glare is the unwanted and potentially objectionable sensation experienced by a person as they look directly into the light source of a luminaire. Daytime glare generation is common in urban areas and is typically associated with buildings with exterior façades largely or entirely composed of highly reflective glass. Daytime glare can also be generated by light reflecting off passing or parked cars. Glare can also be produced during evening and nighttime hours by the reflection of artificial light sources such as automobile headlights. Glare generation is typically related to either moving vehicles or sun angles, although glare resulting from reflected sunlight can occur regularly at certain times of the day and year. Excessive glare not only impedes visibility, but also increases the ambient heat reflectivity in a given area. Glare-sensitive uses include residences, hotels, transportation corridors, and aircraft landing corridors.

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As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with the IACC and OSF, and sources of light or glare already exist on the Project Site. There are also numerous sources of light and glare surrounding the Project Site, including lighting from roadways and the mix of commercial and office uses.

Following is a discussion of the potential day- and nighttime light and glare impacts in the project area resulting from the construction and operational phases of the project.

Project Construction Phase

Project construction would be limited to daytime hours. With the exception of illumination during nighttime hours for safety and security purposes, no other nighttime lighting would be required until the project is operational. Nighttime security lighting would only be used for the duration of the temporary construction process. Additionally, construction activities are not anticipated to result in flat, shiny surfaces that would reflect sunlight or cause other natural glare. Therefore, no short-term, construction-related impacts associated with light and glare would occur. Impacts would be less than significant, and no mitigation measures are necessary.

Project Operation Phase

Daytime Glare

The project includes building materials and architectural treatments that could cause daytime glare, but not to such an extent that they would result in a significant impact. For example, the architectural treatments of the proposed buildings would include building materials such as pre-engineered/-fabricated metal structures and plastered walls, glazing (glass windows and doors), and other decorative elements. With the exception of the glass windows and doors, the building materials and architectural treatments are non-reflective and would therefore not create substantial day or nighttime glare. Compared to the amount of non-reflective building materials, the use of glazing is limited (would make up less than 5 percent of the building façades).

The proposed glazing could increase sources of glare because it would reflect some level of sunlight during certain times of the day. Also, vehicles parked onsite would increase the potential for reflected sunlight during certain times of the day. However, glare from these sources is typical of the surrounding area and would not increase beyond what is expected for a developed area of Irvine. Furthermore, as noted above, the Project Site is developed with the IACC and OSF, and sources of glare already exist on the Project Site.

Therefore, daytime glare impacts from project-related architectural treatments and building materials would be less than significant and no mitigation measures are necessary.

Nighttime Lighting and Glare

As noted above, the Project Site is developed with the IACC and OSF, and sources of artificial light already exist on the Project Site. Project development would introduce new sources of artificial light to the Project Site and surrounding area. Nighttime site lighting would consist of exterior, building-mounted light fixtures; interior lighting for the new building; lighting for pedestrian walkways and common gathering areas; new and improved yard lighting; lighting for the new and redesigned parking areas; and security lighting. These new sources of artificial lighting have the potential to increase nighttime light and glare in the project area, as well as create

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offsite light spill or trespass that could result in a nuisance. Nighttime lighting and glare from the Project Site would be visible from the surrounding roadways and nonresidential land uses.

Although project development would introduce new light sources to the Project Site and surrounding area, the proposed light sources would be similar to the existing light sources onsite and to the light sources of the surrounding commercial and office uses. Existing nighttime lighting also emanates from streetlights along Oak Canyon. Considering the existing sources of lighting onsite and in the surrounding vicinity, the amount and intensity of nighttime lighting proposed onsite would not be substantially greater than existing lighting. It is unlikely that conventional lighting and illuminated operations under the project would discernibly, much less adversely, affect ambient light conditions.

Furthermore, project development would be required to conform with all applicable City lighting standards, including those of Chapter 3-16, Lighting, of the Irvine Zoning Ordinance. The lighting provisions are intended to prevent glare, light trespass, and light pollution. All proposed exterior lighting would be designed, arranged, installed, directed, shielded, operated, and maintained in such a manner as to contain direct illumination onsite and prevent light and glare impacts offsite in accordance with the provisions of the Irvine Zoning Ordinance, thereby preventing excess illumination and light spillover onto adjoining/surrounding residential and nonresidential land uses and/or roadways. Through the City's established development review processes, the City would ensure that final design of the project complies with the requirements of the Irvine Zoning Ordinance and thus precludes or effectively minimizes potential light/glare overspill onto adjacent/surrounding properties or roadways.

Finally, project development would be required to comply with California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, which outlines mandatory provisions for lighting control devices and luminaires (24 CCR Part 6). For example, the project's exterior lighting sources would be required to be installed in accordance with the provisions of Section 110.9, Mandatory Requirements for Lighting Control Devices and Systems, Ballasts, and Luminaires.

Compliance with the lighting provisions of the Irvine Zoning Ordinance and Title 24 would ensure that the project does not result in significant light impacts. Compliance with these provisions is ensured through the City's development review and building plan check process.

Based on the preceding, operational nighttime light and glare impacts related to the project would be less than significant and no mitigation measures are necessary.

3.2 AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest

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Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. The Project Site is not mapped as farmland. According to the California Important Farmland Finder maintained by the Department of Conservation, the Project Site is designated as Urban and Built-Up Land (CDC 2016). The undeveloped parcel north of the Project Site beyond the railroad tracks is mapped as Prime Farmland (CDC 2016); however, the parcel does not contain active farmland or other agricultural uses. Also, project development would have no impact on adjacent land as all improvements would occur within the confines of the Project Site. Therefore, project development would not convert mapped farmland to nonagricultural use. No impact would occur, and no mitigation measures are necessary.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The Project Site is not zoned for agricultural use. According to the City's zoning map, the Project Site is zoned 6.1 Institutional and 5.4B General Industrial, which lists agricultural uses as a permitted use. As shown in Figure 3, the Project Site is in a highly urbanized area of Irvine and is developed with the IACC and OSF. The site does not contain active farmland or other agricultural uses and is not adjacent or in proximity to such uses. Also, project implementation does not require a zone change, and no loss in land zoned for/or permitting agricultural uses would occur. Furthermore, the Project Site is not subject to a Williamson Act contract (CDC 2018). Therefore, project development would not conflict with zoning for agricultural uses or a Williamson Act contract. Accordingly, no impact would occur, and no mitigation measures are necessary.

- c) **Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code [PRC] Section 12220(g)), timberland (as defined by [PRC] Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?**

No Impact. Forest land is defined as "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits" (PRC Section 12220[g]). Timberland is defined as "land...which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees" (PRC Section 4526).

As shown in Figure 3, *Aerial Photograph*, the Project Site is in a highly urbanized area of Irvine and is surrounded by commercial and office uses. Additionally, all trees onsite are ornamental trees and are not cultivated for forest resources. Therefore, the Project Site does not meet the definition of lands designated as forestland or timberland in PRC Sections 12220(g), 4526, and 51104(g). Furthermore, the Project Site is not designated or zoned for forest or timber land or used for forestry. As stated above, the Project Site is zoned 6.1 Institutional and 5.4B General Industrial. Therefore, project development would have no impact on forest land or resources, and no mitigation measures are necessary.

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d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. See response to Section 3.2.c, above. As substantiated in that section, no impact would occur, and no mitigation measures are necessary.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. See responses to Section's 3.2.a, b, and c, above. As substantiated in these sections, no impact would occur and no mitigation measures are necessary.

3.3 AIR QUALITY

This section addresses the impacts of the project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. A background discussion on the air quality regulatory setting, meteorological conditions, existing ambient air quality in the vicinity of the Project Site, and air quality modeling can be found in Appendix A.

The primary air pollutants of concern for which ambient air quality standards (AAQS) have been established are ozone (O₃), carbon monoxide (CO), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), and lead (Pb). Areas are classified under the federal and California Clean Air Act as either in attainment or nonattainment for each criteria pollutant based on whether the AAQS have been achieved. The South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (South Coast AQMD), is designated nonattainment for O₃, and PM_{2.5} under the California and National AAQS, nonattainment for PM₁₀ under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2017).

Furthermore, the South Coast AQMD has identified regional thresholds of significance for criteria pollutant emissions and criteria air pollutant precursors, including volatile organic compounds (VOC), CO, NO_x, SO_x, PM₁₀, and PM_{2.5}. Development projects below the regional significance thresholds are not expected to generate sufficient criteria pollutant emissions to violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The South Coast AQMD adopted the 2016 Air Quality Management Plan (AQMP) on March 3, 2017. Regional growth projections are used by South Coast AQMD to forecast future emission levels in the SoCAB. For southern California, these regional growth projections are provided by the Southern California Association of Governments (SCAG) and are partially based on land use designations included in city/county general plans. Typically, only large, regionally significant projects have the potential to affect the regional growth projections.

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Changes in population, housing, or employment growth projections have the potential to affect SCAG's demographic projections and therefore the assumptions in South Coast AQMD's AQMP. The project would result in expansion and renovation of the IACC and OSF facilities. The project also entails various site improvements such as modifications to secured parking areas and facility entrance, addition of a trash enclosure, improvement of site drainage, installation of activity yards, and miscellaneous landscaping. As discussed in Section 3.14, *Population and Housing*, the project would not directly or indirectly induce population growth, and therefore would be within SCAG's forecast growth projections for Irvine.

Additionally, as demonstrated below in Section 3.3.b, the regional emissions that would be generated by the operational phase of the project would be less than the South Coast AQMD emissions thresholds, and therefore would not be considered by South Coast AQMD to be a substantial source of air pollutant emissions that would have the potential to affect the attainment designations in the SoCAB.

Therefore, the project would not affect the regional emissions inventory or conflict with strategies in the AQMP. Impacts would be less than significant, and no mitigation measures are necessary.

b) 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?

Less Than Significant Impact. The following describes project-related impacts from regional short-term construction activities and regional long-term operation of the project.

Regional Short-Term Construction Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be 1) exhaust from off-road diesel-powered construction equipment; 2) dust generated by construction activities; 3) exhaust from on-road vehicles; and 4) off-gassing of VOCs from paints and asphalt.

Construction activities for the renovation and expansion of the existing IACC and OSF facilities are anticipated to disturb approximately 17 acres on the 18.7-acre Project Site. The project would involve asphalt and building demolition, site preparation, rough grading, fine grading, utilities trenching, paving, building construction, architectural coating, and finishing and landscaping. Construction is anticipated to start in January 2023 for both facilities and finish in July 2024 for the IACC and in April 2024 for OSF.

Construction emissions were estimated using the California Emissions Estimator Model (CalEEMod), Version 2020.4, and are based on the preliminary construction duration and equipment mix provided by the City. Project-related construction emissions modeling are shown in Table 1. As demonstrated in the table, the maximum daily emissions for VOCs, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} from construction-related activities would be less than their respective South Coast AQMD regional significance threshold values. Therefore, impacts to the regional air quality associated with construction of the project would be less than significant and no mitigation measure are necessary.

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Table 1 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (lbs/day) ^{1, 2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2023						
IACC Site Preparation & OSF Building Demolition, Building Demolition Debris Haul, Asphalt Demolition, and Asphalt Demolition Debris Haul	3	32	27	<1	9	2
IACC Site Preparation & OSF Building Demolition, Asphalt Demolition, and Asphalt Demolition Debris Haul	3	30	27	<1	7	2
OSF Asphalt Demolition	<1	3	3	<1	<1	<1
IACC Rough Grading and Utility Trenching & OSF Site Preparation	3	27	21	<1	8	4
IACC Utility Trenching & OSF Site Preparation	1	12	12	<1	4	2
IACC Building Construction 2023 & OSF Site Preparation and Rough Grading	4	34	32	<1	8	5
IACC Building Construction 2023 & OSF Rough Grading	3	24	24	<1	5	3
IACC Building Construction 2023 & OSF Fine Grading	3	21	23	<1	2	1
IACC Building Construction 2023 & OSF Fine Grading and Utility Trenching	3	22	26	<1	3	1
IACC Building Construction 2023 & OSF Utility Trenching	2	16	19	<1	1	1
IACC Building Construction 2023, Fine Grading, and Fine Grading Soil Haul & OSF Utility Trenching	4	34	29	<1	6	3
IACC Building Construction 2023, Fine Grading, and Fine Grading Soil Haul	3	32	26	<1	5	3
IACC Building Construction 2023 and Fine Grading	3	29	25	<1	5	3
IACC Building Construction 2023	2	14	16	<1	1	1
IACC Building Construction 2023 & OSF Building Construction 2023	4	33	41	<1	5	2
IACC Building Construction 2023 & OSF Building Construction 2023 and Paving	5	35	43	<1	5	2
IACC Building Construction 2023 & OSF Paving	3	16	18	<1	1	1
IACC Building Construction 2023 & OSF Paving and Architectural Coating	6	17	19	<1	2	1
IACC Building Construction 2023 & OSF Architectural Coating	6	14	17	<1	2	1
Year 2024						
IACC Building Construction 2024 & OSF Architectural Coating	5	14	17	<1	2	1
IACC Building Construction 2024, Asphalt Demolition, and Asphalt Demolition Debris Haul & OSF Architectural Coating and Finishing/Landscaping	7	30	33	<1	3	2
IACC Building Construction 2024 & OSF Finishing/Landscaping	2	15	18	<1	1	1
IACC Building Construction 2024	2	14	16	<1	1	1
IACC Building Construction 2024, Paving, and Architectural Coating	13	23	30	<1	2	1

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Table 1 Maximum Daily Regional Construction Emissions

Construction Phase	Pollutants (lbs/day) ^{1, 2}					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
IACC Paving and Architectural Coating	11	9	14	<1	1	<1
IACC Architectural Coating	10	1	2	<1	<1	<1
IACC Architectural Coating and Finishing/Landscaping	10	3	4	<1	<1	<1
IACC Finishing/Landscaping	<1	1	2	<1	<1	<1
Maximum Daily Construction Emissions						
Maximum Daily Emissions	13	35	43	<1	9	5
South Coast AQMD Regional Construction Threshold	75	100	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4.

Notes: lbs/day = pounds per day.

1 Based on the preliminary information provided by the City. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by South Coast AQMD of construction equipment.

2 Includes implementation of fugitive dust control measures required by South Coast AQMD under Rule 403, including watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

Long-Term Operation-Related Air Quality Impact

Typical long-term air pollutant emissions are generated by area sources (e.g., landscape fuel use, aerosols, architectural coatings, and asphalt pavement), energy use, and mobile sources (i.e., on-road vehicles). The project would result in renovation and expansion of the existing IACC and OSF facilities, as well as various Project Site improvements. The proposed buildings would, at minimum, be designed and built to meet the 2019 Building Energy Efficiency Standards and CALGreen. As shown in Table 2, it is anticipated that project operation would result in overall minimal emissions and would not exceed the South Coast AQMD regional operation-phase significance thresholds. Therefore, impacts to the regional air quality associated with operation of the project would be less than significant and no mitigation measures are necessary.

Table 2 Maximum Daily Regional Operation Emissions

Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Area	1	<1	<1	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	<1	<1	<1	<1	1	<1
Total	1	<1	<1	<1	1	<1
South Coast AQMD Regional Threshold	55	55	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Version 2020.4.

Notes: lbs/day = pounds per day. Highest winter or summer emissions are reported.

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c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Project development could expose sensitive receptors to elevated pollutant concentrations if it causes or significantly contributes to elevated pollutant concentration levels. Unlike regional emissions, localized emissions are typically evaluated in terms of air concentration rather than mass so they can be more readily correlated to potential health effects.

Construction LSTs

Localized significance thresholds (LST) are based on the California AAQS, which are the most stringent AAQS to provide a margin of safety in the protection of public health and welfare. They are designated to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and people engaged in strenuous work or exercise. The screening-level construction LSTs are based on the size of the Project Site, distance to the nearest sensitive receptor, and Source Receptor Area (SRA). The nearest sensitive receptors to the Project Site are the multifamily residences to the north and south, at approximately 0.33 mile and 0.30 mile, respectively.

Air pollutant emissions generated by construction activities would cause temporary increases in air pollutant concentrations. However, Table 3 shows that the maximum daily construction emissions (pounds per day) for NO_x, CO, PM₁₀, and PM_{2.5} construction emissions would be less than their respective South Coast AQMD screening-level LSTs. Therefore, air quality impacts from project-related construction activities would be less than significant, and no mitigation measures are necessary.

Table 3 Localized Construction Emissions

Construction Activity	Pollutants(lbs/day) ¹			
	NO _x	CO	PM ₁₀ ²	PM _{2.5} ²
South Coast AQMD ≤1.00 Acre LST	91	696	125.42	70.97
IACC Building Construction 2023 & OSF Utility Trenching	15	17	0.90	0.72
IACC Building Construction 2023	14	14	0.61	0.59
IACC Building Construction 2023 & OSF Paving	16	16	0.80	0.72
IACC Building Construction 2023 & OSF Paving and Architectural Coating	16	18	1.33	0.86
IACC Building Construction 2023 & OSF Architectural Coating	14	16	1.14	0.73
IACC Building Construction 2024 & OSF Architectural Coating	13	15	1.07	0.66
IACC Building Construction 2024	13	14	0.54	0.52
IACC Building Construction 2024, Paving, and Architectural Coating	27	28	1.84	1.21
IACC Paving and Architectural Coating	9	14	0.46	0.43
IACC Architectural Coating	1	2	0.06	0.06
IACC Architectural Coating and Finishing/Landscaping	3	4	0.13	0.12
IACC Finishing/Landscaping	1	2	0.07	0.06
Exceeds LST?	No	No	No	No

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Table 3 Localized Construction Emissions

Construction Activity	Pollutants(lbs/day) ¹			
	NO _x	CO	PM ₁₀ ²	PM _{2.5} ²
South Coast AQMD 1.38-Acre LSTs	106	807	128.44	73.28
IACC Building Construction 2023 & OSF Rough Grading	23	22	4.26	2.56
IACC Building Construction 2023 & OSF Fine Grading	20	22	1.65	1.06
Exceeds LST?	No	No	No	No
South Coast AQMD 1.50-Acre LSTs	111	844	129.45	74.06
IACC Utility Trenching & OSF Site Preparation	12	12	3.76	2.08
Exceeds LST?	No	No	No	No
South Coast AQMD 1.69-Acre LSTs	119	900	130.96	75.22
IACC Building Construction 2023 & OSF Building Construction 2023 and Paving	34	41	4.77	2.29
IACC Building Construction 2023 & OSF Building Construction 2023	32	39	4.58	2.16
Exceeds LST?	No	No	No	No
South Coast AQMD 1.88-Acre LSTs	126	956	132.47	76.38
IACC Building Construction 2023 & OSF Fine Grading and Utility Trenching	22	24	1.94	1.19
Exceeds LST?	No	No	No	No
South Coast AQMD 2.25-Acre LSTs	137	1,061	135.06	78.52
IACC Building Construction 2023 and Fine Grading	28	23	4.25	2.61
IACC Building Construction 2023, Fine Grading, and Fine Grading Soil Haul	28	23	4.25	2.61
Exceeds LST?	No	No	No	No
South Coast AQMD 2.38-Acre LSTs	139	1,094	135.85	79.21
IACC Building Construction 2023 & OSF Site Preparation and Rough Grading	33	30	7.90	4.54
Exceeds LST?	No	No	No	No
South Coast AQMD 2.75-Acre LSTs	148	1,196	138.23	81.27
IACC Building Construction 2023, Fine Grading, and Fine Grading Soil Haul & OSF Utility Trenching	30	26	4.54	2.74
Exceeds LST?	No	No	No	No
South Coast AQMD 2.88-Acre LSTs	150	1,229	139.02	81.96
IACC Building Construction 2024, Asphalt Demolition, and Asphalt Demolition Debris Haul & OSF Architectural Coating and Finishing/Landscaping	28	31	2.46	1.40
Exceeds LST?	No	No	No	No
South Coast AQMD 3.38-Acre LSTs	161	161	161.25	161.25
IACC Rough Grading and Utility Trenching & OSF Site Preparation	27	21	7.39	4.10
Exceeds LST?	No	No	No	No

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Table 3 Localized Construction Emissions

Construction Activity	Pollutants(lbs/day) ¹			
	NO _x	CO	PM ₁₀ ²	PM _{2.5} ²
South Coast AQMD 3.44-Acre LSTs	163	163	162.63	162.63
IACC Site Preparation & OSF Building Demolition, Building Demolition Debris Haul, Asphalt Demolition, and Asphalt Demolition Debris Haul	32	27	8.67	2.23
IACC Site Preparation & OSF Building Demolition, Asphalt Demolition, and Asphalt Demolition Debris Haul	29	26	6.66	1.87
Exceeds LST?	No	No	No	No

Source: CalEEMod Version 2020.4. South Coast AQMD 2008 and 2011.

Notes: In accordance with South Coast AQMD methodology, only onsite stationary sources and mobile equipment are included in the analysis. Screening level LSTs are based on an 82 ft receptor for NO_x and CO, and 1,700 ft receptor for PM₁₀ and PM_{2.5} in SRA 19.

¹ Where specific information for project-related construction activities or processes was not available modeling was based on CalEEMod defaults. These defaults are based on construction surveys conducted by the South Coast AQMD.

² Includes fugitive dust control measures required by South Coast AQMD under Rule 403, such as watering disturbed areas a minimum of two times per day, reducing speed limit to 15 miles per hour on unpaved surfaces, replacing ground cover quickly, and street sweeping with Rule 1186-compliant sweepers.

Construction Health Risk

Emissions from construction equipment primarily consist of diesel particulate matter. In 2015, the Office of Environmental Health Hazards Assessment adopted guidance for preparation of health risk assessments, which included the development of a cancer risk factor and non-cancer chronic reference exposure level for diesel particulate matter over a 30-year time frame (OEHHA 2015). Currently, South Coast AQMD does not require the evaluation of long-term excess cancer risk or chronic health impacts for a short-term project. The project is anticipated to be completed in approximately 18 months for IACC portion and 16 months for the OSF portion, which would limit the exposure to onsite and offsite receptors. Furthermore, construction activities would not generate onsite exhaust emissions that would exceed the screening-level construction LSTs, as demonstrated in Table 3, *Localized Construction Emissions*. Therefore, construction emissions would not pose a health risk to on- and offsite receptors. Project-related construction health impacts would be less than significant, and no mitigation measures are necessary.

Operation LSTs

Project operation would not generate substantial emissions from onsite stationary sources. Land uses that have the potential to generate substantial stationary sources of emissions include industrial land uses, such as chemical processing and warehousing operations where truck idling would occur onsite and would require a permit from South Coast AQMD. The project does not fall within these categories of uses. While operation of the new IACC and OSF facilities would use standard onsite mechanical equipment such as heating, ventilation, and air conditioning, air pollutant emissions would be nominal. Therefore, localized air quality impacts related to operation-related emissions would be less than significant and no mitigation measures are necessary.

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Carbon Monoxide Hotspots

Vehicle congestion has the potential to create pockets of CO called hotspots. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles are backed-up, idle for longer periods, and are subject to reduced speeds. These pockets could exceed the state one-hour standard of 20 parts per million or the eight-hour standard of 9.0 parts per million. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations.

The SoCAB has been designated attainment under both the National and California AAQS for CO. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited—in order to generate a significant CO impact (BAAQMD 2017). The number of City staff and volunteers would remain the same after project implementation; therefore, project-related vehicle trips would not increase. Furthermore, the existing dog park onsite would be relocated to another site, leading to a decrease in vehicle trips in the vicinity of the Project Site (EPD 2022). Therefore, the project would not substantially increase CO hotspots at intersections. Impacts would be less than significant, and no mitigation measures are necessary.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The project would not result in objectionable odors. The threshold for odor is if a project creates an odor nuisance pursuant to South Coast AQMD Rule 402, Nuisance, which states:

A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

The type of facilities that are considered to have objectionable odors include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. The project involves renovation and expansion of the IACC and OSF facilities and would not fall within the objectionable odors land uses. Also, emissions from construction equipment, such as diesel exhaust and volatile organic compounds from architectural coatings and paving activities may generate odors. However, these odors would be low in concentration, temporary, and would not affect a substantial number of people. Therefore, odor impacts would be less than significant, and no mitigation measures are necessary.

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3.4 BIOLOGICAL RESOURCES

Would the project:

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

No Impact. Special-status species include those listed as endangered or threatened under the federal Endangered Species Act or California Endangered Species Act, species otherwise given certain designations by the California Department of Fish and Wildlife, and plant species listed as rare by the California Native Plant Society. The Project Site is in a highly urbanized area of Irvine and surrounded by various commercial and office uses. Also, the Project Site is currently operating as the IACC and OSF and does not contain any natural habitat that could contain any sensitive species or other sensitive natural community. There are trees located onsite, some of which would be removed as a part of the project. However, these trees are unlikely to support candidate, sensitive, or special-status species (see also Section 3.4.b regarding migratory species). Considering the current developed nature of the Project Site and its surroundings, the Project Site does not have capacity to support any candidate, sensitive, or special-status species. Therefore, no impact would occur, and no mitigation measures are necessary.

- b) **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**

No Impact. No riparian, sensitive, or undisturbed native/natural habitats exist within or adjacent to the Project Site (USFWS 2021a). The Project Site is currently operating as the IACC and OSF and is surrounded by commercial and uses. Therefore, no impact would occur, and no mitigation measures are necessary.

- c) **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?**

No Impact. The Project Site is operating as the IACC and OSF and is surrounded by commercial and office uses. No watercourse runs through or adjacent to the Project Site. Also, no wetland habitat exists onsite or within proximity of the site. (USFWS 2021a). Therefore, no impact would occur, and no mitigation measures are necessary.

- d) **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?**

Less Than Significant Impact With Mitigation Incorporated. The Project Site is in a highly urbanized area of Irvine and is surrounded by commercial and office uses (see Figure 3). No critical habitat exists on or in proximity to the Project Site (USFWS 2021b). Also, the Project Site and its surroundings do not represent a

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wildlife movement corridor or route between open space habitats. Although the Project Site may provide some habitat for limited wildlife movement and live-in habitat—particularly for reptile and avian species and small to medium mammals that are adapted to urban settings—the Project Site does not function as a wildlife corridor. Additionally, the site and environs have not been identified or designated as a wildlife corridor.

However, a few trees on the Project Site (see Figure 3) would be removed under the project, and construction activities would be in proximity to existing trees. The trees may provide suitable habitat, including nesting habitat, for migratory birds under the federal Migratory Bird Treaty Act (MBTA) and Section 3513 et seq., of the California Fish and Game Code. Section 3513 provides protection to the birds listed under the MBTA, essentially all native birds. Additionally, Section 3503 of the code makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird.

Project construction could result in direct and/or indirect impacts to nesting birds, including the loss of nests, eggs, and fledglings if ground-disturbing activities occur during the nesting season (generally February 1 through August 31). Construction activities during this time may result in reduced reproductive success and may violate the MBTA and California Fish and Game Code Sections 3503 and 3513. If construction (including any ground-disturbing activities) occurs during the nesting season, a nesting bird survey must be conducted by a qualified biologist prior to grading activities, as outlined in Mitigation Measure BIO-1. If nesting birds are observed within or adjacent to the construction activities, avoidance of active bird nests should occur as determined by the qualified biologist to ensure compliance with these regulations.

Adherence to the MBTA regulations and implementation of Mitigation Measure BIO-1 would ensure that if construction activities occurs during the breeding season, appropriate measures would be taken to avoid impacts to nesting birds, if any are encountered. Compliance with the MBTA requirements and Mitigation Measure BIO-1 would be ensured through the City's development review process. Therefore, impacts would be reduced to a level of less than significant with implementation of mitigation.

Mitigation Measure

BIO-1 To avoid impacts to nesting birds within or adjacent to the Project Site and to comply with the California Fish and Game Code Sections 3503 and 3513 and the Migratory Bird Treaty Act, any site clearing and ground-disturbing activities should occur during the non-nesting (or non-breeding) season for birds (generally, September 1 to January 31). If this avoidance schedule is not feasible, prior to the commencement of any proposed actions (e.g., site clearing, demolition, grading) during the breeding/nesting season, a qualified monitoring biologist contracted by the City of Irvine shall conduct a preconstruction survey(s) to identify any active nests in and adjacent to the Project Site no more than 14 days prior to initiation of the action. If the biologist does not find any active nests that would be potentially impacted, the proposed action may proceed.

However, if the biologist finds an active nest within or directly adjacent to the action area (within 100 feet) and determines that the nest may be impacted, the biologist shall delineate an appropriate buffer zone around the nest using temporary plastic fencing or other suitable materials, such as barricade tape and traffic cones. The buffer zone shall be determined by the

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biologist in consultation with applicable resource agencies in consideration of species sensitivity and existing nest site conditions; and in coordination with the construction contractor. The qualified biologist shall serve as a construction monitor when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests. Only specified activities (if any) approved by the qualified biologist in coordination with the construction contractor shall take place within the buffer zone until the nest is vacated. Activities that may be prohibited within the buffer zone by the biologist include but are not limited to grading and tree clearing. Once the nest is no longer active and upon final determination by the biologist, the proposed action may proceed within the buffer zone. The monitoring biologist shall prepare a survey report summarizing his/her findings and recommendations of the preconstruction survey. Any active nests observed during the survey shall be mapped on a current aerial photograph, including documentation of GPS coordinates, and included in the survey report. The completed survey report shall be submitted to the City of Irvine Project Management Division prior to the commencement of construction-related activities that have the potential to disturb any active nests during the nesting season.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with the IACC and OSF and contains a number of mature trees. Project development would involve the removal of a number of trees. The majority of existing trees in the IACC area would be protected in place, with approximately 18 being removed to make room for the new building additions. For the OSF area, approximately 57 trees would be removed, which are mostly associated with the dog park to be removed. However, the trees to be removed are ornamental and not covered by any City tree preservation policies or ordinances. Also, any removal of trees within the public right-of-way, street landscape, or trees defined as having significant value are required to comply with the City's Urban Forestry Ordinance. Since trees proposed for removal are not within the public right-of-way, street landscape, or trees defined as having significant value, project implementation would not conflict with the City's Urban Forestry Ordinance. Furthermore, approximately 32 trees would be planted throughout the Project Site, 13 for the IACC area and 19 for the OSF area. Therefore, no impact would occur, and no mitigation measures are necessary.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is within the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the Central and Coastal Subregion of Orange County. The NCCP/HCP provides long-term protection for wildlife and their critical habitats, and regulatory assurances and economic benefits for participating landowners. However, project site is located outside of the 37,378-acre habitat reserve system, which was created to include significant areas of the 13 major habitat types in the Central and Coastal Subregion. The reserve system protects more than 18,500 acres of coastal sage scrub habitat, 6,950 acres of chaparral, 5,700 acres of grassland, 1,750 acres of riparian, 950 acres of woodland, 200 acres of forest habitat and significant portions of six other habitat types existing in the subregion (CDFW 2022). Being outside of

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the reserve system ensures that the Project would not impact any of the habitat types protected by the NCCP/HCP. Additionally, the project site is in a highly urbanized area of Irvine and is developed with the IACC and OSF. Therefore, no impact would occur, and no mitigation measures are necessary.

3.5 CULTURAL RESOURCES

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

Less Than Significant Impact. Section 15064.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered “historically significant” if it meets one of the following criteria:

- i) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- ii) Is associated with the lives of persons important in our past;
- iii) Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- iv) Has yielded, or may be likely to yield, information important in prehistory or history.

As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with the IACC and OSF and related site improvements. Under the project, the IACC expansion and renovation plans do not include the demolition of any buildings or structures but involve new building additions to the existing main building. The OSF expansion and renovation plans include removal of four pre-engineered/-fabricated metal structures but none of the building or structures to be removed or modified are considered historical. Additionally, the Project Site and existing buildings are not listed in the National Register of Historic Places or California Register of Historic Resources (NPS 2020; OHP 2022). Furthermore, as shown in Figure E-1 (Historical/Archeological Landmarks) of the Irvine General Plan Cultural Resources Element, the Project Site is not listed as a designated historic or archeological landmark. Therefore, impacts to historical resources would be less than significant and no mitigation measures are necessary.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Less Than Significant Impact With Mitigation Incorporated. Archaeological resources are prehistoric or historic evidence of past human activities, including structural ruins and buried resources. As shown in Figure 3, *Aerial Photograph*, the Project Site is in a highly urbanized area of Irvine, and most of the site has already been disturbed due to grading and construction activities associated with current uses of the site. Given the highly disturbed condition of the Project Site and its surroundings, the potential for the project to impact an

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unidentified archeological resource is considered extremely low. Additionally, deep ground excavations or disturbances would not be required to implement the project. Furthermore, as shown in Figure E-1, Historical/Archeological Landmarks, of the Irvine General Plan Cultural Resources Element, the Project Site is not listed as a designated historic or archeological landmark.

Additionally, the City requested a Sacred Lands File search from the Native American Heritage Commission (NAHC). The results of the SLF search were negative. However, per NAHC, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area.

Furthermore, project-related ground-disturbing activities (e.g., grading and excavation) have the potential to reveal buried deposits not observed on the surface during previous surveys, especially in the area of the dog park, which consists mainly of ground cover. Therefore, while unlikely, the presence of subsurface archaeological resources on the Project Site remains possible, and these could be affected by ground-disturbing activities.

Implementation of Mitigation Measure CUL-1 would avoid or minimize potential project impacts to archaeological resources. With implementation of Mitigation Measure CUL-1, impacts to archeological resources would be reduced to a less than significant level.

Mitigation Measures

CUL-1 Prior to the issuance of grading permits, the City of Irvine shall obtain the services of qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications for Archeology as defined at 36 CFR (Code of Federal Regulations) Part 61, Appendix A (Professional Archeologist). The consultant will be on call during all grading and other significant ground-disturbing activities. In the event that archeological resources are discovered during ground-disturbing activities, all such activity shall cease in the immediate area of the find, and the professional archeological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated.

Suspension of ground disturbances in the vicinity of the discovery shall not be lifted until the archaeological monitor has evaluated the discovery to assess whether it is classified as a significant cultural resource pursuant to the CEQA (California Environmental Quality Act) definition of historical (State CEQA Guidelines 15064.5[a]) and/or unique archeological resource (Public Resources Code 21083.2[g]). If the resource is classified as a significant cultural resource, the qualified archeologist shall make recommendations on the treatment and disposition of the deposits. For example, if archaeological resources are recovered, they shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the Bowers Museum or any other willing repository capable of accepting and housing the resource.

If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged,

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or otherwise handled by the City at its discretion. The final recommendations on the treatment and disposition of the deposits shall be developed in accordance with all applicable provisions of California Public Resource Code Section 21083.2 and State CEQA Guidelines Sections 15064.5 and 15126.4. The City of Irvine shall follow all recommendations made by the archeologist. The archeologist shall prepare a final report describing all identified and curated resources (if any are found) and submit the report to the City.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact. There are no known human remains or cemeteries on or near the Project Site. The nearest cemetery to the site is Ascension Cemetery, which is a fairly small cemetery on the south side of Trabuco Road just north of Via Del Rio. This cemetery is approximately 6.5 miles southeast of the Project Site.

As shown in Figure 3, *Aerial Photograph*, the Project Site is in a highly urbanized area of Irvine, and most of the site has already been disturbed due to grading and construction activities associated with the prior uses that occupied the site. A majority of the surrounding vicinity has also experienced substantial ground disturbance associated with the development of existing buildings, roadways, and other urbanized land uses. The Project Site is largely flat, and the project improvements would be above ground level. Accordingly, no substantial ground disturbance would be required to implement the project. Therefore, the likelihood that human remains may be discovered during site clearing and grading activities is considered extremely low. Additionally, due to the distance to the Ascension Cemetery, project development would have no direct or indirect impacts on this cemetery.

However, development of the project could have the potential to disturb previously undiscovered subsurface human remains, if any exist. For example, the project would involve grading and some excavation activities over the entire Project Site. In the unlikely event that human remains are uncovered during ground-disturbing activities, California Health and Safety Code Section 7050.5 requires that disturbance of the site shall remain halted until the county coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation or to his or her authorized representative, in the manner provided in PRC Section 5097.98. The coroner is required to make a determination within two working days of notification of the discovery of the human remains. If the coroner determines that the remains are not subject to his or her authority or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission, who will contact the most likely descendant. The most likely descendant shall be granted access to the discovery and give recommendations or preferences for treatment of the remains within 48 hours of accessing the discovery site. Disposition of human remains and any associated grave goods, if encountered, shall be treated in accordance with procedures and requirements in PRC Sections 5097.94 and 5097.98, Section 7050.5 of the California Health and Safety Code; and CEQA Guidelines Section 15064.5.

Compliance with existing law regarding the discovery of human remains would reduce potential impacts to human remains to less than significant levels. No mitigation measures are necessary.

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3.6 ENERGY

Would the project:

- a) **Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

Less Than Significant Impact. The project would result in short-term construction and long-term operational energy consumption. The following is a discussion of the potential energy demands from activities associated with the construction and operation of the new and renovated IACC and OSF facilities.

Short-Term Construction Impacts

Construction of the project would create temporary increased demands for electricity and vehicle fuels compared to existing conditions and would result in short-term transportation-related energy use.

Electrical Energy

Electricity use during construction of the project would vary during different phases of construction. The majority of construction equipment during would be gas- or diesel-powered, and electricity would not be used to power most of the construction equipment. Later construction phases could result in the use of electricity-powered equipment for interior construction and architectural coatings. However, it is anticipated that the majority of electric-powered construction equipment would be hand tools (e.g., power drills, table saws) and lighting, which would result in minimal electricity usage during construction activities. Therefore, project-related construction activities would not result in wasteful or unnecessary electricity demands. Impacts would be less than significant, and no mitigation measures are necessary.

Natural Gas Energy

It is not anticipated that construction equipment used for the project would be powered by natural gas, and no natural gas demand is anticipated during construction. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

Transportation Energy

Transportation energy use during construction of the project would come from delivery vehicles, haul trucks, and construction employee vehicles. In addition, transportation energy demand would come from use of off-road construction equipment. It is anticipated that the majority of off-road construction equipment, such as those used during demolition and grading, would be gas or diesel powered. The use of energy resources by these vehicles would fluctuate according to the phase of construction.

To limit wasteful and unnecessary energy consumption, the construction contractors are anticipated to minimize nonessential idling of construction equipment during construction, in accordance with 13 CCR Section 2449. In addition, construction trips would not result in unnecessary use of energy since the Project Site is centrally located and is served by numerous regional freeway systems (e.g., I-5, SR-133, and I-405) that provide the most direct routes from various areas of the region. Electrical energy would be available for use

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during construction from existing power lines and connections, precluding the use of less efficient generators, and all construction equipment would cease operating upon completion of project construction. Therefore, energy use during project construction would not be considered inefficient, wasteful, or unnecessary. Impacts would be less than significant, and no mitigation measures are necessary.

Long-Term Impacts During Operation

Operation of the project would generate new demand for electricity on the Project Site. Operational use of energy would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems, use of on-site equipment and appliances; and indoor and outdoor lighting.

Electrical Energy

Operation of the project would consume electricity for various purposes, including but not limited to heating, cooling, and ventilation of buildings; water heating; operation of electrical systems and lighting; and use of onsite equipment and appliances. Electrical service to the project would be provided by Southern California Edison (SCE) through connections to existing offsite electrical lines and new onsite infrastructure. As shown in Table 4, implementation of the project would result in 442,964 kilowatt hours of electricity use per year.

Table 4 Electricity Consumption

Land Use	Electricity (kWh/year)
Proposed Project Conditions¹	
IACC (Clinic and Administrative Uses)	321,445
IACC (Parking Lot)	2,800
OSF (Prefabricated metal buildings)	75,924
OSF (Parking lot)	42,795
Total	442,964

Source: CalEEMod Version 2020.4

Note: kWh = kilowatt hour(s)

¹ Accounts for fuel switching with 100 percent electric proposed buildings.

While the project would result in a higher electricity demand than existing conditions, it would be designed and operated consistent with the requirements of the Building Energy Efficiency Standards and CALGreen. Therefore, project operation would not result in wasteful or unnecessary electricity demands and would not result in a significant impact related to electricity. Impacts would be less than significant, and no mitigation measures are necessary.

Natural Gas Energy

The project would not generate any natural gas demands due to the project being 100 percent electric. Therefore, project operation would result in less than significant impact and no mitigation measures are necessary.

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Transportation Energy

Project implementation would consume transportation energy during operations from the use of motor vehicles, which include both on- and off-road equipment. The efficiency of these motor vehicles is unknown, such as the average miles per gallon. Estimates of transportation energy use for on-road vehicles are based on the overall vehicle miles traveled (VMT) and its associated transportation energy use. The project-related VMT would primarily come from the City staff and volunteers driving to the Project Site. However, there would be no new vehicle trips as the total number of staff and volunteers for both facilities would remain the same with implementation of the project and traffic flow would be optimized with the addition of new parking spaces. Furthermore, the existing dog park onsite would be relocated to another site in Irvine, leading to a decrease in vehicle trips in comparison to current conditions (EPD 2022). The project would also serve the local community and would be considered to have less than significant impact to VMT. Therefore, transportation-related fuel usage associated with the project would not be any more inefficient, wasteful, or unnecessary than existing conditions. Impacts would be less than significant, and no mitigation measures are necessary.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. The state's electricity grid is transitioning to renewable energy under California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-14-08, signed in November 2008, expanded the state's renewable portfolios standard (RPS) to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill (SB) 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed SB 100, which supersedes the SB 350 requirements. Under SB 100, the RPS for publicly owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 established a new RPS requirement of 50 percent by 2026. The bill also established a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100 the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers such as SCE, which is the utility that would provide all of electricity needs for the project. Compliance of SCE in meeting the RPS goals would ensure the state meets its objective in transitioning to renewable energy. The project also would comply with the latest Building Energy Efficiency Standards and CALGreen.

Therefore, implementation of the project would not conflict or obstruct plans for renewable energy and energy efficiency. No impact would occur, and no mitigation measures are necessary.

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Irvine's Strategic Energy Plan

The City adopted the Strategic Energy Plan (SEP) in October 2020 to help Irvine meet the state's climate and energy goals, as well as to reduce energy and related emissions in the broader Irvine community. The SEP builds on the City's 2008 Energy Plan by being consistent with the Irvine General Plan objectives and state policies to improve efficiency of infrastructure and operations across the community. There are three main categories of recommended actions and strategies (Energy Supply, Buildings, and Transportation and Land Use) to help ensure that the City will meet energy and GHG reduction goals.

In addition, a specific project proposal is considered consistent with Irvine's SEP if it does not conflict with the required energy reduction measures in the adopted SEP. Project consistency with the adopted energy reduction measures of the SEP are shown in Table 5.

Table 5 Irvine Strategic Energy Plan Consistency

Measure	Consistency
Energy Supply	
Measure ES-1 Join a CCE Electricity Supplier The City should opt all customers into a zero-carbon electricity product by default.	Consistent. The City is the responsible party for this measure. The project receives energy through SCE and therefore utilizes renewable energy for the proposed buildings.
Buildings	
Measure B-3 Decarbonize City Facilities Identify and pilot an all-electric new construction project. Document costs and challenges and evaluate using all-electric as basis of design for future City buildings.	Consistent. The project would be 100 percent electric and no natural gas would be utilized onsite. Furthermore, the proposed buildings would comply with the latest Building Energy Efficiency Standards and CALGreen.
Transportation and Land Use	
Measure TLU-1 Reduce Emissions from City Fleet Vehicles and Employee Commute <ul style="list-style-type: none"> • By 2022, establish a plan to transition all City-owned light duty fleet vehicles to be zero emission vehicles by 2032. • By 2030, ensure that over 50% of the City's fleet uses alternative fuels, with 100% of all non-emergency response sedan purchases being zero emission vehicles. • Continue to support sustainable transportation options for employee commuting. 	Consistent. The project would not result in addition of new vehicles to the City's fleet. Additionally, the long-term operation of the project would not increase emissions associated with vehicle trips as the number of City staff and volunteers will remain the same.
Measure TLU-2 Incentivize Sustainable Transportation Modes for Residents and Businesses Implement recommendations of the Irvine Strategic Active Transportation Plan.	Not Applicable. The City is the responsible party for this measure. The long-term operation of the project would not increase emissions associated with vehicle trips as the number of City staff and volunteers will remain the same.

Source: Irvine 2020a.

Development in Irvine, including the project, is required to adhere to City-adopted policy provisions, including those in the adopted SEP. The City ensures that the provisions of the SEP are incorporated into projects and

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permits as part of development review and through conditions of approval. In general, the project would not be wasteful or inefficient in regard to energy use as the proposed buildings would replace the older structures with 100-percent electrical structures that achieve the latest Building and Energy Efficiency Standards. In addition, vehicle-related trips and transportation energy demands would decrease with the removal of the existing dog park to another site (EPD 2022).

Therefore, implementation of the project would not conflict or obstruct plans for renewable energy and energy efficiency. No impact would occur, and no migration measures are necessary.

3.7 GEOLOGY AND SOILS

The analysis in this section is based partly on the following technical studies, which are included as Appendices B and C of this Initial Study.

- *Geotechnical Investigation Irvine Animal Care Center*, GMU, March 26, 2021 (Appendix B)
- *Geotechnical Investigation Irvine Operations Support Facility*, GMU, May 4, 2021 (Appendix C)

Would the project:

- a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

Less Than Significant Impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. Surface rupture is the most easily avoided seismic hazard. Fault rupture generally occurs within 50 feet of an active fault line and is limited to the immediate area of the fault zone where the fault breaks along the surface. The main purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent construction of buildings used for human occupancy on the surface of active faults, in order to minimize the hazard of surface rupture of a fault to people and habitable buildings. Before cities and counties can permit development within Alquist-Priolo Earthquake Fault Zones, geologic investigations are required to show that the proposed development site is not threatened by surface rupture from future earthquakes.

The Project Site is not within or near an established Alquist-Priolo Earthquake Fault Zone and no known active faults are shown on geologic maps crossing the site (Appendices B and C). The nearest known active fault to the Project Site is the San Joaquin Hills blind thrust fault, which is located approximately 0.9 mile from the site. The site is also within 10 miles of the Newport Inglewood fault. These fault systems may affect the stability of the site. However, due to the distance to these faults, the potential for surface rupture of a fault onsite is considered very low. Therefore, project development would not subject people or

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structures to hazards arising from surface rupture of a known active fault. Impacts would be less than significant, and no mitigation measures are necessary

ii) Strong seismic ground shaking?

Less Than Significant Impact. The most significant geologic hazard to the design life of the project is the potential for moderate to strong ground shaking resulting from earthquakes generated on the faults in seismically active southern California. As with other areas in southern California, it is anticipated that the Project Site will likely be subject to strong ground shaking due to earthquakes on nearby faults. The site is located within close proximity to several surface faults that are presently zoned as active or potentially active by the California Geological Survey. The nearest known active fault—that is, a fault that has ruptured during Holocene time (the last 11,700 years)—is the San Joaquin Hills blind thrust fault, which is approximately 0.9 mile from the site. The site is also within 10 miles of the Newport Inglewood fault. These faults, as well as others in the region, are considered capable of producing strong shaking at the Project Site, thereby exposing people or structures on the site to potential substantial adverse effects, including the risk of loss, injury, or death. The intensity of ground shaking on the Project Site would depend on the magnitude of the earthquake, distance to the epicenter, and the geology of the area between the epicenter and the Project Site.

However, the Project Site is not at a greater risk of seismic activity or impacts than other sites in southern California. Seismic shaking is a risk throughout southern California. Additionally, the state regulates development in California through a variety of tools that reduce hazards from earthquakes and other geologic hazards. The California Building Code (CBC: 14 CCR Part 2), adopted by reference in Division 9, Chapter 1, Adoption of Building and Fire Code, of the Irvine Municipal Code, contains provisions to safeguard against major structural failures or loss of life caused by earthquakes or other geologic hazards. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motion with specified probability of occurring at the site. Project development would be required to adhere to the provisions of the CBC, which are enforced by the City during the building plan check and development review process. Compliance with the requirements of the CBC for structural safety during a seismic event would reduce hazards from strong seismic ground shaking.

Furthermore, incorporation of the recommended design parameters from the geotechnical reports prepared for the project (Appendices A and B) would also reduce hazards from strong seismic ground shaking. Compliance would be ensured through the City's building plan check and development review process.

In summary, compliance with the provisions of the CBC and implementation of the recommended design parameters outlined in the geotechnical report would reduce impacts resulting from strong seismic ground shaking. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

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iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a phenomenon that occurs when soil undergoes a transformation from a solid state to a liquified condition. It refers to loose, saturated sand or silt deposits that behave as a liquid and lose their load-supporting capability when strongly shaken. Loose granular soils and silts that are saturated by relatively shallow groundwater are susceptible to liquefaction. When subjected to seismic ground shaking, affected soils lose strength during liquefaction and foundation failure can occur.

According to the reference Seismic Hazard Zone map for the Tustin 7.5-Minute Quadrangle, the Project Site does not lie within an area that is susceptible to earthquake-induced liquefaction or land sliding (Appendices A and B). However, approximately one mile northwest of the Project Site is a mapped liquefaction zone located on the west side of Jeffrey Road. Therefore, a liquefaction analysis was performed for the Project Site as a part of the geotechnical investigation conducted for the project. Liquefaction analysis confirmed that the potential for liquefaction at the Project Site is low (Appendices A and B).

Additionally, Project Site grading, design, and construction would conform with the recommended design parameters of the geotechnical investigation, and compliance would be ensured through the City's building plan check and development review process. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

iv) Landslides?

No Impact. Landslides are the downslope movement of geologic materials. Slope failures in the form of landslides are common during strong seismic shaking in areas of steep hills. The Project Site is fairly level, and no evidence of deep-seated slope failure or other type of slope failure exist on the site. Additionally, according to the reference Seismic Hazard Zone map for the Tustin 7.5-Minute Quadrangle, the subject site does not lie within an area that is susceptible to land sliding (Appendices A and B). Therefore, geologic hazards associated with landslides are not anticipated at the site. No impact would occur, and no mitigation measures are necessary.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Erosion is the movement of rock and soil from place to place and is a natural process. Common agents of erosion in the project region include wind and flowing water. Significant erosion typically occurs on steep slopes where stormwater and high winds can carry topsoil down hillsides. Erosion can be increased greatly by earth-moving activities if erosion control measures are not used.

Following is a discussion of the potential erosion impacts resulting from the project's construction and operational phases.

Construction Phase

Project development would involve excavation, grading, and construction activities that would disturb soil and leave exposed soil on the ground surface. Common means of soil erosion from construction sites include water,

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wind, and being tracked offsite by vehicles. These activities could result in soil erosion. Additionally, natural processes, such as wind and rain, could further lead to soil erosion during construction.

However, development on the Project Site is subject to local and state codes and requirements for erosion control and grading during construction. For example, project development is required to comply with standard regulations, including South Coast AQMD Rules 402 and 403, which would reduce construction erosion impacts. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emissions source. Rule 402 requires dust suppression techniques be implemented to prevent dust and soil erosion from creating a nuisance offsite. For example, as outlined in Table 1, Best Available Control Measures, of Rule 403, control measures to reduce erosion during grading and construction activities include stabilizing backfilling materials when not actively handling, stabilizing soils during clearing and grubbing activities, and stabilizing soils during and after cut-and-fill activities.

Additionally, the Construction General Permit (CGP; 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) issued by the State Water Resources Control Board, regulates construction activities to minimize water pollution, including sediment risk from construction activities to receiving waters. Project development would be subject to the National Pollution Discharge Elimination System (NPDES) permitting regulations, including the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which is further discussed in Section 3.10, Hydrology and Water Quality. The project's construction contractor would be required to prepare and implement a SWPPP and associated best management practices (BMP) in compliance with the CGP during grading and construction. For example, as outlined in Section 3.10, types of BMPs that are incorporated in SWPPPs and would help minimize impacts from soil erosion include:

- **Erosion controls.** cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind. Erosion control BMPs include mulch, soil binders, and mats.
- **Sediment controls.** Filter out soil particles that have been detached and transported in water. Sediment control BMPs include barriers, and cleaning measures such as street sweeping.
- **Tracking controls.** Tracking control BMPs minimize the tracking of soil offsite by vehicles; for instance, stabilizing construction roadways and entrances/exits.

Adherence to the BMPs in the SWPPP and adherence with local and state codes including Division 10, Chapter 1, Article j of the Irvine Municipal Code, Erosion and Sediment Control, would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. Therefore, soil erosion impacts from project-related grading and construction activities would be less than significant and no mitigation measures are necessary.

Operation Phase

The Project Site is in a highly urbanized area of Irvine and is generally flat. No major slopes or bluffs are on or adjacent to the site. After project completion, the redeveloped portion of the Project Site would be developed with buildings, parking, and landscape improvements and would not contain exposed or bare soil. The proposed

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landscaping would be water conserving. Upon project completion, the potential for soil erosion or the loss of topsoil would be expected to be extremely low. Therefore, soil erosion impacts from the project's operation phase would be less than significant and no mitigation measures are necessary.

- c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?**

Less Than Significant Impact. Hazards from liquefaction are addressed above in Section 3.7.a.iii, and landslide hazards are addressed above in Section 3.7.a.iv. As concluded in these sections, impacts would be less than significant.

Following is a discussion of the potential impacts resulting from other site geologic and soil conditions of the Project Site.

Lateral Spreading

Lateral spreading is a phenomenon that occurs in association with liquefaction and includes the movement of nonliquefied soil materials. Due to the relatively low potential for liquefaction on the Project Site, the potential for lateral spreading is considered very low. Also, project development would comply with the recommendations of the geotechnical investigation reports prepared for the Project Site (Appendices B and C). Therefore, impacts would be less than significant, and no mitigation measures are necessary.

Collapsible Soils

Collapsible soils shrink upon being wetted and/or being subject to a load. The site is underlain predominantly by engineered fill and younger alluvial fan deposits. Fill soils were encountered in all excavations performed at the site and consist of dark brown to brownish yellow, damp to moist, silty to clayey sands and sandy clays. The fills were placed as part of the previous site development and were estimated to be approximately 3 to 4 feet in depth. However, deeper engineered fill may exist in local areas. Younger alluvial fan deposits were encountered to the maximum depth explored (51 feet). The alluvial deposits encountered consisted mainly of light brown to yellowish brown, crudely stratified, firm to stiff sandy clays, and medium dense to dense silty sands, clayey sands, and poorly graded sands. The soils are generally dry to moist.

The geotechnical investigation reports prepared for the Project Site included consolidation testing that showed that the soils onsite have a low potential for collapse. Additionally, Project Site grading, design, and construction would conform with the design parameters of the geotechnical investigation reports (Appendices A and B), and compliance would be ensured through the City's building plan check and development review process. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

Ground Subsidence

The major cause of ground subsidence is the excessive withdrawal of groundwater. Soils with high silt or clay content are particularly susceptible to subsidence. The Project Site is over the Coastal Plain of Orange County groundwater basin where ground subsidence has been identified (USGS 2022). However, there is no evidence

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that land subsidence has interfered with surface uses since 2002 (DWR 2019). Groundwater storage by Orange County Water District and statutory commitments to sustainable groundwater management practices reduce the potential for future land subsidence, and ongoing surveying of the ground surface by Orange County Water District provides a way to verify that its efforts in preventing subsidence are effective (OCWD 2015). Therefore, impacts would be less than significant, and no mitigation measures are necessary.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant Impact. Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. Based on geologic observation and laboratory testing, the on-site soils have a medium to high expansion potential. Due to the potential for expansive soils, special design considerations would be required for the foundations, slabs, and flatwork associated with the proposed improvements.

The previously graded site contains soils within the upper 5 to 10 feet that have an average degree of saturation between 48 and 93 percent indicating damp to moist conditions and a medium to high potential for expansive soil movements. Project development would be implemented in accordance with the recommendations of the geotechnical investigation reports prepared for the project (Appendices B and C). With implementation of the design parameters of the geotechnical reports, which would be ensured through the City's building plan check and development review process, project development would not subject people or structures to substantial hazards arising from ground subsidence. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The project would include construction of sewer laterals to existing sewers in surrounding roadways. The project would not involve the use of septic tanks or other alternative wastewater disposal systems. Therefore, no impact would occur, and no mitigation measures are necessary.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. Paleontological resources are commonly known as fossils, that is, the recognizable physical remains or evidence of past life forms found on earth in past geological periods—including bones, shells, leaves, tracks, burrows, and impressions.

As shown in Figure E-2, Paleontological Sensitivity Zones, of the Irvine General Plan Cultural Resources Element, the Project Site is within a low paleontological sensitivity zone. Also, as shown in Figure 3, *Aerial Photograph*, the Project Site is in a highly urbanized area of Irvine. The Project Site and surrounding vicinity have experienced substantial ground disturbance associated with the development of nonresidential uses, roadways, and other urbanized land uses. Additionally, there are no unique geological features onsite, adjacent to, or surrounding the Project Site. The Project Site exhibits generally flat topography. Therefore, impacts to paleontological resources would be less than significant and no mitigation measures are necessary.

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3.8 GREENHOUSE GAS EMISSIONS

Would the project:

- a) **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

Less Than Significant Impact. Global climate change is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

Project-related construction and operation-phase GHG emissions are shown in Table 6. Project implementation would result in renovation and expansion of IACC and OSF facilities, as well as various Project Site improvements. The project would not generate new vehicle trips since the number of City staff and volunteers will not change after Project Site improvements (EPD 2022). However, project operation would result in an increase in water demand, wastewater and solid waste generation, area sources (e.g., consumer cleaning products), and energy usage (i.e., electricity). Annual average construction emissions were amortized over 30 years and included in the emissions inventory to account for one-time GHG emissions from the construction phase of the project.

Table 6 Project-Related Operation GHG Emissions

Source	GHG (MTCO ₂ e/Year)
Area	75
Energy	103
Mobile (Vehicle Trips)	75
Solid Waste	75
Water	77
Amortized Construction Emissions ¹	28
Total	434
South Coast AQMD Bright-Line Threshold	3,000 MTCO ₂ e/Yr
Exceeds Bright-Line Threshold?	No

Source: CalEEMod, Version 2020.4.

Notes: MTons = metric tons; MTCO₂e = metric ton of carbon dioxide equivalent. Total may not add to 100 percent due to rounding.

¹ Total construction emission are amortized over 30 years per South Coast AQMD methodology.

As demonstrated in Table 6, project development would not generate annual emissions that exceed the South Coast AQMD Working Group bright-line threshold of 3,000 metric tons of carbon dioxide equivalent (MTCO₂e) per year (South Coast AQMD 2010). Therefore, the project's cumulative contribution to GHG emissions would be less than significant and no mitigation measures are necessary.

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b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. Applicable plans adopted for the purpose of reducing GHG emissions include the California Air Resources Board's (CARB) Scoping Plan, SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and Irvine's SEP. A consistency analysis with these plans is presented below.

CARB Scoping Plan

The CARB Scoping Plan is applicable to state agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require the City to adopt policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the state agencies outlined in the Scoping Plan result in GHG emissions reductions at the local level. As a result, local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard and changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley California Advanced Clean Cars program).

The project would adhere to the programs and regulations identified by the Scoping Plan and implemented by state, regional, and local agencies to achieve the statewide GHG reduction goals of Assembly Bill (AB) 32 and SB 32. For example, improved facilities under the project would meet the current and future CALGreen and Building Energy Efficiency standards. The California Energy Commission anticipates that new nonresidential buildings will be required to achieve zero net energy by 2030. Additionally, project GHG emissions shown in Table 6 include reductions associated with statewide strategies that have been adopted since AB 32 and SB 32. Therefore, the project would generate GHG emissions consistent with the reduction goals of AB 32 and SB 32. Impacts would be less than significant, and no mitigation measures are necessary.

SCAG's Regional Transportation Plan/Sustainable Communities Strategy

SCAG adopted the 2020-2045 RTP/SCS (Connect SoCal) on in September 2020. Connect SoCal identifies that land use strategies that focus on new housing and job growth in areas rich with destinations and mobility options are consistent with a land use development pattern that supports and complements the proposed transportation network. The overarching strategy in Connect SoCal is to plan for the southern California region to grow in more compact communities in transit priority areas and priority growth areas; provide neighborhoods with efficient and plentiful public transit; establish abundant and safe opportunities to walk, bike, and pursue other forms of active transportation; and preserve more of the region's remaining natural lands and farmlands (SCAG 2020). Connect SoCal's transportation projects help more efficiently distribute population, housing, and employment growth, and forecast development is generally consistent with regional-level general plan data to promote active transportation and reduce GHG emissions. The projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would reduce per-capita GHG emissions related to vehicular travel and achieve the GHG reduction per capita targets for the SCAG region.

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The Connect SoCal Plan does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. The facilities proposed under the project are a local-serving land use and the project would not increase population growth or housing. Therefore, the project would not interfere with SCAG's ability to implement the regional strategies outlined in the Connect SoCal Plan. Impacts would be less than significant, and no mitigation measures are necessary.

Irvine's Strategic Energy Plan

The City of Irvine adopted its SEP in October 2020 to help the City meet the state's climate and energy goals, as well as to reduce energy and related emissions in the broader Irvine community (Irvine 2020a). The SEP builds on the City's 2008 Energy Plan by being consistent with the Irvine General Plan objectives and state policies to improve efficiency of infrastructure and operations across the community. There are three main categories of recommended actions and strategies (Energy Supply, Buildings, and Transportation and Land Use) to help ensure that the City will meet energy and GHG reduction goals.

In addition, a specific project proposal is considered consistent with Irvine's SEP if it does not conflict with the required GHG reduction measures in the SEP. Project consistency with the adopted GHG reduction measures of the SEP are shown in Table 7.

Table 7 Irvine Strategic Energy Plan Consistency

Measure	Consistency
Buildings	
Measure B-3 Decarbonize City Facilities Identify and pilot an all-electric new construction project. Document costs and challenges and evaluate using all-electric as basis of design for future City buildings.	Consistent. The project would be 100 percent electric and no natural gas would be utilized onsite. Furthermore, the proposed buildings would comply with the current Building Energy Efficiency Standards and CALGreen.
Transportation and Land Use	
Measure TLU-1 Reduce Emissions from City Fleet Vehicles and Employee Commute <ul style="list-style-type: none"> By 2022, establish a plan to transition all City-owned light duty fleet vehicles to be zero emission vehicles by 2032. By 2030, ensure that over 50% of the City's fleet uses alternative fuels, with 100% of all non-emergency response sedan purchases being zero emission vehicles. Continue to support sustainable transportation options for employee commuting. 	Consistent. The project would not result in addition of new vehicles to the City's fleet. Furthermore, long-term operation of the project would not increase emissions associated with vehicle trips because the number of City staff and volunteers will remain the same.
Measure TLU-2 Incentivize Sustainable Transportation Modes for Residents and Businesses Implement recommendations of the Irvine Strategic Active Transportation Plan.	Not Applicable. The City is the responsible party for this measure. Furthermore, long-term operation of the project would not increase emissions associated with vehicle trips because the number of City staff and volunteers will remain the same.

Source: Irvine 2020a.

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Development in Irvine, including the project, is required to adhere to City-adopted policy provisions, including those in the adopted SEP. The City ensures that the provisions of the SEP are incorporated into projects and permits as part of development review and through conditions of approval. In general, the project represents a net benefit to GHG emissions because the proposed buildings would replace the older structures with 100 percent electrical structures that achieve the latest Building and Energy Efficiency Standards and water efficiency standards to decrease GHG emissions. In addition, vehicle-related trips and transportation-related GHG emissions would decrease with the removal of the existing dog park to another site in Irvine (EPD 2022). Therefore, the impact would be less than significant, and no mitigation measure are necessary.

3.9 HAZARDS AND HAZARDOUS MATERIALS

The analysis in this section is based partly on the following technical studies, which are included as Appendices D and E of this Initial Study.

- *Transaction Screen Process Report*, PlaceWorks, March 2020 (Appendix D)
- *Phase II Soil Sampling*, PlaceWorks, January 2022 (Appendix E)

Would the project:

- a) **Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?**

Less Than Significant Impact. The term “hazardous material” can be defined in different ways. For purposes of this environmental document, the definition of “hazardous material” is the one outlined in the California Health and Safety Code, Section 25501:

Hazardous materials that, because of their quantity, concentration, or physical or chemical characteristics, pose a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the unified program agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous waste” is a subset of hazardous materials, and the definition is essentially the same as in the California Health and Safety Code, Section 25117, and in the California Code of Regulations, Title 22, Section 66261.2:

Hazardous wastes are those that, because of their quantity, concentration, or physical, chemical, or infectious characteristics, may either cause, or significantly contribute to an increase in mortality or an increase in serious illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous materials can be categorized as hazardous nonradioactive chemical materials, radioactive materials, and biohazardous materials (infectious agents such as microorganisms, bacteria, molds, parasites, viruses, and medical waste).

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Exposure of the public or the environment to hazardous materials could occur through but is not limited to the following means: improper handling or use of hazardous materials or waste, particularly by untrained personnel; transportation accident; environmentally unsound disposal methods; and/or fire, explosion, or other emergencies. The severity of potential effects varies with the activity conducted, the concentration and type of hazardous material or wastes present, and the proximity of sensitive receptors.

Following is a discussion of the project's potential to create a significant hazard to the public or the environment through the routine use, storage, transport, or disposal of hazardous materials during the operational and construction phases.

Project Operation

As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with buildings, facilities, and structures for various municipal and maintenance operations associated with the IACC and OSF. Operations include, but are not limited to, fleet maintenance, sign shop, painting shed, household hazardous waste collection, CNG and gas/diesel fueling station, storage, staging for a nursery, dog park, and the animal care center. Project operation would involve the use and storage of hazardous materials and wastes, such as cleansers, paints, degreasers, adhesive, sealers, fertilizers, and pesticides for cleaning and maintenance purposes. However, the proposed land uses would not use, generate, store, or transport large quantities of hazardous materials; such uses generally include manufacturing, industrial, medical (e.g., hospital), and similar uses.

Furthermore, the use, storage, transport, and disposal of hazardous materials would be governed by existing regulations of several agencies, including the US Environmental Protection Agency, US Department of Transportation, California Division of Occupational Safety and Health, Orange County Department of Public Health, and the Orange County Fire Authority (OCFA). Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. The project would also be operated with strict adherence to all emergency response plan requirements set forth by OCFA.

Therefore, substantial hazards to the public or the environment arising from the routine use, storage, transport, and disposal of hazardous materials during long-term operation of the project would not occur. Impacts would be less than significant, and no mitigation measures are necessary.

Project Construction

Historically, the Project Site was developed for agricultural purposes (orchards and row crops) from at least 1938 to the 1980s. The northwestern portion of the site was used as an orchard and the southeastern area of the site was used for row crops. Structures first appeared on the site in the 1980s but portions of the site remained agricultural until the 1990s. The IACC and OSF have been in operation onsite since 1984.

The Transaction Screen Process Report prepared for the project (Appendix D) involved a search of local, state and federal databases for known hazardous or contaminated material sites, a site reconnaissance, a review of historical aerial photographs, and a review of environmental reports in the vicinity. The purpose of the

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assessment was to evaluate the likelihood that hazardous materials may be present in soil beneath the Project Site because of on- or offsite activities.

The ASTM E 1527-13 Standard defines a recognized environmental concern (REC) in part as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.” Nine potential RECs were identified for the Project Site—an aboveground petroleum storage tank, an aboveground waste oil tank, three hazardous chemical storage areas, a household hazardous waste collection area, vehicle lifts, and an underground storage tank that is currently in operation at the OSF (see Figure 6, *Recognized Environmental Conditions*). Not all RECs identified are in areas where soil disturbance is planned under the project. Additionally, portions of the Project Site were used for agricultural purposes and have the potential for residual pesticides in soil.

A Phase II Soil Sampling was prepared for the Project Site (Appendix E) to evaluate if there have been releases at the site from the areas identified as being a potential concern in the Transaction Screen Process Report. Samples were collected in areas of potential concern where soil disturbance activities are planned. Soil samples were then analyzed to estimate the potential threat to public health and/or the environment posed by hazardous constituents, if any, at the Project Site. Analytical results conducted as a part the Phase II showed that there have been no releases at the site from the areas identified as being a potential concern. All concentrations were determined to be below health-based screening levels based on a conservative, health-protective, exposure scenario of residential land use. One pesticide was detected at very low concentrations in some of the surface soil samples tested. The Phase II concluded that further assessment of the site was not necessary, and risks to human health and the environment are within acceptable levels.

Additionally, the ASTM E 1527-13 Standard defines a historic REC as

... a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

One historic REC was identified for the Project Site, a leaking underground storage tank. The tank was removed from the OSF area and received regulatory closure from the Orange County Health Care Agency in 2000.

The ASTM E 1527-13 Standard also requires the identification of controlled RECs. The ASTM Standard defines controlled RECs as

... a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

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No controlled RECs were identified for the Project Site.

Furthermore, construction activities would involve the use of larger amounts of hazardous materials than would project operation. Construction activities would involve use of hazardous materials including cleansers and degreasers; fluids used in routine maintenance and operation of construction equipment, such as oil and lubricants; fertilizers; pesticides; and architectural coatings including paints. However, the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature and would cease upon completion of the project's construction phase. As standard practice in the construction industry, project construction workers are trained in safe handling and hazardous materials use.

Furthermore, as with project operation, the use, storage, transport, and disposal of construction-related hazardous materials would be required to conform to existing laws and regulations. Compliance with applicable laws and regulations governing the use, storage, transportation, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable state and local regulations for the cleanup and disposal of that contaminant. All contaminated waste would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. Furthermore, strict adherence to all emergency response plan requirements set forth by OCFA would be required through the duration of the project construction phase.

Based on the preceding, hazards to the public or the environment arising from the routine use of hazardous materials during project construction would be less than significant and no mitigation measures are necessary.

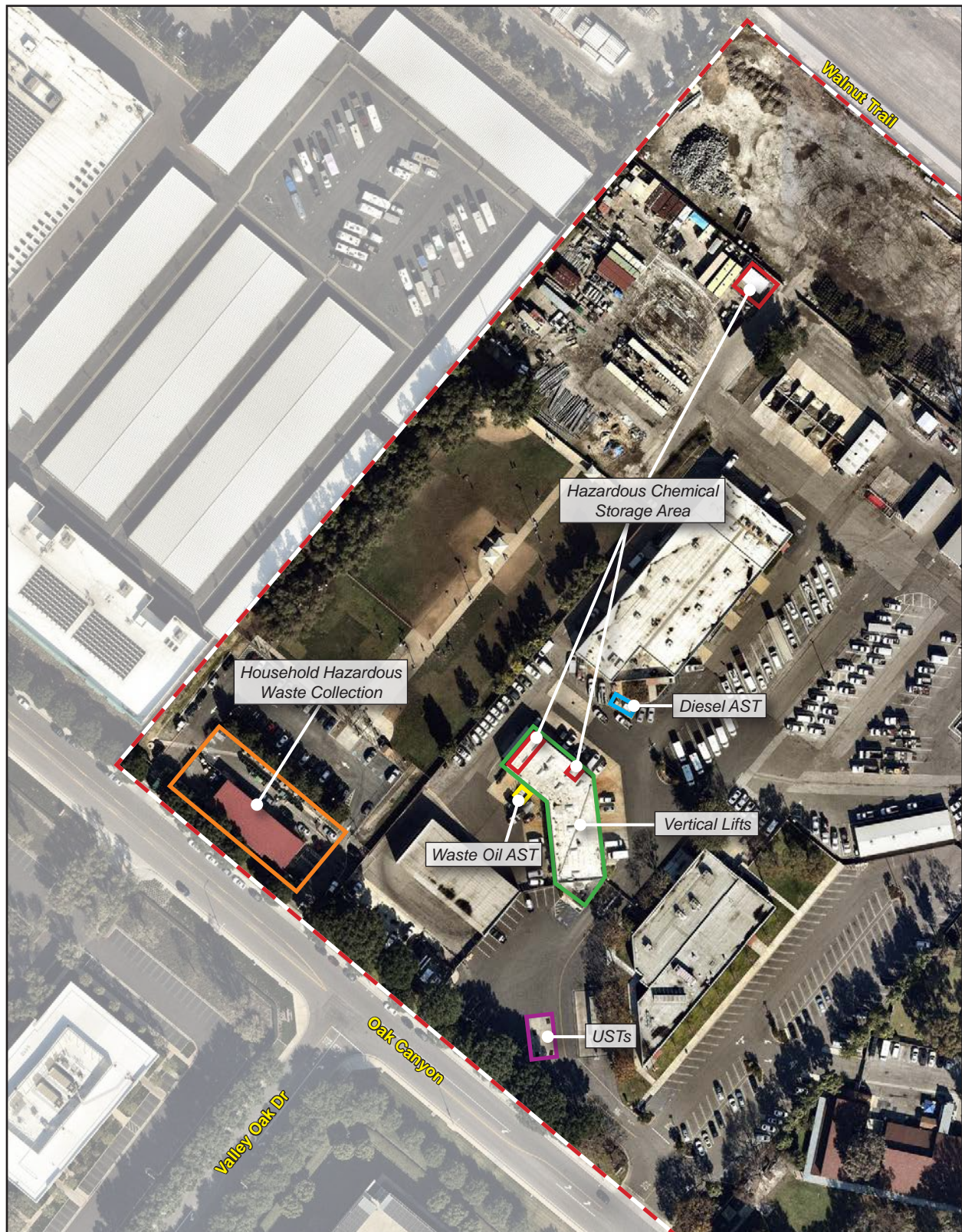
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant Impact. Following is a discussion of the potential hazards impacts that could arise through the accidental release of hazardous materials from the project's construction and operational phases, as well from existing site materials onsite.

Hazardous Materials Associated with Project Construction and Operation

See response to Section 3.9.a., above. As concluded in this section, hazards to the public or the environment arising from the routine use of hazardous materials during project operation and construction phases would be less than significant and no mitigation measures are necessary. Additionally, the OSF is permitted through the South Coast AQMD for gasoline dispensing and an emergency generator. The proposed modifications for the IACC would not generate air toxics and do not require a South Coast AQMD permit.

Figure 6 - Recognized Environmental Conditions



--- Project Boundary

0 150
Scale (Feet)



Source: Nearmap, 2020

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3. Environmental Analysis

Hazardous Materials Onsite

Any site materials demolished (e.g., asphalt, concrete) would either be reused onsite for development of the project's site improvements (e.g., drive aisles, walkways) or hauled offsite to the appropriate disposal or recycling facility and in accordance with all applicable laws and regulations associated with the transport and disposal of hazardous and nonhazardous materials, referenced above in Section 3.9.a. In the event of a hazardous materials spill of greater amount or toxicity than onsite personnel could safely contain and clean up, assistance would be requested from the OCFA hazmat team at Fire Station 23.

Based on the preceding, it is unlikely that development of the project would cause the release of hazardous materials into the environment. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no schools within one-quarter mile of the Project Site. The nearest school is Irvine Valley College School of Humanities, approximately 0.7 mile west of the Project Site. Therefore, no impact would occur, and no mitigation measures are necessary.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact. The Environmental Data Resources electronic database service was used to complete the environmental records review of the Project Site. A summary of the more significant listings that are located within the Project Site identified in the database search is included in the Transaction Screen Process Report (Appendix D). The report recommended additional investigation prior to soil disturbance in areas where chemical storage activities took place on the site. The recommended investigation was included in the Phase II. As noted in Section 3.9.a, the Phase II concluded that further assessment of the site was not necessary and that risks to human health and the environment are within acceptable levels. Therefore, no impacts to the public or to the environment would occur and no mitigation measures are necessary.

e) For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The nearest public-use airport to the Project Site is John Wayne Airport, approximately 5.5 miles to the west. The Airport Land Use Compatibility Plan for John Wayne Airport, adopted in 2008, sets safety zones where land uses are regulated to minimize air crash hazards to people on the ground. The Project Site is outside of such safety zones (OCALUC 2008). Therefore, no impact would occur, and no mitigation measures are necessary.

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f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The project would not conflict with the adopted emergency response or evacuation plans. The City has adopted an emergency management plan that addresses the City's planned response to natural and human-made disasters and technological incidents (Irvine 2004). During the construction and operation phases, the project would not interfere with any of the daily operations of the OCFA or Irvine Police Department that support emergency planning and response efforts in Irvine. All construction activities would be required to be performed per the City's standards and regulations. The project would be required to provide the necessary on- and offsite access and circulation for emergency vehicles and services during the construction and operation phases.

The project would also be required to go through the City's development review and permitting process and would be required to incorporate all applicable design and safety standards and regulations in the CBC to ensure that project development does not interfere with the provision of local emergency services—provision of adequate access roads to accommodate emergency response vehicles, adequate numbers/locations of fire hydrants, etc. The project would not result in inadequate emergency access.

Therefore, no impact to adopted emergency response and evacuation plans would occur and no mitigation measures are necessary.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. A wildland fire hazard area is typically characterized by areas with limited access, rugged terrain, limited water supply, and combustible vegetation. As shown in Figure 3, *Aerial Photograph*, the Project Site is in a highly urbanized area of Irvine and is surrounded mainly by commercial and office development. The Project Site has good access and would be served by adequate water infrastructure. There is no combustible wildland vegetation on or near the site. Additionally, the Project Site is not in or near a Fire Hazard Severity Zone mapped by the California Department of Forestry and Fire Protection (CAL FIRE 2021). Therefore, no impact would occur, and no mitigation measures are necessary.

3.10 HYDROLOGY AND WATER QUALITY

The analysis in this section is based partly on the following technical studies, which are included as Appendices F through J of this Initial Study:

- *Water Quality Management Plan LACC*, BKF Engineers, October 22, 2021 (Appendix F)
- *Preliminary Water Quality Management Plan OSF*, Tait and Associates, March 3, 2022 (Appendix G)
- *Preliminary Drainage Study LACC*, BKF, October 22, 2021 (Appendix H)
- *Hydrology Report OSF*, Tait and Associates, February 28, 2022 (Appendix I)
- *Storm Water Pollution Prevention Plan*, BKF Engineering, October 22, 2021 (Appendix J)

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Would the project:

- a) **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

Less Than Significant Impact. The City of Irvine, including the Project Site, is located in the San Diego Creek subwatershed. San Diego Creek lies within the 97,000-acre Newport Bay Watershed and is the major tributary to Upper Newport Bay. The Newport Bay Watershed is bounded in the northeast by the Loma Ridge Foothills and the Santa Ana Mountains. The southern edge is bounded by the San Joaquin Hills. Runoff originating in the northern hills flows south through flood control channels, into the San Diego Creek Channel, through the Tustin Plain, and then into Upper Newport Bay. The San Diego Creek channel system underwent significant natural and human-made changes during the 20th century (OCWD 2018).

Water quality in Irvine is regulated by the Santa Ana Regional Water Quality Control Board (RWQCB) and its water quality control plan (Basin Plan), which contains water quality standards and identifies beneficial uses (wildlife habitat, agricultural supply, fishing, etc.) for receiving waters along with water quality criteria and standards necessary to support these uses, consistent with federal and state water quality laws.

Impacts to water quality of receiving waters generally range over three different phases of a development project:

- During the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest.
- Following construction and before the establishment of ground cover, when the erosion potential may still remain high.
- Following project completion, when impacts related to sedimentation would decrease markedly, but those associated with urban runoff would increase.

Following is a discussion of the potential water quality impacts resulting from urban runoff that would be generated during the construction and operational phases of the project.

Project Construction

Construction-related runoff pollutants are typically generated from waste and hazardous materials handling or storage areas, outdoor work areas, material storage areas, and general maintenance areas (e.g., vehicle or equipment fueling and maintenance, including washing). The project's construction phase may cause deterioration in the quality of downstream receiving waters if construction-related sediments or pollutants wash into the existing storm drain system and facilities in the area.

Construction-related activities that are primarily responsible for sediment releases are related to exposing previously stabilized soils to potential mobilization by rainfall/runoff and wind. Such activities include removing vegetation from the site, grading the site, and trenching for infrastructure improvements. Environmental factors that affect erosion include topographic, soil, and rainfall characteristics. Non-sediment-

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related pollutants that are also of concern during construction relate to non-stormwater flows and generally include construction materials (e.g., paint and stucco); chemicals, liquid products, and petroleum products used in the maintenance of heavy equipment; and concrete and related cutting or curing residues. Construction-related activities of the project would generate pollutants that could adversely affect the water quality of downstream receiving waters if appropriate and effective stormwater and non-stormwater management measures are not used to keep pollutants out of and remove pollutants from urban runoff.

Construction projects of one acre or more are regulated under the CGP, Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ. Projects obtain coverage by developing and implementing a SWPPP estimating sediment risk from construction activities to receiving waters and specifying BMPs that would be used by the project to minimize pollution of stormwater. A preliminary SWPPP has been completed for the IACC (Appendix J). The SWPPP includes soil binders and proper construction scheduling as erosion control measures. Gravel bag berms, stabilizing the construction entrance and exit to control tracking, and wind erosion control measures are also included. A SWPPP would also be prepared for the OSP portion of the site and could contain BMPs described in Table 8.

Table 8 Construction Best Management Practices

Category	Purpose	Examples
Erosion Controls	Protects the soil surface and prevents soil particles from being detached by rainfall, flowing water, or wind.	Scheduling, preserving existing conditions, mulch, soil binders, geotextiles, mats, hydroseeding, earth dikes, swales, velocity dissipating devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization.
Sediment Controls	Traps soil particles after they have been detached and moved by rain, flowing water, or wind.	Barriers such as silt fences, gravel bag berms, straw bales, sandbags, fiber rolls, and gravel bag berms; sediment basins; sediment traps; check dams; storm drain inlet protection; compost socks and berms; biofilter bags; manufactured linear sediment controls; and cleaning measures such as street sweeping and vacuuming
Wind Erosion Controls	Minimizes dust nuisances.	Applying water or other dust palliatives to prevent or minimize dust nuisance, reducing soil-moving activities during high winds, and installing erosion control BMPs for temporary wind control.
Tracking Controls	Prevents or reduces the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits and entrance/outlet tire wash.
Non-storm Water Management Controls	Prevents pollution by limiting or reducing potential pollutants at their source or eliminating off-site discharge. Prohibits illicit connections or discharges.	Water conservation practices, BMPs specifying methods for: dewatering operations; temporary stream crossings; clear water diversions; pile driving operations; temporary batch plants; demolition adjacent to water; materials over water; potable water and irrigation; paving and grinding operations; cleaning, fueling, and maintenance of vehicles

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Table 8 Construction Best Management Practices

Category	Purpose	Examples
		and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Proper material delivery and storage and material use, spill prevention and control, stockpile management, contaminated soil management, and management of solid, concrete, sanitary/septic, liquid, and hazardous wastes.

Source: CASQA 2019.

The project's construction contractor would be required to prepare and implement final SWPPPs and associated BMPs in compliance with the CGP during grading and construction of the project. The final SWPPPs would specify BMPs, such as those outlined in Table 8, that the construction contractor would implement to protect water quality by eliminating and/or minimizing stormwater pollution prior to and during grading and construction and show the placement of those BMPs. Project construction activities would also implement the requirements of the Irvine Municipal Code Title 6, Division 8, Chapter 3, Stormwater/Urban Runoff Pollution.

Adherence to the BMPs in the SWPPPs and Irvine Municipal Code requirements would reduce, prevent, minimize, and/or treat pollutants and prevent degradation of downstream receiving waters. BMPs identified in the SWPPPs would reduce or avoid contamination of stormwater with sediment and other pollutants such as trash and debris; oil, grease, fuels, and other toxic chemicals; paint, concrete, asphalt, bituminous materials;*; and nutrients. Based on the preceding, water quality and waste-discharge impacts from project demolition, grading, and construction activities would be less than significant and no mitigation measures are necessary.

Project Operation

Operational-related activities of the project (e.g., runoff from parking areas, solid waste storage areas, and landscaped areas) would generate pollutants that could adversely affect the water quality of downstream receiving waters if effective measures are not used to keep pollutants out of and remove pollutants from urban runoff.

Standards governing discharges to stormwater from project operation are set forth in the Municipal Stormwater (MS4) Permit for Orange County in the jurisdiction of the Santa Ana RWQCB, Order No. R8-2009-0030 as amended by Order No. R8-2010-0062, NPDES No. CAS618030, issued by Santa Ans RWQCB in 2010. A model water quality management plan (WQMP) and technical guidance document (TGD) were developed to provide guidance for "priority" new development and significant redevelopment projects that need to comply with the requirements of the MS4 permit. The Model WQMP and TGD include instructions on selecting

* Bituminous materials are materials resembling or containing bitumen; bitumen = any of various viscous or solid impure mixtures of hydrocarbons that occur naturally in asphalt, tar, mineral waxes, etc.; used as a road surfacing and roofing material.

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BMPs for a project, including low impact development (LID) BMPs, alternatives to LID BMPs in case LID BMPs are impractical on a site, and source control BMPs.

LID is a stormwater management and land development strategy that combines a hydrologically functional site design with pollution prevention measures to compensate for land development impacts on hydrology and water quality. LID techniques mimic the site pre-development hydrology by using site design techniques that store, infiltrate, evapotranspire, biofilter, or detain runoff close to its source. Source control BMPs reduce the potential for pollutants to enter runoff and are classified in two categories—structural and nonstructural. Structural source control BMPs have a physical or structural component, such as inlet trash racks, trash bin covers, and an efficient irrigation system, to prevent pollutants from contacting stormwater runoff. Nonstructural source control BMPs are procedures or practices used in project operation, such as stormwater training or trash management and litter control practices.

According to the Model WQMP and TGD, the IACC area of the Project Site is a priority project. The project includes the addition or replacement of 5,000 square feet or more of impervious surfaces. For the proposed development in this area, only the design capture volume (DCV)* associated with the addition or replacement area needs to be retained onsite through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof.

For the OSF area, redevelopment of the western portion of the site would include the removal of the dog park, relocation of the fueling islands, and the development of a new parking area for City vehicles. The OSF area is also a priority project because it includes the addition or replacement of 5,000 square feet or more of impervious surfaces.

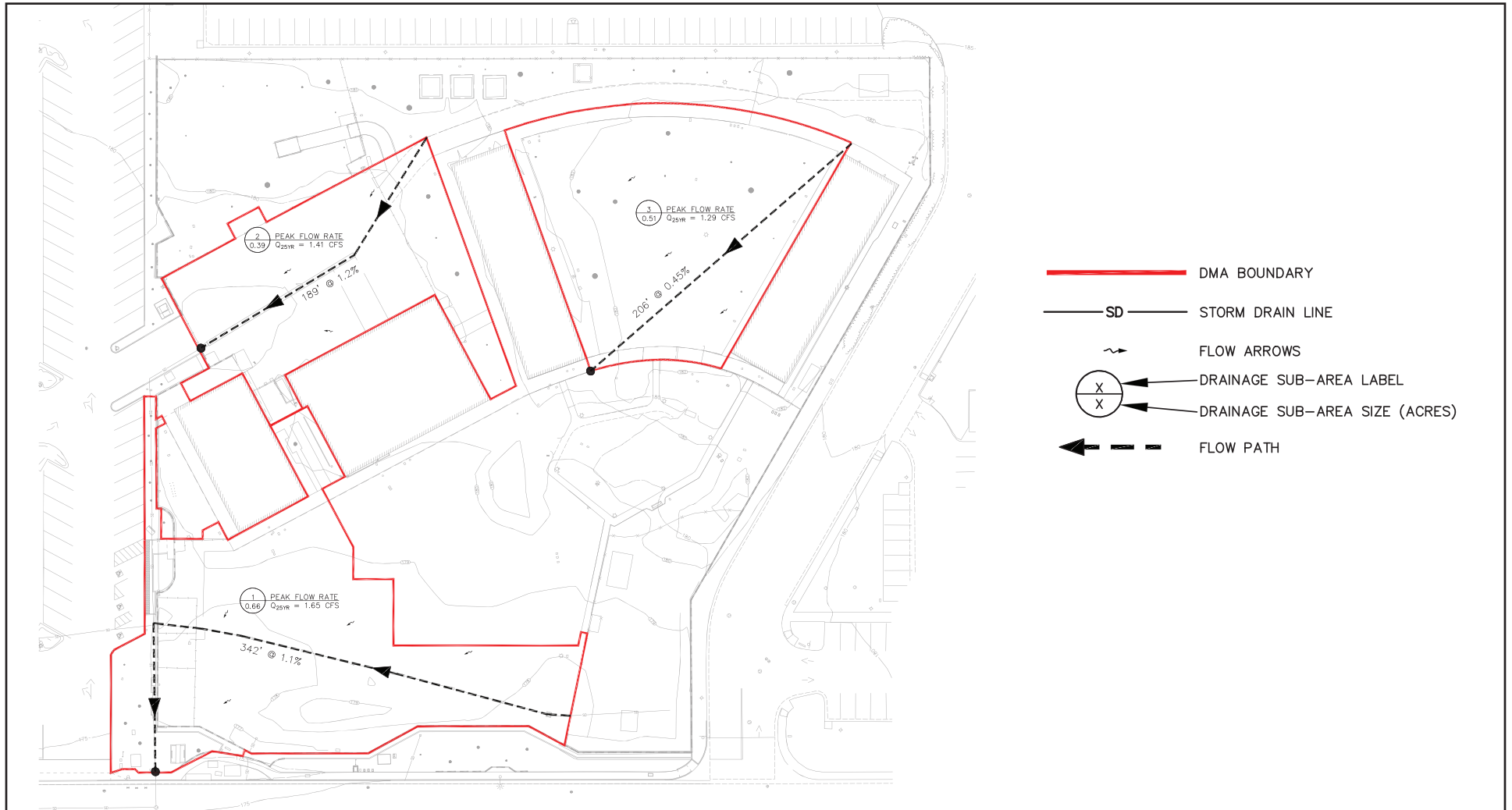
As a part of the project and per the City's initial requirements for priority projects, the City prepared two preliminary WQMPs, one for the IACC and the other for the OSF (Appendices F and G). The WQMPs specify BMPs that would be implemented to minimize water pollution from the Project Site during the project's operation phase. BMPs identified in the WQMPs include source control measures and treatment control measures.

The IACC portion of the site slopes in the south-westerly direction with an average slope of 1.5 percent. The northwest portion of the site collects runoff from the parking lot using a valley gutter that drains to the west and discharges to the underground storm drain system. The northeast portion of the Project Site sheet flows to the southwest into area drains that are discharged into the same underground storm drain system. Additionally, runoff from landscaped areas in the southern portion of the site is captured via area drains throughout the landscaped areas and conveyed to the underground storm drain system. The underground storm drain system discharges runoff to an underground storm drain pipe on the southwest side of the site that ultimately discharges from the southwest corner of the site into the 30-inch municipal storm drain line in Oak Canyon (see Figure 7, *Irvine Animal Care Center Pre-development Hydrology Map*).† No offsite drainage flows onto the Project Site.

* The design capture volume relates to the amount of stormwater runoff associated with the 85th percentile 24-hour storm event that needs to be treated on site per the MS4 Permit requirements.

† Figure 7 only shows hydrological conditions for the area of the site that would be redeveloped by the project.

Figure 7 - Irvine Animal Care Center - Pre-development Hydrology Map



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Scale (Feet)



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Project development of this area of the site would reroute the existing storm drain line on the southwest side of the site to accommodate the proposed entry building. New storm drain lines and area drains would be installed along the eastern and southern perimeters of the Project Site to capture runoff. Drainage would be routed through a modular wetland system, located in the southwest side of the site, for treatment prior to discharging into the existing City storm drain system (see Figure 8, *Irvine Animal Care Center WQMP Site Plan*). The modular wetland system is designed to treat a DCV of 3,991 cubic feet.

The OSF area of the site is generally flat with slopes varying from approximately 1.5 to 2.9 percent in paved and walkable areas. Surface runoff on the western portion is collected in an earthen swale located along the western property line (see Figure 9, *Operations Support Facility Pre-development Hydrology Map*). Flows are then conveyed southerly to an at-grade inlet structure located at the southwest corner of the property. Stormwater enters an existing hydrodynamic separator* before entering the public storm drain system located in Oak Canyon. No offsite drainage enters the Project Site.

Under proposed conditions, runoff on the western portion of the OSF area would flow from the northeast to the southwest to match existing conditions. Building roofs would discharge via roof drains onto the asphalt pavement. Runoff from the paved areas would sheet flow to nearby concrete ribbon gutters that flow into catch basins or grated inlets connected to the on-site storm drain system. The onsite storm drain system would capture onsite runoff and route the DCV to either a proposed modular wetland or a biofiltration basin for water treatment. Peak flows above the DCV would bypass the treatment units through a diversion manhole and discharge directly to the underground storm drain system. Flows would then enter a detention system with a capacity of 6,000 cubic feet before ultimately entering the public storm drain system in Oak Canyon (see Figure 10, *Operations Support Facility WQMP Site Plan*). The DCV for drainage management area (DMA) A-1 is 1,333 cubic feet, and the biofiltration system is sized to accommodate this volume. For the remainder of the DMAs, a flow-based approach was used to size the modular wetland system. The preliminary WQMP assessed that a flow rate of 0.6 cubic foot per second needs to be provided to treat the DVC from these DMAs. The proposed modular wetland system has a capacity of 0.69 cubic feet per second.

The entire Project Site is located within a groundwater protection zone and therefore infiltration is deemed infeasible. Additionally, the Project Site is associated with a hydrologic condition of concern per the TGD.† The TGD includes hydromodification control requirements for projects associated with hydrologic conditions of concern.‡ The WQMPs for the IACC and OSF include hydromodification analyses. The analysis for the IACC area concluded that the modular wetland is sized adequately to meet hydromodification requirements per the TGD. For the OSF area, a detention basin with a capacity of 6,000 cubic feet is proposed to meet hydromodification requirements.

A detailed list of the BMPs and discussion of how they were selected based on their effectiveness to address and mitigate the project's pollutants of concern are provided in the WQMPs. The final BMPs to be

* Hydrodynamic separators remove suspended solids and floatables such as oil.

† A hydrologic condition of concern is a combination of upland hydrologic conditions and stream biological and physical conditions that presents a condition of concern for physical and/or biological degradation of a stream.

‡ Hydromodification controls are management techniques which reduce the potential for hydromodification impacts to stream channels. Hydromodification impacts are associated with physical responses of stream channels to changes in runoff and sediment yields caused by land use modifications.

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implemented for the project would be determined through the City's review of the final WQMPs, which would occur during the City's development review and building plan check process.

The information provided in the WQMPs provide sufficient detail to identify the major LID BMPs and other anticipated water quality BMPs and features that would be implemented as a part of the project and would prevent impacts to the water quality of receiving waters. The combination of BMPs identified in the WQMPs addresses all identified pollutants of the project. Implementation of the BMPs would be ensured through the City's development review and building plan check process.

Additionally, project development would be required to comply with the standards of the Irvine Municipal Code, Title 6, Division 8, Chapter 3, Stormwater/Urban Runoff Pollution, which prohibits the discharge of specific pollutants into the stormwater, regulates connections to the storm drain system, and requires development projects to implement permanent BMPs on individual sites to reduce pollutants in the stormwater.

Based on the preceding, no significant water quality and waste discharge impacts from project operation activities would occur and no mitigation measures are necessary.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

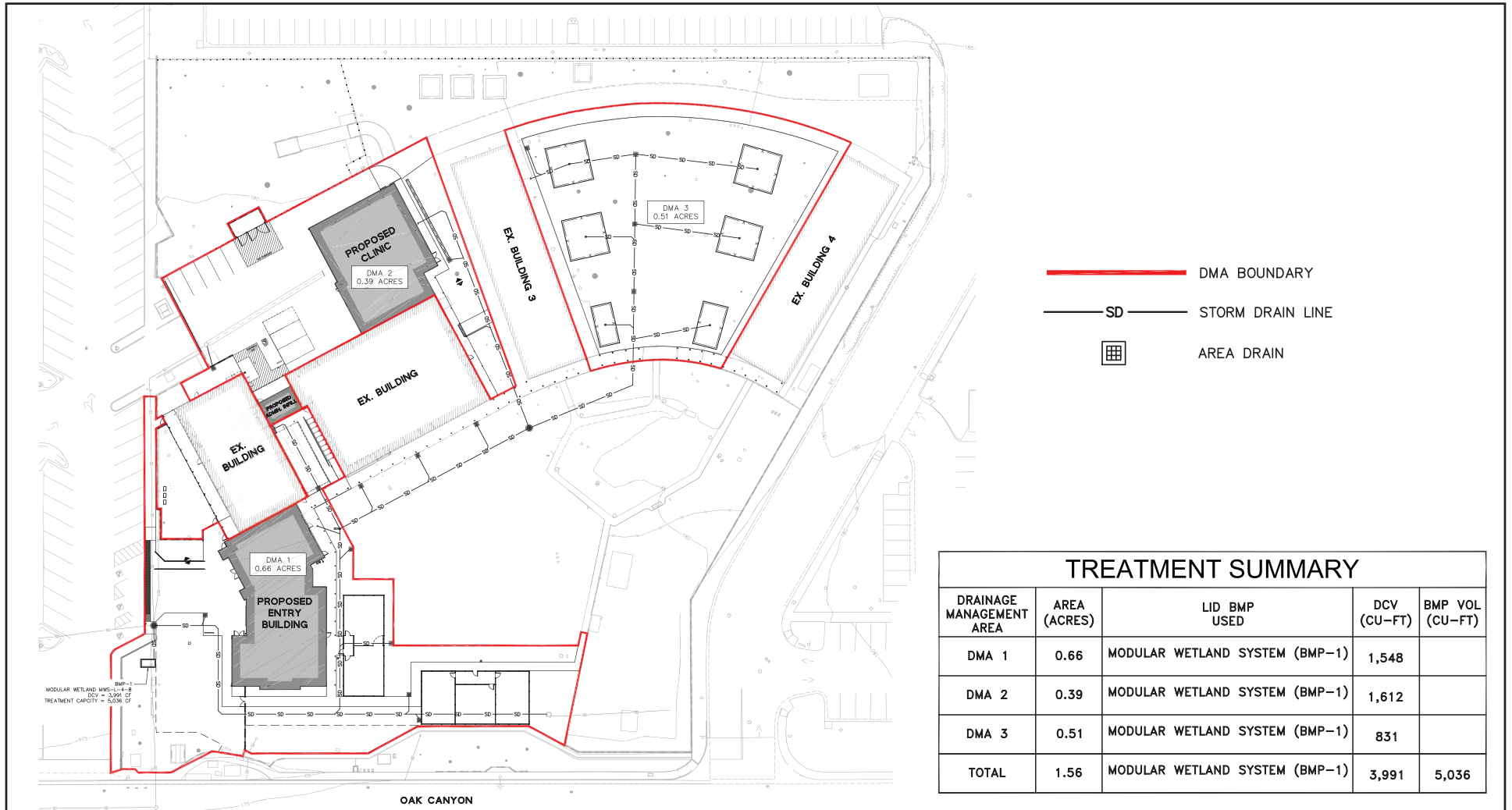
Less Than Significant Impact. The Project Site is within the Orange County Groundwater Basin. The Irvine Ranch Water District would provide water to the Project Site. IRWD's water supply sources include imported water, local groundwater, recycled water, and local surface water. Potable and non-potable groundwater supplies are extracted from both the Orange County Groundwater Basin and the Irvine and Lake Forest subbasins. Recycled water is produced at IRWD's Michelson and Los Alisos Water Recycling Plants, and surface water sources are the drainage tributary areas to the Irvine Lake and Harding Canyon Reservoir. In the event IRWD does not have sufficient recycled water supplies to meet customer demands, it can supplement the recycled water system with untreated imported water. This water supply is introduced into the system via Irvine Lake and conveyed through IRWD's Irvine Lake Pipeline. IRWD can also supplement its recycled water system with non-potable groundwater pumped from the Orange County Groundwater Basin. Approximately 13 percent of IRWD's water needs are met by imported water, 50 percent from local groundwater wells, 30 percent by recycled water, and the rest by surface water sources (IRWD 2021).

IRWD forecasts that it will have sufficient water supplies to meet water demands in its service area for normal, single-dry, and multiple dry years. As demonstrated in Section 3.19.a, the project's net increase in potable water demand is nominal in comparison to IRWD's residual capacity. Therefore, project development would not substantially deplete groundwater supplies.

Furthermore, the Project Site is not in or near a groundwater recharge area/facility, nor does it represent a source of groundwater recharge.

Therefore, the project would not substantially interfere with groundwater supplies or recharge. Impacts to groundwater supplies would be less than significant and no mitigation measures are necessary.

Figure 8 - Irvine Animal Care Center - WQMP Site Plan



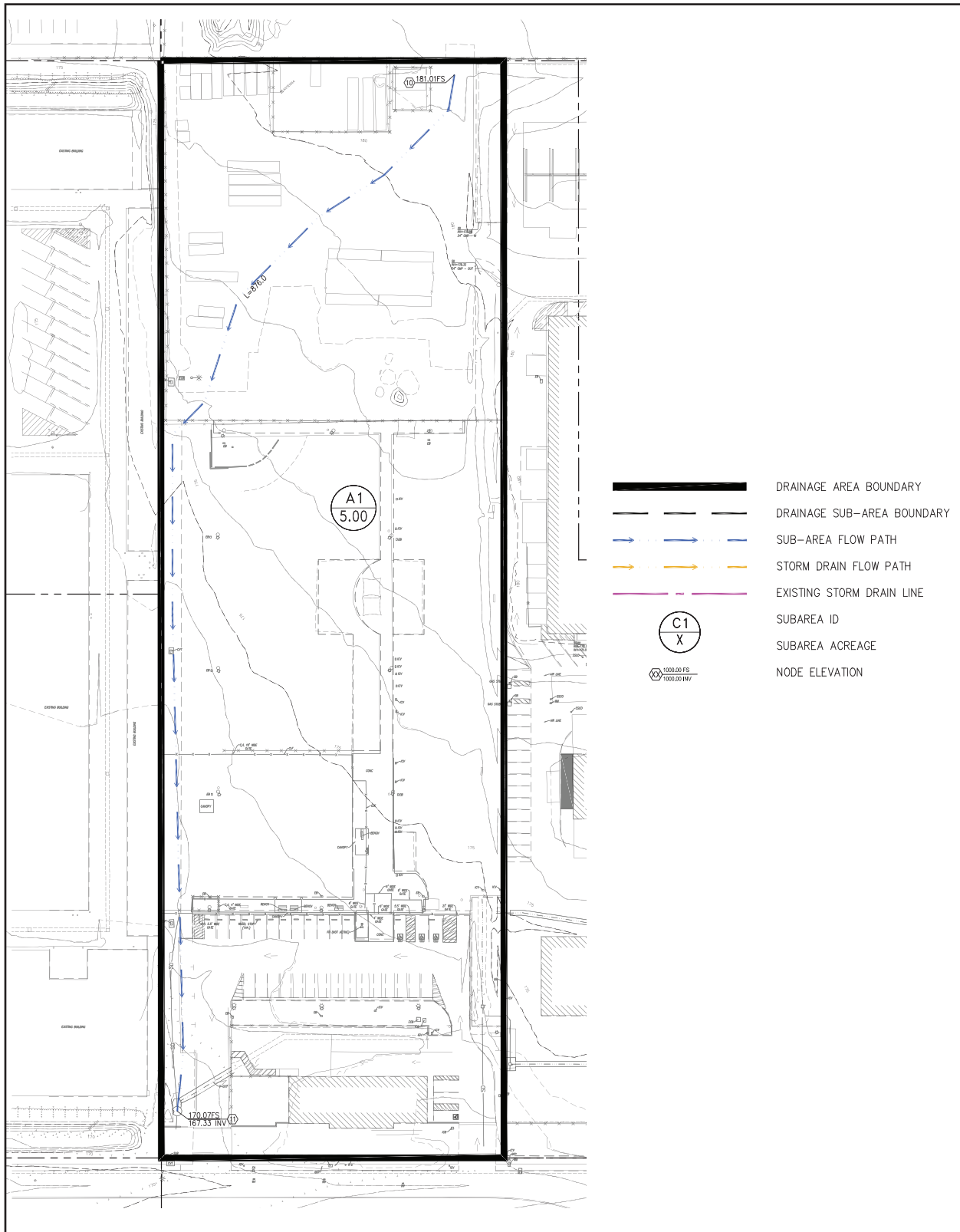
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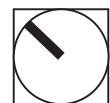
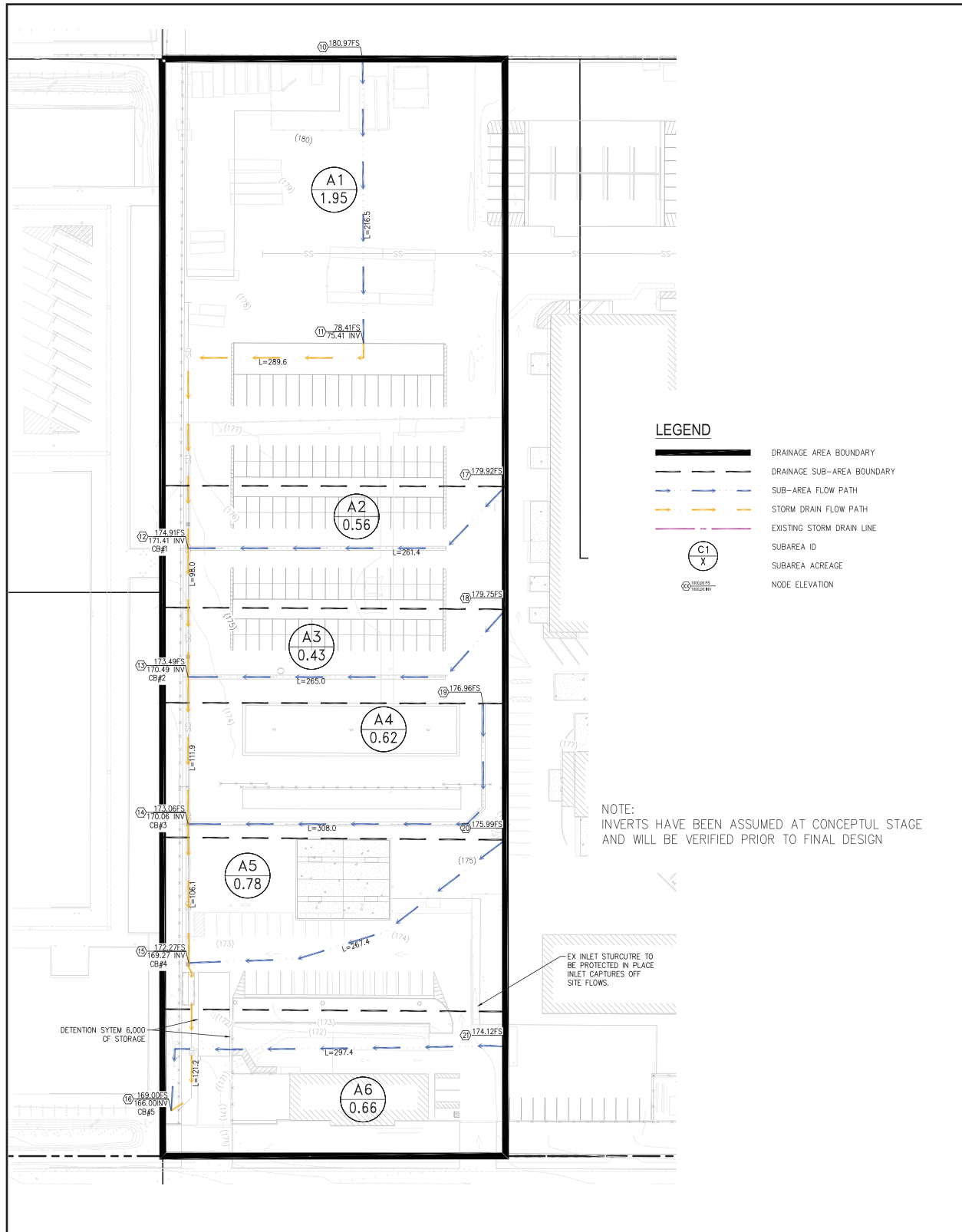
Figure 9 - Operations Support Facility - Pre-development Hydrology Map



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Figure 10 - Operations Support Facility - WQMP Site Plan



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- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**
- i) **Result in a substantial erosion or siltation on- or off-site?**

Less Than Significant Impact. Erosion and siltation impacts potentially resulting from alteration of the drainage pattern due to project development would, for the most part, occur during the project's construction phase, which would include site preparation and grading activities. Environmental factors that affect erosion include topographic, soil, and wind and rainfall characteristics. Siltation is most often caused by soil erosion. Following is a discussion of the potential erosion and siltation impacts that could occur during the construction and operational phases of the project.

Project Construction

As discussed above in Section 3.10.a, the project construction contractor would be required to implement SWPPPs pursuant to the CGP during grading and construction. A preliminary SWPPP was prepared for the IACC (see Appendix J). The final SWPPPs for the IACC and OSF would specify erosion- and sediment-control BMPs that the project construction contractor would implement prior to and during grading and construction to minimize erosion and siltation impacts on- and offsite. Erosion-control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap or filter sediment once it has been mobilized. BMPs that would be implemented during the project's construction phase are discussed in detail in Section 3.10.a. For example, BMPs would include but are not limited to installation of perimeter silt fences, installation of silt fences around stockpile and covering of stockpiles, and stabilization of disturbed areas where construction ceases for a determined period of time (e.g., one week) with erosion controls.

Adherence to the BMPs in the SWPPPs would reduce, prevent, or minimize soil erosion from project-related grading and construction activities. The construction-phase BMPs would also ensure effective control of not only sediment discharge, but also of pollutants associated with sediments (e.g., nutrients, heavy metals, and certain pesticides). Therefore, project-related construction activities would not result in substantial erosion or siltation on- or offsite. Construction-related impacts would be less than significant, and no mitigation measures are necessary.

Project Operation

As shown in Figure 3, *Aerial Photograph*, the Project Site is currently developed with the IACC and OSF and their associated surface parking, landscaping, and hardscaping. Under the project, there would be no bare or disturbed soil onsite at project completion that would be vulnerable to erosion or siltation. All areas would either be buildings, paved, or landscaped.

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Project development on the IACC area would reroute the existing storm drain line on the southwest side of the site to accommodate the proposed entry building. New storm drain lines and area drains would be installed as shown in Figure 11, *Irvine Animal Care Center - Post-development Hydrology Map*, and would ultimately discharge into the onsite modular wetland system before discharging into the 30-inch municipal storm drain line in Oak Canyon.*

Under proposed conditions, runoff on the western portion of the OSF area would flow from the northeast to the southwest to match existing conditions. Building roofs would discharge via roof drains onto the asphalt pavement. Runoff from the paved areas would sheet flow to nearby concrete ribbon gutters that flow into catch basins or grated inlets connected to the on-site storm drain system. The onsite storm drain system would capture onsite runoff and route the DCV to either a proposed modular wetland or a biofiltration basin for water treatment. Flows would then enter a detention system before ultimately entering the public storm drain system in Oak Canyon (see Figure 10, *Operations Support Facility - WQMP Site Plan*).

Project development would not substantially alter the existing drainage pattern of the site area and would not alter the course of a stream or a river. Runoff from the site surface would flow to catch basins connected to new onsite storm drains. Runoff would then be conveyed to onsite BMPs prior to discharging offsite.

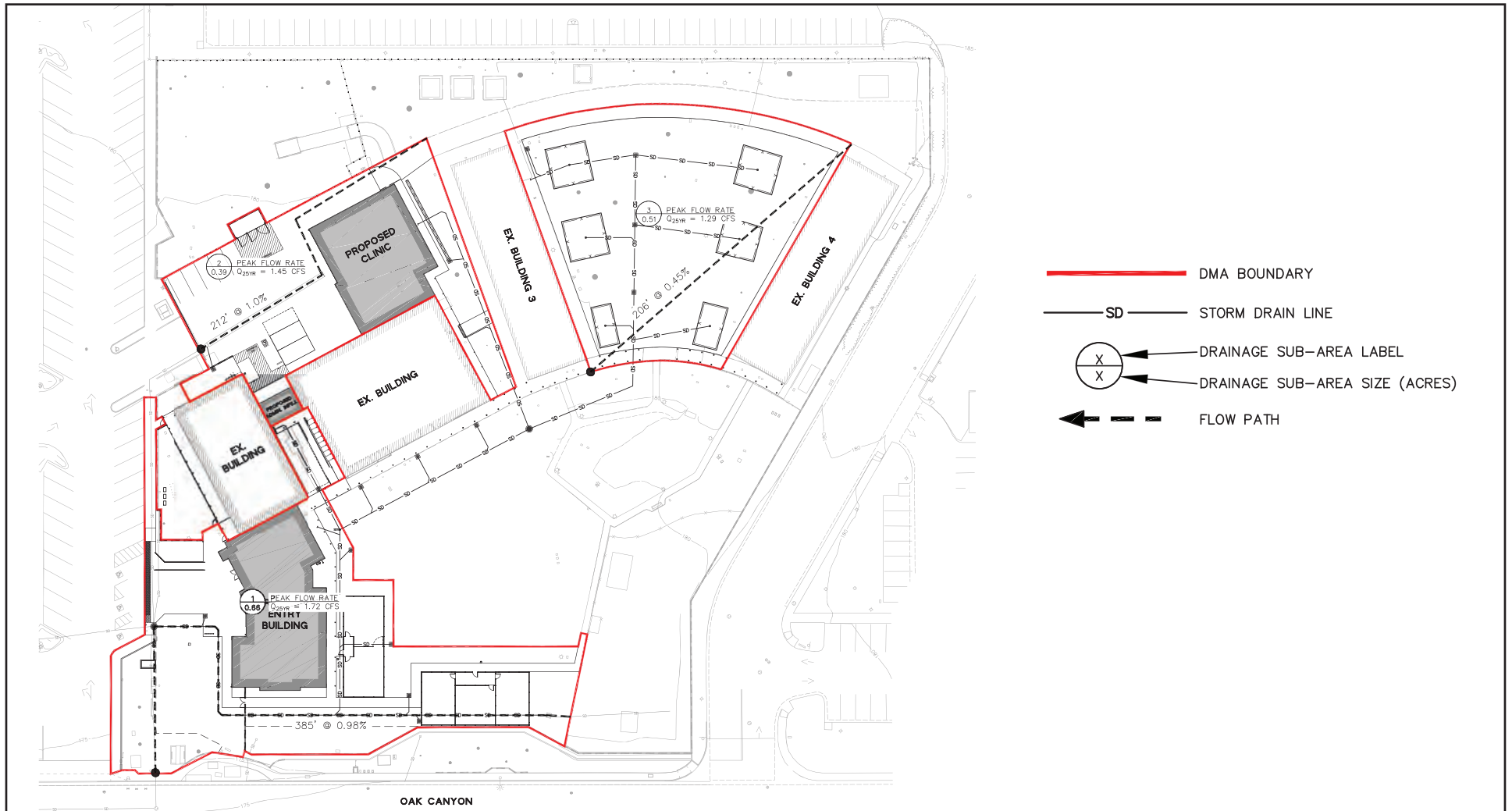
Additionally, the project would be implemented in accordance with the WQMPs and abide by the requirements of the MS4 permit and the TGD. For example, project design and operation would include implementation of BMPs specified in the WQMPs, which would minimize runoff and soil erosion and siltation into stormwater and thus minimize sedimentation downstream.

Furthermore, project development would be required to comply with the standards of Irvine Municipal Code, Title 6, Division 8, Chapter 3, Stormwater/Urban Runoff Pollution, which requires development projects to implement permanent BMPs on individual sites to reduce pollutants in the stormwater.

Therefore, project development would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or offsite. Operation-related impacts would be less than significant, and no mitigation measures are necessary.

* Figure 11 only shows hydrological conditions for the area of the site that would be redeveloped by the project.

Figure 11 - Irvine Animal Care Center - Post-development Hydrology Map



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ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

Less Than Significant Impact. Two preliminary hydrology reports were prepared for the Project Site and are included in Appendices H and I. As mentioned in Section 3.10.c.i, under existing conditions, runoff from the IACC and OSF drains into the 30-inch municipal storm drain line on Oak Canyon. Project implementation is not anticipated to substantially change the drainage pattern onsite or substantially increase the rate or amount of runoff. Under proposed conditions, runoff from the IACC area would be conveyed in a similar manner as existing conditions, continuing to flow to the municipal storm drain line on Oak Canyon. Run-on is not anticipated from the offsite areas.

The project would comply with the hydrology requirements per the Orange County Hydrology Manual. The hydrology analysis for the project was performed using the 25-year storm event. To determine the impacts on the existing drainage pattern, the pre- and post-development peak flow rates were analyzed and compared for the 25-year duration storm events.

The peak flow rates for the three DMAs associated with the IACC, as shown in Figures 7 and 11, are provided in Table 9. The table indicates that project development would increase the peak flows from 4.36 cubic feet per second (cfs) to 4.46 cfs. The proposed stormwater management design for the IACC includes a modular wetland system for treatment of the DCV. The modular wetland system includes a detention chamber system that would be used for temporary storage of stormwater runoff prior to treatment through the modular wetland system. The detention system would also serve to reduce the minimal 0.1 cfs increase in peak flows as compared to existing conditions.

Table 9 Irvine Animal Care Center Pre- and Post- Development Peak Flow Rates

Drainage Management Area	Area (ac) ¹	25-yr Storm (cfs)
Existing Conditions		
1	0.66	1.65
2	0.39	1.41
3	0.51	1.29
Total	1.56	4.36
Proposed Conditions		
1	0.66	1.72
2	0.39	1.45
3	0.51	1.29
Total	1.56	4.46
Net Difference		0.10

Source: BKF 2021.

Notes: ac = acres; cfs = cubic feet per seconds.

¹ Only areas that would be redeveloped by the project are included in the hydrology analysis.

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The existing peak flow from the western portion of the OSF for the 25-year storm is 13.41 cfs, and the proposed peak flow is 17.95 cfs. A proposed 6,000-cubic-foot detention system would reduce peak flows to 13 cfs, which is less than existing conditions (see Figure 10, *Operations Support Facility - WQMP Site Plan*).

Therefore, post-development runoff from the Project Site would be temporarily detained by the project's drainage system and would not exceed the capacity of existing or planned stormwater drainage systems or substantially alter the existing drainage pattern of the Project Site or area in a manner that would result in flooding on- or offsite. Therefore, project impacts would be less than significant, and no mitigation measures are necessary.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. Project impacts on the capacity of storm drainage systems would be less than significant, as substantiated in Section 3.10.c.ii, above. No mitigation measures are necessary. Project stormwater pollution impacts would be less than significant, as substantiated in Section 3.10.a above. No mitigation measures are necessary.

iv) Impede or redirect flood flows?

Less than Significant Impact. The Project Site is not within a Federal Emergency Management Agency 100-year flood hazard zone but in an area with minimal flood hazard (FEMA 2009). However, portions of the Project Site are within the inundation zone of the Marshburn Retarding Basin (DWR 2021). Dams in California are monitored and inspected annually by the California Division of Safety of Dams. In addition, dam owners are required to maintain emergency action plans (EAP) that include procedures for damage assessment and emergency warnings. An EAP identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life should those conditions occur. EAPs contain procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities. Additionally, the State of California Dam Safety Act requires dam owners to submit inundation maps for dams whose total failure would cause loss of life or personal injury.

Although the project includes the introduction of relatively small structures to the dam inundation zone, they would not impede or redirect flows. Therefore, impact to flood flows would be less than significant and no mitigation measures are necessary.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant Impact. As noted in Section 3.10.c.iv, above, the Project Site is not in 100-year flood zone but is in the dam inundation zone of the Marshburn Retarding Basin. However, dams in California are monitored and inspected annually, and dam owners are required to maintain EAPs that include procedures for damage assessment and emergency warnings. Dam owners would also need to submit inundation maps and the project includes the introduction of relatively small structures in the dam inundation zone. Therefore, impacts from dam failure would not be significant.

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A seiche is an oscillating surface wave in a restricted or enclosed body of water, generated by ground motion, usually during an earthquake. Seiches are of concern for water storage facilities such as reservoirs, water storage tanks, dams, or other artificial bodies of water, because a seiche can cause sloshing and an overflow of water from the water body. There are no adjacent bodies of water that would pose a flood hazard to the site due to a seiche and therefore the Project Site is not at risk of inundation by seiche.

Tsunamis are a type of earthquake-induced flooding produced by large-scale sudden disturbances of the sea floor. Tsunami waves interact with the shallow sea floor when approaching a landmass, resulting in an increase in wave height and a destructive wave surge into low-lying coastal areas. The Project Site is approximately 8.5 miles inland from the Pacific Ocean. Therefore, the site is outside the tsunami hazard zone and would not be affected by a tsunami.

Based on the preceding, the project would not result in the release of pollutants as the result of floods, tsunamis, or seiches. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. Water quality in Irvine is regulated by the Santa Ana RWQCB and its Basin Plan for Santa Ana River. The Basin Plan contains water quality standards and identifies beneficial uses (wildlife habitat, agricultural supply, fishing, etc.) for receiving waters along with water quality criteria and standards necessary to support these uses consistent with federal and state water quality laws. As substantiated in Section 3.10.a, above, the project would comply with all requirements of the MS4 permit and would not violate any water quality standards or obstruct the implementation of the Basin Plan. Therefore, no impact would occur, and no mitigation measures are necessary.

The Project Site is within the Orange County Groundwater Basin. The Orange County Water District serves as the groundwater manager for this basin and in 1989 adopted its first groundwater management plan, which was subsequently updated in 2015. The 2015 groundwater management plan has been superseded by the Basin 8-1 Alternative Plan. As substantiated in Sections 3.10.a and b, above, the project will not decrease groundwater supplies or interfere substantially with groundwater recharge. Therefore, the project would not conflict or obstruct the implementation of the Basin 8-1 Alternative Plan. No impact would occur, and no mitigation measure are necessary.

3.11 LAND USE AND PLANNING

Would the project:

a) Physically divide an established community?

No Impact. The project involves expansion and renovation of the existing IACC and OSF that operate from the Project Site. As shown in Figure 3, *Aerial Photograph*, the Project Site is predominantly surrounded by commercial and office uses. The project would not introduce a physical barrier that would separate land uses that are not already separated. Connections between the surrounding nonresidential uses would remain and not

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be impacted with project implementation. The project would not physically change the surrounding street pattern or otherwise impede movement through the surrounding areas.

Additionally, while there is established nonresidential uses surrounding the Project Site, project development would not physically divide these uses in any way because the project would be developed within the confines of the Project Site and would not introduce roadways or other infrastructure improvements that would bisect or transect the surrounding uses. Furthermore, the project would not introduce a new land use that would disrupt existing land use patterns. Therefore, no impact would occur, and no mitigation measures are necessary.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The City enforces numerous goals, policies, and regulations related to the purpose of avoiding or mitigating an environmental effect. The prevailing planning and regulatory plans that govern development and use of the Project Site are the Irvine General Plan and Irvine Zoning Ordinance. The development and design standards and regulations contained in the Irvine Zoning Ordinance, which implements the Irvine General Plan, constitute the zoning regulations that govern development of the Project Site. The Project Site is currently zoned 6.1 Institutional and 5.4B General Industrial, with a corresponding General Plan Land Use designation of Public Facilities and Research and Industrial.

Following is an analysis of the project's consistency with these adopted land use regulations.

General Plan Consistency

Development and operation of the new IACC and OSF buildings, structures, and improvements under the project would not conflict with the land use designation of the Project Site. The uses proposed by the project are a permitted use under the existing land use designation. Project development does not include or require any amendments to the Irvine General Plan.

Additionally, the project would represent an improvement of a land uses already operating on the Project Site. The Project Site is already developed with the IACC and OSF, and the surrounding vicinity is already developed with urbanized land uses (largely commercial and office). The project would not represent a change in land use patterns or an inconsistency with adopted land use plans.

Therefore, project implementation would not conflict with the Irvine General Plan. No land use impact related to general plan consistency would occur and no mitigation measures are necessary.

Zoning Consistency

As noted above, the Project Site is currently zoned 6.1 Institutional and 5.4B General Industrial. The uses proposed under the project are permitted uses (permitted by right with no discretionary action required) under the existing zoning designations. Project development does not include or require zoning amendment or zone change; nor would it require a variance or any adjustments from the City's zoning standards, which help ensure that development projects in the City are designed and implemented in a manner that is not detrimental to the Project Site or its surroundings. The project has been designed and would be developed in accordance with all

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applicable development and design standards of the Irvine Zoning Ordinance, including those related to building height and setbacks, walls and screening, building and site plan design, landscaping, and parking. Compliance with the applicable development and design standards would be ensured through the City's development review process.

Therefore, no land use impact related to zoning consistency would occur and no mitigation measures are necessary.

3.12 MINERAL RESOURCES

Would the project:

a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?

No Impact. The Project Site is classified by the California Geologic Survey as Mineral Resource Zone 1 (MRZ-1), indicating that significant mineral deposits are absent or unlikely to be present (CGS 1994). No mineral resource areas that would be of value to the region and residents of the state exist on or near the Project Site. Additionally, no locally important mineral resource recovery sites are on or near the Project Site. The Project Site is also not in an area with active mineral extraction operations, nor does it support such operations.

Additionally, mining would be incompatible with the surrounding uses and is not a permitted use under the 6.1 Institutional and 5.4B General Industrial zoning districts of the Project Site, which is in a highly urbanized area of the City and surrounded by commercial and office uses.

Furthermore, no mining sites are designated in the City of Irvine General Plan, and the nearest mine to the site mapped on the Mines Online website is over 4.5 miles away (DMR 2022).

Finally, no oil or energy extraction and/or generation activities exist on the Project Site. A review of California Geologic Energy Management Division's well finder indicates that there are no oil or energy wells located onsite (CalGEM 2022).

Therefore, no impact to mineral resources or mineral resource recovery sites would occur and no mitigation measures are necessary.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. See response to Section 3.12.a, above. As substantiated in this section, no impact would occur, and no mitigation measures are necessary.

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3.13 NOISE

Environmental Setting

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects of noise, the federal, state, and city governments have established criteria to protect public health and safety and to prevent the disruption of certain human activities, such as classroom instruction, communication, or sleep. Additional information on noise and vibration fundamentals and applicable regulations are contained in Appendix K.

Existing Noise Environment

The Project Site is in the central portion of Irvine, approximately 0.2 mile southwest of Interstate 5 (I-5) and 0.5 mile west of State Route 133 (SR-133). The site is generally bounded by the Metrolink railroad and agricultural land to the north, commercial and office development to the east, Oak Canyon to the south, and commercial and office development and the Oak Creek Golf Club and Driving Range to the west. The Project Site is close to Sand Canyon Avenue. According to the Irvine General Plan Noise Element, traffic noise from Sand Canyon Avenue is 68.5 dBA CNEL at 100 feet.

Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. These uses include residences, schools, hospital facilities, houses of worship, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. There are no sensitive receptors adjacent to or in proximity of the Project Site. The site is generally bounded by the Metrolink railroad to the north, commercial and office development to the east, Oak Canyon to the south, and commercial and office development and the Oak Creek Golf Club and Driving Range to the west and southwest. The nearest residences are located approximately 1,600 feet southwest of the Project Site.

Would the project result in:

- a) **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?**

Less Than Significant Impact. Following is a discussion of the temporary and permanent noise impacts as a result of the project's construction and operational phases.

Construction Noise

Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment.

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Construction Vehicles

The transport of workers and materials to and from the construction site would incrementally increase noise levels along site access roadways. Individual construction vehicle pass-bys may create momentary noise levels of up to approximately 85 dBA L_{max} at 50 feet from the worker and vendor vehicles. However, these occurrences would generally be infrequent and short-lived. Therefore, construction-vehicle noise impacts would be less than significant, and no mitigation measures are necessary.

Construction Equipment

Noise generated by onsite construction equipment is based on the type of equipment used, its location relative to sensitive receptors, and the timing and duration of noise-generating activities. Each stage of construction involves different kinds of equipment and has distinct noise characteristics. Noise levels from construction activities are typically dominated by the loudest equipment. The dominant equipment noise source is typically the engine, although work-piece noise (such as dropping of materials) can also be noticeable.

The noise produced at each construction stage is determined by combining the L_{eq} contributions from each piece of equipment used at a given time, while accounting for the ongoing time variations of noise emissions. Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels of up to 85 dBA at 50 feet. However, overall noise emissions vary considerably, depending on the specific activity performed at any given moment. Noise attenuation would result in different noise levels from construction activities at a given receptor due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase. Since noise from construction equipment is intermittent and diminishes at a rate of at least 6 dBA per doubling of distance (conservatively ignoring other attenuation effects from air absorption, ground effects, and shielding effects), the average noise levels at noise-sensitive receptors could vary considerably, because mobile construction equipment would move around the site with different loads and power requirements.

The expected construction equipment mix was categorized by construction activity using FHWA's Roadway Construction Noise Model (RCNM). Average noise levels from project-related construction activities are calculated by modeling the three loudest pieces of equipment per activity phase. RCNM modeling input and output worksheets are included in Appendix K. RCNM modeling indicates that the project's building demolition phase would generate the highest noise levels of up to 84 dBA L_{eq} at a distance of 50 feet. At the nearest residences, construction noise is estimated to attenuate to approximately 54 dBA L_{eq} at a distance of 1,600 feet. This conservatively does not take into account intervening terrain, buildings, and other barriers which may attenuate noise levels further. Construction-related noise levels would not exceed the Federal Transit Administration (FTA) threshold of 80 dBA L_{eq}(8hr) at the nearest sensitive residences. Therefore, construction-equipment noise impacts would be considered less than significant, and no mitigation measures are necessary.

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Operational Noise

Mobile Noise

The project would not result in an increase in traffic trips (EPD 2022). Therefore, project traffic noise impacts would be less than significant, and no mitigation measures are necessary.

Stationary Noise

Project development includes removal the existing Irvine Central Bark (a dog park) and does not propose any additional outdoor facilities for animals. Therefore, the project would likely result in a decrease in noise levels in the project vicinity without the dog park. Impacts would be less than significant, and no mitigation measures are necessary.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Following is a discussion of the project's temporary and permanent vibration impacts as a result of the project's construction and operational phases.

Operational Vibration

Project operation would not include any substantial long-term vibration sources. Therefore, no significant vibration effects from operations sources would occur and impacts would be less than significant. No mitigation measures are necessary.

Construction Vibration

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The effects from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures.

For reference, a vibration level of 0.3 inches per second (in/sec) peak particle velocity (PPV) is used as the limit for engineered concrete and masonry buildings, which would apply to the surrounding commercial buildings (FTA 2018). To determine potential vibration-induced architectural damage, the distance from the vibration source (construction equipment) to the sensitive receptor is measured from the edge of the construction site to the nearest structure's façades. Table 10 shows that a vibratory roller can generate vibration levels of up to 0.21 in/sec PPV at a distance of 25 feet. Since construction is not proposed within 25 feet of surrounding commercial buildings, the vibration threshold of 0.3 in/sec PPV would not be exceeded. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

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Table 10 Vibration Damage Levels for Typical Construction Equipment

Equipment	PPV (in/sec)
	Reference Level at 25 feet
Vibratory Roller	0.21
Hoe Ram	0.089
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: FTA 2018.

- c) 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?

No Impact. The nearest public-use airport to the Project Site is John Wayne Airport approximately 5.5 miles to the west. Due to the distance of the airport, the project would not expose people working in the project area to excessive noise levels. Therefore, no impact would occur, and no mitigation measures are necessary.

3.14 POPULATION AND HOUSING

Would the project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project does not propose new homes or businesses; the project involves expansion and renovations of the IACC and OSF facilities. Therefore, the project would not directly or indirectly induce population growth in the area. The existing and proposed site facilities and uses are also provided with adequate road access and utilities, and project development would not require extension of roadways or utilities. Therefore, no impact would occur, and no mitigation measures are necessary.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project Site is developed with the IACC and OSF facilities; no housing exists on or near the Project Site (see Figure 3, *Aerial Photograph*). Project development would not displace housing or people. Therefore, no impact would occur, and no mitigation measures are necessary.

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3.15 PUBLIC SERVICES

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire protection?

Less Than Significant Impact. OCFA provides fire protection and emergency services to all unincorporated areas and 23 Orange County cities, which includes the entire City of Irvine (including the Project Site). The nearest fire station to the Project Site is Fire Station 20 at 7050 Corsair, approximately 1.3 miles to the east of the Project Site. Three additional fire stations—Fire Stations 36, 47, and 26, are within 2 miles of the Project Site.

The project includes renovation and expansion of the existing IACC and OSF facilities. Project implementation could result in a slight increase in calls for fire protection and emergency medical service. However, considering the existing firefighting resources available in and near Irvine, project impacts on fire protection and emergency services (including response times) are not expected. Additionally, in the event of an emergency at the Project Site that required more resources than Fire Station 20 could provide, OCFA would direct resources to the site from other OCFA stations nearby and, if needed, would request assistance from other nearby fire departments.

The City also involves OCFA in the development review process in order to ensure that the necessary fire prevention and emergency response features are incorporated into development projects. All site and building improvements proposed as a part of the project would be subject to review and approval by OCFA prior to building permit and certificate of occupancy issuance.

Furthermore, project development is required to comply with the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the City and OCFA, which impose design standards and requirements that seek to minimize and mitigate fire risk. Compliance with these codes and standards is ensured through the City's and OCFA's development review and building permit process.

Based on the preceding, the project would not adversely affect OCFA's ability to provide adequate service and would not require new or expanded fire facilities that could result in adverse environmental impacts. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

b) Police protection?

Less Than Significant Impact. The Irvine Police Department (IPD) provides police protection services to the City (including the Project Site) through three geographical areas. The Project Site is in the Crossroads geographical area and is approximately five miles east of the IPD station. Project implementation could result in a slight increase in calls for police protection service. However, considering the existing police resources available in and near Irvine, project impacts on police services (including response times) are not expected. Additionally, in the event of an emergency at the Project Site that required more resources than the Crossroads

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area could provide, the IPD would direct resources to the site from other stations nearby and, if needed, would request assistance from other nearby police departments. Therefore, the project would not adversely affect the IPD's ability to provide adequate service and would not require new or expanded police facilities that could result in adverse environmental impacts. Impacts would be less than significant, and no mitigation measures are necessary.

c) Schools?

No Impact. The increase in the student generation and the need for new or the expansion of existing school facilities is tied to population growth. No residential development is proposed as a part of the project, and project development is not expected to generate an increase in the student population in the area. Therefore, no impact would occur, and no mitigation measures are necessary.

d) Parks?

No Impact. See response to Section 3.16.a, below. As substantiated in that section, no impact would occur, and no mitigation measures are necessary.

e) Other public facilities?

No Impact. The need for new or the expansion of existing library services and facilities is tied to population growth. No residential development is proposed as a part of the project, and project development is not expected to generate a need for new or additional library services or facilities. Therefore, no impact would occur, and no mitigation measures are necessary.

3.16 RECREATION

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The increase in the use of existing parks and recreational facilities and the need for new or the construction or expansion of existing recreational facilities is tied to population growth. No residential development is proposed as a part of the project; therefore, no population growth or increase in the use of existing parks or other recreational facilities would occur. Therefore, no impact on parks and recreational facilities would occur and no mitigation measures are necessary.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

No Impact. The project does not involve the development of recreational facilities; and project development would not require construction of new or expanded recreational facilities (see Section 3.16.a, above). Therefore, no impact would occur, and no mitigation measures are necessary.

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3.17 TRANSPORTATION

The analysis in this section is based partly on the following technical study, which is included as Appendix L of this Initial Study.

- *Trip Generation and VMT Analysis Memorandum*, March 22, 2022, EDP Solutions Inc. (Appendix L)

Would the project:

- a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

Less Than Significant Impact. Following is a discussion of the project's potential impacts on a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Impact to Roadway Facilities

A trip generation analysis memorandum was prepared for the project (Appendix L). The purpose of the memorandum was to assess the change in vehicle trips that would be generated by the project and to evaluate the potential traffic impacts associated with the project. As stated in the trip generation memorandum, the number of City staff and volunteers would remain the same after project implementation; therefore, project-related vehicle trips would not increase. Additionally, the existing dog park onsite would be relocated to another site, leading to a decrease in vehicle trips in the vicinity of the Project Site. Based on this, the project would not trigger the need for preparation of a traffic impact analysis. Therefore, the project would not result in a conflict with a program, plan, ordinance, or policy addressing roadway facilities. Impacts would be less than significant, and no mitigation measures are necessary.

Impact to Alternate Modes of Transportation Facilities

Pedestrian access to the Project Site would continue to be provided via the existing public sidewalk on Oak Canyon. As shown in Figure 5, *Conceptual LACC Site Plan*, a new walkway would be provided between the public sidewalk and the new entry building of the IACC; currently, there is no walkway that provides access to the IACC. Project development would not result in an impact to the pedestrian circulation system in and around the Project Site. In fact, it would result in an improvement with the provision of a new walkway connection.

There are no bicycle lanes or facilities adjacent to or around the Project Site; project development would not impact or alter any bicycle lanes or facilities. However, the City would provide bicycle racks onsite in accordance with the provisions of CALGreen; the racks would be placed in a designated areas near the building entries. Additionally, Section 21100(h) of the California Vehicle Code allows bicyclists to ride on sidewalks. Bicyclists are also allowed ride on roads.

Therefore, the project would not result in a conflict with a program, plan, ordinance, or policy addressing the alternate mode of transportation facilities. Impacts would be less than significant, and no mitigation measures are necessary.

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b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

Less Than Significant Impact. Per the City of Irvine Traffic Study Guidelines, a project that proposes a change in land use from a previously approved project, does not change the roadway network from the previously approved map, and does not propose an increase in the number of trips would only be required to provide a comparison of the project description and trips against the previously approved project and trips. Because the project does not include any changes to the roadway network, does not propose an increase in the number of trips, and does not propose a change in land use from a the previously approved project, a technical memorandum providing a comparative project description and trips against previously approved project was prepare for the project (Appendix L), and no traffic study is required.

The City of Irvine CEQA Manual—which includes procedures for environmental review, including the VMT Impact Analysis Guidelines—stipulates that:

If an analysis of environmental impacts related to transportation (i.e., VMT impact analysis) is required for a discretionary project, but the project applicant demonstrates to the satisfaction of the Director of Public Works and Transportation (or assigned staff under the direction of the Director) that the project meets any one of the following four screening criteria, then no further VMT impact analysis is required:

1. The project results in a net increase of 250 or less weekday daily trips (based on latest edition of the ITE Trip Generation Manual or other sources acceptable to the City).
2. The project is located in a High Quality Transit Area or Priority Transit Area (i.e., within half-mile distance of existing rail transit station or located within half-mile of two or more existing bus routes with a frequency of service interval of 15 minutes or less during morning and evening peak hours), with specified density and parking features and if consistent with the applicable Sustainable Communities Strategy.
3. The project consists of 100-percent restricted affordable housing units.
4. The project is locally serving such as 100,000 square feet or less of retail use, a daycare use or a locally serving public school (kindergarten through 12th grade). (Irvine 2020b)

The applicability of each criterion to the project is discussed below.

Screening Criteria 1: 250 or Less Weekday Daily Trips. According to the City's guidelines, projects that result in a net increase of 250 or less weekday daily trips are presumed to have a less than significant impact. The proposed expansion and renovations to the IACC and OSF sites are intended to better accommodate the existing staff and visitors by providing improved areas to enhance the operations of the two facilities. There would be no increase in the total number of City staff and volunteers on the Project Site after project development, and hence there would be no change in the number of vehicle trips to and from the Project Sites. Therefore, the project would satisfy the requirements of Screening Criteria 1.

Screening Criteria 2: Transit Priority Area. According to the City's guidelines, projects located in a transit priority area and that have a floor area ratio of more than 0.75 may be presumed to have a less than significant impact. The Project Site is not in a transit priority area. Therefore, the project would not satisfy the requirements of Screening Criteria 2.

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Screening Criteria 3: 100 percent Affordable Housing. According to the City's guidelines, projects that propose 100 percent affordable housing units would be presumed to have a less than significant impact. The project does not propose any residential development. Therefore, the project would not satisfy the requirements of Screening Criteria 3.

Screening Criteria 4: Locally Serving. According to the City's guidelines, projects that are locally serving would be presumed to have a less than significant impact. The IACC and OSF are facilities owned and operated by the City of Irvine. These facilities serve the jurisdiction area of the City and hence are locally serving uses. Therefore, the project would satisfy the requirements of Screening Criteria 4.

Because the project satisfies Screening Criteria 1 and 4 of the City of Irvine CEQA VMT Impact Analysis Guidelines, the project's impact on VMT would be considered less than significant, and a VMT analysis would not be required. No mitigation measures are necessary.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project includes expansion and renovation of an IACC and OSF. The Project Site currently operates as IACC and OSF and the project would continue with these uses. Therefore, project operation does not represent an incompatible use. Project development would not propose or require any offsite improvements to the local transportation network that would result in sharp curves, dangerous intersections, or other hazards.

Additionally, the design of the proposed internal drive aisles, parking area reconfiguration, and other circulation improvements would be required to adhere to the City's guidelines for site design and circulation and OCFA's design standards, which are imposed on project developments by the City and OCFA during the building plan check and development review process. Compliance with the established design standards would ensure that hazards due to design features would not occur and that the placement of the circulation improvements would not create a conflict for motorists, pedestrians, or bicyclists traveling within or around the Project Site.

Therefore, impacts would be less than significant, and no mitigation measures are necessary.

d) Result in inadequate emergency access?

Less Than Significant Impact. Factors such as number of driveway access points, roadway widths, and proximity to fire stations determine whether a project provides sufficient emergency access. The project would introduce a number of new onsite vehicular access and circulation improvements. Also, the existing driveways would continue to serve the needs of emergency and fire vehicles. To address emergency and fire access needs, the proposed site improvements would be required to be designed in accordance with all applicable City and OCFA design standards for emergency access (e.g., minimum lane width and turning radius). For example, internal drive aisles would be designed to meet the minimum width requirements of OCFA to allow the passing of emergency vehicles.

Additionally, the project would be required to incorporate all applicable design and safety requirements in the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of

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Irvine and OCFA. Compliance with these standards is ensured through the City's and OCFA's development review and building plan check process.

During the development review and building plan check process, the City would coordinate with OCFA and IPD to ensure that the necessary fire prevention and emergency response features are incorporated into the project and that adequate circulation and access (e.g., adequate turning radii for fire trucks) are provided within the traffic and circulation components of the project. All site and building improvements proposed under the project would be subject to review and approval by the City, OCFA, and IPD.

Based on the preceding, no impacts to emergency access would occur no mitigation measures are necessary.

3.18 TRIBAL CULTURAL RESOURCES

a) **Would the project 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:**

i) **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**

No Impact. See response to Section 3.5.a, above. As substantiated in this section, no impact to historical resources would occur and no mitigation measures are necessary. Also, there are no Traditional Cultural Resources listed or eligible for listing in the California Register of Historical Resources as defined in PRC Section 5020.1(k) within the Project Site or within a 0.5-mile radius surrounding the Project Site. Therefore, no impact would occur, and no mitigation measures are necessary.

ii) **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 the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

Less Than Significant Impact. Conducting consultation early in the CEQA process allows tribal governments, public lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. The intent of the consultations is to provide an opportunity for interested Native American contacts to work together with the lead agency (in this case, the City of Irvine) during the project planning process to identify and protect tribal cultural resources.

The provisions of CEQA, PRC Sections 21080.3.1 et seq. (also known as AB 52), require meaningful consultation with California Native American tribes on potential impacts to tribal cultural resources. As defined in PRC Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe.

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As part of the AB 52 process, a Native American tribe must submit a written request to the relevant lead agency if it wishes to be notified of projects that require CEQA public noticing and are within its traditionally and culturally affiliated geographical area. The lead agency must provide written, formal notification to the tribes that have requested it within 14 days of determining that a project application is complete or deciding to undertake a project. The tribe must respond to the lead agency within 30 days of receipt of the notification if it wishes to engage in consultation on the project, and the lead agency must begin the consultation process within 30 days of receiving the request for consultation. Consultation concludes when either 1) the parties agree to mitigation measures to avoid a significant effect, if one exists, on a tribal cultural resource, or 2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. AB 52 also addresses confidentiality during tribal consultation per PRC Section 21082.3(c).

In accordance with the provisions of AB 52, the City sent letters on February 5, 2022, to the following tribes: Ewiiapaayp Band of Kumeyaay Indians; Manzanita Band of Kumeyaay Nation; Santa Rosa Band of Cahuilla Indians; La Posta Band of Diegueno Mission Indians; Soboba Band of Luiseño Indians; Mesa Grande Band of Diegueno Mission Indians; Juaneño Band of Mission Indians Acjachemen Nation; Pala Band of Mission Indians; Gabrielino-Tongva Tribe; Gabrielino/Tongva Nation; Gabrieleno/Tongva San Gabriel Band of Mission Indians; Gabrieleno Band of Mission Indians – Kizh Nation; Gabrielino Tongva Indians of California Tribal Council; and Campo Band of Diegueno Mission Indians.

The 30-day noticing requirement under AB 52 ended on March 30, 2022 (approximately 30 days from the date the tribes received the notification letter). One tribe responded to the City's AB 52 consultation notification letter: Gabrieleno Band of Mission Indians–Kizh Nation (Kizh Nation). In its response letter, Kizh Nation stated that the Project Site is within its ancestral tribal territory and requested consultation with the City. The City followed up with and reached out to the tribe to consult, which included emails and a phone call. However, to date, Kizh Nation has not communicated further with or responded to the City. Therefore, the City has completed its obligation under AB 52 and no further action is necessary.

Based on the preceding, impacts to tribal cultural resource would be less than significant and no mitigation measures are necessary.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:

- a) **Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?**

Less Than Significant Impact. Following is a discussion of the project's potential impacts on water, wastewater, drainage, electric power, and telecommunications facilities. The project does not involve the use of natural gas.

3. Environmental Analysis

Water Supply Facilities

The project's water services would be provided by IRWD, which already provides water service to the existing uses onsite. IRWD is a multi-service agency responsible for providing domestic water service, sewage collection and treatment, water recycling, and urban runoff natural treatment in central Orange County. IRWD provides water service to approximately 420,000 residents and encompasses approximately 181 square miles, from the Pacific Coast to the foothills of the Santa Ana Mountains. IRWD serves Irvine and portions of Costa Mesa, Lake Forest, Newport Beach, Orange, Tustin, Santa Ana, and unincorporated Orange County.

IRWD's water resource portfolio consists of imported water, local groundwater, recycled water, and local surface water. Treated and untreated imported water is purchased from the Metropolitan Water District of Southern California through the Municipal Water District of Orange County. Potable and non-potable groundwater supplies are extracted from both the Main Orange County Groundwater Basin and the Irvine Subbasin. Recycled water production at IRWD's Michelson and Los Alisos Water Recycling Plants are primary supplies to IRWD's non-potable distribution system. Approximately 50 percent of IRWD's overall supply comes from local groundwater wells.

IRWD estimates that potable water demands in its service area for normal years would increase from approximately 64,099 acre-feet per year (afy) in 2025 to 87,637 afy in 2040. IRWD's potable water supply is projected to remain the same, at 115,907 afy, from 2025 to 2040. Therefore, IRWD projects that it would have a residual capacity of 51,808 afy of potable water in 2025 and a residual capacity of 28,270 afy of potable water in 2040. For non-potable water, IRWD estimates that it will have a residual capacity of 30,362 afy in 2025 and 31,974 afy in 2040 (IRWD 2021).*

Water demand estimates for the existing uses onsite and proposed uses under the project are included in Table 11. Water demand for existing uses consists of potable water only while the project would use potable water for indoor water use and recycled water for outdoor water use.

Table 11 Existing and Proposed Project Water Demands

Scenario	Outdoor Landscaped Area (SF)	Total Outdoor Use (gpd)	Outdoor Water Use Rate (gpd per SF)	Building Area (SF)	Total Indoor Water Demand (gpd)	Indoor Water Use Rate (gpd per SF)
Existing Uses (Potable Water)						
Operations Support Facility	116,200	2,502	0.022	58,839	1,019	0.017
Irvine Animal Care Center	86,357	1,900	0.022	20,645	1,456	0.071
Total	—	4,402	—	—	2,475	—
Proposed Uses (Potable Water)						
Operations Support Facility						
Building with Restroom to be Demolished	—	—	—	3,000	(51)	0.017

* Non-potable water includes recycled water and raw untreated water.

3. Environmental Analysis

Table 11 Existing and Proposed Project Water Demands

Scenario	Outdoor Landscaped Area (SF)	Total Outdoor Use (gpd)	Outdoor Water Use Rate (gpd per SF)	Building Area (SF)	Total Indoor Water Demand (gpd)	Indoor Water Use Rate (gpd per SF)
New Prefab Metal Structure with Restrooms and Shower	—	—	—	8,400	143	0.017
Irvine Animal Care Center						
New Clinic	—	—	—	3,600	256	0.071
New Administrative Uses	—	—	—	5,674	403	0.071
Total	—	(4,402)	—	—	3,226	—
Proposed Uses (Recycled Water)						
Operations Support Facility Proposed Landscaping	58,000 ¹	1,276	0.022	—	—	—
Irvine Animal Care Center Proposed Landscaping	67,600 ¹	1,487	0.022	—	—	—
Net Increase	—	2,763	—	—	—	—

Source: CAPCOA 2017.

Notes: SF = square feet; gpd = gallons per day

¹ Data provided by City of Irvine.

Water bills for the OSF were provided by the City for outdoor water use for the period of July 2021 to December 2021. The six-month average outdoor water demand amounted to 2,502 gallons per day (gpd). The square footage for the existing landscaped areas was obtained from Google maps and was used to calculate an outdoor water demand rate of 0.22 gpd per square foot (SF) for the OSF. The 0.22 gpd/SF rate was also used for the IACC since no outdoor water use bills were provided for this portion of the Project Site, but it is anticipated that water demand and use is similar to the OSF. Google maps was also used for the IACC to estimate the square footage of existing landscaping. Multiplying the 0.22 gpd/SF rate by the square footage of landscaped areas amounted to an existing outdoor water demand rate for the IACC of 1,900 gpd.

Additionally, water bills for indoor water use were provided for both the OSF and IACC for the period of July 2021 to December 2021. The average indoor water usage for the six-month period was 1,019 gpd for the OSF and 1,456 gpd for the IACC. The existing building areas for each portion of the site were used to calculate gpd/SF factors for indoor water use. These factors were then applied for the project.

For the OSF, four prefabricated metal structures are proposed to be demolished on site. Three of these structures are used for storage and fleet maintenance and require no water use. The fourth, a 3,000-square-foot structure, includes a restroom. The 0.017 gpd/SF factor was used to calculate the reduction in water demand due to demolishing this structure. Furthermore, the project includes two new prefab metal structures on this portion of the site, but only one would have water service. This 8,400 SF structure is included in Table 11, and the same 0.017 gpd/SF factor is used to calculate the additional water demand required. For the Irvine Animal

3. Environmental Analysis

Care Center, the factor of 0.071 gpd/SF is used to calculate the proposed water demand for the new clinic and administrative building. For the proposed recycled water demand, the existing outdoor water use rate of 0.22 gpd/SF was used for the proposed landscaping.

As shown in Table 11, the existing potable water demand is 6,877 gpd (indoor and outdoor combined). The project would have a potable water demand of 3,266 gpd (indoor only). Therefore, the project would result in a decrease of 3,611 gpd of potable water demand. The project would increase the demand for recycled water by 2,763 gpd (or 3.10 afy).

IRWD estimates that it will have sufficient water supplies to meet proposed growth in its service area for normal, single-dry, and multiple-dry years and the project's net increase in recycled water demand is nominal in comparison to IRWD's residual capacity. Therefore, project development would not require the construction of new or expanded water treatment facilities. Impacts would be less than significant, and no mitigation measures are necessary.

Wastewater Treatment Facilities

IRWD's sewer collection system stretches approximately 963 miles. Wastewater in the City of Irvine travels through IRWD's collection system to the Michelson Water Reclamation Plant (MWRP) and Los Alisos Water Recycling Plant, where it is treated for use as recycled water (Irvine 2020). Wastewater from the Project Site is treated at the MWRP, which has a treatment capacity of 28 million gallons per day (mgd) (IRWD 2021). Based on flow-monitoring information, approximately 20.3 mgd were conveyed to the MWRP for treatment in 2018 (IRWD 2018). Therefore, the MWRP has a residual capacity of 7.7 mgd.

Wastewater generation for the project is assumed to be 95 percent of indoor water use. The project results in a net indoor water demand increase of 751 gpd. Therefore, the project would result in an additional wastewater generation rate of about 713 gpd. The amount of wastewater that would be generated is less than 1 percent of MWRP's total remaining daily treatment capacity. Therefore, project development would not require the construction of new or expanded wastewater treatment facilities. No significant impacts would occur, and no mitigation measures are necessary.

Stormwater Drainage Facilities

See Section 3.10, *Hydrology and Water Quality*. As discussed in response to Section 3.10.c.iii, impacts would be less than significant, and no mitigation measures are necessary.

Electrical and Natural Gas Facilities

Implementation of the project would result in 442,964 kilowatt hours of electricity use per year (refer to Section 3.6, *Energy*). Electricity would be supplied by SCE. Total mid-electricity consumption in SCE's service area is forecast to increase by approximately 18,000 gigawatt-hours between 2016 and 2030 (CEC 2018). SCE forecasts that it will have sufficient electricity supplies to meet demands in its service area, and the electricity demand due to project development is within the forecast increase in SCE's electricity demands. Project development would not require SCE to obtain new or expanded electricity supplies.

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In addition, the project would be required to comply with energy efficiency standards of CCR Title 24 and the Appliance Efficiency Regulations. The project would also comply with CALGreen requirements related to energy and water conservation. These measures would help decrease electricity and gas consumption.

Therefore, the project would not result in a substantial increase in electrical service demands. SCE would not need to expand their supply and transmission facilities to handle the demand generated by the project. Also, the project would not generate any natural gas demands due to the project being 100 percent electric. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

Telecommunication Facilities

The project would include onsite connections to telecommunication services. The construction-related impacts associated with these improvements are analyzed throughout this Initial Study as part of the project development. Impacts would be less than significant, and no mitigation measures are necessary.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The City's 2020 Urban Water Management Plan states that the water resources available to the City are reliable and adequate to meet existing and projected demands over the next 20 years, as discussed above in Section 3.19.a. The project would decrease the demand for potable water by 3,611 gpd and increase the demand for recycled water by 2,763 gpd (or 3.10 afy). For non-potable water, IRWD estimates that it will have a residual capacity of 30,362 afy in 2025 and 31,974 afy in 2040 (IRWD 2021). Therefore, the project's net increase in recycled water demand is nominal in comparison to IRWD's residual capacity.

Additionally, the project's landscaping would be required to be installed and maintained in compliance with the Irvine Municipal Code Division 7, Sustainability in Landscaping, which sets landscape design standards for water conservation. Furthermore, project development would comply with the provisions of CALGreen and with the state's Model Water Efficient Landscape Ordinance for outdoor water use, as well as the provisions for indoor water use. Specifically, Project development would be required to adhere to the mandatory nonresidential standards outlined in Division 5.3 (Water Efficiency and Conservation) of CALGreen, including those of Sections 5.303 (Indoor Water Use) and 5.304 (Outdoor Water Use). For example, Section 5.303 outlines the standards for water conserving plumbing fixtures and fittings; Section 5.304 outlines the standards for water efficient landscape.

Based on the preceding, there are adequate water supplies to meet the water demands of the project, and project development would not require IRWD to obtain new or expanded water supplies. Therefore, impacts on water supplies due to project development would be less than significant and no mitigation measures are necessary.

c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As discussed above in Section 3.19.a, there is existing wastewater treatment capacity in the region for the estimated project wastewater generation. Project development would not require

3. Environmental Analysis

construction of new or expanded wastewater treatment facilities. Therefore, impacts would be less than significant, and no mitigation measures are necessary.

d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact. In 2019, approximately 91 percent of the municipal solid waste landfilled from Irvine was disposed of at the Frank R. Bowerman Sanitary Landfill (CalRecycle 2019a). Capacity and disposal data for the landfill is shown in Table 12. As shown in the table, the landfill has a residual capacity of 7,842 tons per day.

Table 12 Landfill Capacity

Landfill	Current Remaining Capacity (tons) ¹	Maximum Daily Disposal Capacity (tons)	Average Daily Disposal, 2021 (tons) ²	Residual Daily Disposal Capacity (tons)	Estimated Close Date
Frank R. Bowerman Sanitary Landfill	205,000,000	11,500	3,658	7,842	2053

Sources: CalRecycle 2019b, 2019c.

¹ A Volume-to-Weight conversion rate of 2,000 lbs/cubic yard (1 ton/cubic yard) for "Compacted - MSW Large Landfill with Best Management Practices" is used as per CalRecycle's 2016 Volume-to-Weight Conversion Factors.

https://www.epa.gov/sites/production/files/201604/documents/volume_to_weight_conversion_factors_memoirandum_04192016_508fml.pdf.

² Average daily disposal is calculated based on 300 operating days per year. The facility is open six days per week, Monday through Saturday, except certain holidays.

The project is estimated to generate a net increase of about 30 pounds of solid waste per day, as shown in Table 13.

Table 13 Net Increase in Solid Waste Generation

Scenario	Square Feet	Solid Waste Generation, pounds per day	
		Per square foot	Total
Irvine Animal Care Center			
Proposed Project			
New Clinic	3,866	0.006 ²	23
New Administrative Uses	5,674	0.006 ²	34
Operations Support Facility			
Proposed Project			
Prefabricated Metal Structures to be Demolished ¹	3,000	0.009 ³	(27)
Net increase			30

Source: CalRecycle 2019d.

¹ Four prefabricated metal structures are to be demolished onsite with a total area of 6,700 square feet. Three of these buildings are used for storage while the fourth, 3,000-square foot structure, is used for maintenance. It is assumed that areas used for storage do not generate solid waste. The two new prefabricated structures are for storage only and are assumed to not generate solid waste.

² CalRecycle rate for offices used.

³ CalRecycle rate for auto dealer and service station used.

As demonstrated in Table 12, there is adequate landfill capacity for the project's forecast solid waste, and project development would not require additional landfill capacity at the landfill serving the City. Additionally, the total

3. Environmental Analysis

amount of solid waste expected to be generated under the project would be minimal compared to the total permitted daily maximum solid waste tonnage per day of the landfill serving Irvine. Furthermore, the City, through Waste Management, provides a comprehensive curbside recycling program for glass, household paper products, aluminum and other metals, and green waste.

In 2007 the City of Irvine adopted a Construction and Demolition Debris Recycling Ordinance (07-18). Under this ordinance, projects are required to recycle or reuse 75 percent of concrete and asphalt and at least 65 percent of all debris generated. Covered projects include new residential and nonresidential development and most projects involving nonresidential demolition and/or renovation in accordance with requirements of CALGreen. Project applicants are required to submit a waste management plan to the City prior to obtaining permits for construction, demolition, or renovation activities covered by the ordinance.

Additionally, Project development would be required to implement the requirements of Division 7 (Refuse) of the Irvine Municipal Code. The intent and purpose of this division is for Irvine to comply with state law on solid waste management. State law requires that waste streams to landfills be reduced by 50 percent by 2020 and beyond pursuant to Assembly Bill 939 (Public Resources Code Section 41780) and requires mandatory solid waste and recycling collection.

Project development would also be required to comply with the provisions of CALGreen, which outlines requirements for construction waste reduction, material selection, and natural resource conservation. Furthermore, project development would implement the requirements of Title 6, Division 7, Refuse, of the Irvine Municipal Code.

Based on the preceding, impacts on landfill capacity would be less than significant and no mitigation measures are necessary.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. See response to section 3.19.d, above. Additionally, the project would be in compliance with the following federal, state, and local laws and regulations governing solid waste disposal:

- The US Environmental Protection Agency administers the Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal.
- AB 341 (Chapter 476, Statutes of 2011) increased the statewide waste diversion goal to 75 percent by 2020, and mandated recycling for commercial and multifamily residential land uses.
- AB 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) required every California city and county to divert 50 percent of its waste from landfills by the year 2000 by such means as recycling, source reduction, and composting. In addition, AB 939 required each county to prepare a countywide siting element specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the county that cannot be reduced or recycled for a 15-year period.

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- AB 1327 (California Solid Waste Reuse and Recycling Access Act of 1991) requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.

Project-related construction and operation phases would be implemented in accordance with all applicable federal, state, and local laws and regulations pertaining to solid waste disposal. Therefore, no impact would occur, and no mitigation measures are necessary.

3.20 WILDFIRE

Wildland fire protection in California is the responsibility of either the local government, state, or the federal government. State Responsibility Areas (SRA) are the areas in the state where the State of California has the primary financial responsibility for the prevention and suppression of wildland fires. The SRA forms one large area over 31 million acres, to which the California Department of Forestry and Fire Protection (CAL FIRE) provides a basic level of wildland fire prevention and protection services.

Local responsibility areas (LRA) include incorporated cities, cultivated agriculture lands, and portions of the desert. LRA fire protection is typically provided by city fire departments, fire protection districts, and counties and by CAL FIRE under contract to local government. CAL FIRE uses an extension of the SRA Fire Hazard Severity Zone model as the basis for evaluating fire hazards in LRAs. The LRA hazard rating reflects flame and ember intrusion from adjacent wildlands and from flammable vegetation in the urban area. OCFA currently provides fire protection and emergency medical services to Irvine.

Fire Hazard Severity Zones (FHSZ) are identified as Moderate, High, and Very High in an SRA, and Very High in an LRA. The Project Site is not in an SRA but in an LRA that is not designated a Very High FHSZ (CAL FIRE 2011). The nearest SRA FHSZ to the Project Site is approximately 2.9 miles northeast (CAL FIRE 2012). Land between the edge of the nearest SRA FHSZ and the Project Site is dense urban development and major highways, including I-5 and State Route 241.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. As demonstrated above, the Project Site is not in or near an SRA or LRA lands classified as a Very High FHSZ; therefore, no impact would occur, and no mitigation measures are necessary.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. As demonstrated above, the Project Site is not in or near an SRA or LRA lands classified as a Very High FHSZ; therefore, no impact would occur, and no mitigation measures are necessary.

3. Environmental Analysis

- c) **Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

No Impact. As demonstrated above, the Project Site is not in or near an SRA or LRA lands classified as a Very High FHSZ; therefore, no impact would occur, and no mitigation measures are necessary.

- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

No Impact. As demonstrated above, the Project Site is not in or near an SRA or LRA lands classified as a Very High FHSZ; therefore, no impact would occur, and no mitigation measures are necessary.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

- a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

Less Than Significant Impact With Mitigation Incorporated. As shown in Figure 3, *Aerial Photograph*, the Project Site is developed with the IACC and OSF. The site is in a highly urbanized area of Irvine and is surrounded by a mix of commercial and office uses. As demonstrated in Section 3.4, *Biological Resources*, impacts to biological resources would be reduced to a level of less than significant with implementation of Mitigation Measure BIO-1. Additionally, as demonstrated in Section 3.5, *Cultural Resources*, no historic resources were identified onsite, and therefore the project does not have the potential to eliminate important examples of California history or prehistory. Impacts were deemed to be less than significant. As also demonstrated in Sections 3.5, impacts to archeological resources would be reduced to a level of less than significant with implementation of Mitigation Measure CUL-1.

- b) **Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?**

Less Than Significant Impact. Because this Initial Study analyzes long- and short-term impacts and determined that all potential impacts would be less than significant level, the project would not achieve short-term environmental goals to the disadvantage of long-term environmental goals.

- c) **Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less Than Significant Impact. The issues relevant to project development are confined to the immediate Project Site and surrounding area. Additionally, the Project Site is in an urbanized area of Irvine where

3. Environmental Analysis

supporting utility infrastructure (e.g., water, wastewater, and drainage) and services (e.g., solid waste collection, police and fire protection) currently exist. As substantiated in this Initial Study, project implementation would not require the construction of new or expansion of existing utility infrastructure or services. The Project Site is also generally too small in scope to appreciably contribute to existing cumulative impacts.

Furthermore, impacts related to other topical areas such as air quality, GHG, hydrology and water quality, and traffic would not be cumulatively considerable with development of the project in conjunction with other cumulative projects.

In consideration of the preceding factors, the project's contribution to cumulative impacts would be rendered less than significant; therefore, project impacts would not be cumulatively considerable.

d) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. The project's potential to result in environmental effects that could adversely affect human beings, either directly or indirectly, has been discussed throughout this Initial Study. As discussed in the respective topical sections of this Initial Study, implementation of the project would not result in significant impacts, either directly or indirectly, in the areas of air quality, GHG, geology and soils, hazards and hazardous materials, hydrology and water quality, noise or wildfire, which may cause adverse effects on human beings.

3. Environmental Analysis

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4. Mitigation Monitoring and Reporting Program

Project-specific mitigation measures have been categorized in matrix format, as shown in Table 14. The matrix identifies the environmental factor, specific mitigation measures, schedule, and responsible monitor. The mitigation matrix serves as the basis for scheduling the implementation of, and compliance with, all mitigation measures and conditions of approval.

4. Mitigation Monitoring and Reporting Program

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4. Mitigation Monitoring and Reporting Program

Table 14 Mitigation Monitoring Requirements

Mitigation Measure		Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
Biological Resources					
BIO-1	<p>To avoid impacts to nesting birds within or adjacent to the Project Site and to comply with the California Fish and Game Code Sections 3503 and 3513 and the Migratory Bird Treaty Act, any site clearing and ground-disturbing activities should occur during the non-nesting (or non-breeding) season for birds (generally, September 1 to January 31). If this avoidance schedule is not feasible, prior to the commencement of any proposed actions (e.g., site clearing, demolition, grading) during the breeding/nesting season, a qualified monitoring biologist contracted by the City of Irvine shall conduct a preconstruction survey(s) to identify any active nests in and adjacent to the Project Site no more than 14 days prior to initiation of the action. If the biologist does not find any active nests that would be potentially impacted, the proposed action may proceed.</p> <p>However, if the biologist finds an active nest within or directly adjacent to the action area (within 100 feet) and determines that the nest may be impacted, the biologist shall delineate an appropriate buffer zone around the nest using temporary plastic fencing or other suitable materials, such as barricade tape and traffic cones. The buffer zone shall be determined by the biologist in consultation with applicable resource agencies in consideration of species sensitivity and existing nest site conditions; and in coordination with the construction contractor. The qualified biologist shall serve as a construction monitor when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests. Only specified activities (if any) approved by the qualified biologist in coordination with the construction contractor shall take place within the buffer zone until the nest is vacated. Activities that may be prohibited within the buffer zone by the biologist include but are not limited to grading</p>	City of Irvine, biologist, and construction contractor	Prior to the commencement of any site clearing and/or grading activities	City of Irvine Project Management Division	

4. Mitigation Monitoring and Reporting Program

Table 14 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>and tree clearing. Once the nest is no longer active and upon final determination by the biologist, the proposed action may proceed within the buffer zone. The monitoring biologist shall prepare a survey report summarizing his/her findings and recommendations of the preconstruction survey. Any active nests observed during the survey shall be mapped on a current aerial photograph, including documentation of GPS coordinates, and included in the survey report. The completed survey report shall be submitted to the City of Irvine Project Management Division prior to the commencement of construction-related activities that have the potential to disturb any active nests during the nesting season.</p>				
Cultural Resources				
<p>CUL-1 Prior to the issuance of grading permits, the City of Irvine shall obtain the services of qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications for Archeology as defined at 36 CFR (Code of Federal Regulations) Part 61, Appendix A (Professional Archeologist). The consultant will be on call during all grading and other significant ground-disturbing activities. In the event that archeological resources are discovered during ground-disturbing activities, all such activity shall cease in the immediate area of the find, and the professional archeological monitor shall have the authority to halt any activities adversely impacting potentially significant cultural resources until they can be formally evaluated.</p> <p>Suspension of ground disturbances in the vicinity of the discovery shall not be lifted until the archaeological monitor has evaluated the discovery to assess whether it is classified as a significant cultural resource pursuant to the CEQA (California Environmental Quality Act) definition of historical (State CEQA Guidelines 15064.5[a]) and/or unique</p>	<p>City of Irvine, archeologist, and construction contractor</p>	<p>Prior to the issuance of grading permits</p>	<p>City of Irvine Project Management Division</p>	

4. Mitigation Monitoring and Reporting Program

Table 14 Mitigation Monitoring Requirements

Mitigation Measure	Responsibility for Implementation	Timing	Responsibility for Monitoring	Monitor (Signature Required) (Date of Compliance)
<p>archeological resource (Public Resources Code 21083.2[g]). If the resource is classified as a significant cultural resource, the qualified archeologist shall make recommendations on the treatment and disposition of the deposits. For example, if archaeological resources are recovered, they shall be offered to a repository with a retrievable collection system and an educational and research interest in the materials, such as the Bowers Museum or any other willing repository capable of accepting and housing the resource.</p> <p>If no museum or repository willing to accept the resource is found, the resource shall be considered the property of the City and may be stored, disposed of, transferred, exchanged, or otherwise handled by the City at its discretion. The final recommendations on the treatment and disposition of the deposits shall be developed in accordance with all applicable provisions of California Public Resource Code Section 21083.2 and State CEQA Guidelines Sections 15064.5 and 15126.4. The City of Irvine shall follow all recommendations made by the archeologist. The archaeologist shall prepare a final report describing all identified and curated resources (if any are found) and submit the report to the City.</p>				

4. Mitigation Monitoring and Reporting Program

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