



CITY OF IRVINE INITIAL STUDY AND ENVIRONMENTAL EVALUATION FORM

SECTION I. Project Information

1. Project Title

Planning Area (PA) 12 and PA 40 General Plan Amendment (GPA) and Zone Change Project (File Nos. 00693260-PGA and 00693257-PZC)

2. Lead Agency Name and Address

City of Irvine
Community Development Department
One Civic Center Plaza
Irvine, CA 92606

Attn: Stephanie Frady, AICP, Senior Planner
sfrady@cityofirvine.org
(949) 724-6375

3. Project Sponsor's Name and Address

Irvine Company
550 Newport Center Drive
Newport Beach, CA 92660

Attn: Jeffrey Davis, Vice President, Entitlement
jsdavis@irvinecompany.com
(949) 720-2409

4. Project Location

The proposed project involves a GPA and Zone Change for portions of PA 12 and PA 40¹ in the central portion of the City of Irvine (City) in Orange County, California. The regional location and local vicinity of the project area are shown on Exhibit 1.

Planning Area 12. As shown on Exhibit 1, PA 12 encompasses approximately 1,053 acres and is bound by Jeffrey Road to the northwest, Interstate (I) 5 to the northeast, I-405 to the southwest, and Sand Canyon Avenue to the southeast.

¹ The City of Irvine is divided into 37 Planning Areas to provide for coordinated planning and development through the use of zoning, which is required in accordance with Division 3 of the Irvine Zoning Ordinance. Planning Areas also provide a recognizable geographic unit that will retain a specific identity in the City's zoning documents. This division contains the zoning regulations that are within the City's incorporated boundaries or Sphere of Influence.

- **PA 12 Site.** This site encompasses approximately 70.2 acres and is bound by the Oak Creek Golf Club to the northwest, the Orange County Transportation Authority (OCTA) / Metrolink railroad to the southwest, Sand Canyon Avenue to the southeast, and I-5 to the northeast.

Planning Area 40. As shown on Exhibit 1, PA 40 encompasses approximately 634 acres and is bound by Jeffrey Road to the northwest, Trabuco Road to the northeast, PA 51 (Great Park) to the southeast, and I-5 to the southwest.

- **PA 40 East Site.** This site encompasses approximately 25.7 acres and is bound by Roosevelt (a street) to the southwest, State Route (SR) 133 to the southeast, Trabuco Road to the northeast, and Sand Canyon Avenue to the northwest.
- **PA 40 Marine Way Sites.** This area is composed of two sites that encompass approximately 12.7 acres and is bisected by SR-133. The northwest site is generally bound by I-5 to the west, the planned future Marine Way alignment to the north, the SR-133 overpass to the east, and an OCTA property to the south. The southeast site is bound by the SR-133 overpass to the west, the planned future alignment of Marine Way to the northeast, and Ridge Valley to the southeast (should it be extended in the future).

5. General Plan Designations

Planning Area 12 Preservation / Golf Course, Recreation, Medium Density Residential, Medium-High Density Residential, High-Density Residential, Multi-Use, Neighborhood Commercial, Community Commercial, Research and Industrial, General Institutional

- **PA 12 Site.** Research and Industrial

Planning Area 40 Recreation, Medium Residential, Medium-High Residential, Multi-Use, Community Commercial, Research and Industrial, Educational Facility

- **PA 40 East Site.** Community Commercial
- **PA 40 Marine Way Sites.** Research and Industrial

6. Zoning Designations

Planning Area 12 1.4 Preservation, 1.5 Recreation, 2.2 Low-Density Residential, 2.3 Medium Density Residential, 2.4 Medium-High Density Residential, 2.5 High-Density Residential, 3.1 and 3.1D Multi-Use, 4.1 Neighborhood Commercial, 4.2 Community Commercial, 5.5B General Industrial, 5.5H Medical and Science, and 6.1 Institutional

- **PA 12 Site.** 5.4B General Industrial and 5.5H Medical and Science

Planning Area 40 1.5 Recreation, 2.3N Medium Density Residential, 2.4I Medium-High Density Residential, 3.1H Multi-Use, 4.2O Community Commercial, 5.4 General Industrial, 5.5D Medical and Science, and 6.1 Institutional

- **PA 40 East Site.** 4.2O Community Commercial
- **PA 40 Marine Way Sites.** 5.5D Medical and Science

7. Description of Project

The proposed project involves various GPA and Zone Changes in portions of PA 12 and PA 40, as follows:

General Plan Amendments

The following amendments to the City's General Plan are proposed as part of the project:

- Revise the General Plan Land Use Map (Figure A-3 of the Land Use Element) to reflect the following change in land use designations:
 - **PA 12 Site.** Change the land use designation from Research and Industrial to Medium-High Density Residential and Neighborhood Commercial.
 - **PA 40 East Site.** Change the land use designation from Community Commercial to Medium-High Density Residential.
- Revise Table A-1 of the General Plan Land Use Element, *Maximum Intensity Standards by Planning Area*, as shown on Table 1 and summarized below:

Planning Area 12

- Eliminate 967,799 square feet (sf) of intensity from the Research and Industrial category
- Increase the number of Medium-High Density Residential units from 2,164 units to 3,874 units (an increase of 1,710 units)
- Add 25,000 sf of intensity to the Neighborhood Commercial category

Planning Area 40

- Reduce the number of Medium-High Density Residential Units from 2,323 to 1,956 (a reduction of 367 units)
- Eliminate 675,237 sf of intensity from the Multi-Use category
- Add 302,568 sf of intensity to the Research and Industrial category
- Eliminate 205,000 sf of intensity from the Community Commercial category
- Revise Table A-2, *Non-Regulatory Maximum Intensity Standards: Land Use Acreage by Planning Area*, of the General Plan, to correspond to changes noted above.

TABLE 1
EXISTING AND PROPOSED
MAXIMUM INTENSITY STANDARDS BY PLANNING AREA
(Table A-1 of the General Plan)

Planning Area	Residential				Multi-Use		Institutional			Industrial	Commercial		Maximum Dwelling Units	Maximum sf
	Medium (0-10 DUs/Acre)	Med-High (0-25 DUs/Acre)	High (0-40 DUs/Acre)	Unallocated Residential Units	0-40 DUs/Acre	Square Feet	0-40 DUs/Acre	Public Facility (sf)	Educational Facility (sf)	Research/Industrial (sf)	Community Commercial (sf)	Neighborhood Commercial (sf)		
Existing²														
Approved PA 12	190	2,164	1,172	40	694	470,000	0	194,440	150,000	3,603,281	955,000	150,000	4,260	5,522,721
Approved PA 40	1,595	2,323	0	0	1,303	675,237	0	0	100,000	1,662,352	205,000	0	5,221	2,642,589
Approved Total	1,785	4,487	1,172	40	1,997	1,145,237	0	194,440	250,000	5,265,633	1,160,000	150,000	9,481	8,165,310
Proposed														
Proposed PA 12	190	3,874	1,172	40	694	470,000	0	194,440	150,000	2,635,532	955,000	175,000	5,970	4,579,972
Proposed PA 40	1,595	1,956	0	0	1,303	0	0	0	100,000	1,964,920	0	0	4,854	2,064,920
Proposed Total	1,785	5,830	1,172	40	1,997	470,000	0	194,440	250,000	4,600,452	955,000	175,000	10,824	6,644,892
Difference Between Approved and Proposed Totals for PAs 12 and 40	NC	+1,343	NC	NC	NC	-675,237	NC	NC	NC	-665,181	-205,000	+25,000	+1,343	-1,520,418
Notes – DUs: Dwelling Units; NC: No Change sf – square feet														

² Figures listed as “existing” will be finalized as part of the General Plan technical update to be processed in summer 2017. While these figures do not appear in the current version of the City of Irvine General Plan, the units and square footage totals are approved.

Zone Change

The following amendments to Chapter 9-12 (PA 12) of the Irvine Zoning Ordinance are proposed as part of the project:

- Revise the Zoning Ordinance Map, *Planning Area 12 Oak Creek*, for the PA 12 Site to change the zoning district from 5.4B General Industrial and 5.5H Medical and Science to 2.4K Medium-High Density Residential and 4.1F Neighborhood Commercial.
- Revise Section 9-12-3, *Statistical Analysis*, to
 - Reduce the intensity for the 5.4B General Industrial and 5.5H Medical and Science zoning districts by 967,799 sf; and
 - Add 2.4K Medium-High Density Residential with 1,710 units and add 4.1F Neighborhood Commercial with 25,000 sf.
- Update other applicable sections of Chapter 9-12 to reflect the changes noted above.

The following amendments to Chapter 9-40 (PA 40) of the Irvine Zoning Ordinance are proposed as part of the project:

- Revise the Zoning Ordinance Map, *Planning Area 40 Cypress Village*, for the PA 40 East Site to change the zoning district from 4.2O Community Commercial to 2.4J Medium-High Density Residential.
- Revise the Zoning Ordinance Map, *Planning Area 40 Cypress Village*, for the PA 40 Marine Way Sites to change the zoning district from 5.5D Medical and Science to 5.5J Medical and Science and allow for the development of mini-warehouses on these sites.
- Revise Section 9-40-3, *Statistical Analysis*, to
 - Reduce the number of Medium-High Density residential units from 2,323 to 1,956. A total of 1,702 units would be retained within the 2.4I Medium-High Density Residential zoning district and another 250 units would be added to the new 2.4J Medium-High Density zoning district and be allocated for the PA 40 East anticipated development site;
 - Eliminate 205,000 sf of commercial intensity from the 4.2O Community Commercial zoning district;
 - Revise the 3.1H Multi-Use zoning district to reflect the previously approved 1,303 residential units and to remove the remaining nonresidential development intensity (620,250 sf); and
 - Add 301,968 sf of intensity to the 5.5 Medical and Science zoning district, with the total intensity (651,968 sf) being allocated between the 5.5D Medical and Science zoning district (121,968 sf) and new 5.5J Medical and Science zoning district (530,000 sf) to be allocated for the PA 40 Marine Way Sites.
- Update other applicable sections of Chapter 9-40 to reflect the changes noted above.

Additionally, Sections 3-37-15, 3-37-19, and 3-37-34 of Chapter 3-37, *Zoning District Land Use Regulations and Development Standards*, of the Irvine Zoning Ordinance, would be revised to reflect changes noted above and to establish area-specific land use regulations for the anticipated development sites.

In summary, the requested GPA and Zone Change Project ("Project") proposes to (1) increase the maximum number of residential units permitted from 9,481 to 10,824 units (an increase of 1,343 units); (2) to decrease the maximum allowed nonresidential intensity from 8,165,310 sf to 6,644,842 sf (a reduction of 1,520,468 sf); and (3) to amend various text, tables, and exhibits as necessary in support of the proposed amendments and for internal consistency.

Development Anticipated by the Proposed GPA and Zone Change

In addition to addressing the environmental impacts resulting from the GPA and Zone Change (such as reductions in the overall trip generation and reallocation of traffic in the study area compared to existing General Plan and Zoning conditions), the Draft EIR will evaluate the environmental impacts expected to result from the future construction and operation of development anticipated by the proposed GPA and Zone Change at the PA 12 Site, the PA 40 East Site, and the PA 40 Marine Way Sites, based on assumed development scenarios. Development of these sites is specifically being addressed because of the proposed change in land use designations at these sites.³

Following is a summary of the anticipated development that will be assumed as the basis for analysis in this Initial Study as well as in the Draft EIR.

- **PA 12 Site.** Development of up to 1,710 Medium-High Density residential units, up to 25,000 sf of neighborhood commercial use, and an approximately five-acre park. It is expected that vehicular access to this site would be provided from Burt Road at Sand Canyon Avenue and an extension of the Walnut Avenue intersection into the northwest portion of the project site. Improvements to the Walnut Avenue ramp at I-5 would also be required. For purposes of analysis, construction at this site is expected to begin in mid-to late-2018 and be completed by summer 2021.
- **PA 40 East Site.** Development of up to 250 Medium-High Density residential units, an approximately 1.7-acre park, and an approximately 10,000-sf child care center on an approximately 1.3-acre site. It is expected that vehicular access to this site would be provided from both Sand Canyon Avenue and Roosevelt. For purposes of analysis, construction at this site is expected to begin in 2019 and be completed by 2023.
- **PA 40 Marine Way Sites.** Development of up to 530,000 sf of nonresidential uses allowed under the 5.5J Medical and Science zoning district. It is expected that access to these sites would be provided from existing Marine Way on an interim basis and ultimately from the future alignment of Marine Way. For purposes of analysis, construction at these sites is expected to begin in 2018 and be completed by 2021.

Collectively, the anticipated development includes 1,960 Medium-High Density residential units, 25,000 sf of neighborhood commercial, 530,000 sf of nonresidential uses, 6.7 acres of park land, and a 1.3-acre child care site. Landscape / hardscape, lighting, and roadway and streetscape improvements would be completed as necessary to serve the development. Additionally, implementation of potential development on the sites would involve construction of the on-site infrastructure necessary to serve the planned land uses (domestic and reclaimed water, wastewater, storm drains, and dry utilities). The on-site utilities would be connected to existing off-site utilities.

³ Future development in other areas of PA 12 and PA 40 is either covered by previous environmental documentation pursuant to the California Environmental Quality Act (CEQA) or would be subject to project-specific analysis at the time development applications are submitted to the City.

Anticipated Discretionary Approvals

The City of Irvine, as the Lead Agency, is expected to use the information contained in the Draft EIR for consideration of the following approvals related to and involved in the implementation of the proposed project.

- **Adoption of the California Environmental Quality Act Analysis.** The proposed project requires acceptance of the environmental document as having been prepared in compliance with CEQA and the State and City CEQA Guidelines and certification that the data were considered in the final decisions on the project.
- **General Plan Amendment.** The proposed project requires a GPA, as described above.
- **Irvine Zoning Ordinance Amendments.** The proposed project requires Zoning Ordinance Amendments, as described above.

Future discretionary approvals that may be considered by the City's decision makers would include subdivision maps, residential master plans, park plans, and other supporting discretionary case types pursuant to the Irvine Zoning Ordinance. Ministerial permits or approvals (e.g., grading permits, building permits, and street work permits) would be issued by the City or other appropriate agency in order to allow site preparation, street work, and future development, including connections to off-site utility infrastructure.

8. Surrounding Land Uses and Setting

The existing setting is distinct for each planning area as summarized below and further described in the topical sections of this Initial Study. As shown on the aerial photograph provided in Exhibit 1, PA 12 is largely developed with nonresidential uses northeast of Irvine Center Drive (including golf course, office, general industrial, and institutional uses). Southwest of Irvine Center Drive, PA 12 is primarily developed with residential, educational (including Irvine Valley College), religious, and commercial retail uses. Office uses are located in PA 12 along Sand Canyon Avenue.

PA 40 is northeast of and adjacent to PA 12 and is largely built out with the exception of areas east and west of SR-133, which include the PA 40 East Site and PA 40 East East, located east of SR-133 and south of Great Park Boulevard. The PA 40 East Site has been disturbed from agricultural use and soils remediation activities. PA 40 East East is currently under construction with primarily residential uses. Existing development in PA 40 primarily consists of residential, educational, and park uses. Additionally, the Irvine Unified School District (IUSD) operations and maintenance facility and the OCTA bus / storage yard are located north of Marine Way, along Sand Canyon Avenue. PA 51 (Great Park) is located to the east of PA 40.

The topography in PA 12 and PA 40, including the potential development sites, is relatively flat. PA 12 and PA 40 are within the Central Subregion of the Orange County Central-Coastal Natural Community Conservation Plan/Habitat Conservation Plan (NCCP / HCP); however, the potential development sites are located in development areas and not within a Habitat Reserve (Reserve) area (further discussed under Section IV, Biological Resources, of this Initial Study).

Following is a brief description of the potential development sites:

- **PA 12 Site.** The central and southeast portions of this site were previously developed with Traveland USA, which was removed in 2012. The site is temporarily being farmed (initiated in summer 2016) and firewood sales occur in the southeast portion of the site adjacent to Sand Canyon Avenue. The northwest portion of this site is not developed and

has not been subject to previous development. This area has been used for a stockpile (between the Oak Creek Golf Club and the overhead Southern California Edison [SCE] lines), and is also being farmed.

The Oak Creek Golf Club is located along the northwest project site boundary; nonresidential uses are located southwest of the site beyond the railroad tracks; I-5 is located along the northeastern project site boundary; and restaurant, gas station, and hotel uses are located to the southeast across Sand Canyon Avenue.

- **PA 40 East Site.** This site is undeveloped and was partially mass graded in the past. The northeast portion of the site is currently being used for temporary construction staging and storage. This site is surrounded by residential development to the north, west, and southeast. SR-133 forms the southeast boundary of the site. An approximately 4.3-acre area along the southeast boundary of this site includes an easement for a future SR-133 on-ramp at Trabuco Road, should it be constructed.
- **PA 40 Marine Way Sites.** The northwest Marine Way site is undeveloped and bisected by the cement-lined Marshburn Channel, which is operated and maintained by the Orange County Flood Control District (OCFCD). There is an existing OCTA facility south of the site. I-5 is located adjacent to and west of the northwest site; the SR-133 overpass is located to the east and separates this site from the southeast site. A cement-lined v-ditch is located off site along the western boundary of this site, in the California Department of Transportation's (Caltrans') right-of-way.

The southeast Marine Way site is currently under lease to a landscaping company that operates a small-box nursery and decorative rock and masonry operation. Materials associated with this operation are located throughout the southwestern site. The northwest portion of this site is subleased for sustainable farming operations. The area to the northeast and southeast of this site is undeveloped. The SR-133 overpass is located to the west.

9. Other Public Agencies Whose Approval is Required

Agencies that may issue permits or other approvals for implementation of development anticipated by the proposed Project include, but are not limited to, the following:

- **United States Army Corps of Engineers (USACE).** Section 404 permits for any impacts to areas determined to be under the jurisdiction of the USACE, which could potentially include the Marshburn Channel that traverses the northwest PA 40 Marine Way Site.
- **California Department of Transportation (Caltrans).** Temporary encroachments during construction adjacent to I-5 and SR-133 and implementation of improvements at the Walnut Avenue / I-5 and Sand Canyon Avenue / I-5 ramp intersections.
- **State of California Department of Fish and Wildlife (CDFW).** Streambed Alteration Agreement pursuant to Section 1602 of the *California Fish and Game Code* for any impacts to areas determined to be under the jurisdiction of the CDFW, which could potentially include the Marshburn Channel that traverses the northwest PA 40 Marine Way Site.
- **Regional Water Quality Control Board (RWQCB).** A National Pollutant Discharge Elimination System (NPDES) permit for storm water discharges from construction sites.
- **Orange County Transportation Authority (OCTA).** Temporary encroachments during construction, including installation of a utility line under the railroad south of the PA 12 Site and the relocation of existing access to the Metrolink / OCTA site.

- **Orange County Flood Control District (OCFCD).** Temporary encroachment during construction adjacent to the Marshburn Channel at the PA 40 Marine Way northwest site.
 - **Irvine Ranch Water District.** Approval of Water Supply Assessment and utility connections.
 - **Other Utility Agencies.** Permits and associated approvals, as necessary for the installation of new utility infrastructure or connections to existing facilities, including undergrounding of existing overhead electric lines. Agencies that may be required to issue permits and / or approvals include, but are not limited to, Southern California Edison, SoCalGas, AT&T, and Cox Communications.
- 10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?** *Note: Conducting consultation early in the CEQA process allows tribal governments, 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. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.*

To date, the City has received one response to the project notification sent to tribes requesting such notice (from the Gabrieleño Band of Mission Indians-Kizh Nation). The tribe has requested that their Native American monitors be onsite during ground disturbances. The City will initiate consultation with this tribe and the results of this consultation will be addressed in the Draft EIR.

Purpose of the Initial Study

Pursuant to CEQA (*California Public Resources Code*, Sections 21000, et seq.), the Guidelines for Implementation of CEQA (State CEQA Guidelines, *California Code of Regulations*, Title 14, Sections 15000 et seq.), and the City of Irvine's CEQA Manual (Volumes 1 through 3, approved June 2012)⁴, this Initial Study has been prepared to determine whether the proposed PA 12 and PA 40 GPA and Zone Change Project may have a significant effect on the environment, thereby requiring preparation of an EIR.

Based on the results of the analysis presented in this Initial Study, the City of Irvine, as Lead Agency for the proposed project, has determined that it has the potential to result in significant impacts and a Program EIR is the appropriate environmental document for the proposed Project. The Project would be implemented in phases over an approximately five- to seven-year time frame.

Section 15168(a) of the State CEQA Guidelines states that a Program EIR:

may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As logical parts in the chain

⁴ Irvine, City of. 2012 (June, approval date). City of Irvine CEQA Manual. Irvine, CA: the City, Community Development Department. <http://www.cityofirvine.org/community-development/current-environmental-reviews>.

of contemplated actions, (3) In connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program, or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Incorporated by Reference

In accordance with Section 15150 of the State CEQA Guidelines, an EIR may incorporate by reference all or portions of another document that is a part of public record or is generally available to the public. The previously prepared EIR and environmental analyses listed below were relied upon or consulted in the preparation of this Initial Study and are hereby incorporated by reference:

- **City of Irvine Planning Area 40 / Planning Area 12 General Plan Amendment and Zone Change Final Environmental Impact Report (State Clearinghouse [SCH] No. 2000071014, August 2008).** This Program EIR addresses potential environmental effects associated with implementation of a GPA (File No. 00434714-PGA) and Zone Change (File No. 00434717-PZC). Most relevant to the proposed project, this EIR addresses the impacts to agricultural resources resulting from development of the PA 12 site being addressed in this Initial Study.

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

DETERMINATION

On the basis of this initial study and environmental 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.	X
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

April 20, 2017

Date

Senior Planner

Title

City of Irvine

For

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 will 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 (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 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 Analysis 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.
- 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:
 - a) The significance criteria or threshold, if any, used to evaluate each question; and
 - b) The mitigation measure identified, if any, to reduce the impact to less than significance.

I. AESTHETICS

Would the project:

a)	Have a substantial adverse effect on a scenic vista?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Source: 1)

The City of Irvine General Plan's Land Use Element identifies "major views" on Figure A-4, Scenic Highways. Relevant to the potential development sites, the view looking southwest from the Sand Canyon Avenue / Trabuco Road intersection, adjacent to the PA 40 East Site, is identified as a major view, due to the distant views of the San Joaquin Hills from this roadway. There are no major views identified in Figure A-4 that would include views of the PA 12 Site or PA 40 Marine Way Sites. The Draft EIR will evaluate the potential for the development anticipated by the proposed Project to have an adverse effect on the major view looking south from the Sand Canyon Avenue / Trabuco Road intersection.

b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Sources: 1, 2, 3)

As shown on Exhibit 1 to this Initial Study, the PA 12 Site is bordered by I-5 to the northeast; the PA 40 East Site is bordered by SR-133 to the southeast; and, although elevated above grade, SR-133 bisects the PA 40 Marine Way Sites. The PA 12 Site is primarily being used for interim agricultural production with the southeast area being used for firewood sales; the PA 40 East Site is undeveloped and the northeast portion of the site is being used for temporary construction staging; and the northwest PA 40 Marine Way Site is undeveloped and the southeast Site is being used by a landscaping company. There are no significant trees, rock outcroppings, or historic buildings located at the potential development sites.

According to Caltrans' California Scenic Highway Mapping System, the potential development sites are not located within or near a State scenic highway. Figure A-4, Scenic Highways, of City of Irvine General Plan's Land Use Element identifies I-5 as a scenic highway with urban character; I-5 is immediately adjacent to the PA 12 Site. Figure A-4 also identifies Sand Canyon Avenue south of Portola Parkway to I-5, including adjacent to the PA 40 East Site, as a scenic highway with urban character. South of I-5, including adjacent to the PA 12 Site, Sand Canyon Avenue is identified as a scenic highway with rural or natural character. Although no scenic resources are present at the potential development sites, the Draft EIR will evaluate the potential for the development anticipated by the proposed Project to impact views from I-5 and Sand Canyon Avenue.

c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The proposed Project anticipates the development of the PA 12 Site, PA 40 East Site, and PA 40 Marine Way Sites with residential and nonresidential uses as described in Section I, Project Information, of this Initial Study. The Draft EIR will evaluate the potential for future development to substantially degrade the visual character or quality of the site and its surroundings.

d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Sources: 3, 4)

The potential development sites are subject to nighttime light from surrounding urban development and roadways / freeways that have street and vehicular lights. The proposed Project would introduce new light sources within the potential development sites; however, the lighting would be typical for residential and nonresidential uses and similar to that provided for adjacent developed areas. Consistent with the requirements of the Irvine Zoning Ordinance (Chapter 3-16-1, Lighting), outdoor lighting would be designed and installed so that all direct rays are confined to the site and adjacent properties are protected from glare. Consistent with the City's site lighting requirements, lighting would also meet the Irvine Uniform Security Code requirements related to the location, type, and height to ensure safety of residents and visitors to the sites. Notably, final landscape plans would be designed to ensure that landscaping is not planted in areas that would obscure the required light levels.

Similar to existing development in PA 12 and PA 40, the proposed Project would not involve any uses or the use of building materials that would have the potential to create substantial glare that would adversely affect daytime views.

Because the potential development sites are in an already developed area with existing lighting, the lighting and building materials that would be introduced would be similar to existing development in the area; implementation of the development anticipated by the proposed Project would not result in a new source of substantial light or glare that would adversely affect day or nighttime views in the area. No significant impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

II. AGRICULTURE & 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 Department 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; 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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Source: 5, 14)

Based on current farmland mapping published by the California Department of Conservation (2014), and as shown on Exhibit 2, the PA 12 Site and PA 40 Marine Way Sites are designated in the Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built-Up Land", as is the majority of the surrounding area. While it is no longer under agricultural production (agricultural activities at this site ceased in 2012), the 25.7-acre PA 40 East Site is designated as Prime Farmland. Subsequent to the termination of agricultural activities, this site has been subject to further disturbance associated with the removal of Toxaphene-impacted soils (up to two feet below the ground surface) and backfill with "clean" import fill soils and use as a temporary construction staging area, including a rock-paved pad.

Further, while the PA 40 East Site is designated as Prime Farmland, this site and surrounding areas fall within the overlying designation of Land Committed to Nonagricultural Use. This overlay designation reflects the State's recognition of farmland areas that will be developed, based on existing land use designations and other development commitments. The designation was applied to PA 40 as a whole as part of the FMMP 2004 update to the Important Farmlands map.

The loss of Prime Farmland at the PA 40 East Site was evaluated in the *Planning Area 40 / Planning Area 12 General Plan Amendment and Zone Change Final Environmental Impact Report* (SCH No. 2000071014) (2008 EIR), which was certified by the City of Irvine in August 2008 and is hereby incorporated by reference. The analysis in Section 5.2, Agricultural Resources, in the 2008 EIR, concluded that impacts related to the loss of agricultural lands would be less than significant. This conclusion was based on the fact that the loss of agricultural lands had previously been anticipated by the City of Irvine and had been addressed and mitigated through plans, programs, and policies implemented prior to the certification of the 2008 EIR. These plans, programs, and policies include the 1988 City Initiative Resolution 88-1; the City's participation in the Orange County Central-Coastal NCCP / HCP; the Agricultural Legacy Program; and previous City Council approvals that involved development in PA 40 (e.g., the Planning Area 40 / Spectrum 8 General Plan Amendment, Zone Change, Development Agreement, and Annexation Project approved in 2003).

City Initiative Resolution 88-1 was the basis for the 1988 Open Space Memorandum of Understanding, which is part of the City's program for the permanent preservation of natural open space. The Orange County Central-Coastal NCCP / HCP provides for dedicated open space and natural habitat conservation areas throughout Orange County, including the City of Irvine.

The Agricultural Legacy Program supports the maintenance of temporary agricultural uses in undeveloped areas of the City until these sites are slated for development and provides for limited-scale agricultural operations, such as edible landscaping and urban farming. This program provides interim agricultural uses unless the site is not available for development due to on-site hazards. The basis for the Agricultural Legacy Program is outlined in the City's General Plan, Objective L-10 of the Conservation and Open Space Element.

During approval of the PA 40 / Spectrum 8 Project in 2003, the City Council noted that there was no evidence, locally or regionally, that conversion of agricultural land to urban uses had ever adversely affected agricultural production Statewide. Also, the City Council noted that Statewide agricultural production was expected to increase and would make up for any loss in agricultural production within the City of Irvine. Based on this information, it was determined that there would be no notable loss in economic value due to the conversion of agricultural lands within the City.

Implementation of potential development at the PA 40 East Site anticipated by the proposed Project would not involve the loss of any Prime Farmland that was not previously identified for future development. The impact is less than significant, consistent with the conclusion of the 2008 EIR. No further evaluation of this issue is required in the Draft EIR.

b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Sources: 1, 6, 7)

As previously discussed, the City of Irvine General Plan's Land Use Element currently designates the potential development sites as follows: Research and Industrial at the PA 12 Site and PA 40 Marine Way Sites and Community Commercial at the PA 40 East Site. Additionally, per the Irvine Zoning Ordinance, the potential development sites are currently zoned as follows: 5.4B General Industrial and 5.5H Medical and Science at the PA 12 Site, 4.20 Community Commercial at the PA 40 East Site, and 5.5D Medical and Science at the PA 40 Marine Way Sites. None of these land use designations, nor zoning of the sites, support agricultural activity. Additionally, the City of Irvine General Plan's Conservation and Open Space Element (Figure L-2, Conservation and Open Space) does not identify the sites as areas of agricultural production. No portion of the potential development sites is covered by a Williamson Act Contract. Therefore, implementation of the proposed Project would not conflict with a Williamson Act Contract or with existing zoning for agricultural use. No further evaluation of this issue is required in the Draft EIR.

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))?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 7)

There are no areas zoned for forest land or timberland within the City of Irvine and no such resources exist. Therefore, implementation of the proposed Project would not conflict with existing zoning, nor would it cause rezoning of forest land, timberland, or timberland zoned Timberland Production. No further evaluation of this issue is required in the Draft EIR.

d)	Result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 3)

There are no forest lands on the potential development sites or within the City of Irvine. Therefore, development of the sites would not result in a loss or conversion of forest land to non-forest use. No further evaluation of this issue is required in the Draft EIR.

e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Sources: 3, 5, 6, 7)

As discussed under Thresholds “c” and “d” above, there are no forest lands in the City of Irvine, including at the three potential development sites. The proposed project would not result in the conversion of forest land to non-forest use.

As discussed under Threshold “a”, the PA 40 East Site is designated as Prime Farmland, but is within the overlying designation of Land Committed to Nonagricultural Use. As shown on Exhibit 2 to this Initial Study, the areas to the northwest, southwest, and southeast of the PA 40 Site are also designated as Prime Farmland. However, as with the PA 40 East Site, the surrounding area is also designated as Land Committed to Nonagricultural Use. Further, as shown on the aerial photograph provided in Exhibit 1, the area surrounding the PA 40 East Site has been developed and is no longer in agricultural production. Therefore, the proposed Project would not involve other changes in the environment that could result in the conversion of Farmland (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as defined in Threshold “a”) to nonagricultural use. No further evaluation of this issue is required in the Draft EIR.

III. AIR QUALITY

Would the project:

a)	Conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Air quality in Orange County is regulated by the South Coast Air Quality Management District (SCAQMD), which is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin (SoCAB). The SCAQMD develops rules and regulations; establishes permitting requirements for stationary sources; inspects emissions sources; and enforces such measures through educational programs or fines, when necessary. The SCAQMD is directly

responsible for reducing emissions from stationary (area and point), mobile, and indirect sources. It has responded to this requirement by preparing a sequence of Air Quality Management Plans (AQMPs).

The two principal criteria for conformance to an AQMP are (1) whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of air quality standards and (2) whether the project would exceed the assumptions in the AQMP. The proposed project's consistency with the SCAQMD AQMP will be evaluated in the Draft EIR.

b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

During the construction period for development anticipated by the proposed Project, air pollutants would be emitted by off-road and on-road construction equipment and worker vehicles, and fugitive dust would be generated during earthmoving and grading at the potential development sites. During operation, air pollutants would be emitted by area (e.g., consumer products, landscape maintenance, and natural gas use) and mobile (e.g., cars) sources. The potential for the project to violate any air quality standards or contribute substantially to an existing or projected air quality violation will be evaluated in the Draft EIR.

c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Source: 8)

As stated previously, air pollutants would be emitted during construction and operation of development anticipated by the proposed Project. The SoCAB is currently a nonattainment area for ozone (O₃), respirable particulate matter with a diameter of 10 microns or less (PM₁₀), fine particulate matter with a diameter of 2.5 microns or less (PM_{2.5}), and lead (Los Angeles County only). Therefore, the Draft EIR will evaluate potential cumulative regional emissions of PM₁₀, PM_{2.5}, volatile organic compounds (VOCs), and nitrogen oxides (NO_x) (the latter two of which are O₃ precursors) that would occur during construction and operation.

d)	Expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Source: 9)

Some members of the population are especially sensitive to air pollutant emissions and should be given special consideration when evaluating air quality impacts from projects. These people include children, the elderly, persons with pre-existing respiratory or cardiovascular illness, as well as athletes and others who engage in frequent exercise. The SCAQMD defines structures that house these persons or places where they gather (i.e., residences, schools, playgrounds, child-care centers, convalescent centers, retirement homes, and athletic fields) as sensitive receptors. There are no existing sensitive receptors on the potential development sites; however, there are sensitive receptors adjacent to or in proximity to the sites. Construction emissions from the proposed project to sensitive receptors, exposure of sensitive receptors to carbon monoxide (CO) hotspots, and exposure of sensitive receptors to toxic air contaminants (during construction and operation) will be evaluated in the Draft EIR.

e)	Create objectionable odor affecting a substantial number of people?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Source: 9)

Potential construction odors include the on-site construction equipment's diesel exhaust and roofing, painting, and paving operations. There would be situations where construction activity odors would be noticed by the existing population in the immediate vicinity. These temporary odors are typical of urbanized environments and would not be objectionable. Additionally, these odors would dissipate rapidly from the source with an increase in distance and would be subject to construction and air quality regulations (including proper maintenance of machinery) in order to minimize engine emissions. As such, there would be a less than significant impact from construction activities at the potential development sites.

As identified in the SCAQMD's 1993 *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. There are currently interim agricultural uses at the PA 12 Site that would be removed with implementation of development of this site. The development anticipated by the proposed Project at the potential development sites would not include any SCAQMD-identified uses that are associated with odors. After project occupancy, odors would be no different than those generated by other residential and nonresidential uses in the area and would not be considered objectionable by a substantial number of people. The proposed project would have a less than significant impact related to objectionable odors and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

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 Game or U. S. Fish and Wildlife Service?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

As shown on the aerial photograph provided on Exhibit 1, the potential development sites are undeveloped parcels that have already been previously disturbed by grading or other activities. The central and southeastern portions of the PA 12 Site were previously developed with Traveland USA, and a portion of the site is currently being used for interim agricultural production and firewood sales. The PA 40 East Site has been disturbed by previous agricultural operations and soils remediation, and a portion of the site is currently being used for construction staging. The PA 40 Marine Way Sites are undeveloped with a portion of the southwestern site being occupied by a landscape company.

Based on preliminary review of the potential development sites, it is not expected that candidate, sensitive or special status plant or animal species would occur due to lack of suitable habitat. However, there are a few special status species that could occur in previously disturbed areas (e.g., burrowing owl [*Athene cunicularia*] and tarplant [*Deinandra* spp. and *Centromadia* spp.]). Therefore, the potential for the sites to support candidate, sensitive, or special status plant or animal species and potential impacts to these species will be evaluated in the Draft EIR.

b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U. S. Fish and Wildlife Service?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Based on preliminary review of the potential development sites, it is not expected that riparian habitat or other sensitive natural communities are present. However, biological resources at the sites will be surveyed and potential impacts to riparian habitat or other sensitive natural communities, should they exist, will be evaluated in the Draft EIR.					
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Based on preliminary review of the potential development sites, it is not expected that areas under the jurisdiction of the USACE occur at the PA 12 Site or PA 40 East Site. However, the concrete-lined Marshburn Channel, which traverses the northwest PA 40 Marine Way Site, is under the jurisdiction of the USACE. Biological resources and potential jurisdictional areas at the sites will be surveyed, and potential impacts to jurisdictional areas will be evaluated in the Draft EIR.					
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 site?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
(Source: 10)					
As discussed further under Threshold “f” below, the potential development sites are within the Coastal Subregion of the NCCP / HCP; however, the sites are not located within a Reserve area or Special Linkage area. The Migratory Bird Treaty Act (MBTA) protects the taking of migratory birds and their nests and eggs. Bird species protected under the provisions of the MBTA are identified on the List of Migratory Birds (Title 50 <i>Code of Federal Regulations</i> Section 10.13, as amended). Impacts to migratory birds and nesting raptors resulting from construction at the potential development sites would be considered potentially significant and will be evaluated in the Draft EIR.					
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
(Sources: 6, 10, 12)					
Portions of the City of Irvine are subject to a phased Dedication and Compensation Development Opportunities Program (Dedication / Development Program) that was established as a result of the adoption of Initiative Resolution 88-1, entitled “An Initiative Resolution of the City of Irvine Directing the Amendment of the Conservation and Open Space Element and the Land Use Element of the Irvine General Plan” (Open Space Initiative). This program provides for permanent protection of conservation and open space areas through public ownership. The areas of the City that are directly affected by the Dedication / Development Program were divided into lettered “Implementation Districts” (IDs) containing both designated open space dedication areas and corresponding development areas. Figure L-3, Implementation Districts, of the Conservation and Open Space Element, identifies that the potential development sites are not located in designated Preservation Areas and are within Development Areas. The PA 12 Site is adjacent to the Oak Creek Golf Club, which is a designated Preservation Area.					

Exhibit L-4, Biotic Resources, in the Conservation and Open Space Element identifies eucalyptus windrows within or adjacent to the potential development sites. Per the Irvine Zoning Ordinance, Section 9-40-7, eucalyptus windrows are to be retained in PA 40 with exceptions, including the health of the trees. Additionally, the City of Irvine General Plan's Conservation and Open Space Element established a eucalyptus windrow preservation policy, which is enforced by Section 9-0-2 of the Irvine Zoning Ordinance. There are currently no eucalyptus windrows located at the PA 12 Site or PA 40 East Site; however, there are eucalyptus trees located in or near the PA 40 Marine Way Sites that are identified on Exhibit L-4 as a eucalyptus windrow. Impacts related to conflict with local policies or ordinances protecting biological resources, including eucalyptus windrows, will be evaluated in the Draft EIR.

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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 10, 11)

In 1996, the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Game (CDFG)⁵ approved the Orange County Central-Coastal Subregion NCCP / HCP. This subregion is bound by SR-55 and SR-91 to the north; the Orange County boundary to the east; El Toro Road and I-5 to the south; and the Pacific coast to the west. The Central-Coastal NCCP / HCP addresses protection and management of coastal sage scrub habitat, coastal sage scrub-obligate species, and other covered habitats and species. It mitigates anticipated impacts to those habitats and species on a programmatic, subregional level rather than on a project-by-project, single species basis.

As part of the NCCP / HCP, a Reserve in excess of 37,000 acres was established for the protection of coastal sage scrub, other upland habitats, the coastal California gnatcatcher, and other primarily coastal sage scrub-dependent species identified in the NCCP / HCP. Specifically, the NCCP / HCP, the USFWS, and CDFW authorize take of 39 Target and Identified species of plants and animals (including covered and conditionally covered species). Thus, the NCCP / HCP provides for the protection and management of a broad range of plant and animal populations, while providing certainty to the public and affected landowners with respect to the location of future development and open space in the subregion.

The NCCP / HCP was analyzed in a joint EIR / Environmental Impact Statement (EIS) (SCH No. 93071061) prepared under the auspices of the County of Orange and the USFWS as lead agencies, while the CDFG and the City were responsible agencies. Following certification of the EIR / EIS and approval of the NCCP / HCP in 1996, the participating agencies (including the City), landowners, the USFWS, the CDFG, and the County of Orange signed an Implementation Agreement (IA). The IA sets forth (1) the implementation requirements for the NCCP / HCP, including requirements related to dedication, creation, and adaptive management of the Reserve; (2) interim management of the Reserve; (3) funding for Reserve management; and (4) procedures and minimization measures related to take of Identified species and modification of habitat in those areas designated for development under the NCCP / HCP.

The potential development sites are within the planning area covered by the NCCP / HCP. The NCCP / HCP identifies that these sites and all areas immediately adjacent to these sites are in development areas and not in Reserve areas. The City is a participant in the NCCP / HCP and the IA, and any potential future development would be implemented in compliance with all applicable NCCP / HCP and associated IA requirements, including completion of required surveys for sensitive species should there be any potential habitat for Covered or Conditionally Covered Species. The proposed Project, and associated future development in conformance with the project, would not conflict with the provisions of the NCCP / HCP and no further evaluation of this issue is required in the Draft EIR.

⁵ The California Department of Fish and Game (CDFG) changed its name to the California Department of Fish and Wildlife (CDFW) effective January 1, 2013. Please note that references to previous publications use the name under which the document was published (i.e., CDFG), while discussions relating to the agency refer to the current name (i.e., CDFW).

V. CULTURAL RESOURCES

Would the project:

a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Source: 13, 14)

Figure E-1, Historical / Archaeological Landmarks, of the City of Irvine General Plan's Cultural Resources Element identifies two former historic resource sites on the PA 12 Site (Irvine Bean Warehouse and Atchison, Topeka and Santa Fe [ATSF] Station East Irvine) and no historic resources at the PA 40 East Site or PA 40 Marine Way Sites. The previously identified buildings at the PA 12 Site were removed by the City of Irvine in January 2008. Additionally, a cultural resources records search was undertaken at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton in January 2017. Based on this search and review of existing literature related to cultural resources within the potential development sites, no above ground historic resources were identified. However, there is a potential for buried historic resources to exist within the potential development sites. Potential impacts to buried historic resources will be evaluated in the Draft EIR.

b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential development sites have been previously graded and disturbed; however, prehistoric- and historic-era peoples made use of the project area. Therefore, buried cultural resources may exist in the subsurface. Although no significant cultural resources are recorded within the proposed development sites, presently unknown resources could potentially be disturbed during construction activities (e.g., grading and / or deep trenching for utilities). Potential impacts to archaeological resources will be evaluated in the Draft EIR.

c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Source: 13)

The potential development sites have been previously graded and disturbed and Figure E-2, Paleontological Sensitivity Zones, of the Cultural Resources Element identifies the potential development sites in an area with low paleontological sensitivity. However, there is the potential to uncover unknown paleontological resources during ground-disturbing activities. Potential impacts to paleontological resources will be evaluated in the Draft EIR.

d)	Disturb any human remains, including those interred outside of dedicated cemeteries?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential development sites have been previously graded, and no human remains were encountered during previous construction and ground-disturbing activities. Therefore, the proposed Project would not allow for development in any areas containing known human remains, including those interred outside formal cemeteries. However, there is a potential

to encounter unknown human remains resulting in a potentially significant impact. This issue will be evaluated in the Draft EIR.

VI. GEOLOGY / SOILS

Would the project:

a)	Expose people or structures to 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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Sources: 15, 16)

As with all of Southern California, the potential development sites are within a seismically active region. As identified on Figure D-1, Regional Geology, of the City of Irvine General Plan's Seismic Element and in the 2008 EIR, there are no major or active faults mapped at the potential development sites that could result in surface rupture. Furthermore, the City of Irvine is not identified as a City affected by an Alquist-Priolo Fault Zone (DOC 2010). This impact would be less than significant and no further evaluation of this issue is required in the Draft EIR.

ii)	Strong seismic ground shaking?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
iii)	Seismic-related ground failure, including liquefaction?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential development sites, as with all of Southern California, could be subject to ground shaking in the event of an earthquake. The sites would be expected to experience moderate- to high-intensity seismic shaking from an earthquake on an active regional fault. Potential seismic-related impacts, including liquefaction, could affect the development anticipated by the proposed Project, and this issue will be addressed in the Draft EIR.

iv)	Landslides?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 17, 18)

The topography of the potential development sites is relatively flat and there are no natural or engineered slopes. In addition, the sites are not identified on the State of California Seismic Hazard Zones Tustin and El Toro Quadrangles as being susceptible to landslides or liquefaction. Therefore, the potential for landslides associated with future development in conformance with the proposed Project is remote. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

b)	Result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	
The potential development sites are currently undeveloped and therefore contain only a small amount of impervious cover. During future construction activities for development in conformance with the proposed Project, soil would be exposed and there would be an increased potential for soil erosion compared to the existing conditions. The largest source of erosion and topsoil loss, particularly in a developed environment, is uncontrolled drainage during construction. During a storm event, soil erosion could occur at an accelerated rate. Grading for potential future development would be limited to minor cuts and fills to establish design grades and to prepare building foundations. Project site grading, the storm drain system, and landscape cover would be designed to City standards to minimize long-term erosion potential. Additionally, given the small amount of impervious cover and substantial amount of disturbed soils currently existing at the potential development sites, the amount of erosion would decrease under developed conditions with an increase in impervious surface area and landscape coverage. Compliance with State-mandated requirements for erosion control during construction, including preparation of required Water Quality Management Plans, would ensure that potential impacts related to erosion are less than significant. No further evaluation of this issue is required in the Draft EIR.					
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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
(Source: 17, 18)					
According to State of California Seismic Hazard Zones, Tustin and El Toro Quadrangles (2001), the potential development sites are not identified as “Liquefaction” or “Earthquake-Induced Landslide”. However, potential significant project impacts related to instability of the sites’ geologic materials will be evaluated in site-specific geotechnical studies and evaluated in the Draft EIR.					
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Existing soil conditions, including the potential for expansive soils on the potential development sites, which could result in potentially significant impacts, will be evaluated in site-specific geotechnical studies and evaluated in the Draft EIR.					
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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x
Development anticipated by the proposed Project would connect with the municipal sewer system and would not involve the use of septic systems or alternative wastewater disposal systems; therefore, no soil impacts related to septic tanks or alternative wastewater disposal systems are relevant. No further evaluation of this issue is required in the Draft EIR.					

VII. GREENHOUSE GAS EMISSIONS

Would the project:

a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
During construction of development anticipated by the proposed GPA and Zone Change Project, equipment and vehicles would be used that would generate greenhouse gases (GHGs). Operations at the potential development sites would also generate GHG emissions from vehicle trips, the consumption of water and energy, and the disposal of solid wastes and wastewater. The potential for the future development anticipated by the proposed Project to generate GHG emissions during construction and operation, either directly or indirectly, that may have a significant impact on the environment will be analyzed in the Draft EIR.					
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The proposed Project's consistency with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions will be addressed in the Draft EIR.

VIII. 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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Source: 19)

Pursuant to Section 4-17-104 of the Irvine Municipal Code, a substance may be deemed a hazardous material or hazardous waste upon a finding that the substance, because of its quantity, concentration or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the community. Construction activities associated with potential development anticipated by the proposed Project would involve the use of chemical substances such as solvents, paints, fuel for equipment, and other potentially hazardous materials. These materials are common to typical construction activities and do not pose a significant hazard to the public or the environment. Long-term operation of the land uses that would be anticipated by the proposed Project for the PA 12 Site and PA 40 East Site (i.e., residential, neighborhood commercial, child care, and similar allowable uses) would not involve substantial amounts of hazardous substances during operation. Typical hazardous substances that may be used during project site operation include household cleaning agents, building maintenance and pool chemicals, and pesticides and / or herbicides used in association with standard landscaping and maintenance. The amount of materials that would be handled at any one time is relatively small and would not pose a significant hazard to the public or environment.

Various types of land uses are currently allowed in the 5.5 Medical and Science zone, including uses that may involve the transport, use, or disposal of hazardous materials. The PA 40 Marine Way Sites are currently zoned 5.5D Medical Science, and the proposed amendment to the Irvine Zoning Ordinance involves a change to site's zoning to 5.5J Medical Science, to allow for the development of mini-warehouses. For purposes of analysis in this Initial Study and the Draft EIR, it is assumed that the PA 40 Marine Way Sites would be developed with mini-warehouse and / or office uses. The nature of operations for these types of land uses, which would also be operated in accordance with applicable regulations, are not

expected to involve the use, handling, or storage of hazardous wastes. Standard cleaning products and pesticides and / or herbicides would be used in association with standard landscaping and maintenance practices. However, the amount of materials that would be handled at any one time is relatively small and would not pose a significant hazard to the public or environment.

Any of the allowable uses following the proposed Project would be subject to regulatory requirements associated with the transport, storage, use, or disposal of hazardous materials during construction or operation of future on-site development. Impacts would therefore be less than significant for this topic and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

During the construction phase, there is a limited risk of accidental release of hazardous materials such as gasoline, oil, or other fluids in the operation and maintenance of construction equipment. However, use of these materials is typical during operation and maintenance of construction equipment and would be conducted in compliance with applicable State and local regulations. Phase I Environmental Site Assessments will be prepared for the potential development sites to determine if there are any recognized environmental concerns affecting the sites that have the potential to create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions. This issue will be evaluated in the Draft EIR.

c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

There are no existing or proposed schools within one-quarter mile of the PA 12 Site or the PA 40 Marine Way Sites. However, a child-care center (which can be considered to be a school) is assumed to be developed at the PA 40 East Site.

The proposed Project anticipates the future development of residential, child-care and park uses at the PA 40 East Site. These types of anticipated uses would not emit or require the handling of hazardous materials in significant quantities or intensities (refer to the discussion provided in Threshold “a” above), and any incidental residential use, storage or disposal of materials classified as hazardous would be subject to regulatory requirements. Therefore, the proposed Project would not result in hazardous emissions that may affect students at the potential future child care center at the PA 40 East Site. However, there is a potential for individuals at the future child care center anticipated by the proposed Project at the PA 40 East Site to be exposed to hazardous materials present at the site (refer to the discussion provided in Threshold “b” above). This issue will be evaluated in the Draft EIR.

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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Phase I ESAs will be prepared to determine if implementation of development anticipated by the proposed GPA and Zone Change Project has the potential to create a significant hazard to the public or the environment by being located on a known hazardous materials site. This issue will be evaluated in the Draft EIR.

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 for people residing or working in the project area?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 20, 21)

The potential development sites are not located within two miles of a public airport or public use airport. The closest airport to the potential development sites is John Wayne Airport (JWA), which is in Santa Ana adjacent to the Irvine city boundary. This airport is more than five miles away, generally to the west of the potential development sites. The potential development sites are outside of the JWA Clear Zones depicted on Figure J-4, Clear and Accident Potential Zones, of the City of Irvine General Plan's Safety Element. Based on review of the "Airport Environs Land Use Plan for John Wayne Airport," the potential development sites are not within a designated Airport Impact Zone, Airport Environs Land Use Plan (AELUP) Notification Area for JWA, a JWA Obstruction Imaginary Surface area, or a height-restricted zone. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 21)

The potential development sites are not located in the vicinity of a private airstrip. As a result, future site development would not present a safety hazard to existing or future residents or people working in the area due to operations at a private airstrip. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Sources: 21, 22)

The City has prepared an Emergency Management Plan to provide guidance for the City's response to emergency situations such as natural disasters, technological incidents, and national security emergencies. Technological incidents include those ranging from failure of major computer systems managing backbone infrastructure and vital services to spills of hazardous materials used in technology or manufacturing processes. The City's Emergency Services Ordinance (Title 4, Division 9 of the Irvine Municipal Code) provides for "the preparation and carrying out of plans for the protection of persons and property . . . in the event of an emergency; the direction of the emergency organization; and the coordination of emergency functions . . .".

The City's Emergency Management Plan does not address day-to-day emergencies, design of development projects, or land use planning efforts (e.g., amendments to the General Plan or zone changes). Instead, it focuses on potential large-scale disasters that would require unusual emergency responses, such as mass evacuations. Development of the uses anticipated by the proposed Project would not interfere with the implementation of the City's Emergency Management Plan. Should an emergency occur at the potential development sites that would necessitate evacuation, the internal street system would provide egress points to the outlying arterial roadway system. During construction, the City requires notification from developers regarding any activities that could partially or fully obstruct through traffic on the adjacent public roadway system; the City would therefore be able to avoid such areas as part of any emergency evacuation instructions. No further evaluation of this issue is required in the Draft EIR.

h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 21)

According to Figure J-2, Fire Hazard Areas, of the City of Irvine General Plan's Safety Element, the potential development sites are not located within or in proximity to an area designated as "High Fire Severity Rating & Open Space with Fire Potential." Therefore, development anticipated by the proposed Project at the sites would not expose people or structures to the risk of loss, injury, or death from wildland fires. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

IX. HYDROLOGY / WATER QUALITY

Would the project:

a)	Violate any water quality standards or waste discharge requirements?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential development sites are located within the tributary watershed of the existing San Diego Creek. The San Diego Creek Watershed consists of approximately 112 square miles and ultimately drains into Upper Newport Bay. Potentially significant short-term construction-related and long-term operational impacts on water quality in local surface water bodies, including San Diego Creek and Newport Bay, will be evaluated in the Draft EIR. Preliminary water quality management plans will be prepared for the potential development sites, which would take into account storm water Best Management Practices (BMPs) required by existing regulations, including Orange County's Drainage Area Master Plan (DAMP) and the City of Irvine's Local Implementation Plan (LIP). This issue will be evaluated in the Draft EIR.

b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Source: 23, 34)

The potential development sites are located within the Irvine Sub-basin of the Orange County Groundwater Basin. Groundwater is estimated to be approximately 60 to 100 feet below ground surface (bgs) at the PA 12 Site, approximately 90 to 100 feet bgs at the PA 40 East Site, and approximately 75 feet bgs at the PA 40 Marine Way Sites. The historic high groundwater table at the potential development sites is estimated to be shallower at approximately 40 feet bgs (NMG 2001). Implementation of development anticipated by the proposed Project would not involve direct or indirect withdrawals of groundwater. Domestic water service would be provided by the Irvine Ranch Water District (IRWD). Although urban development on the potential development sites would reduce the pervious areas available for natural recharge (due to the construction of roads, sidewalks, buildings, or other structures), the area of the sites is relatively small from a regional recharge perspective (approximately 70.2 acres for the PA 12 Site, 25.7 acres for the PA 40 East Site, and 12.7 acres for the PA 40 Marine Way Sites). Additionally, the sites do not accept run-on, only direct precipitation, providing little overall opportunity for recharge under existing conditions. The Orange County Water District is responsible for managing the groundwater basin and has established recharge basins in the Cities of Anaheim and Orange. There are no recharge basins in the City of Irvine. Therefore, development of the sites would not deplete groundwater supplies or interfere substantially with groundwater recharge. This impact would be less than significant and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Implementation of development anticipated by the proposed Project would result in an increase in impervious surfaces at the potential development sites and an associated increase in the amount and rate of storm water runoff, resulting in a potentially significant impact. The potential change in drainage patterns and for on- and off-site erosion and flooding will be evaluated in the Draft EIR.					
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner in which would result in flooding on- or off-site?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Refer to the impact discussion under Threshold “c” above. This issue will be evaluated in the Draft EIR.					
e)	Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
As noted above, the amount and rate of storm water runoff would be altered with implementation of development anticipated by the proposed Project, and storm water runoff would be directed to existing storm drains. Additionally potential development anticipated by the proposed Project would introduce additional sources of polluted runoff. These issues will be evaluated in the Draft EIR.					
f)	Otherwise substantially degrade water quality?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Refer to the impact discussion under Threshold “a” above. This issue will be evaluated in the Draft EIR.					
g)	Place housing within a 100-year flood hazard area as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x
(Sources: 21, 24)					
The Federal Emergency Management Agency (FEMA) publishes Flood Insurance Rate Maps (FIRMs) that identify areas where there is flooding potential. Based on review of the FIRMs applicable to the potential development sites and Figure J-3, Flood Hazard Areas, of the City of Irvine General Plan’s Safety Element, there are no 100-year flood hazard areas associated with the PA 12 Site or the PA 40 East Site, which are anticipated to be developed with primarily residential uses under the proposed Project. The OCFCD Marshburn Channel, which is within the 100-year floodplain, bisects the northwest PA 40 Marine Way Site. However, residential development is not allowed on this site per the existing and proposed General Plan and zoning designations. Therefore, the proposed Project would not place housing within a 100-year flood hazard area and no impact would result. No further evaluation of this issue is required in the Draft EIR.					

h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

(Sources: 21, 24)

As identified in Threshold “g,” there are no 100-year flood hazard areas associated with the PA 12 Site or the PA 40 East Site; therefore, the proposed Project specific to those sites would not place structures within a 100-year flood hazard area. However, the OCFCD Marshburn Channel, which is within the 100-year floodplain, bisects the northwest PA 40 Marine Way Site, and structures may be placed in the 100-year flood hazard area that would impede or redirect flood flows. This issue will be evaluated in the Draft EIR.

i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

The potential development sites are not located near any levees or dams; therefore, there is no risk of flooding from the failure of these facilities. No impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

j)	Inundation by seiche, tsunami, or mudflow?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 6)

Based on review of Figure L-2 of the City of Irvine General Plan’s Conservation and Open Space Element and aerial photographs, the potential development sites are not located in proximity to standing bodies of water. Therefore, there is no risk from inundation by a seiche. Additionally, the potential development sites are more than 8.5 miles northeast of the Pacific Ocean and, therefore, would not be subject to inundation by tsunami. Finally, the topography for the sites and surrounding areas is relatively flat and would not be subject to mudflow. No impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

X. LAND USE / PLANNING

Would the project:

a)	Physically divide an established community?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

As previously identified, the potential development sites are currently undeveloped. The PA 12 Site is being used for interim agricultural production and seasonal firewood sales; a portion of the PA 40 East Site is currently being used for temporary construction staging; and the southeast PA 40 Marine Way Site is being used by a landscape company. The potential development sites are surrounded by existing and planned development and existing roadways and freeways. Notably, I-5 is adjacent to the PA 12 Site and the northwest PA 40 Marine Way Site, and SR-133 is adjacent to the PA 40 East Site and bisects (overhead) the PA 40 Marine Way Sites. Additionally, the OCTA / Metrolink railroad is adjacent to the southeast boundary of the PA 12 Site. The proposed Project does not involve the introduction of any new roadways or uses that have the potential to physically divide an established community. Any off-site infrastructure improvements

would be limited to connections to existing facilities on or adjacent to the potential development sites. Implementation of development anticipated by the proposed Project would not physically divide an established community. No significant impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Local plans, policies, and regulations applicable to the proposed Project include, but are not limited to, the City of Irvine General Plan and the Irvine Zoning Ordinance. Pursuant to Section 15206 of the State CEQA Guidelines, the proposed Project meets the criteria established for being a project of "statewide, regional or areawide significance." Therefore, an assessment of the project's consistency with Southern California Association of Governments (SCAG) regional plans and programs is required. The project is not located in the coastal zone and is not subject to the local coastal program. The consistency of the proposed Project with applicable land use plans, policies, and regulations of an agency with jurisdiction over the project will be evaluated in the Draft EIR.

c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 10)

As previously discussed in Section IV, Biological Resources (Threshold "f"), the potential development sites are within the planning area covered by the Central-Coastal NCCP / HCP. The NCCP / HCP identifies that the sites are in a development area (i.e., not located in a Reserve area). Additionally, the sites are not located adjacent to any areas designated as Non-Reserve Open Space. The City of Irvine is a participant in the Central-Coastal NCCP / HCP and its IA, and development anticipated by the proposed Project would be implemented in compliance with all applicable NCCP / HCP and associated IA requirements. The proposed Project would not conflict with the provisions of the Central-Coastal NCCP / HCP. No mitigation is required and no further evaluation of this issue is required in the Draft EIR.

XI. MINERAL RESOURCES

Would the project:

a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Sources: 6, 25)

Important mineral resource areas are recognized at the federal and State levels through environmental resource management plans and adopted mineral resource mapping; they are recognized at the local level through land use planning documents such as General Plans that incorporate such information. Based on review of the City of Irvine General Plan Conservation and Open Space Element and the California Department of Conservation's (DOC's) Aggregate Resources in the Los Angeles Metropolitan Area map, there are no locally important mineral resource recovery sites designated in the City. Therefore, implementation of development anticipated by the proposed Project would not result in the loss of such mineral resources. No mineral resources impacts would occur and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Sources: 6, 25)

Based on review of the City of Irvine General Plan Conservation and Open Space Element and the DOC's Aggregate Resources in the Los Angeles Metropolitan Area map, there are no locally important mineral resource recovery sites designated in the City. Therefore, implementation of development anticipated by the proposed Project would not result in the loss of such mineral resources. No mineral resources impacts would occur and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

XII. NOISE

Would the project result in:

a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

As identified previously, the potential development sites are adjacent to existing roadways and freeways and the PA 12 Site is also adjacent to the OCTA / Metrolink railroad. There is a potential for future residents and occupants of the potential development sites to be exposed to noise levels in excess of standards established in the City of Irvine General Plan Noise Element and the Irvine Municipal Code. This issue will be evaluated in the Draft EIR.

b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Construction activities can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures, and soil type. Groundborne vibration generated by construction is usually highest during rock blasting, pile driving, and demolition-related activities; however, none of these activities are expected to be required at the potential development sites. Groundborne vibration can also occur during grading activities. Vibration impacts are dependent on the presence of sensitive receptors in the area. Residential uses surround the PA 40 East Site and may be subject to vibration impacts during construction. Additionally, anticipated future uses at the PA 12 Site would be exposed to vibration from the adjacent railroad. This issue will be evaluated in the Draft EIR.

c)	A substantially permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

A permanent increase in ambient noise levels could result from long-term operation of the potential development sites. Operational noise impacts include traffic-related noise impacts to off-site uses; traffic-related noise impacts to on-site uses; and noise impacts from on-site activities. Long-term impacts to sensitive noise receptors from project-related traffic noise will be evaluated in the Draft EIR.

d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Construction noise is primarily related to the use of heavy equipment. Short-term impacts to sensitive receptors from construction at the potential development sites will be evaluated in the Draft EIR.

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 expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 26)

As previously identified, the potential development sites are located more than five miles from the nearest public airport, JWA. As shown on Figure F-1, Aircraft Noise, of the City of Irvine General Plan's Noise Element, the potential development sites are not located within the 65 Community Noise Equivalent Level (CNEL) contour associated with the airport. Therefore, the proposed Project would not expose people residing or working in the project area to excessive noise levels. No further evaluation of this issue is required in the Draft EIR.

f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

The potential development sites are not located within the vicinity of a private airstrip; therefore, no noise impacts related to private airstrip operations would occur. No further evaluation of this issue is required in the Draft EIR.

XIII. POPULATION / HOUSING

Would the project:

a)	Induce substantial 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)?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Development of residential and nonresidential uses that would directly increase the population and employment in the City of Irvine is anticipated by the proposed Project. This issue will be evaluated in the Draft EIR.

b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

There is no existing housing present on the potential development sites; therefore, development anticipated by the proposed Project would not result in the displacement of housing, necessitating the construction of replacement housing elsewhere. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x
There is no existing housing at the potential development sites; therefore, development anticipated by the proposed Project would not result in the displacement of people, necessitating the construction of replacement housing elsewhere. No impact would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.					
XIV. 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 following public services:				
i)	Fire protection?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
The Orange County Fire Authority (OCFA) provides fire protection services to the potential development sites. Potential future development of residential and nonresidential uses with the proposed Project would increase the demand for fire protection and emergency services and the associated demand on fire protection and emergency service apparatus, equipment, and personnel beyond existing levels. However, the Project Applicant and OCFA have entered into a Secured Fire Protection Agreement (SFPA) ⁶ for development in PA 12 and PA 40. The potential for impacts related to fire protection services, and an evaluation of the consistency of the proposed project with the current SFPA will be addressed in the Draft EIR.					
ii)	Police protection?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
Police protection services for the City of Irvine are provided by the Irvine Police Department (IPD). Potential future development of residential and nonresidential uses anticipated by the proposed Project would increase the demand for police protection services beyond existing levels. This issue will be evaluated in the Draft EIR.					

⁶ A Secured Fire Protection Agreement (SFPA) is a legally binding agreement that OCFA uses to identify the applicant's "fair share" contribution needed to adequately serve projects that include an increase of over 50 equivalent dwelling units. The OCFA uses SFPAs to ensure that it will have the resources to make long-range plans and decisions with respect to both infrastructure costs and operational costs associated with the development. SFPAs provide OCFA with the necessary assurances needed to complete work/review on enhancement to the regional emergency fire services delivery system.

iii)	Schools?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
The PA 40 Marine Way Sites are within the boundaries of the Saddleback Valley Unified School District (SVUSD), and no students would be generated at these sites. The PA 12 and PA 40 East sites are within the boundaries of the Irvine Unified School District (IUSD). Potential future development of residential uses at the PA 12 and PA 40 East sites anticipated by the proposed Project would result in an increase in the number of students attending IUSD schools serving the potential development sites. This issue will be evaluated in the Draft EIR.					
iv)	Parks?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
As further discussed under Section XV, Recreation, below, for new residential development, the City requires a minimum dedication of five acres of park land for every 1,000 residents. The park land demand generated by potential future residential development at the PA 12 Site and PA 40 East Site would be met either through provision of land, park improvements, payment of in-lieu fees, or some combination of these, in compliance with City park dedication standards as outlined in Section 5-5-1004 of the Irvine Municipal Code. The potential impacts related to the provision of parks will be evaluated in the Draft EIR.					
v)	Other public facilities?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
The Orange County Public Library provides library services to municipalities and unincorporated parts of Orange County. Impacts to library services are determined by the development of residential land uses only. The potential impacts to library facilities resulting from development of residential uses anticipated by the proposed Project will be evaluated in the Draft EIR.					
XV. RECREATION					
Would the project:					
a)	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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			
The City of Irvine provides community services and recreational and leisure time opportunities and is responsible for the planning, development, and maintenance of the City's parks and recreational facilities. Development of residential uses anticipated by the proposed Project would result in increased demand for recreational facilities commensurate with the new population that would be generated. City park land dedication requirements are based on projected population. The potential impacts to existing parks and recreational facilities will be evaluated in the Draft EIR.					

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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

For analysis purposes, it is assumed that private recreational facilities would be constructed to support future residential development at the PA 12 Site and PA 40 East Site. These facilities would be within the potential development sites and the physical impact area associated with implementation of development anticipated by the proposed Project. No additional impacts related to construction or expansion of recreational facilities would occur beyond those that will be addressed for the proposed project in the Draft EIR.

XVI. TRANSPORTATION / TRAFFIC

Would the project:

a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential future development of residential and nonresidential uses anticipated by the proposed Project would result in additional traffic generation compared to existing conditions. Potential short-term, long-term, and construction-related traffic impacts (including, but not limited to, intersections, streets, and highways and freeways) will be addressed in the Draft EIR.

Non-vehicular modes of transportation, including pedestrian and bicycle paths and mass transit, are discussed under Threshold "f", below.

b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The Congestion Management Program (CMP) legislation requires that the CMP Agency (in this case, the OCTA) monitor the implementation of the Orange County CMP, including CMP land use coordination component requirements. The goal of the CMP is to ensure that certain key intersections within the CMP Highway System (CMPHS) are operating at acceptable levels. The CMP has been developed to monitor impacts on CMPHS intersections. Potential impacts to CMP intersections within the traffic impact study area for the proposed Project will be evaluated in the Draft EIR.

c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Source: 20)

The proposed Project would not allow for the development of any uses that would change air traffic patterns or locations and would not increase the amount of air traffic. JWA is the closest airport to the potential development sites and is located

more than five miles away. No impact would occur and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The future development of residential, neighborhood commercial, office, child care, mini-warehouse, and related allowable uses is anticipated with the proposed Project. These uses would be compatible with existing uses and roadways in the project area. However, the transportation circulation design for the project will be analyzed for consistency with the City's adopted roadway design standards, and any inconsistencies or other potential hazards will be evaluated in the Draft EIR.

e)	Result in inadequate emergency access?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

As previously discussed, the future development of residential and nonresidential uses is anticipated with the proposed Project. Access would be provided from existing and planned roadways in the vicinity of the anticipated development sites; the adequacy of such access would depend on the specific design plans for the potential future development. In addition, construction activities on public rights-of-way may temporarily block traffic and access near the construction zone. Potential impacts related to emergency access will be evaluated in the Draft EIR.

f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

There are transit (e.g., bus routes and Metrolink / Amtrak) and pedestrian and bicycle facilities that serve the potential development sites. The development anticipated by the proposed Project could increase the demand for these facilities. The potential for the increased demand to impact these facilities or conflict with adopted plans, policies, or programs related to these facilities will be evaluated in the Draft EIR.

XVII. TRIBAL CULTURAL RESOURCES

Would the project:

a)	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	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

As discussed above under Threshold "a" in Section V, Cultural Resources, a cultural resources records search was undertaken at the SCCIC at California State University, Fullerton in January 2017. Based on this search and review of existing literature related to cultural resources within the potential development sites, no historic resources listed or eligible

for listing in the California Register of Historical Resources, or in a local register of historical resources, including tribal cultural resources, were identified. No further evaluation of this issue is required in the Draft EIR.

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.	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

Assembly Bill (AB) 52, which became effective on July 1, 2015, requires lead agencies to provide notice to Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. To date, the City of Irvine has received four written requests to be notified of projects in the City. A project notification letter was sent to these tribes, as requested. Further, because the project involves a proposed GPA, Native American coordination pursuant to SB 18 is required and appropriate notification was provided via certified mail.

To date the City has received one response to the project notification (from the Gabrieleño Band of Mission Indians-Kizh Nation). It is identified that there is a potential for tribal cultural resources to be encountered, even in previously disturbed areas, and the tribe requests that their Native American monitors be onsite during ground disturbances. The City will initiate consultation with this tribe. The potential to impact tribal cultural resources during construction is a potentially significant impact, and the results of this consultation will be presented in the Draft EIR.

XVIII. UTILITIES / SERVICE SYSTEMS

Would the project:

a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

Based on the types of land uses anticipated by the proposed Project, wastewater originating from the potential development sites would be generated by residential, neighborhood commercial, child-care center, mini-warehouse, office uses, and/or other similar allowable uses, and would ultimately be treated by facilities owned and operated by the IRWD. The wastewater treatment requirements issued by the California RWQCB for the IRWD treatment plant were developed to ensure that adequate levels of treatment would be provided for the wastewater flows originating from all land uses in its service area. Implementation of development anticipated by the proposed Project would not result in the development of any uses that would result in the discharge of prohibited substances into the wastewater system or cause the treatment plant to exceed the applicable treatment requirements. No impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

IRWD provides water and wastewater serve to the City of Irvine. There is currently no wastewater generation at the potential development sites, which are undeveloped. The IRWD provides wastewater collection and treatment and potable and non-potable water service in the City of Irvine. Non-potable water demand is supplied by recycled water from the Michelson Treatment Plant located in the City. Site-specific utility studies will be prepared to determine the increase in

wastewater generation and water consumption and whether new or expanded facilities are required to serve the uses anticipated by the proposed Project. This issue will be evaluated in the Draft EIR.

c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The amount and rate of storm water runoff would be altered with future development of the potential development sites, which are currently covered with primarily pervious surfaces. Storm water runoff would be directed to existing and planned storm drains. Site-specific hydrology / drainage studies will be prepared to determine whether new or expanded facilities are required to serve the uses anticipated by the proposed Project. This issue will be evaluated in the Draft EIR.

d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

IRWD provides both potable (domestic) and non-potable water services to the City of Irvine, including the potential development sites. In accordance with State law, IRWD has developed and maintained a plan relative to provisions for long-term water supply and is responsible for preparing Water Supply Assessments for certain types of new development projects, including the development anticipated by the proposed Project. Pursuant to Sections 10910 et seq. of the *California Water Code*, a Water Supply Assessment will be prepared. This issue will be evaluated in the Draft EIR.

e)	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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

IRWD provides wastewater treatment service for the City of Irvine, including the potential development sites. The potential impacts on the capacity of IRWD wastewater treatment facilities resulting from implementation of development anticipated by the proposed Project will be evaluated in the Draft EIR.

f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
				x	

(Sources: 27, 28)

The City of Irvine is under contract with Waste Management to dispose of its wastes into the Orange County landfill system. Solid waste generated from future development in conformance with the proposed Project would be disposed of at the Frank R. Bowerman (FRB) Landfill, which is part of the Orange County landfill system operated by OC Waste & Recycling. Based on correspondence with OC Waste & Recycling (OC Waste & Recycling 2017), the landfill is located at 11002 Bee Canyon Access Road in Irvine and currently accepts an average of approximately 7,500 tons per day and can accept a maximum daily intake of 11,500 tons. The landfill currently has a remaining estimated capacity of 185.2 million cubic yards as of June 30, 2016. The anticipated closure date for the landfill is in 2075.

With implementation of the development anticipated by the proposed GPA and Zone Change Project, there would be solid waste generated during construction and an increase in daily solid waste generation during operation. Based on the U.S. Environmental Protection Agency's new construction waste generation rate of 3.89 pounds per square foot (lbs / sf) for nonresidential uses and 4.38 lbs / sf for residential uses, construction of the proposed 565,000 sf of new nonresidential

uses (25,000 square feet of neighborhood commercial uses, 530,000 square feet of nonresidential uses, and a 10,000 square foot child-care facility), and approximately 1.45 million sf of multi-family residential uses (1,960 multi-family residential units) would generate approximately 4,278 tons of solid waste over the construction period, which would last approximately five to seven years.

Based on the operational solid waste generation rate of approximately 3.12 lbs / 100 sf / day for commercial / retail uses; 1.42 lbs / 100 sf / day for industrial / warehouse uses; 0.007 lb / sf / day for school uses; and 4.0 lbs / dwelling unit / day for multi-family residential uses, the development anticipated by the proposed Project (565,000 sf of new nonresidential uses and 1,960 multi-family residential units) would generate approximately 8.1 tons of solid waste per day requiring landfill disposal. Based on correspondence with the County of Orange, solid waste disposal associated with the proposed project could be accommodated within the permitted capacity of the County's landfill system (OC Waste & Recycling 2017).

Solid waste disposal generated by potential development anticipated with the proposed Project could be accommodated within the permitted capacity of the County's landfill system (OC Waste & Recycling 2017). No impacts would result and no mitigation is required. No further evaluation of this issue is required in the Draft EIR.

g)	Comply with federal, state, and local statutes and regulations related to solid waste?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
					x

(Sources: 29, 30, 31, 32, 33)

Construction and demolition recycling is a standard condition placed on development projects in the City of Irvine. The provisions of the City's Construction and Demolition Debris and Recycling and Reuse Ordinance are outlined in Title 6, Division 7 of the Irvine Municipal Code. To ensure consistency with the California Green Building Code, the Irvine Municipal Code, Section 6-7-903, includes thresholds for the following covered projects: (1) all projects involving new or existing residential development, except for renovations of a single residential unit; (2) all projects involving new nonresidential development; (3) all projects involving the addition of nonresidential floor area of 1,000 square feet or greater or 10,000 square feet or greater of paved surface area serving a nonresidential use; and (4) all projects involving nonresidential demolition and / or renovation of 10,000 sf or greater of the project area or having a project valuation of \$200,000. Pursuant to Section 6-7-902 of the Irvine Municipal Code, if a project falls into one or more of these categories, preparation of a Waste Management Plan is required. Based on these thresholds, the development anticipated by the proposed Project would require preparation of a Waste Management Plan. Waste Management Plans must commit to diverting a minimum of 75 percent of all concrete and asphalt construction and demolition debris and 50 percent of all other construction and demolition debris, unless the City grants an exemption.

The California Integrated Waste Management Act, also known as Assembly Bill (AB) 939, created the California Department of Resources Recycling and Recovery Board now known as CalRecycle and accomplished the following: (1) it required each jurisdiction in the State to submit detailed solid waste planning documents for CalRecycle approval; (2) it set diversion requirements of 25 percent in 1995 and 50 percent in 2000; (3) it established a comprehensive Statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and (4) it authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. Jurisdictions select and implement the combination of waste prevention, reuse, recycling, and composting programs that best meet the needs of their community while achieving the diversion requirements. Senate Bill (SB) 1016 passed in 2008 and introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. In 2015, California's Statewide disposal was 33.2 million tons, and the population was 38.9 million residents. This resulted in a per resident disposal rate of 4.7 pounds / resident / day calculated using SB 1016's measurement system. This is slightly more than the 2014 rate of 4.5 pounds / resident / day and decreased the per resident 2015 "diversion rate equivalent" to 63 percent.

The 50 percent diversion equivalent target for the City is a disposal rate of 10.1 pounds / persons / day (ppd) for residences and 9.3 ppd for businesses. According to CalRecycle, the City's 2015 calculated disposal rate was 5.5 ppd for residences and 6.0 ppd for businesses. The City is in compliance with AB 939 goals and uses several programs for diversion of solid waste from landfills, including programs for composting, recycling, household hazardous waste (HHW), source reduction, and special waste materials such as construction and demolition debris to achieve the diversion goal. Future residents and occupants would be required to comply with ongoing waste management programs / requirements implemented by

the City and would comply with applicable regulations. The potential development sites would be served by Waste Management of Orange County for the collection of solid wastes and recyclables. In addition, the City of Irvine has standard conditions (Standard Conditions 2.24 and 3.7) that require solid waste recycling in compliance with Title 6, Division 7 of the Irvine Municipal Code. The waste recycler is also required to meet or exceed the diversion requirements set forth in AB 939.

OC Waste & Recycling is obligated to obtain a Solid Waste Facilities Permit, a Stormwater Discharge Permit, and permits to construct and operate gas management systems and meet Waste Discharge Requirements. The local enforcement agencies, the SCAQMD and the RWQCB, enforce landfill regulations related to health, air quality, and water quality. The proposed project would not inhibit OC Waste & Recycling's compliance with the requirements of each of these governing bodies. Based on required conformance with the above regulations, no further evaluation of this issue is required in the Draft EIR.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE

a)	Does the project have the potential to 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, 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?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential for the proposed project to degrade the quality of the environment and / or impact important archaeological, historical, and biological resources will be evaluated in the Draft EIR.

b)	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)	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

The potential for the proposed project to contribute to cumulatively considerable impacts will be evaluated in the Draft EIR.

c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
		x			

With implementation of uses anticipated by the proposed Project at the potential development sites, there is a potential to create environmental effects that would directly or indirectly cause adverse effects on human beings. These include, but are not limited to, traffic, noise, and air quality. The Draft EIR will evaluate effects to human beings.

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SECTION V. EXHIBITS

Exhibit 1. Regional and Local Project Vicinity Map

Exhibit 2. California Department of Conservation Farmland Map

Exhibit 1
REGIONAL LOCATION AND LOCAL VICINITY

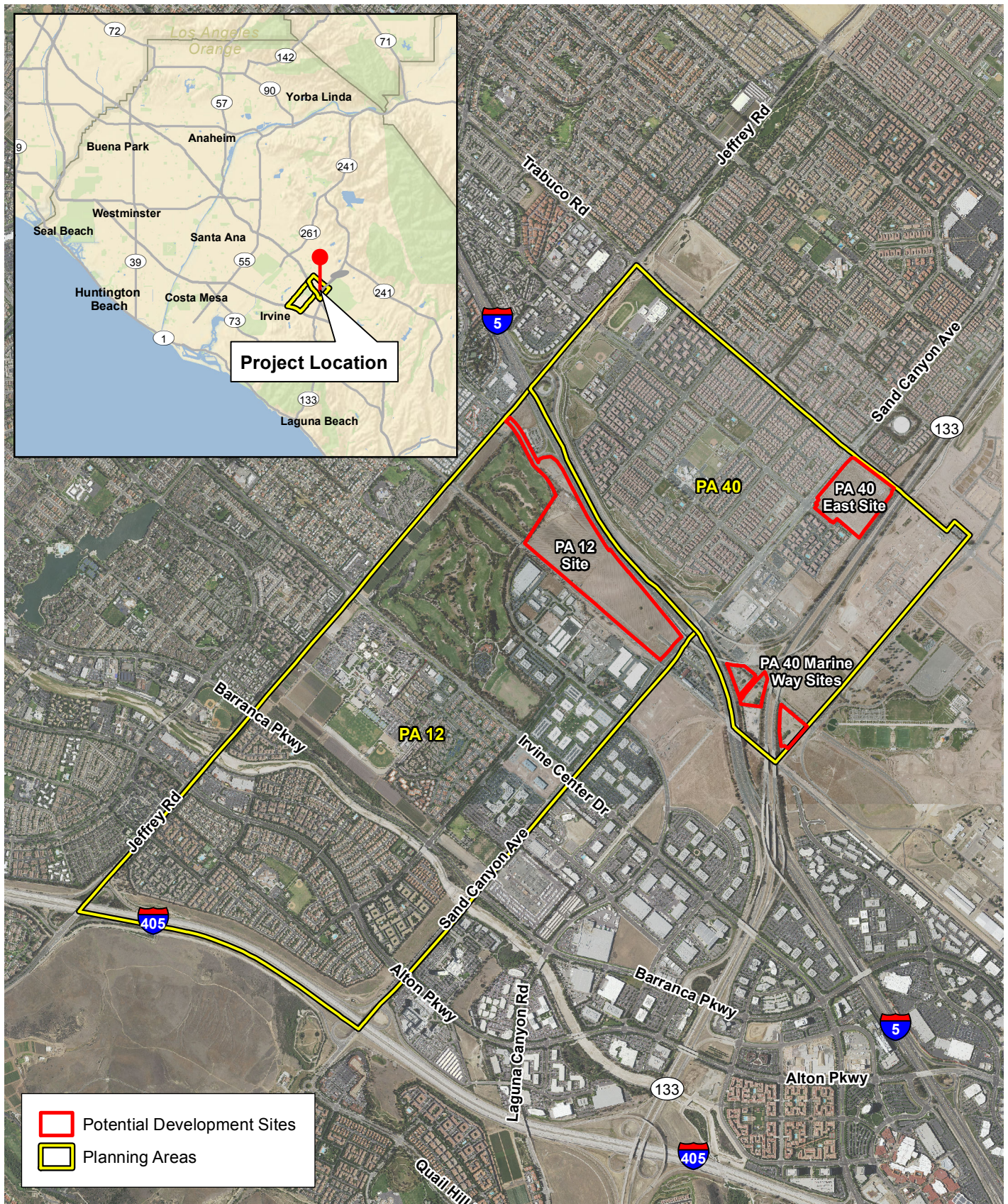


Exhibit 2 Farmland Map

