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Environmental Assessment
Determinations and Compliance Findings for HUD-assisted Projects
24 CFR Part 58

Project Information

Project Name: Salerno - Cypress Village Apartments

Responsible Entity: Orange County Homeless, Housing and Community Development & Orange County Public Works

Grant Recipient (if different than Responsible Entity):

State/Local Identifier: CA/059

Preparer: Cindy Wolfe, Administrative Manager/Environmental Coordinator

Certifying Officer Name and Title: Craig Fee, Community Development Manager, Homeless, Housing and Community Development

Grant Recipient (if different than Responsible Entity):

Consultant (if applicable): AECOM
999 Town & Country Road
Orange, CA 92868

Direct Comments to: Cindy Wolfe, (714) 480-2869

Project Location: Northeast corner of Sand Canyon Avenue and Nightmist, Irvine, CA
Census Tract No. 17612 / APN 104-584-47

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]:

The Salerno - Cypress Village Apartments (proposed project) consists of new construction of a two-building, 80-unit development with four floors of residential over tuck under parking on an approximately 2.58-acre lot at northeast corner of Sand Canyon Avenue and Nightmist in the City of Irvine (City). The development would be located in Planning Area 40 (PA 40) (refer to Figure 1, Project Vicinity Map). The proposed building height would be up to approximately 50 feet. The total gross building area would be 106,494 square feet with 3,200 square feet for clubhouse, computer room, media/game room, and Irvine Community Land Trust offices (comprised of an Executive Director's office, staff office, and reception/waiting area). The unit mix would consist of

24 one-bedroom/one-bath units, 16 two-bedroom/two-bath units, and 40 three-bedroom/two-bath units. The proposed project would also include a tot lot and swimming pool. In addition, the proposed project would include two elevators per building, community gathering space, with laundry and microwaves in each unit, making this development comparable to market rate apartment communities in the surrounding area. The proposed project would also include controlled access for resident safety. A total of 170 parking spaces would be provided as part of the proposed project, equating to an average of 2.15 parking spaces per unit, which exceeds the City of Irvine's parking requirements. The development would be designed with Mediterranean-style architecture, which is reflective of the surrounding Cypress Village. The buildings would also have finishes and treatments to make it indistinguishable from nearby market rate product. Landscaping would be provided in accordance with City of Irvine Development Standards. Additionally, the proposed project would include energy measures in accordance with California Tax Credit Allocation Committee (TCAC) regulations. Construction is estimated to start in May 2019 and be completed in September 2020. All 80 units would be designated for households paying no more than 30-80 percent Area Median Income (AMI) rent levels (average affordability is 44.9 percent). Thirty-five of the units would be set aside with 10 units for developmentally disabled, 10 units for homeless families, and 15 units for homeless veterans. The proposed project would include service agreements with Families Forward and United Cerebral Palsy, who would provide management, outreach, and education opportunities for residents. Services that would be by Families Forward would include:

- Tenant Education Workshops and Consultations
- Career Coaching
- Community Counseling
- Case Management
- Food Pantry Seasonal Programs

Other services that may be provided depending on the needs of the community could include:

- Home Ownership Workshops
- Parenting Education
- Life Skills Workshop Series
- Credit Counseling and Financial Literacy
- Stress Management Workshops
- Social Services Enrollment
- Mobile Medical and Dental Clinic
- Legal Aid
- Domestic Violence Services
- Child Care

In addition, services to be provided by United Cerebral Palsy would include:

- Independence and Community Inclusion/Integration
- Productivity

- Personal Empowerment
- Community Connections and Informal Support Networks

The project site is currently zoned as Multi-Use and is designated as Multi-Use by the City of Irvine General Plan. The proposed project would require a Master Plan/Conditional Use Permit with the City of Irvine Planning Department. A Building Permit would also be required and would be processed through City of Irvine Building Division. In addition, Landscape Plans, Precise Grading Plans, and Private Street Improvement Plans would be required and would be processed through City of Irvine Engineering Department.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:

The objective of the proposed project is to construct a new 80-unit development of affordable housing to serve low income households and low to extremely low-income households that are homeless, homeless veterans and households in which at least one member has a developmental disability. The units set-aside for homeless households, homeless veteran households and households with at least one member with a developmental disability will provide much needed affordable housing for the most vulnerable and at-risk individuals in the community.

Existing Conditions and Trends [24 CFR 58.40(a)]:

The project site is a vacant lot located in the City within an area comprised primarily of residential and commercial properties (refer to Figure 2, Site Map). The adjoining properties consist of Irvine Unified School District school bus depot to the southwest; Sand Canyon Avenue then Irvine Company residential properties to the northwest; vacant/undeveloped lot to the southeast; and Avella Apartment Homes to the northeast.

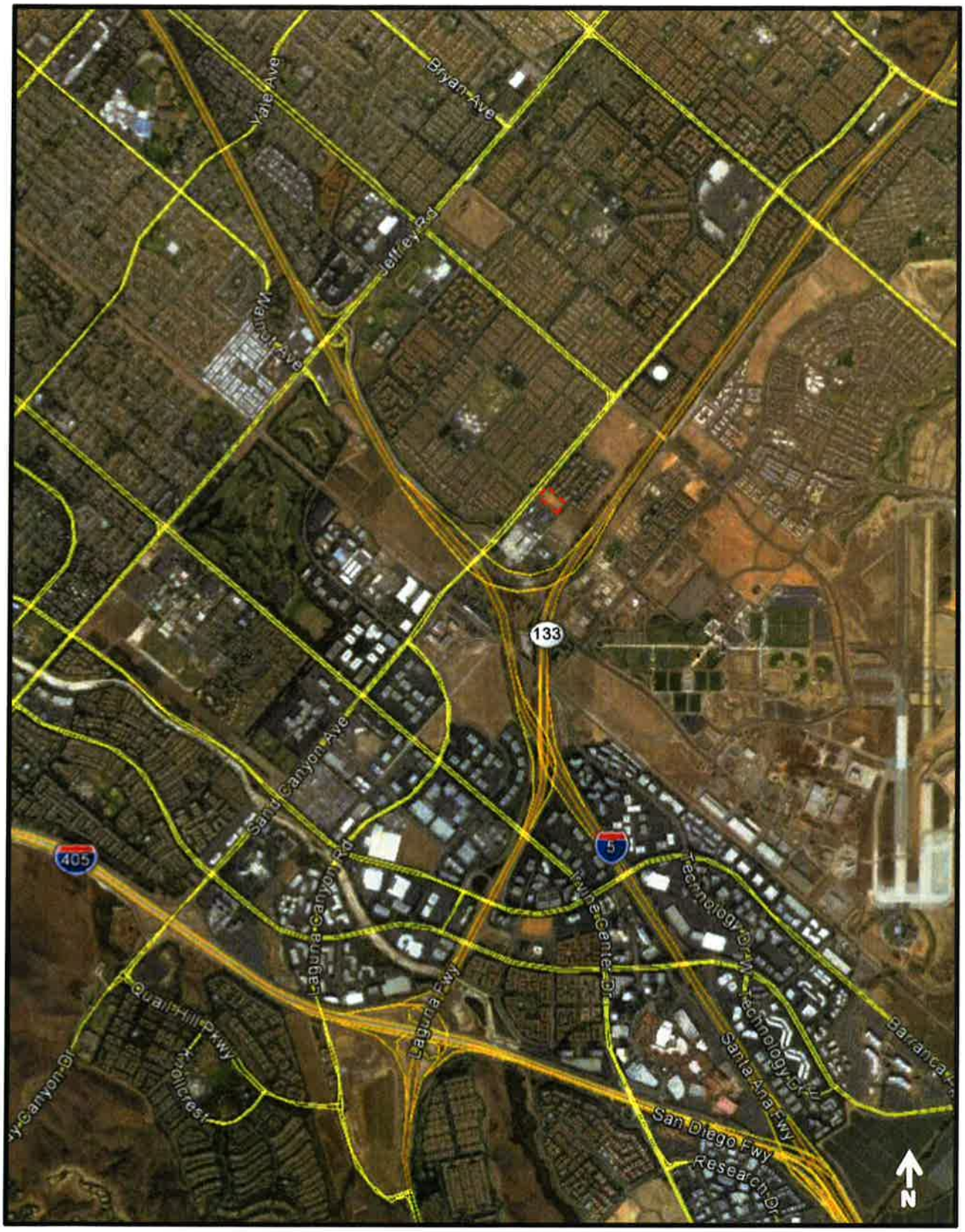
Funding Information

Grant Number	HUD Program	Funding Amount
	HOME	$1,500,000.00[1]
	10 Project Based Vouchers	
	15 VASH Project Based Vouchers	
M-18-MC-06-0561	HOME	$676,952.00[2]

[1] County of Orange
[2] City of Irvine

Estimated Total HUD Funded Amount: $2,176,952.00 (anticipated HOME funds)

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** $39,440,297.00



Approximate Project Site Boundary

Figure 1
Project Vicinity Map

Approximate Project Site Boundary

Figure 2
Site Map

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 AND 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	John Wayne Airport is the nearest airport to the project site and is located approximately 6 miles to the west. The proposed project is not located within 2,500 feet of a civilian airport or within 15,000 feet of a military airport. In addition, the project site is not located within an airport land use plan and the safety zone as identified in the *Airport Environs Land Use Plan for John Wayne Airport* as prepared by the Orange County Airport Land Use Commission (City of Irvine 2008 & ALUC 2008). Therefore, no adverse effect would result from the proposed project.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	The project site is located approximately 10 miles inland from the Pacific Ocean and is not located within a Coastal Barrier Resource Area (USFWS 2018a). Therefore, no adverse effect would result from the proposed project.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	According to the Flood Insurance Rate Map (FIRM) from the Federal Emergency Management Agency (FEMA), the proposed project site is located within Zone "X" (Areas determined to be outside the 0.2 percent annual chance floodplain [i.e., 500-year flood zone]) as defined on FEMA Map

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		06059C0292J (effective date: 12/03/2009). Flood Hazard Zone "X" is an area with the least likely potential for flooding (FEMA 2018). Therefore, no adverse effect would result from the proposed project.
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☒ No ☐	An Environmental Impact Report (EIR), which included air quality and global climate change analyses, was prepared by the City of Irvine for the PA 40/PA 12 Project (City of Irvine 2008). The PA 40/PA12 Project included development of this project site for multi-use development (specifically, in District 2 of PA 40), including high density residential [>30 units/acre] and/or commercial uses. The maximum number of residential units allowed within the multi-use development in PA 40 is 1,309 units. Per the latest Housing Element for the City of Irvine (2013-2021), PA 40 has a remaining capacity of 104 high density units (City of Irvine 2015). Thus, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40. According to the EIR, the PA 40/PA 12 Project's short-term criteria pollutant emissions from grading activities would exceed the SCAQMD's Thresholds of Significance for reactive organic gases (ROG), nitrogen oxides (NOx), and particulate matter (PM_{10} and $PM_{2.5}$) after implementation of plans, programs, and policies (PPPs) and mitigation measures (MMs). In addition, the long-term and cumulative ROG, carbon monoxide (CO), NOx, PM_{10}, and $PM_{2.5}$ emissions associated with PA 40/PA 12 Project operations would exceed the SCAQMD thresholds after implementation of air quality PPPs and MMs. Additionally, the PA 40/PA 12 Project was found to not interfere with the

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		State of California's ability to achieve the current greenhouse gas (GHG) reduction goals and strategies with implementation of GHG PPP and project design features (PDFs). Given that development of the project site was included in the PA 40/PA 12 Project, the proposed project is not anticipated to result in new or substantially greater air quality or global climate change impacts than what was previously analyzed. The proposed project would also implement the applicable air quality PPPs and MMs and GHG PPP and PDFs from the PA 40/PA 12 Project EIR, which include the following: **PPP-AQ-1:** Compliance with SCAQMD Rules 402 and 403: During construction of the [PA 40/PA 12 Project], the property owner/developer and its contractors shall be required to comply with regional rules, which will assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions not be a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction. Relevant control measures from Rule 403 are identified in Tables 17 through 20 of the Air Quality

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Assessment completed for the [PA 40/PA 12 Project] by MGA (see Appendix B1 of the [PA 40/PA 12 Project EIR]). **PPP-AQ-2:** Compliance with Title 24, Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings: All buildings must comply with Title 24, Part 6. Reducing the need to heat or cool structures by improving thermal integrity will result in a reduced expenditure of energy and a reduction in pollutant emissions. **MM-AQ-1:** Construction Equipment Emissions Measures: Prior to the issuance of each grading permit, the following information shall be included as a note on the cover sheet of the grading plans: "The following measures shall be implemented during grading and construction of the project: • Use low emission construction equipment. The property owner/develop shall comply with [California Air Resources Board (CARB)] requirements for heavy construction equipment. For mass or rough grading, contractors shall be required to utilize heavy construction equipment that complies with the SCAQMD contractor requirement to maintain a Tier 2 fleet average. • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. • Utilize existing power sources (i.e., power poles) when available. • Configure construction parking to minimize traffic interference.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		• Utilize existing power sources (i.e., power poles) when available. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the maximum extent feasible. • Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service). • Avoid unnecessary idling by shutting off engines that are expected to idle for more than five minutes. • Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow. • Schedule construction activities that that affect traffic flow on the arterial system to off-peak hour to the extent practicable. • Reroute construction trucks away from congested streets or sensitive receptor areas, and appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation." **MM-AQ-2:** ROG Control Measures: Prior to issuance of the first building permit, the applicant shall provide evidence to the Director of Community Development [City of Irvine] that the following measures shall

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		be incorporated into project construction to the greatest extent feasible: • Minimize the amount of paint used by using pre-coated, pre-colored and naturally colored building materials. (Note: The architectural/construction design typically used by the Project applicant includes, to a large extent, these type building materials, when practicable); • Use Water-Based and LOW-VOC coatings with VOC contents set forth in SCAQMD Rule 1113 (http://www.aqmd/gov/prdas/brochures/Super-Compliant_AIM.pdf); and • Use high transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible. **MM-AQ-3:** Implement Measures Recommended in SCAQMD's CEQA Handbook and the URBEMIS2002 Model: Prior to issuance of the first building permit, the applicant shall provide evidence to the Director of Community Development [City of Irvine] that demonstrates how the property owner/developer shall reduce operation-related emissions through implementation of the following practices identified in SCAQMD's CEQA Handbook and the URBEMIS2002 model: • Install low-emission water heaters; • Use built-in, energy-efficient appliances; and • Ensure that sidewalks and pedestrian paths are installed throughout the project area.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		MM-AQ-4: The project shall comply with Proposed SCAQMD Rule 445 regarding woodburning devices, if adopted. For phases of the project constructed in advance of a SCAQMD rule, the project shall use, at the applicant's discretion, 1) EPA certified wood burning devices, 2) non-EPA certified clean burning fireplaces and/or 3) fireplaces permanently equipped with gas logs. **PPP-GHG-1:** Title 24 Energy Standards: The proposed project shall comply with all State Energy Insulation Standards and City of Irvine codes in effect at the time of application for building permits. (Commonly referred to as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 covers the use of energy efficient building standards, including ventilation, insulation and construction and the use of energy saving appliances, conditioning systems, water heating, and lighting). Plans submitted for building permits shall include written notes demonstrating compliance with energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits. **PDF-GHG-2:** Green Site Design: In addition to the favorable location, land use mix, and density of the Project that serve to reduce potential GHG emissions, as described in the Impacts Analysis below, the overall project design includes a number of features that will reduce energy consumption and associated GHG emissions. Such features include:

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Reduced Automobile Dependence - The following site design features will help to reduce the number of vehicle trips and the vehicle miles traveled. *Effective Use of Landscaping* - Development of the Project site will include the installation of landscaping throughout the site, similar to that used for the recently developed Woodbury and Stonegate residential planned community developments located near the Project site. Such landscaping includes the use of trees and shrubbery, much of which is transplanted to the site as mature species. These landscaping characteristics provide for more dense planted areas with fuller foliage than what can be typically observed at many other new developments in southern California. This provides multiple benefits related to GHGs such as helping to shade and cool the site, helping to absorb CO_2 through photosynthesis, and helping to stabilize soils onsite, which can help reduce existing GHG emissions (i.e., the tilling of soils and biodegradation of organic materials associated with current agricultural activities in PA 40 will be replaced by site landscaping - additionally the temporary/periodic nature of low lying vegetation [row crops] within the PA 40 site will be replaced with permanent). Irrigation of the site landscaping in common areas will use recycled (reclaimed) water from the Michelson Reclamation Plant, which offers certain environmental benefits and requires less embodied energy (i.e., less GHG emissions) compared to using potable water for irrigation. Common area landscaping will include the following design features:

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		• All irrigation systems shall be designed to conform to California AB 325 (Model Water Efficient Landscape Ordinance). Irrigation systems shall be designed to apply water at a rate which does not exceed the infiltration rate of the soils, and systems shall be programmable to prevent ponding and minimize runoff. • Irrigation systems shall be designed to meet the peak moisture demand of all plant materials used within the design area. Individual station run time shall meet peak evapotranspiration (E.T.) rate. Additionally, satellite-linked system controllers/rain sensors are used to monitor and adjust the timing and amount of irrigation. • Separate remote control valves shall be used for shrub and groundcover areas versus turf-areas. Sun and shade areas shall also have segregated-irrigation controls. **PDF-GHG-3:** Green Building Design: Based on the principles and point score system of the City's existing voluntary Irvine Green Building Program, individual residential and professional administrative office developments occurring within the Project site shall be designed and constructed to incorporate "Green Building Design" features from the menu provided in Table 5.17-2, PA 40/12 Green Building Options, summarized the various measures available for different building types and the relative score value for each measure, while Appendix K1 provides the detailed scoring sheets for each building type. For the PA 40/PA 12 Project, buildings within each of the categories identified in Table 5.17-2, PA

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		40/12 Green Building Options, will incorporate measures to achieve at least 50 points in order to meet the Green Building Design requirement set forth in this PDF, as will be confirmed prior to issuance of a building permit(s) for the candidate building(s). 1. Site & Landscape 2. Foundation, Frame, And Roofing 3. Plumbing 4. Lighting & Appliances 5. HVAC 6. Energy Performance 7. Renewable Energy 8. Indoor Air Quality 9. Resource Efficient Materials 10. Education, Awareness, and Operations Thus, as stated above, the proposed project is not anticipated to result in new or substantially greater air quality or global climate change impacts than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the applicable air quality and GHG PPPs, PDFs, and MMs, no new adverse effect would result from the proposed project.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The closest coastal zone (Newport Beach) is located approximately 10 miles southwest from the project site. Thus, the project site is not located within a Coastal Zone, and therefore, does not involve the placement, erection or removal of materials within a Coastal Zone. Therefore, no adverse effect would result from the proposed project.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	The Phase I Environmental Site Assessment (ESA) (Advantage Environmental Consultants, Inc. [AEC] 2017) prepared for the proposed project concluded there is no evidence of recognized environmental

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		conditions (RECs) in connection with the project site. Additional environmental investigation at the project site is not considered to be warranted. Therefore, no adverse effect would result from the proposed project.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	The project site is located within an existing urbanized area that has been previously disturbed by development and human activity. It is currently undeveloped and concrete block and chain-link fencing surround the project site. Based on the U.S. Fish and Wildlife Service (USFWS)'s online Critical Habitat for Threatened & Endangered Species mapper, the proposed project would have No Effect on listed species (USFWS 2018b). Therefore, no adverse effect would result from the proposed project.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	No underground storage tanks (USTs) or aboveground storage tanks (ASTs) used for hazardous materials storage were reported for the project site per the Phase I ESA (AEC 2017). Therefore, no adverse effect would result from the proposed project.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The project site is designated as Prime Farmland (CDC 2016). However, the project site also falls 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 (City of Irvine 2008). Therefore, no adverse effect would result from the proposed project.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☐ No ☒	According to the Flood Insurance Rate Map (FIRM) from the Federal Emergency Management Agency (FEMA), the project site is located within Zone "X" (Areas determined to be outside the 0.2 percent annual chance floodplain [i.e., 500-year flood zone]) as defined on FEMA Map 06059C0292J (effective date: 12/03/2009). Flood Hazard Zone "X" is an area with the least likely potential for flooding (FEMA 2018). In addition, the project site is also not found within any of the other locations set forth in Table 1 of 24 CFR Part 55.11 Table. Therefore, no adverse effect would result from the proposed project.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes ☐ No ☒	The project site is located within an existing urbanized area that has been previously disturbed by development and human activity. It is currently undeveloped and concrete block and chain-link fencing surround the project site. The proposed project consists of the construction of an 80-unit residential development with four floors of residential slab on grade and three floors of residential over tuck under parking. Construction activities would require grading along with removal and re-compaction of the upper several feet of on-site soil. There are no known archaeological and historic resources within the PA 40 site per the PA 40/PA 12 Project EIR (City of Irvine 2008), or within the project site per the records search conducted by South Central Coastal Information Center in May 2018. However, buried historical resources have been discovered in the general vicinity of the PA 40 site boundaries, and it is possible that buried and undiscovered historical resources are present within the PA 40 site boundaries, including the project

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		site. With compliance of PPPs, the PA 40/PA 12 Project was found to result in less than significant impacts to archaeological and historic resources. Given that development of the project site was included in the PA 40/PA 12 Project, the proposed project is not anticipated to result in new or substantially greater archaeological and historic resources impacts than what was previously analyzed. Furthermore, the proposed project would implement the applicable archaeological and historic resources PPPs from the PA 40/PA 12 Project EIR, which include the following: **PPP-CLT-1:** Prior to the issuance of the first preliminary or precise grading permit, and for any subsequent permit involving excavation to increased depth, the applicant shall provide letters from an archaeologist and a paleontologist. The letters shall state that the applicant has retained these individuals, and that the consultant(s) will be on call during all grading and other significant ground-disturbing activities. These consultants shall be selected from the roll of qualified archaeologists and paleontologists maintained by the County of Orange. The archaeologist and/or paleontologist shall meet with Community Development staff [City of Irvine], and shall submit written recommendations specifying procedures for cultural/scientific resource surveillance and for developing mitigation plans for archaeological/historical and paleontological resources. These recommendations shall be reviewed and approved by the Director of Community Development [City of Irvine] prior to issuance of the grading permit and prior to any surface disturbance on the project site.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		Specific measures that shall be required include at a minimum: a. A qualified archaeological and/or paleontological monitor will observe and inspect grading and other construction excavations in undisturbed, native sediments, including full time monitoring during grading of undisturbed Pleistocene age sediments below a depth of 8 feet. b. If archaeological excavations are conducted, the Owner will retain a qualified Native American monitor with demonstrated ancestral ties to the area. The Native American monitor will observe all archaeological excavations and provide a written report. c. Conduct an archaeological survey of the PA 12 Project site in conjunction with clearing and grubbing of the property, prior to major earth-moving activity. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Director of Community Development [City of Irvine] is satisfied that adequate provisions are in place to protect these resources (i.e., significant scientific/cultural resources will be preserved in place or recovered and curated at a museum or other suitable repository for curation in perpetuity. The repository will afford access to the collection to future researchers. Proof of curation shall be provided). (City of Irvine Modified Standard Condition 2.1). **PPP-CLT-2:** In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken: There shall be no further excavation or disturbance of the site or any

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		nearby area reasonably suspected to overlie adjacent human remains until the Orange County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or a. Where the following conditions occur, the land owner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the property in a location not subject to further subsurface disturbance: 1. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. 2. The identified descendent fails to make a recommendation; or 3. The landowner or his/her authorized representative rejects the recommendation of the descendent,

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. [CEQA Guidelines Section 15064.5(e)] In addition, in early July 2018, Orange County Community Resources (OCCR) initiated tribal consultation but did not receive a response in 30 days. In mid-August 2018, OCCR submitted a request to the California Department of Parks and Recreation, Office of Historic Preservation (OHP) for concurrence with their determination that no historic property would be adversely affected as a result of implementation of the proposed project in accordance with Section 106 of the NHPA and HUD requirements. OHP's State Historic Preservation Officer (SHPO) concurred with OCCR's determination in their letter response dated September 14, 2018. No adverse effects are anticipated to result from the proposed project.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☒ No ☐	As discussed previously, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR. This EIR included an evaluation of noise impacts resulting from implementation of the PA 40/PA 12 Project. According to the EIR, development of the PA 40/PA 12 Project would involve on-site construction activities that would generate various levels of noise. With compliance with noise PPPs and PDFs though, it would not have a significant noise impact on the residences in the vicinity. In addition, during operation, the EIR found that exposure of proposed residences within PA 40 to traffic-related noise levels that exceed

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		the City's exterior and interior noise standards could occur; however, with implementation of noise MMs, the impact would not be significant. Given that development of the project site was included in the PA 40/PA 12 Project, the proposed project is not anticipated to result in new or substantially greater noise impacts than what was previously analyzed. The proposed project would also implement the applicable noise PPPs, PDFs and MMs from the PA 40/PA 12 Project EIR, which include the following: **PPP-NOS-1:** Control of Construction Hours: Construction activities occurring as part of the Project shall be subject to the limitations and requirements of Section 6-8-205(a) of the Irvine Municipal Code which states that construction activities may occur between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and Federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and Federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		including maintenance work on the City rights-of-way that might be required. **PPP-NOS-2:** Acoustical Report - Prior to the issuance of building permits for each structure or tenant improvement other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development [City of Irvine]. The report shall show that the development will be sound attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. The final acoustical report shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). In order to demonstrate that all mitigation measures have been incorporated into the project, the report shall be accompanied by a list identifying the sheet(s) of the building plans that include the approved mitigation measures. (Standard Condition B.1) **PDF-NOS-2:** Construction-Related Noise Mitigation Plan: For development proposed adjacent to any developed/occupied uses, a construction-related noise mitigation plan shall be submitted to and approved by the Director of Community Development [City of Irvine] for review and approval prior to issuance of grading permits. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project, through the use of such methods as the following: (1) temporary noise attenuation fences; (2) preferential location of equipment; and (3) use of current technology and noise

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		suppression equipment. **MM-NOS-1:** Prior to the issuance of grading permits for any residential development along the Santa Ana (I-5) Freeway or SR-133 in Planning Area 40, a detailed acoustical analysis study shall be prepared by a qualified acoustical consultant and submitted to the City for review and approval. This acoustical study shall describe and quantify the noise sources impacting the area and the measures required to meet the 65 CNEL exterior residential noise standard. The final grading plans shall incorporate the noise barriers (wall, berm or combination wall/berm) required by the analysis and the property owner/developer shall install these barriers per the recommendations of the acoustical analysis study. These noise barriers shall be taken into consideration in the building specific acoustical reports required by PPP-NOS-2, which may specify additional measures to achieve acceptable interior noise levels. **MM-NOS-2:** Prior to issuance of building permits for all residential buildings in the area shown in Figure 5.10-8 of the PA 40/PA 12 [EIR], all documentation shall be provided to show that the building meets the ventilation standards required by the Uniform Building Code with windows closed. Alternatively, the applicant can show that, based on the building's location relative to the roadway and any intervening topography and structures, the structure will meet the applicable interior noise standard with open windows. **MM-NOS-3:** Prior to issuance of building permits, a detailed acoustical study using

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
		architectural plans shall be prepared by a qualified acoustical consultant and submitted to, and approved by, the City for residential structures in the areas shown in Figure 5.10-8. This study shall describe and quantify the noise sources impacting the building(s), the amount of outdoor-to-indoor noise reduction provided by the design in the architectural plans, and any upgrades required to meet the City's interior noise standards (45 CNEL for residences). The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction. Thus, as stated above, the proposed project is not anticipated to result in new or substantially greater noise impacts than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the applicable noise PPPs, PDFs, and MMs from the PA 40/PA 12 Project EIR, no new adverse effect would result from the proposed project.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	The project site is not located within a U.S. EPA-designated sole source aquifer watershed area per EPA Map of Sole Source Aquifer Locations website (EPA 2018a). Therefore, no adverse effect would result from the proposed project.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	The project site is located within a mixed residential and commercial area lacking any water features or resources, and thus, does not involve new construction within or adjacent to wetlands, marshes, wet meadows, mud flats or natural ponds per maps issued by the U.S. Fish & Wildlife Services (USFWS 2018c). Therefore, no adverse effect would result from the proposed project.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	The project site is not located within one mile of a listed Wild and Scenic River (EPA 2018b). Therefore, no adverse effect would result from the proposed project.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	Based on the analysis of this Environmental Assessment, the proposed project would not expose persons to adverse environmental conditions. Therefore, the proposed project would not expose low income or minority populations to adverse environmental conditions. Furthermore, since the proposed project would provide affordable housing to low- to extremely low-income households that are homeless, homeless veterans, and households in which at least a member has a developmental disability, it would provide a benefit to populations with very low income. Therefore, the proposed project would have a beneficial effect related to environmental justice.

Environmental Assessment Factors [24 CFR 58.40; Ref. 40 CFR 1508.8 &1508.27] Recorded below is the qualitative and quantitative significance of the effects of the proposal on the character, features and resources of the project area. Each factor has been evaluated and documented, as appropriate and in proportion to its relevance to the proposed action. Verifiable source documentation has been provided and described in support of each determination, as appropriate. Credible, traceable and supportive source documentation for each authority has been provided. Where applicable, the necessary reviews or consultations have been completed and applicable permits of approvals have been obtained or noted. Citations, dates/names/titles of contacts, and page references are clear. Additional documentation is attached, as appropriate. **All conditions, attenuation or mitigation measures have been clearly identified.**

Impact Codes: Use an impact code from the following list to make the determination of impact for each factor.

(1) Minor beneficial impact
(2) No impact anticipated
(3) Minor Adverse Impact – May require mitigation
(4) Significant or potentially significant impact requiring avoidance or modification which may require an Environmental Impact Statement

Environmental Assessment Factor	Impact Code	Impact Evaluation
LAND DEVELOPMENT		
Conformance with Plans/ Compatible Land Use and Zoning/ Scale and Urban Design	2	The proposed project would provide an affordable housing to low- to extremely low-income households that are homeless, homeless veterans, and households in which at least a member has a developmental disability. The proposed project would meet the City's affordable housing requirement through the use of credits established through a Master Affordable Housing Plan (MAHP) approved by the City. The project site is currently zoned as Multi-Use and is designated as Multi-Use by the City of Irvine General Plan. The Multi-Use zoning allows for a combination of residential, commercial, office and institutional uses within the same portion of the project site. The proposed 80-unit residential development would be consistent with the surrounding land uses. The proposed project would prepare a Master Plan/Conditional Use Permit, a Building Permit for the Architecture, and Landscape Plans, Rough and Precise Grading Plans, and Private Street Improvement Plans to be in conformance with the City's requirements. The proposed project would comply with all of the standards set forth in the City of Irvine General Plan (i.e.,

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Housing Element), applicable zoning ordinance (i.e., Chapter 2-3), MAHP, and design standards. Therefore, no adverse impact would occur.
Soil Suitability/ Slope/ Erosion/ Drainage/ Storm Water Runoff	2	The project site consists of a disturbed, flat, dirt lot with sparse vegetation and no structures. Flows from the project site mainly drain toward an existing concrete lined, open channel (referred to as the Caltrans Channel, located adjacent to the I-5 Freeway), though a portion also drains into Trabuco Retarding Basin (City of Irvine 2008). The static groundwater table at the project site is anticipated to be present at a depth of greater than 50 feet below the ground surface (bgs), though it could vary (e.g., in the project area, groundwater depth ranges between 39.5 and 87 bgs) (AEC 2017; City of Irvine 2008). The proposed project consists of the construction of an 80-unit residential development with four floors of residential slab on grade and three floors of residential over tuck under parking. It would include a storm drain system and landscaping. Construction activities would require grading along with removal and re-compaction of the upper several feet of on-site soil. Soil would be exposed and there would be an increased potential for soil erosion compared to the existing conditions during construction. Additionally, during a storm event, soil erosion could occur at an accelerated rate. Also, once developed, the amount of impervious area would increase, which would increase the rate and amount of runoff from the project site. As discussed previously, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR. This EIR found that no significant geology and soils impacts and storm water impacts would occur with implementation of geology and soils PPPs, and potentially significant storm water impacts would be reduced to less than significant impact s with storm water PPPs, PDFs, and MM. Given that development of the project site was included in the PA 40/PA 12 Project, the proposed project is not anticipated to result in new or substantially greater geology and soils and storm water impacts than what was previously analyzed. The proposed project would also implement the applicable geology and soils PPPs and storm water PPPs, PDFs, and MM from the PA 40/PA 12 Project EIR, which include the following:

Environmental Assessment Factor	Impact Code	Impact Evaluation
		PPP-GEO-1: Revegetation: Revegetation of cut and fill slopes shall be required in accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual. **PPP-GEO-2:** Grading Operations and Construction: All grading operations and construction will be conducted in conformance with the applicable City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, the most recent version of the Uniform Building Code, and consistent with the recommendations included in the most current geotechnical reports for the project area prepared by the engineer of record. **PPP-GEO-3:** Geotechnical Reports: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, detailed geotechnical investigation reports for each Rough Grading Plan shall be submitted to further evaluate faults, subsidence, slope stability, settlement, foundations, grading constraints, liquefaction potential, issues related to shallow groundwater and other soil engineering design conditions and provide site-specific recommendations to mitigate these issues/hazards. The geotechnical reports shall be prepared and signed/stamped by a Registered Civil Engineer specializing in geotechnical engineering and a Certified Engineering Geologist. The City of Irvine Geotechnical Engineer/Engineering Geologist shall review the rough grading plan to ensure conformance with recommendations contained in the reports. **PPP-GEO-4:** Registered Civil Engineer: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall be performed under the observation of a Registered Civil Engineer specializing in Geotechnical Engineering in order to achieve proper sub-grade preparation, selection of satisfactory fill materials, placement and compaction of structural fill, stability of

		finished slopes, design of buttress fills, subdrain installation and incorporation of data supplied by the engineering geologist. **PPP-GEO-5:** Certified Engineering Geologist: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall also be performed under the observation of a Certified Engineering Geologist to provide professional review and written approval of the adequacy of natural ground for receiving fills, the stability of cut slopes with respect to geological matters, and the need for subdrains or other groundwater drainage devices. The geologist shall geologically map the exposed earth units during grading to verify the anticipated conditions, and if different, provide findings to the geotechnical engineer for possible design modifications. **PPP-GEO-6:** Structures and Seismic Design: Future buildings and structure (i.e., houses, retaining walls, etc.) shall be designed in accordance with the City of Irvine Building Code and the most recent Uniform Building Code and/or California Building Code (UBC/CBC). The concrete utilized shall take into account the corrosion and soluble sulfate soil conditions at the site. The structures shall be designed in accordance with the seismic parameters included in the UBC/CBC. **PPP-GEO-7:** Septic Tanks, Leech Fields, and Seepage Pits: If encountered during grading, the abandonment of the septic tanks, leech field, and seepage pits shall be performed in accordance with Section 722 of the Uniform Plumbing Code requirements. These structures shall be removed from the upper 10 feet from finish grade and disposed of offsite. The structures shall be properly abandoned below this depth. **PPP-SH-1:** Storm Drain Facilities: Prior to release of a final map by the City, the landowner or subsequent project applicant shall construct, or enter into an agreement and post security, in a form and amount acceptable to the City Engineer, guaranteeing the construction of the following public and/or private improvements in conformance with
		applicable City Standards and the City's Capital Improvement Policy. (City of Irvine Standard Condition

Environmental Assessment Factor	Impact Code	Impact Evaluation
		1.1) **PPP-SH-4:** Hydrology and Hydraulics Report: Prior to the issuance of preliminary grading permits, the landowner or subsequent project applicant shall complete, and submit to the Department of Public Works, a hydrology and hydraulics report to verify that the final development conforms to the proposed drainage patterns and flow rates shown in the Master Plan of Drainage. The final pad layout and street locations along with final on-site storm drain design shall be verified with more refined flow rates and pipeline layouts, to the satisfaction of the City Engineer. (Section 102 of the Standards & Design Manual) **PDF-SH-1:** Routing of Flows to Trabuco Retarding Basin: A portion of the existing drainage area tributary to the Caltrans Channel will be routed to Trabuco Retarding Basin. PA 40 planned development will be designed per San Diego Creek Master Plan Central-Irvine Channel Update Calculations (RBF Report, 2-26-2007). The Flood Control Master Plan designed a portion of the PA 40 development to be routed to the Trabuco Retarding Basin. The area allocated to Trabuco Retarding Basin in the Flood Control Master Plan is 85 acres or 200 cfs, whichever is the limiting factor. The actual developed area proposed to be routed to Trabuco Retarding Basin, as modeled in this hydrology study, is approximately 78 acres, which will generate approximately 200 cfs of developed flow. The area of PA 40 allocated to be routed to Trabuco Retarding Basin will be drained via an on-site storm drain system towards Trabuco Road. An existing trunk storm drain pipe system located in Trabuco Road is designed and built to convey the proposed discharges from a portion of PA 40. This flow will be discharged to the Trabuco Retarding Basin. The Trabuco Retarding Basin was recently modified to attenuate the flow from increased tributary drainage areas and latest land use changes, and to provide water quality benefits for the watershed. As a result of this drainage improvement, the developed drainage area tributary to the existing Caltrans Channel will be less than

		the existing drainage area tributary to the Caltrans Channel, thus reducing the impact of the developed flowrates to the channel. **PDF-SH-2:** Use of Available Capacity in Caltrans Channel: In the developed condition, the PA 40 on-site storm drain system is proposed to be designed to optimize the capacity of the existing Caltrans Channel by making connections from the developed PA 40 storm drain system at strategic locations in the Caltrans Channel where the existing channel has maximum capacity to handle the increased flow rates. As a result of this improvement, the portions of the existing channel with capacity and freeboard problems will be reduced. The on-site drainage improvements will consist of a storm drain system paralleling the existing Caltrans Channel, located north of Caltrans right of way. The proposed new on-site storm drain system will discharge flow into the existing Caltrans Channel at specific strategic locations where the channel has maximum capacity. There are approximately four (4) new connections to the Caltrans Channel proposed (see Exhibit 2 in the PA 40 Hydrology Technical Report, provided as Appendix G1 of this EIR). **MM-SH-1:** Prior to the issuance of building permits, the landowner or subsequent project applicant shall improve the existing Caltrans Channel structure to add additional height to the rim of the channel to meet Caltrans minimum freeboard criteria. The channel rim will have to be raised approximately 1.5 feet high over a 150 feet long reach from approximately station: 60+00 to station: 61+50. This can be accomplished by adding concrete splash walls or flood walls adjacent to the existing channel structure. The proposed improvements shall be reviewed and approved by Caltrans. **PPP-SWQ-1:** Notice of Intent (NOI): Prior to the issuance of preliminary or precise grading permits, the landowner or subsequent project applicant shall provide the City Engineer with evidence that a NOI has been filed with the State Water Resources Control Board. Such evidence shall consist of a copy of the NOI stamped by the State Water Resources Control Board or Regional Water Quality
		Control Board, or a letter from either agency stating that the NOI has been filed. (City of Irvine Standard Condition

Environmental Assessment Factor	Impact Code	Impact Evaluation
		2.5) **PPP-SWQ-2:** Water Quality Management Plan (WQMP): Prior to the issuance of precise grading permits, the applicant shall submit, and the Director of Community Development [City of Irvine] shall have approved, a Water Quality Management Plan (WQMP). The WQMP shall identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff (City of Irvine Standard Condition 2.10) More specifically, the WQMP shall, in accordance with the DAMP and LIP, do the following: a. Describe the routine and special post-construction BMPs to be used at the proposed development site (including both structural and non-structural measures); b. Describe responsibility for the initial implementation and long-term maintenance of the BMPs; c. Provide narrative with the graphic materials as necessary to specify the locations of the structural BMPs; and d. Certify that the project proponent will seek to have the WQMP carried out by all future successors or assigns to the property. Detailed information about the process for identifying BMPs is included in the Water Quality Assessment Technical Reports contained in Appendices G3 and G4. **PPP-SWQ-3:** Storm Water Pollution Prevention Plan (SWPPP): Prior to the issuance of grading permits, the landowner or subsequent project applicant shall prepare a SWPPP that will: a. Require implementation of Best Management Practices (BMPs) designed with a goal of preventing a net increase in sediment load in storm water discharges relative to preconstruction levels; b. Prohibit during the construction period discharges of storm water or non-storm water at levels which would cause or contribute to an exceedance of applicable water quality standards contained in the Basin Plan;

Environmental Assessment Factor	Impact Code	Impact Evaluation
		c. Discuss in detail the BMPs planned for the project related to control of sediment and erosion, non-sediment pollutants, and potential pollutants in non-storm water discharges; d. Describe post-construction BMPs for the project; e. Explain the maintenance program for the project's BMPs; f. During construction, require reporting of violations to the Regional Board; and g. List the parties responsible for SWPPP implementation and BMP maintenance during and after grading. The project proponent shall implement the SWPPP and will modify the SWPPP as directed by the Storm Water Permit. **PPP-SWQ-4:** Encroachment Permit: The landowner or subsequent project applicant shall obtain an encroachment permit for any construction activities that will result in runoff within Caltrans Right-of-Way. The landowner or subsequent project applicant must submit a copy of the SWPPP prior to construction. If a SWPPP is not required for the project, the landowner or subsequent project applicant shall prepare and submit a Water Pollution Control Plan pursuant to Caltrans Standard Specifications and "Caltrans Storm Water Quality Handbook, Project Planning and Design Guide" (May 2007). All activities within Caltrans Right-of-Way must fully conform to the Caltrans Statewide NPDES Permit No. CAS000003 (Order No. 99-06-DWQ). **PPP-SWQ-5:** De Minimus Permit: If and when construction dewatering is required, the Project shall comply with the requirements of General Waste Discharge Requirements for Short-Term Groundwater-Related Discharges and De Minimus Wastewater Discharges to Surface Waters within the San Diego Creek/Newport Bay Watershed (RWQCB Order No. R8-2004-0021 NPDES No. CAG998002) **PDF-SWQ-1:** Site Design Best Management Practices (BMPs): The MS4 permit and implementation plans described in the DAMP/LIP and the City's model Water Quality Management Plan (WQMP) require the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		consideration and incorporation of site design BMPs to reduce runoff and create a hydrologically functional project. Accordingly, the project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2, shall include the following site planning principles that have been incorporated into the Project design. Minimize Impervious Area and Impervious Area Directly Connected to Storm Drains: • Impervious areas will be minimized by incorporating landscaped areas over substantial portions of the Project area. Single family residential landscape areas will be determined by zoning requirements, village setback/parkway standards, and design objectives. • Within PA 40 approximately 41.3 acres of parks, windrows, trail, and berm will be provided within the Project. An additional approximately 15 acres will be dedicated to the City of Irvine for JOST within the Project boundary. • Most sidewalks will drain into landscaping prior to discharging to the stormwater conveyance system. • Vegetated treatment control BMPs will reduce runoff volumes through evapotranspiration and infiltration. Selection of Construction Materials and Design Practices: • Building materials for roof gutters and downspouts will not include copper or zinc. • Streets, sidewalks, and parking lot aisles will be constructed to the minimum widths specified in the City Land Use Code and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access. Conserve Natural Areas: • Canopy interception and water conservation will be increased by incorporating trees (including existing windrows) into the Project design pursuant to the landscape plan and include native and drought resistant plants in development plant palettes.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		PDF-SWQ-2: Source Control BMPs: Effective management of wet- and dry-weather water quality begins with limiting pollutant sources. The project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2, shall include the following source control BMPs as set forth below. The source control BMPs shall be implemented in accordance with the MS4 Permit and DAMP/LIP. These source control BMPs were selected based on the land uses included in the Project: single-family residential, multi-family residential, commercial, mixed-use, education, roadways, park, and open space. <u>Non-Structural Source Control BMPs</u> *N1: Education for Property Owners, Tenants and Occupants* – practical information materials will be provided to the first residents occupants/tenants on general housekeeping practices that contribute to the protection of stormwater quality. The Home Owner Association (HOA) will have an ongoing educational material distribution program. At a minimum, these materials will cover the following topics: 1. The use of chemicals (including household type) that will be limited to the property, and avoidance of discharge of specified wastes via hosing or other means to gutters, catch basins, and storm drains. 2. The proper handling of material such as fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals, and swimming pool drainage. 3. The environmental and legal impacts of illegal dumping of harmful substances into storm drains and sewers. 4. Alternative household products which are safer to the environment. 5. Household hazardous waste collection program. 6. Used oil recycling programs. 7. Proper procedures for spill prevention and clean up. 8. Proper storage of materials which pose pollution risks to local waters. 9. Carpooling programs and public transportation alternatives to driving.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		N2: Activity Restrictions (Conditions, Covenants, and Restrictions) – Conditions, Covenants, and Restrictions (CC&Rs) will be prepared as necessary and will address surface water quality protection. *N3: Common Area Landscape Management* – ongoing maintenance will be consistent with the County Water Conservation Resolution or the City of Irvine equivalent, and fertilizer and/or pesticide usage will be consistent with County Management Guidelines for Use of Fertilizers (DAMP Section 5.5). See also, efficient irrigation systems under structural controls. *N4: BMP Maintenance* - IRWD will be responsible for the inspection and maintenance of the Trabuco Basin and other extended detention basins that are accepted into the NTS Master Plan within the Project boundary. The HOA, property owner, and/or Property Owner's Association (POA) will be responsible for the inspection and maintenance of non-NTS treatment BMPs within the Project. NTS facilities will be inspected on a regular scheduled basis as part of the NTS Master Plan. The inspections will ensure that the facility is operating properly, record observations, and initiate any maintenance activities that may be required. Site visits will require one person driving a single vehicle for water quality basin inspection, including walking the perimeter of the facility. This will be conducted on a monthly basis with additional inspections during the wet months corresponding to monitored storm events. BMP maintenance activities that will be performed on a regularly scheduled basis include but are not limited to: • Trash/Debris Removal • Vegetation Removal/Thinning • Sediment Removal • Integrated Pest/Plant Management • Vector

Environmental Assessment Factor	Impact Code	Impact Evaluation
		N6: Local Water Quality Permit Compliance – Occupants/tenants will be responsible for applying for and complying with appropriate local water quality permits for stormwater discharges from fuel dispensing areas or other areas of public concern to public properties. *N7: Spill Contingency Plan* – Occupants/tenants will develop a spill contingency plan which mandates stockpiling of cleanup materials, notification of responsible agencies such as the County of Orange Environmental Health, Fire Department, etc., disposal of cleanup materials, and documentation. *N9: Hazardous Materials Disclosure Compliance* – Occupants/tenants will comply with County of Orange ordinances enforced by the fire protection agency for the management of hazardous materials. *N10: Uniform Fire Code Implementation* – Occupants/tenants will comply with Article 80 of the Uniform Fire Code enforced by the fire protection agency. *N11: Common Area Litter Control* - litter patrol, covered trash receptacles, trash cans with lids, emptying of trash receptacles in common areas, and noting trash disposal violations by tenants/homeowners and reporting the violations to the HOA or POA for investigation will be conducted. *N12: Employee Training* – Environmental awareness education materials will be prepared by business owners for education of employees, similar to those topics listed in N1 above, tailored to the specific business activities. *N13: Housekeeping of Loading Docks* - Loading docks typically found at large retail and warehouse type commercial facilities will be kept in a clean and orderly condition through a regular program of sweeping and litter control and immediate cleanup of spills and broken containers. Cleanup procedures will minimize or eliminate the use of water. If wash down water is used, it

Environmental Assessment Factor	Impact Code	Impact Evaluation
		will be disposed of in an approved manner and not discharged to
		the storm drain system. If there are no other alternatives, discharge of non-stormwater flow to the sanitary sewer will be considered only if allowed by the local sewering agency through a permitted connection. *N14: Common Area Drainage Facility Inspection* - privately-owned drainage facilities will be inspected each year and, if necessary, cleaned and maintained prior to the storm season, no later than October 1st each year. Drainage facilities include catch basins, inlets, and open drainage channels. *N15: Street Sweeping Private Streets* – private streets will be swept monthly. *N17: Retail Gasoline Outlets* - Retail gasoline outlets (RGOs) will implement the following BMPs: • At a minimum, the fuel dispensing area will extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less. • The fuel dispensing area will be paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete will be prohibited. • The fuel dispensing area will have an appropriate slope (2% - 4%) to prevent ponding, and will be separated from the rest of the site by a grade break that prevents run-on of stormwater. • An overhanging roof structure or canopy will be provided. The cover's minimum dimensions will be equal to or greater than the area of the fuel dispensing area in #1 above. The cover will not drain onto the fuel dispensing area and the downspouts will be routed to prevent drainage across the fueling area. The fueling area will drain to the Project's Treatment Control BMP(s) prior to discharging to the municipal storm drain system.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Structural Source Control BMPs *Provide Storm Drain Stenciling and Signage* - all storm drain inlets and catch basins, constructed or modified, within the Project area will be stenciled or labeled. Signs which prohibit illegal dumping will be posted at public access points along channels and creeks within the Project area. Legibility of stencils and signs shall be maintained. *Trash Area Design* - trash areas will be paved, designed not to allow run-on, screened or walled to prevent off-site transport of trash, and covered to minimize direct precipitation. Connection of trash area drains to the municipal storm drain system will be prohibited. *Efficient Irrigation* - the timing and application methods of irrigation water in common areas will minimize the runoff of excess irrigation water into the stormwater conveyance system. IRWD has an aggressive block rate structure for water use that encourages conservation. This block rate structure will be applied to the Project. *Loading Dock Areas* - Loading/unloading dock areas will include the following: • Cover loading docks areas, or design drainage to preclude urban run-on and runoff. • Runoff from below grade loading docks (truck wells) or similar structures will be treated with a Treatment Control BMP applicable to the use prior to discharge to the storm drain. • Housekeeping of loading docks will be consistent with N13. *Retail Gasoline Outlets* - Retail gasoline outlets will implement the BMPs listed above in source control N17. *Community Car Wash Racks* – a designated car wash area that drains to the sanitary sewer or an engineered infiltration system will be included in complexes larger than 100 dwelling units. Signage will be provided

Environmental Assessment Factor	Impact Code	Impact Evaluation
		prohibiting discharges of car wash water outside of the designated car wash area. Alternatively, car washing will

Environmental Assessment Factor	Impact Code	Impact Evaluation
		not be allowed. **PDF-SWQ-3:** Treatment Control BMPs: Priority projects within Orange County are required to reduce pollutants of concern in stormwater discharges to the maximum extent practicable through the incorporation and implementation of treatment control BMPs. To meet this requirement, the project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2 shall incorporate a combination of stormwater treatment BMPs as set forth below that will address the pollutants of concern. A variety of treatment BMP scenarios are considered herein and are intended to allow flexibility in selection of treatment control BMPs in later phases of Project implementation. Treatment BMPs set forth in the DAMP are listed in Table 5.8-5, in Section 5.8.2 Surface Water Quality, along with the pollutants of concern addressed by each. <u>Treatment Control BMP Options for PA 40</u> The portion of the Project will utilize one constructed wetland basin (also referred to as an NTS basin) and options related to dry extended detention basins and/or biofilters (vegetated swales and/or bioretention areas) as treatment control BMPs. Catch basin inserts will also be provided to control trash and debris in runoff from retail parking lots. These BMPs, when combined with the site design and source control BMPs described above, will address all of the pollutants of concern. <u>East and West Drainage Areas</u>: Runoff from the East Drainage Area (99.8 acres) and the majority of the West Drainage Area (395.0 acres) will be treated in either extended detention basins or biofiltration BMPs (vegetated swales and/or bioretention areas). In the East Drainage Area, extended detention basins or swales and/or bioretention areas will be integrated into the site design to provide treatment of runoff (small storm and dry weather) prior to discharge to the Marshburn Channel. These BMPs will be designed as off-line facilities with capacity up to the water quality design flow rate and with higher flows routed directly to Marshburn Channel.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Runoff from the West Drainage Area will be treated in extended detention basins or swales/bioretention anticipated to be located in the setback corridor between the southwest edge of development and the Santa Ana (I-5) Freeway. The treatment control facilities will accept dry weather flows and low stormwater flows from the development at multiple locations and will discharge treated runoff to the Caltrans Channel. The treatment control facilities in the multi-use corridor will be off-line facilities, with high flow bypassed directly to the Caltrans Channel. A brief description of extended detention basins, vegetated swales, and bioretention are provided below. *Extended Detention Basins*: Extended detention basins are designed with outlets that detain the runoff volume from the water quality design storm (e.g., the 85th percentile 24-hour event) for some minimum time (in this case 36 hours) to allow particles and associated pollutants to settle out. The outlets are also designed to retain trash and debris within the basin for removal during maintenance. The extended detention basins will also incorporate a low flow channel in the bottom of the basin that will support wetland vegetation. Wetland vegetation provides one of the most effective methods for pollutant removal. As dry weather and low flows pass through the wetland vegetation, pollutant removal is achieved through settling and biological uptake of nutrients and dissolved pollutants within the vegetation. Pathogen reductions are also achieved by exposure to sunlight (UV radiation). These basins are not designed or anticipated to contain ponded, standing water for periods in excess of 36 to 48 hours. Per the DAMP/LIP requirements, the extended detention basins within the Project will be designed to collect and treat the volume of runoff produced from a 24-hour, 85th percentile storm event, determined as the maximized capture stormwater volume for the area (DAMP/LIP Sizing Option #2). An amendment of the IRWD NTS Master Plan will be requested that would include some or all of the extended detention basins, if and as incorporated into the detailed project design. If IRWD approves an amendment to the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		NTS Master Plan to incorporate some or all of the extended detention basins into the Master Plan and O&M program, then IRWD will own and maintain those basins that are incorporated. If IRWD does not include the extended detention basins in the NTS Master Plan, the HOA or POA will assume maintenance and ownership responsibilities. *Vegetated Swales*: Vegetated swales are engineered vegetation-lined channels that provide water quality benefits in addition to conveying stormwater runoff. Swales provide pollutant removal through settling and filtration in the vegetation (often grasses) lining the channels and also provide the opportunity for volume reductions through infiltration and evapotranspiration. Swales are most effective where longitudinal slopes are small (2 percent to 6 percent), thereby increasing the residence time for treatment, and where water depths are less than the vegetation height. The vegetated swales will incorporate trash screens on the outlet structures to capture trash and debris and to facilitate removal. If incorporated into the Project, vegetated swales will be designed to capture and treat the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two per DAMP/LIP flow-based Sizing Option #2. Sizes of swales will vary based on catchment properties and site constraints. *Bioretention*: Bioretention areas are vegetated (i.e., landscaped) shallow depressions that provide storage, infiltration, and evapotranspiration, and also provide for pollutant removal (e.g. filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. In bioretention areas, as well as in vegetated swales and filter strips, pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants utilize soil moisture and promote the drying of the soil through transpiration. The bioretention areas will incorporate trash screens on the overflow structures to

Environmental Assessment Factor	Impact Code	Impact Evaluation
		capture and retain floatable trash and debris within the facility. Bioretention areas are volume-based BMPs, but have a relatively high draw down rate and relatively little surface storage compared to typical extended detention basins. Consequently, they are not properly sized using DAMP/LIP volume-based Sizing Options #1 or #2. If incorporated into the Project, bioretention areas will be sized using volume-based sizing option #3 which calls for 80 percent average annual capture of stormwater runoff. A Project WQMP that specifically identifies the BMPs to be used for the East and West Drainage Areas will be submitted to the City of Irvine for review prior to the recordation of any final subdivision map (except those maps for financing or conveyance purposes only) or the issuance of any grading or building permit (whichever comes first). The Project WQMP will identify, at a minimum: (1) site design BMPS (as appropriate); (2) the routine structural and non-structural BMPs; (3) treatment control BMPs; and (4) the mechanism(s) by which long term operation and maintenance of all structural BMPs will be provided. Thus, as stated above, the proposed project is not anticipated to result in new or substantially greater geology and soils and storm water impacts than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the applicable geology and soils PPPs, and storm water PPPs, PDFs, and MM from the PA 40/PA 12 Project EIR, no new adverse effect would result from the proposed project.
Hazards and Nuisances including Site Safety and Noise	2	The Phase I ESA (AEC 2017) prepared for the proposed project revealed no evidence of a REC connected with the project site. Also, the project site is not within 1 mile of a National Priorities List (NPL) site (USEPA 2018c) or within 0.5 mile of a Superfund Enterprise Management System (SEMS) site (USEPA 2018d). In addition, as discussed previously, the proposed project is not anticipated to result in new or substantially greater noise impacts than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		applicable noise PPPs, PDFs, and MMs from the PA 40/PA 12 Project EIR described previously, no new adverse effect would result from the proposed project.
Energy Consumption	2	Electrical service would be provided to the proposed project by SCE and natural gas service would be provided by Southern California Gas Company (SoCal Gas). As discussed previously, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR. This EIR included an evaluation of energy consumption impacts and concluded that the PA 40/PA 12 Project is expected to result in increased demands for electricity and natural gas; however, the increased demands are expected to be within the existing and planned delivery capacity of service providers. The PA 40/PA 12 Project will not result in a significant impact related to the provision of natural gas or electricity. Similar to PA 40/PA 12 Project, the proposed project would comply with Title 24 of the California Code of Regulations which would help limit the amount of energy consumed by the proposed project. In addition, as discussed previously, the proposed project would implement PDF-GHG-3, which consists of a Green Building Design Program that provides for a level of energy conservation greater than that required under Title 24. In addition, the proposed project would implement PPP-GHG-1, which requires new appliances installed as part of new building construction to meet the applicable energy efficiency standards. Therefore, no adverse effect would result from the proposed project.
SOCIOECONOMIC		
Employment and Income Patterns	1	The proposed project provides affordable housing to low- to extremely low-income households that are homeless, homeless veterans, and households in which at least a member has a developmental disability. It is designed to provide immediate and basic human needs for those who find themselves without such resources. The proposed project would not serve as a substantial source of employment, nor would it affect change to income patterns in the area. There is currently a large contingent of homeless persons in Orange County and the proposed project would serve some of these persons. Therefore, minor beneficial effects would result from the proposed project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Demographic Character Changes, Displacement	2	The project site consists of a vacant lot. The proposed project could alter the existing demographic and characteristics of the current neighborhood since low- to extremely low-income households that are homeless, homeless veterans, and households in which at least a member has a developmental disability would relocate towards it in order to utilize the services that would be provided. The proposed project would not displace any persons, and it is unlikely that the proposed use would result in any negative demographic character changes. Therefore, no adverse effect would result from the proposed project.
COMMUNITY FACILITIES AND SERVICES		
Educational and Cultural Facilities	2	The closest private school (California Southern University) is approximately 1.04 miles and closest elementary school (Cypress Village Elementary School) is approximately 0.33 miles. The use of the 80-unit supportive housing is not expected to have an impact or result in displacement of existing schools or cultural facilities. Therefore, no adverse effect would result from the proposed project.
Commercial Facilities	2	The proposed project is located in a mixed residential and commercial area that contains retail services that provide essential items such as food, medicine, and other convenience shopping. It is not expected that the proposed project would have an impact on commercial facilities. Therefore, no adverse effect would result from the proposed project.
Health Care and Social Services	1	County-provided social services, health care and veteran services would be available to the future residents of the project site. The Orange County Social Services Agency provides wide range of services such as In-Home Supportive Services, General Relief, Cash Assistance Program for Immigrants, CalFresh Program, Medi-Cal, and Medical Safety Net. County-provided health care and veterans services are the Healthcare Center of Orange County, Orange County Health Care Agency, and the Orange County Veterans Service Office. In addition, the City of Irvine provides social services such as City of Irvine Disability Services, FISH (Friends in Service to Humanity), and Meals on Wheels (City of Irvine 2018a). The proposed project would not affect health care and social services. The proposed project would result in a

Environmental Assessment Factor	Impact Code	Impact Evaluation
		beneficial effect since it would be providing affordable housing to low- to extremely low-income households that
		are homeless, homeless veterans, and households in which at least a member has a developmental disability. Therefore, no adverse effect would result from the proposed project.
Solid Waste Disposal / Recycling	2	Majority of the solid waste generated in the City of Irvine is disposed of at the Frank R. Bowerman Landfill, located northeast of the project site. The other landfills in Orange County are Olinda Alpha in Brea and Prima Deshecha in San Juan Capistrano. These three landfills are owned and operated by Orange County Waste & Recycling. Frank R. Bowerman Landfill has a permitted maximum throughput of 11,500 tons per day (CalRecycle 2018a), the Olinda Alpha Landfill has a permitted maximum throughput of 8,000 tons per day (CalRecycle 2018b), and the Prima Deshecha Landfill has a permitted maximum throughput of 4,000 tons per day (CalRecycle 2018c). The California Department of Resources Recycling and Recovery (CalRecycle) publishes solid waste generation rates based on land use types. Since the project site is currently vacant, development of the proposed project would result in an increase in solid waste generation beyond existing conditions. The development of the proposed project is expected to generate the typical range of recyclable and non-recyclable waste that other similar uses create such as greenwaste (i.e., lawn and tree trimmings), cardboard, paper, glass, plastic, aluminum cans, good, and household hazardous waste (i.e., paint, motor oil, antifreeze, and batteries). According to the CalRecycle, single-family residential uses can generate solid waste at a rate of approximately 11.4 pounds per unit per day (CalRecycle 2016). Based on these generation rates, the proposed project's residential units could generate solid waste at a rate of approximately 912 pounds per day (or 0.414 tons per day). This increase could be accommodated by all three landfills. As required by CalRecycle, Orange County has an approved Countywide Integrated Waste Management Plan (CIWMP) that demonstrates sufficient solid waste disposal capacity of a minimum of 15 years based on Orange County population projections. Furthermore, the proposed project would be required to submit plans for the proposed project to the City of Irvine to ensure that the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		plans comply with Assembly Bill (AB) 939, as well as the CIWMP as administered by the City of Irvine. In addition, as part of
		AB939 compliance, state law (SB1374) requires all cities to implement ordinances or other measures that specifically require the diversion of 75 percent of all construction and demolition waste from landfills. As such, the proposed project would comply with the City's Standard Condition A.12 which applies to new development projects to reduce potential solid waste generation within the City; and, newly adopted requirements related to diversion of construction and demolition waste, such as preparation of a Waste Management plan and payment of Waste Diversion fee (Ordinance 07-19) that is refundable if waste diversion requirements are met. Therefore, no adverse effect would result from the proposed project.
Wastewater / Sanitary Sewers	2	Wastewater (sewer) collection and treatment within the City of Irvine is provided by the Irvine Ranch Water District (IRWD). Within the vicinity of the project site, sewer flows are collected (via the Sand Canyon Avenue sewer trunk) and then treated to tertiary standards at the Michelson Water Reclamation Plant (MWRP); the MWRP was expanded in 2014 and has an existing treatment capacity of 28 million gallons per day (MGD) (City of Irvine 2008; IRWD 2018). The project site is currently a vacant lot that does not generate wastewater; development of the proposed project would thus require new connections to the existing sewer facilities. The proposed 80-unit residential development could generate approximately 13,200 gallons per day (GPD) (using 165 GPD/unit demand factor per the PA 40/PA 12 Project EIR). However, as discussed previously, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR; thus, it would not exceed the total wastewater GPD estimated for PA 40 (i.e., 982,185 GPD) (City of Irvine 2008). According to the EIR, MWRP has adequate treatment capacity to accommodate the total PA 40/PA 12 Project and, therefore, impacts associated with wastewater treatment capacity is anticipated to be less than significant. However, a cumulative significant impact was identified related to deficiencies with the wastewater collection system (notably the capacity of the

Environmental Assessment Factor	Impact Code	Impact Evaluation
		Sand Canyon Avenue sewer trunk in the vicinity of the project site); but, with implementation of wastewater PPP and MMs, this impact was reduced to less than significant. Given that development of the project site was included in the PA
		40/PA 12 Project, the proposed project is not anticipated to result in new or substantially greater wastewater/sanitary sewer impacts than what was previously analyzed. Furthermore, the proposed project would comply with the applicable wastewater PPP and MMs, including: **PPP-PW-1:** In accordance with the [IRWD] Procedural Guidelines and General Design Requirements, Sub-Area Master Plan (SAMP) information for the PA 40 and PA 12 portions of the Project, which identify the specific potable water, non-potable water, and wastewater systems improvements necessary to serve the proposed Project, shall be submitted to IRWD for review and approval. **MM-SWR-2:** Prior to issuance of grading permits for PA 40 Project area east of Sand Canyon Avenue and the PA 12 Project area, the project applicant shall provide evidence that IRWD has approved a SAMP for the Project that demonstrates that adequate capacity exists or will be provided in the Sand Canyon Avenue trunk sewer to accommodate the wastewater flows associated with the Project, when considering the flows anticipated from the planned industrial development in PA 12 between the Project site and existing golf course. The identification of improvements necessary to address potential deficiencies in the capacity of the subject trunk sewer, as related to the Project shall include evaluation of potential environmental impacts associated with constructing the improvements and shall specify measures to avoid or reduce potential impacts. In particular, such measures shall seek to avoid or minimize construction impacts related to dust, noise, traffic disruptions, and disturbance of any natural/vegetated areas. Thus, as stated above, the proposed project is not anticipated to result in new or substantially greater wastewater/sanitary sewer impacts than what was previously analyzed in the PA 40/PA 12 Project EIR.

Environmental Assessment Factor	Impact Code	Impact Evaluation
		With implementation of the applicable wastewater PPP MMs from the PA 40/PA 12 Project EIR, no new adverse effect would result from the proposed project.
Water Supply	2	As described above, the IRWD is responsible for providing potable and non-potable water, sewage collection and treatment, and producing tertiary treated recycled water in the City of Irvine. The project site is located within PA 40
		which is currently served by pipelines within the Trabuco Road right-of-way and Sand Canyon Avenue right-of-way. There are no developed uses currently on the project site; hence, there is no existing water demand. A 12-inch water pipeline exists in Trabuco Road, which provides recycled water to PA 40. A Water Supply Assessment (WSA) was prepared by IRWD for the PA 40/PA 12 Project, which included development of the project site for multi-use development. Thus, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 and would not exceed the water use/demand analyzed for PA 40 in the WSA. Project development would result in both short-term and long-term increases in water demand. Short-term demand for water may occur during excavation, grading, and construction activities on site. Water demand for soil watering (fugitive dust control), cleanup, masonry, painting, and other activities would be temporary and would cease at project build-out. Overall, construction activities require minimal water as compared to water consumption associated with long-term operations of the proposed project and are not expected to have any adverse impacts on the existing water system or available water supplies. Therefore, sufficient water supplies are available for short-term construction activities and impacts are considered less than significant. New development on-site would result in an increase in long-term water demand. Although all new development is required to comply with State law regarding water conservation measures, including pertinent provisions of Title 20 and Title 24 of the California Government Code regarding the use of water-efficient appliances, the proposed project would result in an increase in water demand. As indicated above, a WSA was completed for the PA 40/PA 12 Project, which included development of

Environmental Assessment Factor	Impact Code	Impact Evaluation
		the project site, to evaluate the adequacy of future water supplies through 2027. On December 17, 2007 the Board of Directors of IRWD approved the WSA for the proposed PA 40/PA 12 Project. As described in a summary on page 5 of the IRWD WSA and further illustrated on Figures 1 through 8 (Appendix J1 of the 2008 PA40/PA12 EIR [City of Irvine 2008]), the WSA found that a sufficient water supply is currently available to meet projected annual
		demand of the PA 40/PA 12 Project at full build-out through 2027. Furthermore, with existing available supplies and the completion of supplies currently under development, the total water supplies available to IRWD during normal, single-dry and multiple-dry years within a 20-year projection will meet the projected water demand of the proposed project in addition to the demand of existing and other planned future uses, including, but not limited to, residential, industrial, and commercial uses (City of Irvine 2008). Therefore, no adverse effect is expected from the proposed project.
Public Safety - Police, Fire and Emergency Medical	2	The Orange County Fire Authority (OCFA) provides fire protection services to the City of Irvine, including the project site. The nearest fire station to the project site is OCFA Station #20 located at 7020 Corsair in the City of Irvine, located approximately 0.51 miles to the east. The project site is within the jurisdictional area of Irvine Police Department (IPD), which is located at 1 Civic Center Plaza in the City of Irvine. IPD divided the City into three geographic areas (Crossroad, Portola, and University) and each geographic area is led by an Area Commander supported by a team of supervisors, patrol officers, traffic officers, investigators and civilian support staff. The project site falls into Portola. The nearest hospital with emergency room services is Hoag Hospital Irvine at 16200 Sand Canyon Avenue, approximately 1.6 miles to the southwest. Another nearby hospital with emergency room services is Kaiser Permanent Hospital at 6640 Alton Parkway, approximately 2.0 miles to the southwest. Due to the small number of occupants that would be permitted at the project site at any given time as well as the close proximity of police, fire, and medical services, no adverse effect is expected from the proposed project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Parks, Open Space and Recreation	2	The nearest park is Cypress Grove Park, located approximately 1,900 feet northwest of the project site. Cypress Grove Park includes youth baseball field with soccer overlay, half basketball court, volleyball court, tot lot, barbecues and picnic areas, shaded structures, and lawn. Due to the limited number of residents using the 80-units, the proposed project is not expected to result in substantial impacts to nearby parks. Therefore, no adverse effect would result from the proposed project.
Transportation and Accessibility	2	The proposed project has multi-modal access through bus transit, rail transit, as well as the local and regional street
		network. Bus transportation is provided by Orange County Transportation Authority (OCTA). The closest bus stop is located south of the intersection of Sand Canyon Avenue and Laguna Canyon Road and is approximately 3,908 feet to the southwest from the project site. OCTA also provides the *i*Shuttle for residents, employees and employers in the Irvine Spectrum Area and the Irvine Business Complex. ACCESS is another OCTA's shared-ride service for people who are unable to use the regular, fixed-route bus service due to functional limitations caused by a disability. The TRIPS is a transportation service providing low-cost, wheelchair-accessible transportation to Irvine seniors and adults with physical or cognitive disabilities. The closest train station is 2 miles north from the project site, located at the Irvine Metrolink Station (City of Irvine 2018b). Thus, the project site is walkable and located within short walking distance to a wide array of site/service amenities including, a grocery store, bus stop, park, and pharmacy. Therefore, no adverse effect would result from the proposed project.
NATURAL FEATURES		
Unique Natural Features, Water Resources	2	The proposed project involves construction of an 80-unit development on a vacant lot within PA 40. The adjacent properties are developed with residential and commercial uses (including buildings, paved yards, and storage areas, etc.). As a result, there currently are no unique natural features or water resources located on or near the proposed project site. Therefore, the proposed project would not impact any unique natural features or water resources. Therefore, no adverse effect would result from the proposed project.

Environmental Assessment Factor	Impact Code	Impact Evaluation
Vegetation, Wildlife	2	The project site is located within the boundaries of Orange County's Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) for the Central/Coastal Subregion. This conservation program provides regional biological benefits that protect multiple species while also establishing areas where development could occur. The project site is within development areas established by the NCCP/HCP (City of Irvine 2008).
		The project site is currently vacant with concrete block and chain-link fencing surrounding the site; therefore, there are no vegetated or natural areas that could house wildlife or critical habitat. The proposed project would not impact vegetation or wildlife. Therefore, no adverse effect would result from the proposed project.
Other Factors	NA	No other factors apply to this evaluation.

Additional Studies Performed:
No additional studies were performed.

Field Inspection (Date and completed by):
No field inspection was performed.

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]:

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List of Permits Obtained:
None.

Public Outreach [24 CFR 50.23 & 58.43]**:**
N/A

Cumulative Impact Analysis [24 CFR 58.32]**:**
A project's cumulative impact could occur if its incremental effect causes an adverse effect when combined with effects of other projects. As discussed above, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR (City of Irvine 2008). Thus, the proposed project is not anticipated to result in new or substantially greater environmental impacts (including cumulative impacts) than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the applicable PPPs and MMs from the PA 40/PA 12 Project EIR, no new adverse effect would result from the proposed project. Furthermore, as discussed above, for other environmental parameters not covered under PA 40/PA 12 Project EIR and discussed above in this EA (e.g., environmental justice, commercial facilities, and County Health Care and Social Services), no adverse effect would result from the proposed project and subsequently no cumulative adverse effect would occur.

Alternatives [24 CFR 58.40(e); 40 CFR 1508.9]:

No Action Alternative [24 CFR 58.40(e)]:
If the proposed project were not implemented, the project site would continue to be a vacant lot. Because there would be no construction and no operational changes under the No Action Alternative, it would have no adverse environmental effect. Under this alternative, none of the benefits associated with the proposed project (e.g., providing permanent housing for low-income individuals) would occur.

Summary of Findings and Conclusions:
As discussed above, the proposed 80-unit residential development is within the total units analyzed for multi-use development in PA 40 in the PA 40/PA 12 Project EIR (City of Irvine 2008). Thus, the proposed project is not anticipated to result in new or substantially greater environmental impacts than what was previously analyzed in the PA 40/PA 12 Project EIR. With implementation of the applicable PPPs, PDFs, and MMs from the PA 40/PA 12 Project EIR, no new adverse effect would result from the proposed project. Furthermore, for other environmental parameters not covered under PA 40/PA 12 Project EIR and discussed above in this EA (e.g., environmental justice, commercial facilities, and County Health Care and Social Services), no adverse effect would result from the proposed project.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure
PA 40/PA 12 Project EIR	**PPP-AQ-1:** Compliance with SCAQMD Rules 402 and 403: During construction of the [PA 40/PA 12 Project], the property owner/developer and its contractors shall be required to comply with regional rules, which will assist in reducing short-term air pollutant emissions. SCAQMD Rule 402 requires that air pollutant emissions not be a nuisance off-site. SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Two options are presented in Rule 403; monitoring of particulate concentrations or active control. Monitoring involves a sampling network around the project with no additional control measures unless specified concentrations are exceeded. The active control option does not require any monitoring, but requires that a list of measures be implemented starting with the first day of construction. Relevant control measures from Rule 403 are identified in Tables 17 through 20 of the Air Quality Assessment completed for the [PA 40/PA 12 Project] by MGA (see Appendix B1 of the [PA 40/PA 12 Project EIR]).

PA 40/PA 12 Project EIR	**PPP-AQ-2:** Compliance with Title 24, Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings: All buildings must comply with Title 24, Part 6. Reducing the need to heat or cool structures by improving thermal integrity will result in a reduced expenditure of energy and a reduction in pollutant emissions.
PA 40/PA 12 Project EIR	**MM-AQ-1:** Construction Equipment Emissions Measures: Prior to the issuance of each grading permit, the following information shall be included as a note on the cover sheet of the grading plans: "The following measures shall be implemented during grading and construction of the project: • Use low emission construction equipment. The property owner/develop shall comply with [California Air Resources Board (CARB)] requirements for heavy construction equipment. For mass or rough grading, contractors shall be required to utilize heavy construction equipment that complies with the SCAQMD contractor requirement to maintain a Tier 2 fleet average. • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. • Utilize existing power sources (i.e., power poles) when available. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the maximum extent feasible. • Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service). • Avoid unnecessary idling by shutting off engines that are expected to idle for more than five minutes. • Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow.

	• Schedule construction activities that that affect traffic flow on the arterial system to off-peak hour to the extent practicable. • Reroute construction trucks away from congested streets or sensitive receptor areas, and appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM_{10} generation."
PA 40/PA 12 Project EIR	**MM-AQ-2:** ROG Control Measures: Prior to issuance of the first building permit, the applicant shall provide evidence to the Director of Community Development [City of Irvine] that the following measures shall be incorporated into project construction to the greatest extent feasible: • Minimize the amount of paint used by using pre-coated, pre-colored and naturally colored building materials. (Note: The architectural/construction design typically used by the Project applicant includes, to a large extent, these type building materials, when practicable); • Use Water-Based and LOW-VOC coatings with VOC contents set forth in SCAQMD Rule 1113 (http://www.aqmd/gov/prdas/brochures/Super-Compliant_AIM.pdf); and • Use high transfer efficiency painting methods such as HVLP (High Volume Low Pressure) sprayers and brushes/rollers were possible.
PA 40/PA 12 Project EIR	**MM-AQ-3:** Implement Measures Recommended in SCAQMD's CEQA Handbook and the URBEMIS2002 Model: Prior to issuance of the first building permit, the applicant shall provide evidence to the Director of Community Development [City of Irvine] that demonstrates how the property owner/developer shall reduce operation-related emissions through implementation of the following practices identified in SCAQMD's CEQA Handbook and the URBEMIS2002 model: • Install low-emission water heaters; • Use built-in, energy-efficient appliances; and • Ensure that sidewalks and pedestrian paths are installed throughout the project area.
PA 40/PA 12 Project EIR	**MM-AQ-4:** The project shall comply with Proposed SCAQMD Rule 445 regarding woodburning devices, if adopted. For phases of the project constructed in

	advance of a SCAQMD rule, the project shall use, at the applicant's discretion, 1) EPA certified wood burning devices, 2) non-EPA certified clean burning fireplaces and/or 3) fireplaces permanently equipped with gas logs.
PA 40/PA 12 Project EIR	**PPP-GHG-1:** Title 24 Energy Standards: The proposed project shall comply with all State Energy Insulation Standards and City of Irvine codes in effect at the time of application for building permits. (Commonly referred to as Title 24, these standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Title 24 covers the use of energy efficient building standards, including ventilation, insulation and construction and the use of energy saving appliances, conditioning systems, water heating, and lighting). Plans submitted for building permits shall include written notes demonstrating compliance with energy standards and shall be reviewed and approved by the Public Utilities Department prior to issuance of building permits.
PA 40/PA 12 Project EIR	**PDF-GHG-2:** Green Site Design: In addition to the favorable location, land use mix, and density of the Project that serve to reduce potential GHG emissions, as described in the Impacts Analysis below, the overall project design includes a number of features that will reduce energy consumption and associated GHG emissions. Such features include: *Reduced Automobile Dependence* - The following site design features will help to reduce the number of vehicle trips and the vehicle miles traveled. *Effective Use of Landscaping* - Development of the Project site will include the installation of landscaping throughout the site, similar to that used for the recently developed Woodbury and Stonegate residential planned community developments located near the Project site. Such landscaping includes the use of trees and shrubbery, much of which is transplanted to the site as mature species. These landscaping characteristics provide for more dense planted areas with fuller foliage than what can be typically observed at many other new developments in southern California. This provides multiple benefits related to GHGs such as helping to shade and cool the site, helping to absorb CO_2 through photosynthesis, and helping to stabilize soils onsite,

	which can help reduce existing GHG emissions (i.e., the tilling of soils and biodegradation of organic materials associated with current agricultural activities in PA 40 will be replaced by site landscaping - additionally the temporary/periodic nature of low lying vegetation [row crops] within the PA 40 site will be replaced with permanent). Irrigation of the site landscaping in common areas will use recycled (reclaimed) water from the Michelson Reclamation Plant, which offers certain environmental benefits and requires less embodied energy (i.e., less GHG emissions) compared to using potable water for irrigation. Common area landscaping will include the following design features: • All irrigation systems shall be designed to conform to California AB 325 (Model Water Efficient Landscape Ordinance). Irrigation systems shall be designed to apply water at a rate which does not exceed the infiltration rate of the soils, and systems shall be programmable to prevent ponding and minimize runoff. • Irrigation systems shall be designed to meet the peak moisture demand of all plant materials used within the design area. Individual station run time shall meet peak evapotranspiration (E.T.) rate. Additionally, satellite-linked system controllers/rain sensors are used to monitor and adjust the timing and amount of irrigation. • Separate remote control valves shall be used for shrub and groundcover areas versus turf-areas. Sun and shade areas shall also have segregated-irrigation controls.
PA 40/PA 12 Project EIR	**PDF-GHG-3:** Green Building Design: Based on the principles and point score system of the City's existing voluntary Irvine Green Building Program, individual residential and professional administrative office developments occurring within the Project site shall be designed and constructed to incorporate "Green Building Design" features from the menu provided in Table 5.17-2, PA 40/12 Green Building Options, summarized the various measures available for different building types and the relative score value for each measure, while Appendix K1 provides the detailed scoring sheets for each building type. For the PA 40/PA 12 Project, buildings within each of the categories identified in Table 5.17-2, PA 40/12 Green Building Options, will incorporate measures to achieve at least 50 points in order to meet the Green Building Design

	requirement set forth in this PDF, as will be confirmed prior to issuance of a building permit(s) for the candidate building(s). 1. Site & Landscape 2. Foundation, Frame, And Roofing 3. Plumbing 4. Lighting & Appliances 5. HVAC 6. Energy Performance 7. Renewable Energy 8. Indoor Air Quality 9. Resource Efficient Materials 10. Education, Awareness, and Operations
PA 40/PA 12 Project EIR	**PPP-NOS-1:** Control of Construction Hours: Construction activities occurring as part of the Project shall be subject to the limitations and requirements of Section 6-8-205(a) of the Irvine Municipal Code which states that construction activities may occur between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and Federal holidays unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making, or are involved with, material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and Federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required.
PA 40/PA 12 Project EIR	**PPP-NOS-2:** Acoustical Report - Prior to the issuance of building permits for each structure or tenant improvement other than a parking structure, the applicant shall submit a final acoustical report prepared to the satisfaction of the Director of Community Development [City of Irvine]. The report shall show that the development will be sound attenuated against present and projected noise levels, including roadway, aircraft, helicopter and railroad, to meet City interior and exterior noise standards. The final acoustical report

	shall include all information required by the City's Acoustical Report Information Sheet (Form 42-48). In order to demonstrate that all mitigation measures have been incorporated into the project, the report shall be accompanied by a list identifying the sheet(s) of the building plans that include the approved mitigation measures. (Standard Condition B.1)
PA 40/PA 12 Project EIR	**PDF-NOS-2:** Construction-Related Noise Mitigation Plan: For development proposed adjacent to any developed/occupied uses, a construction-related noise mitigation plan shall be submitted to and approved by the Director of Community Development [City of Irvine] for review and approval prior to issuance of grading permits. The plan must depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project, through the use of such methods as the following: (1) temporary noise attenuation fences; (2) preferential location of equipment; and (3) use of current technology and noise suppression equipment.
PA 40/PA 12 Project EIR	**MM-NOS-1:** Prior to the issuance of grading permits for any residential development along the Santa Ana (I-5) Freeway or SR-133 in Planning Area 40, a detailed acoustical analysis study shall be prepared by a qualified acoustical consultant and submitted to the City for review and approval. This acoustical study shall describe and quantify the noise sources impacting the area and the measures required to meet the 65 CNEL exterior residential noise standard. The final grading plans shall incorporate the noise barriers (wall, berm or combination wall/berm) required by the analysis and the property owner/developer shall install these barriers per the recommendations of the acoustical analysis study. These noise barriers shall be taken into consideration in the building specific acoustical reports required by PPP-NOS-2, which may specify additional measures to achieve acceptable interior noise levels.
PA 40/PA 12 Project EIR	**MM-NOS-2:** Prior to issuance of building permits for all residential buildings in the area shown in Figure 5.10-8 of the PA 40/PA 12 [EIR], all documentation shall be provided to show that the building meets the ventilation standards required by the Uniform Building Code with windows closed. Alternatively, the applicant can show that, based on the building's location relative to the roadway and any intervening topography and structures, the structure will meet the applicable interior noise standard with open windows.

PA 40/PA 12 Project EIR	**MM-NOS-3:** Prior to issuance of building permits, a detailed acoustical study using architectural plans shall be prepared by a qualified acoustical consultant and submitted to, and approved by, the City for residential structures in the areas shown in Figure 5.10-8. This study shall describe and quantify the noise sources impacting the building(s), the amount of outdoor-to-indoor noise reduction provided by the design in the architectural plans, and any upgrades required to meet the City's interior noise standards (45 CNEL for residences). The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.
PA 40/PA 12 Project EIR	**PPP-GEO-1:** Revegetation: Revegetation of cut and fill slopes shall be required in accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual.
PA 40/PA 12 Project EIR	**PPP-GEO-2:** Grading Operations and Construction: All grading operations and construction will be conducted in conformance with the applicable City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, the most recent version of the Uniform Building Code, and consistent with the recommendations included in the most current geotechnical reports for the project area prepared by the engineer of record.
PA 40/PA 12 Project EIR	**PPP-GEO-3:** Geotechnical Reports: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, detailed geotechnical investigation reports for each Rough Grading Plan shall be submitted to further evaluate faults, subsidence, slope stability, settlement, foundations, grading constraints, liquefaction potential, issues related to shallow groundwater and other soil engineering design conditions and provide site-specific recommendations to mitigate these issues/hazards. The geotechnical reports shall be prepared and signed/stamped by a Registered Civil Engineer specializing in geotechnical engineering and a Certified Engineering Geologist. The City of Irvine Geotechnical Engineer/Engineering Geologist shall review the rough grading plan to ensure conformance with recommendations contained in the reports.
PA 40/PA 12 Project EIR	**PPP-GEO-4:** Registered Civil Engineer: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall be performed under the observation of a

	Registered Civil Engineer specializing in Geotechnical Engineering in order to achieve proper sub-grade preparation, selection of satisfactory fill materials, placement and compaction of structural fill, stability of finished slopes, design of buttress fills, subdrain installation and incorporation of data supplied by the engineering geologist.
PA 40/PA 12 Project EIR	**PPP-GEO-5:** Certified Engineering Geologist: In accordance with the City of Irvine Grading Code (Municipal Code Title 5, Division 10) and Grading Manual, grading and earthwork shall also be performed under the observation of a Certified Engineering Geologist to provide professional review and written approval of the adequacy of natural ground for receiving fills, the stability of cut slopes with respect to geological matters, and the need for subdrains or other groundwater drainage devices. The geologist shall geologically map the exposed earth units during grading to verify the anticipated conditions, and if different, provide findings to the geotechnical engineer for possible design modifications.
PA 40/PA 12 Project EIR	**PPP-GEO-6:** Structures and Seismic Design: Future buildings and structure (i.e., houses, retaining walls, etc.) shall be designed in accordance with the City of Irvine Building Code and the most recent Uniform Building Code and/or California Building Code (UBC/CBC). The concrete utilized shall take into account the corrosion and soluble sulfate soil conditions at the site. The structures shall be designed in accordance with the seismic parameters included in the UBC/CBC.
PA 40/PA 12 Project EIR	**PPP-GEO-7:** Septic Tanks, Leech Fields, and Seepage Pits: If encountered during grading, the abandonment of the septic tanks, leech field, and seepage pits shall be performed in accordance with Section 722 of the Uniform Plumbing Code requirements. These structures shall be removed from the upper 10 feet from finish grade and disposed of offsite. The structures shall be properly abandoned below this depth.
PA 40/PA 12 Project EIR	**PPP-SH-1:** Storm Drain Facilities: Prior to release of a final map by the City, the landowner or subsequent project applicant shall construct, or enter into an agreement and post security, in a form and amount acceptable to the City Engineer, guaranteeing the construction of the following public and/or private improvements in conformance with applicable City

	Standards and the City's Capital Improvement Policy. (City of Irvine Standard Condition 1.1)
PA 40/PA 12 Project EIR	**PPP-SH-4:** Hydrology and Hydraulics Report: Prior to the issuance of preliminary grading permits, the landowner or subsequent project applicant shall complete, and submit to the Department of Public Works, a hydrology and hydraulics report to verify that the final development conforms to the proposed drainage patterns and flow rates shown in the Master Plan of Drainage. The final pad layout and street locations along with final on-site storm drain design shall be verified with more refined flow rates and pipeline layouts, to the satisfaction of the City Engineer. (Section 102 of the Standards & Design Manual)
PA 40/PA 12 Project EIR	**PDF-SH-1:** Routing of Flows to Trabuco Retarding Basin: A portion of the existing drainage area tributary to the Caltrans Channel will be routed to Trabuco Retarding Basin. PA 40 planned development will be designed per San Diego Creek Master Plan Central-Irvine Channel Update Calculations (RBF Report, 2-26-2007). The Flood Control Master Plan designed a portion of the PA 40 development to be routed to the Trabuco Retarding Basin. The area allocated to Trabuco Retarding Basin in the Flood Control Master Plan is 85 acres or 200 cfs, whichever is the limiting factor. The actual developed area proposed to be routed to Trabuco Retarding Basin, as modeled in this hydrology study, is approximately 78 acres, which will generate approximately 200 cfs of developed flow. The area of PA 40 allocated to be routed to Trabuco Retarding Basin will be drained via an on-site storm drain system towards Trabuco Road. An existing trunk storm drain pipe system located in Trabuco Road is designed and built to convey the proposed discharges from a portion of PA 40. This flow will be discharged to the Trabuco Retarding Basin. The Trabuco Retarding Basin was recently modified to attenuate the flow from increased tributary drainage areas and latest land use changes, and to provide water quality benefits for the watershed. As a result of this drainage improvement, the developed drainage area tributary to the existing Caltrans Channel will be less than the existing drainage area tributary to the Caltrans Channel, thus reducing the impact of the developed flowrates to the channel.

PA 40/PA 12 Project EIR	**PDF-SH-2:** Use of Available Capacity in Caltrans Channel: In the developed condition, the PA 40 on-site storm drain system is proposed to be designed to optimize the capacity of the existing Caltrans Channel by making connections from the developed PA 40 storm drain system at strategic locations in the Caltrans Channel where the existing channel has maximum capacity to handle the increased flow rates. As a result of this improvement, the portions of the existing channel with capacity and freeboard problems will be reduced. The on-site drainage improvements will consist of a storm drain system paralleling the existing Caltrans Channel, located north of Caltrans right of way. The proposed new on-site storm drain system will discharge flow into the existing Caltrans Channel at specific strategic locations where the channel has maximum capacity. There are approximately four (4) new connections to the Caltrans Channel proposed (see Exhibit 2 in the PA 40 Hydrology Technical Report, provided as Appendix G1 of this EIR).
PA 40/PA 12 Project EIR	**MM-SH-1:** Prior to the issuance of building permits, the landowner or subsequent project applicant shall improve the existing Caltrans Channel structure to add additional height to the rim of the channel to meet Caltrans minimum freeboard criteria. The channel rim will have to be raised approximately 1.5 feet high over a 150 feet long reach from approximately station: 60+00 to station: 61+50. This can be accomplished by adding concrete splash walls or flood walls adjacent to the existing channel structure. The proposed improvements shall be reviewed and approved by Caltrans.
PA 40/PA 12 Project EIR	**PPP-SWQ-1:** Notice of Intent (NOI): Prior to the issuance of preliminary or precise grading permits, the landowner or subsequent project applicant shall provide the City Engineer with evidence that a NOI has been filed with the State Water Resources Control Board. Such evidence shall consist of a copy of the NOI stamped by the State Water Resources Control Board or Regional Water Quality Control Board, or a letter from either agency stating that the NOI has been filed. (City of Irvine Standard Condition 2.5)
PA 40/PA 12 Project EIR	**PPP-SWQ-2:** Water Quality Management Plan (WQMP): Prior to the issuance of precise grading permits, the applicant shall submit, and the Director of Community Development [City of Irvine] shall have approved, a Water Quality Management Plan (WQMP).

	The WQMP shall identify the Best Management
PA 40/PA 12 Project EIR	Practices (BMPs) that will be used on the site to control predictable pollutant runoff (City of Irvine Standard Condition 2.10) More specifically, the WQMP shall, in accordance with the DAMP and LIP, do the following: a. Describe the routine and special post-construction BMPs to be used at the proposed development site (including both structural and non-structural measures); b. Describe responsibility for the initial implementation and long-term maintenance of the BMPs; c. Provide narrative with the graphic materials as necessary to specify the locations of the structural BMPs; and d. Certify that the project proponent will seek to have the WQMP carried out by all future successors or assigns to the property. Detailed information about the process for identifying BMPs is included in the Water Quality Assessment Technical Reports contained in Appendices G3 and G4.
PA 40/PA 12 Project EIR	**PPP-SWQ-3:** Storm Water Pollution Prevention Plan (SWPPP): Prior to the issuance of grading permits, the landowner or subsequent project applicant shall prepare a SWPPP that will: a. Require implementation of Best Management Practices (BMPs) designed with a goal of preventing a net increase in sediment load in storm water discharges relative to preconstruction levels; b. Prohibit during the construction period discharges of storm water or non-storm water at levels which would cause or contribute to an exceedance of applicable water quality standards contained in the Basin Plan;

	c. Discuss in detail the BMPs planned for the project related to control of sediment and erosion, non-sediment pollutants, and potential pollutants in non-storm water discharges; d. Describe post-construction BMPs for the project; e. Explain the maintenance program for the project's BMPs; f. During construction, require reporting of violations to the Regional Board; and g. List the parties responsible for SWPPP implementation and BMP maintenance during and after grading. The project proponent shall implement the SWPPP and will modify the SWPPP
PA 40/PA 12 Project EIR	as directed by the Storm Water Permit. **PPP-SWQ-4:** Encroachment Permit: The landowner or subsequent project applicant shall obtain an encroachment permit for any construction activities that will result in runoff within Caltrans Right-of-Way. The landowner or subsequent project applicant must submit a copy of the SWPPP prior to construction. If a SWPPP is not required for the project, the landowner or subsequent project applicant shall prepare and submit a Water Pollution Control Plan pursuant to Caltrans Standard Specifications and "Caltrans Storm Water Quality Handbook, Project Planning and Design Guide." (May 2007) All activities within Caltrans Right-of-Way must fully conform to the Caltrans Statewide NPDES Permit No. CAS000003 (Order No. 99-06-DWQ).
PA 40/PA 12 Project EIR	**PPP-SWQ-5:** De Minimus Permit: If and when construction dewatering is required, the Project shall comply with the requirements of General Waste Discharge Requirements for Short-Term Groundwater-Related Discharges and De Minimus Wastewater Discharges to Surface Waters within the San Diego Creek/Newport Bay Watershed (RWQCB Order No. R8-2004-0021 NPDES No. CAG998002)

PA 40/PA 12 Project EIR	**PDF-SWQ-1:** Site Design Best Management Practices (BMPs): The MS4 permit and implementation plans described in the DAMP/LIP and the City's model Water Quality Management Plan (WQMP) require the consideration and incorporation of site design BMPs to reduce runoff and create a hydrologically functional project. Accordingly, the project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2, shall include the following site planning principles that have been incorporated into the Project design. Minimize Impervious Area and Impervious Area Directly Connected to Storm Drains: • Impervious areas will be minimized by incorporating landscaped areas over substantial portions of the Project area. Single family residential landscape areas will be determined by zoning requirements, village setback/parkway standards, and design objectives. • Within PA 40 approximately 41.3 acres of parks, windrows, trail, and berm will be provided within
	the Project. An additional approximately 15 acres will be dedicated to the City of Irvine for JOST within the Project boundary. • Most sidewalks will drain into landscaping prior to discharging to the stormwater conveyance system. • Vegetated treatment control BMPs will reduce runoff volumes through evapotranspiration and infiltration. Selection of Construction Materials and Design Practices: • Building materials for roof gutters and downspouts will not include copper or zinc. • Streets, sidewalks, and parking lot aisles will be constructed to the minimum widths specified in the City Land Use Code and in compliance with regulations for the Americans with Disabilities Act and safety requirements for fire and emergency vehicle access. Conserve Natural Areas: • Canopy interception and water conservation will be increased by incorporating trees (including existing

	windrows) into the Project design pursuant to the landscape plan and include native and drought resistant plants in development plant palettes.
PA 40/PA 12 Project EIR	**PDF-SWQ-2:** Source Control BMPs: Effective management of wet- and dry-weather water quality begins with limiting pollutant sources. The project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2, shall include the following source control BMPs as set forth below. The source control BMPs shall be implemented in accordance with the MS4 Permit and DAMP/LIP. These source control BMPs were selected based on the land uses included in the Project: single-family residential, multi-family residential, commercial, mixed-use, education, roadways, park, and open space. <u>Non-Structural Source Control BMPs</u> *N1: Education for Property Owners, Tenants and Occupants* – practical information materials will be provided to the first residents occupants/tenants on general housekeeping practices that contribute to the
	protection of stormwater quality. The Home Owner Association (HOA) will have an ongoing educational material distribution program. At a minimum, these materials will cover the following topics: 1. The use of chemicals (including household type) that will be limited to the property, and avoidance of discharge of specified wastes via hosing or other means to gutters, catch basins, and storm drains. 2. The proper handling of material such as fertilizers, pesticides, cleaning solutions, paint products, automotive products, and swimming pool chemicals, and swimming pool drainage. 3. The environmental and legal impacts of illegal dumping of harmful substances into storm drains and sewers. 4. Alternative household products which are safer to the environment. 5. Household hazardous waste collection program. 6. Used oil recycling programs. 7. Proper procedures for spill prevention and clean up. 8. Proper storage of materials which pose pollution risks to local waters. 9. Carpooling programs and public transportation alternatives to driving.

	N2: Activity Restrictions (Conditions, Covenants, and Restrictions) – Conditions, Covenants, and Restrictions (CC&Rs) will be prepared as necessary and will address surface water quality protection. *N3: Common Area Landscape Management* – ongoing maintenance will be consistent with the County Water Conservation Resolution or the City of Irvine equivalent, and fertilizer and/or pesticide usage will be consistent with County Management Guidelines for Use of Fertilizers (DAMP Section 5.5). See also, efficient irrigation systems under structural controls. *N4: BMP Maintenance* - IRWD will be responsible for the inspection and maintenance of the Trabuco Basin and other extended detention basins that are accepted into the NTS Master Plan within the Project boundary. The HOA, property owner, and/or Property Owner's Association (POA) will be responsible for the inspection and maintenance of non-NTS treatment BMPs within the Project.
	NTS facilities will be inspected on a regular scheduled basis as part of the NTS Master Plan. The inspections will ensure that the facility is operating properly, record observations, and initiate any maintenance activities that may be required. Site visits will require one person driving a single vehicle for water quality basin inspection, including walking the perimeter of the facility. This will be conducted on a monthly basis with additional inspections during the wet months corresponding to monitored storm events. BMP maintenance activities that will be performed on a regularly scheduled basis include but are not limited to: • Trash/Debris Removal • Vegetation Removal/Thinning • Sediment Removal • Integrated Pest/Plant Management • Vector *N6: Local Water Quality Permit Compliance* – Occupants/tenants will be responsible for applying for and complying with appropriate local water quality

	permits for stormwater discharges from fuel dispensing areas or other areas of public concern to public properties. *N7: Spill Contingency Plan* – Occupants/tenants will develop a spill contingency plan which mandates stockpiling of cleanup materials, notification of responsible agencies such as the County of Orange Environmental Health, Fire Department, etc., disposal of cleanup materials, and documentation. *N9: Hazardous Materials Disclosure Compliance* – Occupants/tenants will comply with County of Orange ordinances enforced by the fire protection agency for the management of hazardous materials. *N10: Uniform Fire Code Implementation* – Occupants/tenants will comply with Article 80 of the Uniform Fire Code enforced by the fire protection agency.

	N11: Common Area Litter Control - litter patrol, covered trash receptacles, trash cans with lids, emptying of trash receptacles in common areas, and noting trash disposal violations by tenants/homeowners and reporting the violations to the HOA or POA for investigation will be conducted. *N12: Employee Training* – Environmental awareness education materials will be prepared by business owners for education of employees, similar to those topics listed in N1 above, tailored to the specific business activities. *N13: Housekeeping of Loading Docks* - Loading docks typically found at large retail and warehouse type commercial facilities will be kept in a clean and orderly condition through a regular program of sweeping and litter control and immediate cleanup of spills and broken containers. Cleanup procedures will minimize or eliminate the use of water. If wash down water is used, it will be disposed of in an approved manner and not discharged to the storm drain system. If there are no other alternatives, discharge of non-stormwater flow to the sanitary sewer will be considered only if allowed by the local sewering agency through a permitted connection. *N14: Common Area Drainage Facility Inspection* - privately-owned drainage facilities will be inspected each year and, if necessary, cleaned and maintained prior to the storm season, no later than October 1st each year. Drainage facilities include catch basins, inlets, and open drainage channels. *N15: Street Sweeping Private Streets* – private streets will be swept monthly. *N17: Retail Gasoline Outlets* - Retail gasoline outlets (RGOs) will implement the following BMPs: • At a minimum, the fuel dispensing area will extend 6.5 feet (2.0 meters) from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus 1 foot (0.3 meter), whichever is less. • The fuel dispensing area will be paved with

	Portland cement concrete (or equivalent smooth impervious
	surface). The use of asphalt concrete will be prohibited. • The fuel dispensing area will have an appropriate slope (2% - 4%) to prevent ponding, and will be separated from the rest of the site by a grade break that prevents run-on of stormwater. • An overhanging roof structure or canopy will be provided. The cover's minimum dimensions will be equal to or greater than the area of the fuel dispensing area in #1 above. The cover will not drain onto the fuel dispensing area and the downspouts will be routed to prevent drainage across the fueling area. The fueling area will drain to the Project's Treatment Control BMP(s) prior to discharging to the municipal storm drain system. <u>Structural Source Control BMPs</u> *Provide Storm Drain Stenciling and Signage* - all storm drain inlets and catch basins, constructed or modified, within the Project area will be stenciled or labeled. Signs which prohibit illegal dumping will be posted at public access points along channels and creeks within the Project area. Legibility of stencils and signs shall be maintained. *Trash Area Design* - trash areas will be paved, designed not to allow run-on, screened or walled to prevent off-site transport of trash, and covered to minimize direct precipitation. Connection of trash area drains to the municipal storm drain system will be prohibited. *Efficient Irrigation* - the timing and application methods of irrigation water in common areas will minimize the runoff of excess irrigation water into the stormwater conveyance system. IRWD has an aggressive block rate structure for water use that encourages conservation. This block rate structure will be applied to the Project. *Loading Dock Areas* - Loading/unloading dock areas will include the following: • Cover loading docks areas, or design drainage to

	preclude urban run-on and runoff. • Runoff from below grade loading docks (truck wells) or similar structures will be treated with a Treatment Control BMP applicable to the use prior to discharge to the storm drain. • Housekeeping of loading docks will be consistent with N13. *Retail Gasoline Outlets* - Retail gasoline outlets will implement the BMPs listed above in source control N17. *Community Car Wash Racks* – a designated car wash area that drains to the sanitary sewer or an engineered infiltration system will be included in complexes larger than 100 dwelling units. Signage will be provided prohibiting discharges of car wash water outside of the designated car wash area. Alternatively, car washing will not be allowed.
PA 40/PA 12 Project EIR	**PDF-SWQ-3:** Treatment Control BMPs: Priority projects within Orange County are required to reduce pollutants of concern in stormwater discharges to the maximum extent practicable through the incorporation and implementation of treatment control BMPs. To meet this requirement, the project WQMP, approval of which is required prior to the issuance of precise grading permits per PPP-SWQ-2 shall incorporate a combination of stormwater treatment BMPs as set forth below that will address the pollutants of concern. A variety of treatment BMP scenarios are considered herein and are intended to allow flexibility in selection of treatment control BMPs in later phases of Project implementation. Treatment BMPs set forth in the DAMP are listed in Table 5.8-5, in Section 5.8.2 Surface Water Quality, along with the pollutants of concern addressed by each. <u>Treatment Control BMP Options for PA 40</u> The portion of the Project will utilize one constructed wetland basin (also referred to as an NTS basin) and options related to dry extended detention basins and/or biofilters (vegetated swales and/or bioretention areas) as treatment control BMPs. Catch basin inserts will also be

	provided to control trash and debris in runoff from retail parking lots. These BMPs, when combined with the site design and source control BMPs described above, will address all of the pollutants of concern. East and West Drainage Areas: Runoff from the East Drainage Area (99.8 acres) and the majority of the West Drainage Area (395.0 acres) will be treated in either extended detention basins or biofiltration BMPs (vegetated swales and/or bioretention areas). In the East Drainage Area, extended detention basins or swales and/or bioretention areas will be integrated into the site design to provide treatment of runoff (small storm and dry weather) prior to discharge to the Marshburn Channel. These BMPs will be designed as off-line facilities with capacity up to the water quality design flow rate and with higher flows routed directly to Marshburn Channel. Runoff from the West Drainage Area will be treated in extended detention basins or swales/bioretention anticipated to be located in the setback corridor between the southwest edge of development and the Santa Ana (I-5) Freeway. The treatment control facilities will accept dry weather flows and low stormwater flows from the development at multiple locations and will discharge treated runoff to the Caltrans Channel. The treatment control facilities in the multi-use corridor will be off-line facilities, with high flow bypassed directly to the Caltrans Channel. A brief description of extended detention basins, vegetated swales, and bioretention are provided below. *Extended Detention Basins*: Extended detention basins are designed with outlets that detain the runoff volume from the water quality design storm (e.g., the 85th percentile 24-hour event) for some minimum time (in this case 36 hours) to allow particles and associated pollutants to settle out. The outlets are also designed to retain trash and debris within the basin for removal during maintenance. The extended detention basins will also incorporate a low flow channel in the bottom of the basin that will support wetland vegetation. Wetland vegetation provides one of the most effective methods for pollutant removal. As dry weather and low flows pass through the wetland vegetation, pollutant

	removal
	is achieved through settling and biological uptake of nutrients and dissolved pollutants within the vegetation. Pathogen reductions are also achieved by exposure to sunlight (UV radiation). These basins are not designed or anticipated to contain ponded, standing water for periods in excess of 36 to 48 hours. Per the DAMP/LIP requirements, the extended detention basins within the Project will be designed to collect and treat the volume of runoff produced from a 24-hour, 85th percentile storm event, determined as the maximized capture stormwater volume for the area (DAMP/LIP Sizing Option #2). An amendment of the IRWD NTS Master Plan will be requested that would include some or all of the extended detention basins, if and as incorporated into the detailed project design. If IRWD approves an amendment to the NTS Master Plan to incorporate some or all of the extended detention basins into the Master Plan and O&M program, then IRWD will own and maintain those basins that are incorporated. If IRWD does not include the extended detention basins in the NTS Master Plan, the HOA or POA will assume maintenance and ownership responsibilities. *Vegetated Swales*: Vegetated swales are engineered vegetation-lined channels that provide water quality benefits in addition to conveying stormwater runoff. Swales provide pollutant removal through settling and filtration in the vegetation (often grasses) lining the channels and also provide the opportunity for volume reductions through infiltration and evapotranspiration. Swales are most effective where longitudinal slopes are small (2 percent to 6 percent), thereby increasing the residence time for treatment, and where water depths are less than the vegetation height. The vegetated swales will incorporate trash screens on the outlet structures to capture trash and debris and to facilitate removal. If incorporated into the Project, vegetated swales will be designed to capture and treat the maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall

	record, multiplied by a factor of two per DAMP/LIP
	flow-based Sizing Option #2. Sizes of swales will vary based on catchment properties and site constraints. *Bioretention*: Bioretention areas are vegetated (i.e., landscaped) shallow depressions that provide storage, infiltration, and evapotranspiration, and also provide for pollutant removal (e.g. filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. In bioretention areas, as well as in vegetated swales and filter strips, pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants utilize soil moisture and promote the drying of the soil through transpiration. The bioretention areas will incorporate trash screens on the overflow structures to capture and retain floatable trash and debris within the facility. Bioretention areas are volume-based BMPs, but have a relatively high draw down rate and relatively little surface storage compared to typical extended detention basins. Consequently, they are not properly sized using DAMP/LIP volume-based Sizing Options #1 or #2. If incorporated into the Project, bioretention areas will be sized using volume-based sizing option #3 which calls for 80 percent average annual capture of stormwater runoff. A Project WQMP that specifically identifies the BMPs to be used for the East and West Drainage Areas will be submitted to the City of Irvine for review prior to the recordation of any final subdivision map (except those maps for financing or conveyance purposes only) or the issuance of any grading or building permit (whichever comes first). The Project WQMP will identify, at a minimum: (1) site design BMPS (as appropriate); (2) the routine structural and non-structural BMPs; (3) treatment control BMPs; and (4) the mechanism(s) by which long term operation and maintenance of all structural BMPs will be provided.
PA 40/PA 12 Project EIR	**PPP-PW-1:** In accordance with the [IRWD] Procedural Guidelines and General Design Requirements, Sub-Area Master Plan (SAMP) information for the PA 40 and PA 12 portions of the Project, which identify the

	specific potable water, non-potable water, and wastewater
	systems improvements necessary to serve the proposed Project, shall be submitted to IRWD for review and approval.
PA 40/PA 12 Project EIR	**MM-SWR-2:** Prior to issuance of grading permits for PA 40 Project area east of Sand Canyon Avenue and the PA 12 Project area, the project applicant shall provide evidence that IRWD has approved a SAMP for the Project that demonstrates that adequate capacity exists or will be provided in the Sand Canyon Avenue trunk sewer to accommodate the wastewater flows associated with the Project, when considering the flows anticipated from the planned industrial development in PA 12 between the Project site and existing golf course. The identification of improvements necessary to address potential deficiencies in the capacity of the subject trunk sewer, as related to the Project shall include evaluation of potential environmental impacts associated with constructing the improvements and shall specify measures to avoid or reduce potential impacts. In particular, such measures shall seek to avoid or minimize construction impacts related to dust, noise, traffic disruptions, and disturbance of any natural/vegetated areas.
PA 40/PA 12 Project EIR	**PPP-CLT-1:** Prior to the issuance of the first preliminary or precise grading permit, and for any subsequent permit involving excavation to increased depth, the applicant shall provide letters from an archaeologist and a paleontologist. The letters shall state that the applicant has retained these individuals, and that the consultant(s) will be on call during all grading and other significant ground-disturbing activities. These consultants shall be selected from the roll of qualified archaeologists and paleontologists maintained by the County of Orange. The archaeologist and/or paleontologist shall meet with Community Development staff [City of Irvine], and shall submit written recommendations specifying procedures for cultural/scientific resource surveillance and for developing mitigation plans for archaeological/historical and paleontological resources. These recommendations shall be reviewed and approved by the Director of Community Development [City of Irvine] prior to issuance of the grading permit and prior to any surface

	disturbance on the project site. Specific measures that shall be required include at a minimum:
	a. A qualified archaeological and/or paleontological monitor will observe and inspect grading and other construction excavations in undisturbed, native sediments, including full time monitoring during grading of undisturbed Pleistocene age sediments below a depth of 8 feet. b. If archaeological excavations are conducted, the Owner will retain a qualified Native American monitor with demonstrated ancestral ties to the area. The Native American monitor will observe all archaeological excavations and provide a written report. c. Conduct an archaeological survey of the PA 12 Project site in conjunction with clearing and grubbing of the property, prior to major earth-moving activity. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Director of Community Development [City of Irvine] is satisfied that adequate provisions are in place to protect these resources (i.e., significant scientific/cultural resources will be preserved in place or recovered and curated at a museum or other suitable repository for curation in perpetuity. The repository will afford access to the collection to future researchers. Proof of curation shall be provided). (City of Irvine Modified Standard Condition 2.1).
	PPP-CLT-2: In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken: a. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until the Orange County Coroner is contacted to determine if the remains are prehistoric and that no investigation of the cause of death is required. If the coroner determines the remains to be Native American, then the coroner shall contact the Native American Heritage Commission within 24 hours, and the Native American Heritage Commission shall identify the person or persons it believes to be the most likely descendent from the deceased Native American. The most likely descendent may make recommendations to the landowner or the person responsible for the

	excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or b. Where the following conditions occur, the land owner or his/her authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the most likely descendent or on the property in a location not subject to further subsurface disturbance: 1. The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission. 2. The identified descendent fails to make a recommendation; or 3. The landowner or his/her authorized representative rejects the recommendation of the descendent, and mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner. [CEQA Guidelines Section 15064.5(e)]

Determination:

☒ **Finding of No Significant Impact** [24 CFR 58.40(g)(1); 40 CFR 1508.27]
The project will not result in a significant impact on the quality of the human environment.

☐ **Finding of Significant Impact** [24 CFR 58.40(g)(2); 40 CFR 1508.27]
The project may significantly affect the quality of the human environment.

Preparer Signature: Cindy Wolfe Date: 10/16/18

Name/Title/Organization: Cindy Wolfe / Administrative Manager/Environmental Coordinator / Orange County Homeless, Housing and Community Development

Certifying Officer Signature: _____ Date: 10/16/18

Name/Title: Craig Fee / Community Development Manager

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).