

- CO₂
- Methane (CH₄)
- Nitrous oxide (N₂O)
- Hydrofluorocarbons (HFCs)
- Perfluorocarbons (PFCs)
- Sulfur Hexafluoride (SF₆)

Over the last 200 years, human activities have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere, and enhancing the natural greenhouse effect, which is believed to be causing global warming. While GHGs produced by human activities include naturally-occurring GHGs such as CO₂, CH₄, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere. Certain other gases, such as water vapor, are short-lived in the atmosphere as compared to these GHGs that remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is generally excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. For the purposes of this air quality study, the term “GHGs” will refer collectively to the six gases identified in the bulleted list provided above.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of metric tons (MT)¹ of “CO₂ equivalents” (CO₂e). Table 4.4.A shows the GWPs for each type of GHG. For example, SF₆ is 22,800 times more potent at contributing to global warming than CO₂.

Table 4.4.A: Global Warming Potentials

Gas	Atmospheric Lifetime (Years)	Global Warming Potential (100-year Time Horizon)
Carbon Dioxide (CO ₂)	50–200	1
Methane (CH ₄)	12	25
Nitrous Oxide (N ₂ O)	114	298
Hydrofluorocarbons (HFCs)		
HFC-23	270	14,800
HFC-134a	14	1,430
HFC-152a	1.4	124
Perfluorocarbons (PFCs)		
Tetrafluoromethane (CF ₄)	50,000	7,390
Hexafluoromethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: IPCC, 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

HFC = Hydrofluorocarbons

PFC = Perfluorocarbons

IPCC = Intergovernmental Panel on Climate Change

¹ A metric ton is equivalent to approximately 1.1 tons.

Characteristics of the Principal GHGs. The following discusses the main characteristics of the principal GHG listed above.

Carbon Dioxide. In the atmosphere, carbon generally exists in its oxidized form, as CO₂. Natural sources of CO₂ include the respiration (breathing) of humans, animals and plants, volcanic outgassing, decomposition of organic matter, and evaporation from the oceans. Human-caused sources of CO₂ include the combustion of fossil fuels and wood, waste incineration, mineral production, and deforestation. The Earth maintains a natural carbon balance, and when concentrations of CO₂ are upset, the system gradually returns to its natural state through natural processes. Natural changes to the carbon cycle work slowly, especially compared to the rapid rate at which humans are adding CO₂ to the atmosphere. Natural removal processes, such as photosynthesis by land- and ocean-dwelling plant species, cannot keep pace with this extra input of human-made CO₂, and consequently the gas is building up in the atmosphere. The concentration of CO₂ in the atmosphere has risen approximately 30 percent since the late 1800s.¹

Methane. CH₄ is produced when organic matter decomposes in environments lacking sufficient oxygen. Natural sources include wetlands, termites, and oceans. Anthropogenic sources include rice cultivation, livestock, landfills and waste treatment, biomass burning, and fossil fuel combustion (burning of coal, oil, natural gas, etc.). Decomposition occurring in landfills accounts for the majority of human-generated CH₄ emissions in California, followed by enteric fermentation (emissions from the digestive processes of livestock).² Agricultural processes such as manure management and rice cultivation are also significant sources of human-made CH₄ in California. CH₄ accounted for approximately 6 percent of gross climate change emissions (CO₂e) in California in 2002.³ It is estimated that over 60 percent of global methane emissions are related to human-related activities.⁴ As with CO₂, the major removal process of atmospheric CH₄—a chemical breakdown in the atmosphere—cannot keep pace with source emissions, and CH₄ concentrations in the atmosphere are increasing.

Nitrous Oxide. N₂O is produced naturally by a wide variety of biological sources, particularly microbial action in soils and water. Tropical soils and oceans account for the majority of natural source emissions. N₂O is a product of the reaction that occurs between nitrogen and oxygen during fuel combustion. Both mobile and stationary combustion emit N₂O, and the quantity emitted varies according to the type of fuel, technology, and pollution control device used, as well as maintenance and operating practices. Agricultural soil management and fossil fuel combustion are the primary sources of human-generated N₂O emissions in California.

¹ California Environmental Protection Agency. 2006. Climate Action Team Report to Governor Schwarzenegger and the Legislature. March.

² California Air Resources Board, Greenhouse Gas Inventory Data - 1990 to 2004. <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed November 2008.

³ Ibid.

⁴ IPCC, 2007. Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the IPCC.

Hydrofluorocarbons, Perfluorocarbons, and Sulfur Hexafluoride. HFCs are primarily used as substitutes for ozone-depleting substances regulated under the Montreal Protocol.¹ PFCs and SF₆ are emitted from various industrial processes, including aluminum smelting, semiconductor manufacturing, electric power transmission and distribution, and magnesium casting. There is no aluminum or magnesium production in California; however, the rapid growth in the semiconductor industry, which is active in California, leads to greater use of PFCs.

Emissions Inventories. An emissions inventory that identifies and quantifies the primary human-generated sources and sinks of GHGs is a well-recognized and useful tool for addressing climate change. This section summarizes the latest information on global, national, State, and local GHG emission inventories. However, because GHGs persist for a long time in the atmosphere (see Table 4.4.A), accumulate over time, and are generally well-mixed, their impact on the atmosphere and climate cannot be tied to a specific point of emission.

Global Emissions. The International Energy Agency (IEA)² reports that worldwide emissions of CO₂e totaled 30.6 billion MT in 2010, a 5 percent increase over 2009. Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change (UNFCCC).

United States Emissions. In 2010, the United States emitted approximately 6.8 billion MT of CO₂e. Of the six economic sectors nationwide— electric power industry, transportation, industry, agriculture, commercial, and residential— the electric power industry and transportation sectors combined account for approximately 62 percent of the GHG emissions; the majority of the electrical power industry and all of the transportation emissions are generated from direct fossil fuel combustion. Overall, from 1990 to 2010, total emissions of CO₂ increased by 605.9 teragrams (Tg)³ CO₂e (11.9 percent), while total emissions of CH₄ and N₂O decreased by 1.7 Tg CO₂e (0.3 percent), and 10.0 Tg CO₂e (3.2 percent), respectively. During the same period, aggregate weighted emissions of HFCs, PFCs, and SF₆ rose by 52.5 Tg CO₂e (58.2 percent). From 1990 to 2010, HFCs increased by 86.1 Tg CO₂e (233.1 percent), PFCs decreased by 15.0 Tg CO₂e (72.7 percent), and SF₆ decreased by 18.6 Tg CO₂e (57.0 percent).⁴

State of California Emissions. Table 4.4.B lists the ARB emission inventory estimates.⁵ Emissions in 2009 decreased by 5.8 percent from 2008. The year 2009 reflected the full effect of

¹ The Montreal Protocol is an international treaty that was approved on January 1, 1989, and was designated to protect the ozone layer by phasing out the production of several groups of halogenated hydrocarbons believed to be responsible for ozone depletion.

² <http://www.iea.org>.

³ Tg = teragram, equivalent to a million metric tons

⁴ U.S. EPA, 2013. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2010*. <http://www.epa.gov/climatechange/emissions/usinventoryreport.html>. Accessed April 2013.

⁵ California ARB, Greenhouse Gas Inventory Data - 2000 to 2009. <http://www.arb.ca.gov/cc/inventory/data/data.htm>. Accessed February 2013.

Table 4.4.B: California Greenhouse Gas Inventory for 2000–2009 by Category

Source Category	2007	2008	2009
Transportation	187.08	177.97	172.92
Electric Power	115.08	121.22	103.58
Commercial and Residential	41.92	41.54	42.95
Industrial	89.78	87.09	81.36
Recycling and Waste	7.06	7.26	7.32
High GWP	14.81	15.77	16.32
Agriculture	32.91	33.68	32.13
Forestry	0.19	0.19	0.19
Total Gross Emissions	488.83	484.72	456.77

Source: California Air Resources Board, April 2013.

All values in million tonnes of CO₂ equivalent - (based upon IPCC Second Assessment Report's Global Warming Potentials).

CO₂ = carbon monoxide

GWP = global warming potential

IPCC = Intergovernmental Panel on Climate Change

the economic recession and higher fuel prices, with marked declines in on-road transportation, cement production, and electricity consumption. Nevertheless, this large amount of CO₂e emissions is due primarily to the sheer size of California compared to other states. By contrast, California has the fourth lowest per-capita CO₂ emission rate from fossil fuel combustion in the country, due to the success of its energy efficiency and renewable energy programs and commitments that have lowered the State's GHG emissions rate of growth by more than one-half of what it would have been otherwise.¹

City of Indio Emissions. At the time this EIR was prepared, GHG emissions inventories were not available for the City of Indio (City).

4.4.2 Regulatory Setting

The regulatory framework and other governmental activities addressing GHG emissions and GCC are discussed in this section.

Federal Regulations. The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the Environmental Protection Agency (EPA) has the authority to regulate CO₂ emissions under the federal Clean Air Act (CAA). While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the EPA commenced several actions in 2009 that are required to implement a regulatory approach to GCC.

¹ California Energy Commission (CEC), 2007. Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004 - Final Staff Report, publication # CEC-600-2006-013-SF, Sacramento, CA, December 22, 2006; and January 23, 2007, update to that report.

On September 30, 2009, the EPA announced a proposal that focuses on large facilities emitting over 25,000 tons of GHG emissions per year. These facilities would be required to obtain permits that would demonstrate they are using the best practices and technologies to minimize GHG emissions.

On December 7, 2009, the EPA Administrator signed a final action with two distinct findings regarding GHGs under Section 202(a) of the CAA:

- The Administrator is proposing to find that the current and projected concentrations of the mix of six key GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in the atmosphere constitute a threat to public health and the welfare of current and future generations. This is referred to as the endangerment finding.
- The Administrator is further proposing to find that the combined emissions of CO₂, CH₄, N₂O, and HFCs from new motor vehicles and motor vehicle engines contribute to the atmospheric concentrations of these key GHGs and hence to the threat of GCC. This is referred to as the cause or contribute finding.

This EPA action does not impose any requirements on industry or other entities. However, the findings are a prerequisite to finalizing the GHG emission standards for light-duty vehicles mentioned below.

On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a final joint rule to establish a national program consisting of new standards for model years 2012–2016 light-duty vehicles that will reduce GHG emissions and improve fuel economy. The EPA is finalizing the first-ever national GHG emissions standards under the CAA, and NHTSA is finalizing Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. The EPA GHG standards require these vehicles to meet an estimated combined average emissions level of 250 grams of CO₂ per mile in model year 2016, equivalent to 35.5 miles per gallon (mpg).¹

In August 2012, new fuel economy standards² for cars and light-duty trucks were adopted by the Department of Transportation (DOT) and the EPA that will increase fuel economy to the equivalent of 54.5 mpg by model year 2025. When combined with previous standards, this will nearly double the fuel efficiency of those vehicles compared to new vehicles currently in use.

State Regulations. In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus: the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board, in order to establish ARB. Since its formation, ARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems.

¹ United States Environmental Protection Agency. *EPA and NHTSA Finalize Historic National Program to Reduce Greenhouse Gases and Improve Fuel Economy for Cars and Trucks*. Available at: <http://www.epa.gov/oms/climate/regulations/420f10014.pdf>. Last accessed April 2013.

² <http://www.nhtsa.gov/About+NHTSA/Press+Releases/2012/Obama+Administration+Finalizes+Historic+54.5+mpg+Fuel+Efficiency+Standards>.

Assembly Bill 1493. In a response to the transportation sector's significant contribution to California's CO₂ emissions, AB 1493 (Pavley) was enacted on July 22, 2002. AB 1493 requires the ARB to set GHG emission standards for passenger vehicles and light-duty trucks (and other vehicles whose primary use is noncommercial personal transportation in the State) manufactured in 2009 and all subsequent model years. ARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of approximately 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the midterm (2013–2016) standards will result in a reduction of approximately 30 percent.

Executive Order S-3-05. In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order (EO) S-3-05. This EO established the following goals for the State of California: GHG emissions should be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050. The Secretary of the California Environmental Protection Agency (CalEPA) is required to coordinate efforts of various agencies in order to collectively and efficiently reduce GHGs. Representatives from several state agencies comprise the Climate Action Team (CAT). The CAT is responsible for implementing global warming emissions reduction programs. The CAT fulfilled its report requirements through the March 2006 CAT Report to Governor Schwarzenegger and the legislature (CalEPA 2006). As of the date of this report, subsequent CAT reports have been released for 2009 and 2010.

Assembly Bill 32. California's major initiative for reducing GHG emissions is outlined in AB 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. AB 32 required ARB to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG emissions by January 1, 2008;
- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions will be achieved via regulations, market mechanisms, and other actions;
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions of GHGs by January 1, 2011; and
- Prepare a Scoping Plan outlining the State's strategy to achieve the 2020 GHG emissions limit.

The ARB has established that the level of annual GHG emissions in 1990 was 427 million metric tons (MMT) of CO₂e.¹ The emissions target of 427 MMT of CO₂e/year requires the reduction of

¹ ARB. California 1990 Greenhouse Gas Emissions Level and 2020 Limit. Available at: <http://www.arb.ca.gov/cc/inventory/1990level/1990level.htm>. Last accessed April 2013.

80 MMT from the State's projected "business-as-usual" 2020 emissions of 507 MMT¹ (i.e., the 1990 levels are approximately 30 percent below "business-as-usual"). "Business-as-usual" is a forecast of the California economy in 2020 without implementation of any of the GHG reduction measures identified in the Scoping Plan. The Scoping Plan was approved by ARB on December 11, 2008, and includes measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures.² More specifically, the Scoping Plan includes aggressive energy efficiency goals and methods for increasing renewable energy use.

Meeting the goals in the Scoping Plan will require expanded utility-based energy efficiency programs, more stringent building and appliance standards, green building practices, waste reduction, and innovative strategies that go beyond traditional approaches. The Scoping Plan also relies on expanded efforts by the California Energy Commission (CEC) and California Public Utilities Commission (CPUC).

In August 2011, the Scoping Plan was reapproved by the ARB and includes the Final Supplement to the Scoping Plan Functional Equivalent Document (FED). Emission reductions that are projected to result from the recommended measures in the Scoping Plan are sufficient to allow California to attain the emissions goal of 427 MMT of CO₂e by 2020. The Scoping Plan includes a range of GHG reduction actions that may include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system.

It is important to note that the Scoping Plan, even after ARB approval, remains a recommendation. The measures in the Scoping Plan will not be binding until after they are adopted through the normal rulemaking process. The ARB rule-making process includes preparation and release of each of the draft measures, public input through workshops, and a public comment period, followed by an ARB hearing and rule adoption.

Senate Bill 1368. In September 2006, Governor Schwarzenegger signed Senate Bill (SB) 1368, which requires the CEC to develop and adopt regulations for GHG emissions performance standards for the long-term procurement of electricity by local, publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC. This effort will help to protect energy customers from financial risks associated with investments in carbon-intensive generation by allowing new capital investments in power plants whose GHG emissions are as low as or lower than new combined-cycle natural gas plants by requiring imported electricity to meet GHG performance standards in California and requiring that the standards be developed and adopted in a public process.

Senate Bill 97. To assist public agencies in analyzing the effects of GHGs under State CEQA Guidelines, SB 97 (Chapter 185, 2007) required the Governor's Office of Planning and Research (OPR) to develop State CEQA Guidelines on how to minimize and mitigate a project's GHG

¹ ARB. Greenhouse Gas Inventory - 2020 Emissions Forecast. Available at: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>. Last accessed April 2013.

² ARB. 2008. Climate Change Proposed Scoping Plan: a Framework for Change. October.

emissions. On December 30, 2009, the Natural Resources Agency adopted State CEQA Guideline Amendments related to climate change. These amendments became effective on March 18, 2010. The amended guidelines establish several new State CEQA Guideline requirements concerning the analysis of GHGs, including:

- Requiring a Lead Agency to “make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project” (Section 15064(a)).
- Providing a Lead Agency with the discretion to determine whether to use quantitative or qualitative analysis or performance standards to determine the significance of GHG emissions resulting from a particular project (Section 15064.4(a)).
- Requiring a Lead Agency to consider the following factors when assessing the significant impacts from GHG emissions on the environment:
 1. The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
 2. Whether the project emissions exceed a threshold of significance that the Lead Agency determines applies to the project.
 3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. (Section 15064.4(b)).
- Allowing lead agencies to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures, including offsets that are not otherwise required (Section 15126.4(c)).

The amended guidelines also establish two new guidance questions regarding GHG emissions in the Environmental Checklist set forth in Appendix G to the State CEQA Guidelines:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

The adopted amendments do not establish a GHG emission threshold, and instead allow a Lead Agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts.¹ The Natural Resources Agency also acknowledges that a Lead Agency

¹ The State CEQA Guidelines do not establish thresholds of significance for other potential environmental impacts, and SB 97 did not authorize the development of a statement threshold as part of this State CEQA Guidelines update. Rather, the proposed amendments recognize a lead agency’s existing authority to develop, adopt, and apply their own thresholds of significance or those developed by other agencies or experts. Final Statement of Reasons for Regulatory Action, Amendments to the State CEQA Guidelines, p. 84.

may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.¹

Senate Bill 375. SB 375, signed into law on October 1, 2008, is intended to enhance ARB's ability to reach AB 32 goals by directing ARB to develop regional GHG emission reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. The targets are required to consider the emission reductions associated with vehicle emission standards (see SB 1493), the composition of fuels (see EO S-1-07), and other ARB-approved measures to reduce GHG emissions.

Local Policies. The City of Indio's General Plan and zoning do not apply to the project because they are preempted by State law on property owned or leased by the County of Riverside (County).² However, the project is generally in compliance with the City's General Plan Goals and Policies Report, Environmental Resources Chapter.

4.4.3 Thresholds of Significance

Based on *Guidelines for the Implementation of California Environmental Quality Act*, Appendix G, Public Resource Code (PRC) Sections 15000–15387, a project would normally be considered to have a significant effect on air quality if the project would violate any ambient air quality standards (AAQS), contribute substantially to an existing air quality violation, expose sensitive receptors to substantial pollutants concentrations, or conflict with adopted environmental plans and goals of the community in which it is located.

As the South Coast Air Quality Management District (SCAQMD) has recognized, the analysis of GHGs is a much different analysis than the analysis of criteria pollutants for the following reasons. For criteria pollutants, significance thresholds are based on daily emissions because attainment or nonattainment is based on daily exceedances of applicable AAQS. Further, several AAQS are based on relatively short-term exposure effects on human health (e.g., 1-hour and 8-hour). Since the half-life of CO₂ is approximately 100 years, for example, the effects of GHGs are longer-term, affecting global climate over a relatively long time frame. As a result, the SCAQMD's current position is to evaluate GHG effects over a longer time frame than a single day.

The recommended approach for GHG analysis included in OPR's June 2008 release is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below a level of

¹ "A project's compliance with regulations or requirements implementing AB 32 or other laws and policies is not irrelevant. Section 15064.4(b)(3) would allow a lead agency to consider compliance with requirements and regulations in the determination of significance of a project's greenhouse gas emissions." Final Statement of Reasons, p. 100.

² California Government Code Sections 53090 through 53091, *Sunny Slope Water Co. v. City of Pasadena*, Cal 2d 87,98 (1934).

significance.¹ The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: “CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that will reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation.... For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews.”

The State CEQA Guidelines include the following direction regarding determination of significant impacts from GHG emissions (Section 15064.4):

- (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the Lead Agency consistent with the provisions in section 15064. A Lead Agency should make a good-faith effort, based on available information, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:
 - (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or
 - (2) Rely on a qualitative analysis or performance based standards.
- (b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:
 - (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.
 - (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
 - (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project’s incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still

¹ State of California, 2008. Governor’s Office of Planning and Research. *CEQA and Climate Change: Addressing Climate Change Through California Environmental Quality Act Review*. June 19.

cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

CEQA Guidelines Section 15064(b) provides that the “determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data,” and further, states that an “ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting.”

Individual projects incrementally contribute toward the potential for GCC on a cumulative basis in concert with all other past, present, and probable future projects. While individual projects are unlikely to measurably affect GCC, each project incrementally contributes toward the potential for GCC on a cumulative basis, in concert with all other past, present, and probable future projects.

Revisions to Appendix G of the *CEQA Guidelines* suggest that the project be evaluated for the following impacts:

- Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

However, despite this, currently neither the CEQA statutes, OPR guidelines, nor the draft proposed changes to the CEQA Guidelines prescribe thresholds of significance or a particular methodology for performing an impact analysis; as with most environmental topics, significance criteria are left to the judgment and discretion of the Lead Agency.

On September 28, 2010, the SCAQMD proposed the following draft-tiered interim GHG significance threshold for development projects:

- **Tier 1** consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA. If the project qualifies for an exemption, no further action is required. If the project does not qualify for an exemption, then it would move to the next tier.
- **Tier 2** consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing consistency determination requirements in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a). The GHG reduction plan must, at a minimum, comply with AB 32 GHG reduction goals; include an emissions inventory agreed upon by either ARB or the SCAQMD, have been analyzed under CEQA and have a certified Final CEQA document, and have monitoring and enforcement components. If the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If the project is not consistent with a local GHG reduction plan, there is no approved plan, or the GHG reduction plan does not include all of the components described above, the project would move to Tier 3.
- **Tier 3** establishes a screening significance threshold level to determine significance using a 90 percent GHG emission capture rate. The 90 percent capture rate GHG significance screening level in Tier 3 for stationary sources was derived using the following methodology. Using the

SCAQMD's Annual Emission Reporting (AER) Program, the reported annual natural gas consumption for 1,297 permitted facilities for 2006 through 2007 was compiled and the facilities were rank-ordered to estimate the 90th percentile of the cumulative natural gas usage for all permitted facilities. Approximately 10 percent of facilities evaluated comprise more than 90 percent of the total natural gas consumption, which corresponds to 10,000 MT CO₂e/yr (the majority of combustion emissions comprise CO₂). SCAQMD suggested the following GHG screening thresholds: Industrial (when SCAQMD is the Lead Agency): 10,000 tons per year (tpy) CO₂e; Residential: 3,500 tpy CO₂e; Commercial: 1,400 tpy CO₂e; Mixed-use: 3,000 tpy CO₂e. If a project's GHG emissions exceed the GHG screening threshold, the project would move to Tier 4.

- **Tier 4** establishes a decision tree approach that includes compliance options for projects that have incorporated design features into the project and/or implement GHG mitigation measures.
 - Efficiency Target (2020 Targets)
 - 4.8 MT CO₂e per service population (SP) for project-level threshold (land use emissions only) and total residual emissions not to exceed 25,000 million tons per year (mty) CO₂e
 - 6.6 MT CO₂e per SP for plan-level threshold (all sectors)
 - Efficiency Target (2035 Targets)
 - 3.0 MT CO₂e per SP for project-level threshold
 - 4.1 MT CO₂e per SP for plan-level threshold

If a project fails to meet any of these emissions efficiency targets, the project would move to Tier 5.

- **Tier 5** would require projects that implement off-site GHG mitigation that includes purchasing offsets to reduce GHG emission impacts to purchase sufficient offsets for the life of the project (30 years) to reduce GHG emissions to less than the applicable GHG screening threshold level.

4.4.4 Impacts and Mitigation Measures

This section evaluates the potentially significant adverse impacts to GCC that could result from implementation of the proposed project. Because it is not possible to tie specific GHG emissions to actual changes in climate, this evaluation focuses on the project's emission of GHGs. Mitigation measures are identified as appropriate.

GHG Emissions Background. GHG emissions estimates are provided herein for informational purposes only, as there is no established quantified GHG emissions threshold. Bearing in mind that CEQA does not require "perfection" but instead "adequacy, completeness, and a good faith effort at full disclosure," the analysis below is based on methodologies and information available to the City of Indio at the time this EIR was prepared. Estimation of GHG emissions in the future does not account for all changes in technology that may reduce such emissions; therefore, the estimates are based on past performance and represent a scenario that is worse than that which is likely to be encountered (after energy-efficient technologies have been implemented). While information is presented below to assist the public and the decision-makers in understanding the project's potential contribution to GCC impacts, the information available to the City is not sufficiently detailed to allow

a direct comparison between particular project characteristics and particular climate change impacts, nor between any particular proposed mitigation measure and any reduction in climate change impacts.

Less Than Significant Impacts. For the reasons described below, no project-related impacts to GCC have been identified as less than significant.

Potentially Significant Impacts. Even though the GHG emissions identified for the proposed project are not expected to result in a significant adverse impact, due to the lack of regulatory guidance, it is uncertain what the actual significance of the project GHG emissions could be. Therefore, to be conservative, for the purpose of this EIR, it was assumed that the construction and operation of the project could result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under AB 32 or other State regulations.

Impacts of Project GHG Emissions on the Global Climate. Construction and operation of project development would generate GHG emissions, with the majority of energy consumption (and associated generation of GHG emissions) occurring during the project's operation (as opposed to its construction). Typically, more than 80 percent of the total energy consumption takes place during the use of buildings, and less than 20 percent is consumed during construction.¹ As of yet, there is no study that quantitatively assesses all of the GHG emissions associated with each phase of the construction and use of an individual development.

Project Building Features. The proposed ECDC will employ a number of Leadership in Energy and Environmental Design (LEED) concepts, including water and energy use reduction, construction products, and waste stream reduction. All main site lighting will be full-cutoff, neutral white light-emitting diode (LED) fixtures to minimize energy use. The parking structure will include photovoltaic panels on the roof to generate a portion of the project's electricity.

The proposed project is required to comply with Title 24 of the California Code of Regulations (CCR) established by the CEC regarding energy conservation and green buildings standards. The project applicant will incorporate the following in building plans:

- Low-emission water heaters will be used. Solar water heaters are encouraged.
- Exterior windows will utilize window treatments for efficient energy conservation.
- Per California Green Building Code (Cal Green Code) requirements, water-efficient fixtures and appliances, including but not limited to low-flow faucets and dual-flush toilets minimizing water consumption by 20 percent from the Building Standards Code baseline water consumption, will be used.

¹ United Nations Environment Programme (UNEP), 2007. *Buildings and Climate Change: Status, Challenges and Opportunities*, Paris, France.

- Per Cal Green Code requirements, a Commissioning Plan will be prepared and all building systems (e.g., heating, ventilation, and air-conditioning [HVAC], irrigation systems, lighting, water heating) will be commissioned by the Commissioning Authority.
- Per Cal Green Code, watering methods will be restricted (e.g., prohibit systems that apply water to nonvegetated surfaces) and runoff controlled.

At present, there is a federal ban on chlorofluorocarbons (CFCs); therefore, it is assumed the project would not generate emissions of CFCs. The project may produce a small amount of HFC emissions from leakage and service of refrigeration and air-conditioning equipment and from disposal at the end of the life of the equipment. However, the details regarding refrigerants anticipated to be used in the project are unknown at this time. PFCs and SF₆ are typically used in industrial applications, none of which would occur on the project site under the proposed project. Therefore, it is not anticipated that the project would contribute significant adverse emissions of these additional GHGs.

Construction Emissions. Overall, the following activities associated with the proposed project could directly or indirectly contribute to the generation of GHG emissions:

- **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment.
- **Gas, Electricity, and Water Use:** Natural gas use results in the emissions of two GHGs: CH₄ from equipment/piping leakage (the major component of natural gas) and CO₂ from the combustion of natural gas. Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Preliminary estimates indicate that the total energy used to pump and treat this water exceeds 6.5 percent of the total electricity used in the State per year.¹
- **Solid Waste Disposal:** Solid waste generated by the project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH₄ from the anaerobic decomposition of organic materials. CH₄ is 25 times more potent a GHG than CO₂. However, landfill CH₄ can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
- **Motor Vehicle Use:** Transportation associated with the proposed project would result in GHG emissions from the combustion of fossil fuels in daily automobile and truck trips.
- **Emergency Generator Maintenance:** Operating diesel engines would result in GHG emissions.

¹ California Energy Commission (CEC), 2004. *Water Energy Use in California* (online information sheet) Sacramento, CA, August 24. Website: energy.ca.gov/pier/iaw/industry/water.html. Accessed July 24, 2007.

Preliminary guidance from OPR and recent letters from the Attorney General critical of CEQA documents that have taken different approaches indicate that lead agencies should calculate, or estimate, emissions from vehicular traffic, energy consumption, water conveyance and treatment, waste generation, and construction activities. The calculation presented in Table 4.4.C includes construction emissions in terms of annual CO₂e emissions from increased energy consumption, water usage, solid waste disposal, and estimated GHG emissions from vehicular traffic that would result from implementation of the project.

Using the same modeling results as reported for overall air quality-related construction emissions, total construction GHG emissions over the 4-year construction period are estimated to be 1,300 MT CO₂e.

Operational Emissions. The GHG emission estimates presented in Table 4.4.C show the emissions associated with the level of development envisioned by the proposed project at build out. As shown in Table 4.4.C, the project will produce 3,000 MT per year of CO₂e, which is 0.003 MMT CO₂e/year (yr). As a comparison, the existing emissions from the entire Southern California Association of Governments (SCAG) region are estimated to be approximately 176.79 MMT CO₂e/yr and approximately 496.95 MMT CO₂e/yr for the entire State.

Table 4.4.C: Long-Term Operational Greenhouse Gas Emissions

Source	Pollutant Emissions (MT/year)					
	Bio-CO ₂	NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction Emissions Amortized over 30 Years	0	130	130	0.009	0	130
Area Sources	0	4.0	4.0	0	0	4.0
Energy Sources	0	860	860	0.02	0.01	860
Mobile Sources	0	1,700	1,700	0.06	0	1,700
Waste Sources	48	0	48	2.8	0	110
Water Usage	0	190	190	0.52	0.01	210
Total Project Emissions	48	2,900	2,900	3.4	0.02	3,000

Source: LSA Associates, Inc., April 2013.

Note: Numbers in table may not appear to add up correctly due to rounding of all numbers to two significant digits.

Bio-CO₂ = biologically generated CO₂

CH₄ = methane

CO₂ = carbon dioxide

CO₂e = carbon dioxide equivalent

MT = metric tons

N₂O = nitrous oxide

NBio-CO₂ = Non-biologically generated CO₂

Comparing the proposed project to the SCAQMD-tiered interim GHG significance criteria; it is not exempt as described in Tier 1. Considering the Tier 2 criteria, there is not a GHG reduction plan in the Indio General Plan, nor any other GHG reduction plan applicable to the proposed project. Considering the Tier 3 screening significance threshold level, the most applicable screening threshold listed is the residential threshold of 3,500 tpy of CO₂e, which Table 4.4.C shows the project will not exceed. Therefore, the project will not result in significant generation of GHGs, either directly or indirectly, and will not have a significant impact on the environment due to GHG emissions.

Even though the emissions described above are not expected to result in a significant adverse impact, due to the lack of regulatory guidance, it is uncertain what the actual significance of the project GHG emissions could be. Therefore, to be conservative, for the purpose of this EIR, it was assumed that the construction and operation of the project could result in GHG emission levels that would substantially conflict with implementation of the GHG reduction goals under AB 32 or other State regulations.

Impacts to the Proposed Project from Global Climate Change. Local temperatures could increase in time as a result of GCC, with or without the proposed project. This increase in temperature could lead to other climate effects, including, but not limited to, increased flooding due to increased precipitation and runoff, and a reduction in the Sierra snowpack. At present, the extent of climate change impacts is uncertain, and more extensive monitoring of runoff and snowpack is necessary for greater understanding of changes in hydrologic patterns. Studies indicate that increased temperatures could result in a greater part of peak stream flows occurring earlier in the spring, with decreases in late spring and early summer.¹ These changes could have implications for water supply, flood management, and ecosystem health. However, there is insufficient information available to make a significance determination.

Mitigation Measures/Standard Regulations. The California EPA CAT and ARB have developed several reports to achieve the Governor's GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT's 2006 "Report to Governor Schwarzenegger and the Legislature," ARB's 2007 "Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California," and ARB's "Climate Change Proposed Scoping Plan: a Framework for Change."

The reports identify strategies to reduce California's emissions to the levels proposed in EO S-3-05 and AB 32 that are applicable to the proposed project. The Proposed Scoping Plan is the most recent document, and the strategies included in the Scoping Plan that apply to the project are contained in Table 4.4.D, which also summarizes the extent to which the project would comply with the strategies to help California reach its emissions reduction targets.

The strategies listed in Table 4.4.D are either part of the project, required mitigation measures, or requirements under local or State ordinances. With implementation of these strategies/measures, the project's contribution to cumulative GHG emissions would be reduced to a less than significant level.

Mitigation Measure. To ensure that the proposed project complies with and would not conflict with or impede the implementation of reduction goals identified in AB 32, the Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor, the following mitigation measure will be implemented. Many of the individual elements of this measure are already included as part of the proposed project, and in some cases exceeded as the

¹ United States Global Change Research Program. 2001. Climate Change Impacts on the United States: The Potential Consequences of Climate Variability and Change.

Table 4.4.D: Project Compliance with Greenhouse Gas Emission Reduction Strategies

Strategy	Project Compliance
<i>Mandatory Code</i>	
<p>California Green Building Code. The Cal Green Code prescribes a wide array of measures that would directly and indirectly result in reduction of GHG emissions from the Business as Usual Scenario (California Building Code). The mandatory measures that are applicable to projects include site selection, energy efficiency, water efficiency, materials conservation and resource efficiency, and environmental quality measures.</p>	<p>Compliant. The project would be required to adhere to the mandatory measures as required by the Cal Green Code.</p>
<i>Energy Efficiency Measures</i>	
<p>Energy Efficiency. Maximize energy efficiency building and appliance standards, and pursue additional efficiency efforts including new technologies, and new policy and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California (including both investor-owned and publicly owned utilities).</p> <p>Renewables Portfolio Standard. Achieve a 33 percent renewable energy mix statewide.</p> <p>Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.</p>	<p>Compliant with Mitigation Incorporated. The proposed project will comply with the updated Title 24 standards, including the new 2010 CBC, for building construction. In addition, the project would comply with minimization measures in Section 5.4, including measures to incorporate energy efficient building design features.</p>
<i>Water Conservation and Efficiency Measures</i>	
<p>Water Use Efficiency. Continue efficiency programs and use cleaner energy sources to move and treat water. Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use would reduce GHG emissions.</p>	<p>Compliant. The project would be required to adhere to the mandatory measures as required by the Cal Green Code. In addition, the project would comply with the minimization measures in Section 5.4, including measures to increase water use efficiency.</p>
<i>Solid Waste Reduction Measures</i>	
<p>Increase Waste Diversion, Composting, and Commercial Recycling, and Move Toward Zero-Waste. Increase waste diversion from landfills beyond the 50 percent mandate to provide for additional recovery of recyclable materials. Composting and commercial recycling could have substantial GHG reduction benefits. In the long term, zero-waste policies that would require manufacturers to design products to be fully recyclable may be necessary.</p>	<p>Compliant. The proposed project would comply with minimization measures in Section 5.4, including measures to increase solid waste diversion, composting, and recycling.</p>
<i>Transportation and Motor Vehicle Measures</i>	
<p>Vehicle Climate Change Standards. AB 1493 (Pavley) required the State to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles and light-duty trucks. Regulations were adopted by the ARB in September 2004.</p> <p>Light-Duty Vehicle Efficiency Measures. Implement additional measures that could reduce light-duty GHG emissions. For example, measures to ensure that tires</p>	<p>Compliant. The project does not involve the manufacture of vehicles. However, vehicles that are purchased and used within the project site would comply with any vehicle and fuel standards that the ARB adopts.</p>

Table 4.4.D: Project Compliance with Greenhouse Gas Emission Reduction Strategies

Strategy	Project Compliance
<p>are properly inflated can both reduce GHG emissions and improve fuel efficiency.</p> <p>Adopt Heavy- and Medium-Duty Fuel and Engine Efficiency Measures. Regulations to require retrofits to improve the fuel efficiency of heavy-duty trucks that could include devices that reduce aerodynamic drag and rolling resistance. This measure could also include hybridization of and increased engine efficiency of vehicles.</p> <p>Low Carbon Fuel Standard. ARB identified this measure as a Discrete Early Action Measure. This measure would reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.</p>	
<p>Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles. Local governments will play a significant role in the regional planning process to reach passenger vehicle GHG emissions reduction targets. Local governments have the ability to directly influence both the siting and design of new residential and commercial developments in a way that reduces GHGs associated with vehicle travel.</p>	<p>Compliant. Specific regional emission targets for transportation emissions do not directly apply to this project; regional GHG reduction target development is outside the scope of this project. The project will comply with any plans developed by the City of Indio and Riverside County.</p>
<p>Measures to Reduce High Global Warming Potential (GWP) Gases. ARB has identified Discrete Early Action measures to reduce GHG emissions from the refrigerants used in car air conditioners, semiconductor manufacturing, and consumer products. ARB has also identified potential reduction opportunities for future commercial and industrial refrigeration, changing the refrigerants used in auto air-conditioning systems, and ensuring that existing car air-conditioning systems do not leak.</p>	<p>Compliant. New products used or serviced on the project site (after implementation of the reduction of GHG gases) would comply with future ARB rules and regulations.</p>

Source: LSA Associates, Inc., April 2013.
 AB = Assembly Bill
 ARB = California Air Resources Board
 Cal Green Code = California Green Building Code

CBC = California Building Code
 GHG = greenhouse gas

project goals for LEED Certification, or are required as part of the project-specific mitigation measures recommended throughout this EIR.

GCC-1 The proposed East County Detention Center (ECDC) will employ a number of Leadership in Energy and Environmental Design (LEED) concepts, including: water and energy use reduction, construction products, and waste stream reduction. All main site lighting will be full-cutoff, neutral white light-emitting diode (LED) fixtures to minimize energy use. The following measures would be incorporated into the design and construction of the project (including specific building projects):

Construction and Building Materials.

- Use locally produced and/or manufactured building materials for at least 10 percent of the construction materials used for the project.
- Use “Green Building Materials,” such as those materials that are resource efficient, and recycled and manufactured in an environmentally friendly way, for at least 10 percent of the project.
- Limit unnecessary idling of construction equipment. A reduction in equipment idling would reduce fuel consumption, and therefore, greenhouse gas (GHG) emissions.
- Maximize the use of electricity from the power grid by replacing diesel- or gasoline-powered equipment. This would reduce GHG emissions because electricity can be produced more efficiently at centralized power plants.

Energy Efficiency Measures.

- Design all project buildings to exceed the California Building Code’s (CBC) Title 24 energy standard, including, but not limited to, any combination of the following:
 - o Increase insulation such that heat transfer and thermal bridging is minimized.
 - o Limit air leakage through the structure or within the heating and cooling distribution system to minimize energy consumption.
 - o Incorporate ENERGY STAR or better rated windows, space heating and cooling equipment, light fixtures, appliances, or other applicable electrical equipment.
- Provide a landscape and development plan for the project that takes advantage of shade, prevailing winds, and landscaping.
- Install efficient lighting and lighting control systems. Use daylight as an integral part of the lighting systems in buildings.
- Install light-colored “cool” roofs over conditioned space.
- Install energy-efficient heating and cooling systems, appliances, equipment, and control systems.
- Install solar or LEDs for outdoor lighting.
- The project applicant will use less than 3,900 Global Warming Potential (GWP) hydrofluorocarbon (HFC) refrigerants or natural refrigerants (ammonia, propane, carbon dioxide [CO₂]) for refrigeration and fire suppression equipment.
- Provide vegetative or humanmade exterior wall shading devices or window treatments for east-, south-, and west-facing walls with windows.

Water Conservation and Efficiency Measures.

- Devise a comprehensive water conservation strategy appropriate for the project and its location. The strategy may include the following, plus other innovative measures that may be appropriate:
 - o Install drought-tolerant plants for landscaping.
 - o Use reclaimed water for landscape irrigation within the project where available. Install the infrastructure to deliver and use reclaimed water.
 - o Install water-efficient irrigations systems, such as weather-based and soil-moisture-based irrigation controllers and sensors for landscaping according to the California Department of Water Resources Model Efficient Landscape Ordinance.

Solid Waste Measure.

- Provide employee education about reducing waste and available recycling services.

In addition, the project would be subject to all applicable regulatory requirements, which would also reduce the GHG emissions of the project. After implementation of the minimization measures listed above and application of regulatory requirements, the project would implement appropriate GHG reduction strategies and would not conflict with or impede implementation of reduction goals identified in AB 32, the Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. As stated previously, project-related CO₂ emissions and their contribution to GCC impacts in the State of California are less than significant and less than cumulatively considerable because the project's impacts alone would not cause or significantly contribute to GCC.

4.4.5 Level of Significance after Mitigation

After implementation of Mitigation Measure GCC-1 and compliance with regulatory requirements, the project would not conflict with or impede implementation of reduction goals identified in AB 32, the Governor's EO S-3-05, and other strategies to help reduce GHGs to the level proposed by the Governor. Therefore, the project's contribution to cumulative GHG emissions would be reduced to a less than significant level.

4.5 CULTURAL AND PALEONTOLOGICAL RESOURCES

This section is based on the results of archival record searches information obtained from the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS) and from the Native American Heritage Commission (NAHC), a search of available geologic literature and paleontological sensitivity maps from the County of Riverside, as well as the results of an historic resource assessment and survey (Tibbett 2012). These materials are included as Appendix D to this EIR. Due to the developed nature of the project site, archaeological and paleontological field surveys and technical reports were unnecessary. The following discussion and analysis is based on the record search results and the historic resource assessment.

As such, this section provides a discussion of the existing cultural and paleontological resources within the project area and an analysis of potential impacts from implementation of the proposed project.

“Paleontological resources” are generally older than 10,000 years before the present, provide information about earlier life on the planet (such as evolution, ecosystems, and climactic conditions), and usually exclude humans and/or human activities. These resources are usually fossilized (mineralized) and can range from cellular to multicellular organisms such as plants (pollen, flowers, leaves, stems, twigs, branches, trunks, and roots), invertebrates (shells, worms, and insects), and marine and terrestrial vertebrates (bones, teeth, and scales). Also included in the definition are any remains left or made by the animals, such as burrows, tracks, coprolites, and nests. Recommendations from the California Environmental Quality Act (CEQA) Guidelines are consistent with recommendations of the Society of Vertebrate Paleontology (SVP) and indicate that impacts to nonrenewable paleontological resources must be considered during project design and construction within sensitive sediments. The paleontological analysis in this section is based on an examination of geologic maps, and a review of paleontological literature. With this knowledge, an informed assessment was made of the kinds of resources that could be encountered during ground-disturbing activities.

“Cultural resources” refers to all archaeological and historical resources (including, but not limited to, prehistoric and historic archaeological sites, districts, built environment, and isolate finds), regardless of their significance. Cultural resources are generally more than 45 years old or have the potential to be more than 45 years old; “historical resources” also meet this requirement. An historical resource is any resource listed in, or eligible for listing in, the California Register of Historical Resources (California Register) that is presumed to be historically or culturally significant. Historical resources are considered under CEQA, as well as California Public Resources Code (PRC) Section 5024.1, which established the California Register. This section includes the results of record searches within a 1/8-mile (mi) radius of the project area and a Native American records search that was conducted to identify prehistoric and historical cultural resources that may be eligible for listing in the California Register and/or National Register of Historic Places (National Register). The analysis was written based on the results of archival record search information and the results of an historic resource assessment (Tibbett 2012).

4.5.1 Existing Environmental Setting

The project area is a level, developed urban area lying at an elevation of 10–14 feet (ft) below mean sea level (bmsl) and is currently developed with almost no exposed sediment. Existing development consists of a Law Library, the CAC Building, the Indio Jail, court buildings, and associated asphalt parking lots of urbanized downtown Indio.

The entirety of the project area is situated within two sites totaling 13.0 acres (ac) located on the south side of old Avenue 46 (now Highway 111) on Oasis Street. The 7.5 ac Site A fronts Highway 111 and contains parking lots and several buildings including the Law Library, the CAC Building, courts, and the jail, while the 5.5 ac Site B is a large asphalt surface parking lot that fronts Oasis Street and Plaza Avenue.

4.5.2 Regulatory Setting

There are no federal regulations relative to cultural and paleontological resources applicable to the proposed project. Applicable State and local regulations are discussed below.

State Health and Safety Code Section 7050.5. In the event human remains are encountered during project-related ground disturbing activities, State Health and Safety Code (HSC) Section 7050.5 states that the County of Riverside (County) Coroner must be notified of the find immediately, and no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition of the remains pursuant to PRC Section 5097.98. If the remains are determined to be Native American, the County Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

Public Resources Code Section 5097.5. PRC Section 5097.5 provides for the protection of cultural and paleontological resources and prohibits the removal, destruction, injury, or defacement of archaeological and paleontological features on any lands under the jurisdiction of State or local authorities. PRC Section 5097.5 specifically states:

“(a) No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

(b) As used in this section, “public lands” means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.”

California Register of Historical Resources (PRC Section 5020 et seq.). State law protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources in CEQA documents. A cultural resource is an important historical resource if it meets any of the criteria found in Section 15064.5(a) of the CEQA Guidelines and repeated in the Thresholds of Significance as described in Section 4.5.4 below.

The State Historic Preservation Officer (SHPO) maintains the California Register. Properties listed, or formally designated eligible for listing, on the National Register are nominated to the California Register and then selected to be listed on the California Register, as are State Landmarks and Points of Interest.

4.5.3 Methodology

This section has been written based on the results of the record search and an historic resource assessment of the buildings in Site A (Tibbett 2012). A field survey of the project area for archaeological (prehistoric) and paleontological (fossil) resources was not conducted because the parcels are completely developed, and there is little to no ground disturbance. Site A contains several parking lots and buildings, while Site B is a large asphalt parking lot. Being completely disturbed, the developed nature of these parcels negates the need of an archaeological/paleontological field survey, the purpose of which is to determine if prehistoric or fossil resources are present within the project area based on their presence in exposed sediment. Thus, the following discussion of resources is based on archival record searches conducted for this project and an examination of geologic maps and literature, as well as the results of the historic resource assessment and survey.

Cultural Resources.

Record Searches. Two record searches were completed for the project. Both were conducted at the EIC at the University of California, Riverside (UCR), campus. The records searches included a review of all recorded cultural resources, as well as previously conducted cultural resource surveys and excavation reports located within a 1/8 mi radius of the project area. The record searches included current inventories of the National Register; California Register; California Historical Landmarks; Office of Historic Preservation (OHP) Directory of Properties in the Historic Property Data File (PD); and historic maps for the Indio area, including: the Indio 30-minute, and 1941 and 1956 Coachella 15-minute topographic quadrangle maps.

The first record search was completed on March 25, 2013, and covered Site A and the northern portion of Site B. The second record search was conducted on April 24, 2013, and covered the southern portion of Site B.

Results. The record search identified one cultural resource (Site P-33-008316, the County Fair's Arabian Nights Pageant Stage) and no previous cultural resource surveys within the project area. The record search also shows that just one cultural resource survey (Pierson 2008) was conducted within 1/8 mi of the current project area. This previously conducted study is a constraints study for an infrastructure improvements project on the north side of Highway 111. No cultural resources were found as part of that study.

The cultural resource previously recorded within the current project area is mismapped. The recorded resource, P-33-008316, the Arabian Nights Pageant Stage area of the Riverside County Fairgrounds, is located south and west of the current Site A portion of the project area. Site P-33-008316 consists of five County Fair buildings and structures constructed in an Arabian motif. These buildings and structures are a stage, a commercial building, the fairgrounds entrance, the administration office, and a wall surrounding the front of the fairgrounds. Moorish arched entrances and corbelled battlements are featured on the wall surrounding the front of the fairgrounds. The pageant stage contains stepped battlements, two domes, and a minaret. The commercial building contains Moorish arches and two domed towers, while Moorish arches cover the main entrance lines at each ticket booth. Hollywood movie set designer Harry Oliver was responsible for designing the stage that was constructed in 1947 after the County established the Riverside County Fair and National Date Festival in Indio in the 1940s. The P-33-008316 site form (Juhola 1983) clearly identifies the resource as outside the project area. This resource is not eligible for the National Register, although it may be eligible for local registers. No other cultural resources are identified within the project area or within the surrounding area.

A review of the historic maps shows that in 1904 (Indio 30-minute United States Geological Survey [USGS] map) no buildings are located in the project area, although two buildings are depicted north of Highway 111. In 1904, the hub of activity in the area is along the railroad tracks, less than 0.25 mi north of Highway 111. The region of the project area appears as a sandy drainage just above sea level. By 1941, the Coachella 15 minute USGS map shows that although Site A is depicted as within downtown Indio, no buildings have been constructed in either areas of Site A or B. Many buildings and most of the current streets are present on the 1941 map, and a school is shown where Roosevelt School currently exists east of Site A. By 1956 (Coachella 15-minute USGS map), the County Fairgrounds exist, and most of the current nearby buildings are also depicted. The Indio Jail appears on the 1956 map. Most of the current buildings in the project area are not on the 1956 map. Instead, there are several buildings on Site A that may have undergone expansion or were demolished to provide space for the current jail, library, and court buildings. The 1956 and 1972 USGS maps show several buildings on Site B that no longer exist as this portion of the project area is currently a parking lot. As shown on the 1972 USGS map, Site A contains two buildings that currently still exist.

Historic Resource Assessment. A historic resource assessment of the project area was conducted by LSA Associates, Inc. (LSA) Architectural Historian Casey Tibbett (Tibbett 2012) in order to determine if any of the buildings in the project area are significant and, thus, considered "historical resources" under CEQA. The field survey for this assessment occurred on July 10, 2012. Archival research was completed during July and August of 2012 and included sources such as construction plans provided by the Riverside County Economic Development Agency, published literature in local and regional history, news articles, historic aerial photographs, and historic maps. Former Riverside County Sheriff Cois Byrd, Riverside County Historic Preservation Officer Keith Herron, Correctional Sergeant Michael Harter, and the Riverside County Sheriff, Planning & Research Unit, were contacted for information regarding the buildings in Site A.

Results. The historic resource assessment (Tibbett 2012) recorded the Indio Jail on California Department of Parks and Recreation forms. The assessment shows that the earliest building for the Indio Jail, called the County Branch Building, or Ruhnau Building, was designed in 1950 by Riverside architect Herman O. Ruhnau. The building, constructed shortly afterwards, was a roughly L-shaped building located at the northeast corner of Site A. In 1958, the building was remodeled and expanded to include the existing court, Sheriff's station, a new jail, and a new Supreme Court. During expansion, some of the wooden buildings constructed earlier were removed. Between 1959-1964, a utility room was added behind the Indio Jail. Additional renovation and building expansion occurred in 1969, 1974, and 1983. Renovation of parking facilities occurred in 1989, 1994, and 1998. Noted architect Emerson Stewart Williams was involved with renovation designs for the County Administrative Center (CAC) in Indio (including the Indio jail) and his signature appears on 1958, 1959, 1964, 1966, and 1966 designs for the Center.

Although designed in 1950 and constructed in the early 1950s, the Indio Jail (Ruhnau Building) has been extensively altered with modern modifications, leaving very little of the historic period building (designed by Ruhnau) and historic period alterations (by Williams) intact. As such, the building is not representative of work by either Ruhnau or Williams. As the building is relatively unremarkable, and is unlikely to yield important information in prehistory or history, the building is not eligible for listing in the California Register and does not qualify as an historic resource under CEQA (Tibbett 2012:11).

Field Surveys. No archaeological field surveys were conducted due to the current developed condition of the project site.

Paleontological Resources. A project-specific paleontological resource assessment was not completed for this project. However, geologic maps and literature were examined to determine if there was a potential to encounter paleontological resources during ground-disturbing activities associated with this project. These resources included: The Geologic map of the Palm Desert and Coachella 15-Minute Quadrangles (Dibblee, 2008), and the Geologic Map of California, Santa Ana Sheet, (Rogers, 1965). In addition the paleontological sensitivity map of the County of Riverside was examined.

The project area is located within the Colorado Desert Geomorphic Province (California Geologic Survey, 2002). This province is characterized by a low-lying desert basin that ranges in elevation from 245 ft bmsl to 2,200 ft above mean sea level (amsl). It is dominated by the Salton Sea and the Salton Trough. This province is essentially a depressed block between the active branches of the alluvium-covered San Andreas Fault. It is characterized by beach lines of Ancient Lake Cahuilla, as well as alluvial fans and alluvial valleys that ring the Salton Sea (California Geologic Survey, 2002). Ancient Lake Cahuilla was fed by the Colorado River via the Salton Trough. More specifically, the project site is located at the northern end of the Colorado Desert Geomorphic Province within an area known as the Coachella Valley.

As the project is located at an elevation of 10 to 14 ft bmsl, and is within areas that would have been inundated by Ancient Lake Cahuilla, there is a potential for lacustrine fossils such as clams, bivalves, and occasional vertebrates such as fish, and land animals, and even plant species to be present. However, based on geologic mapping (Dibblee, 2008 and Rogers, 1965) it is likely that the upper 10 ft of sediment was deposited during the Holocene (less than 11,700 years), and will likely contain species that have not fossilized and are contemporaneous with modern species that would not be scientifically important. Once a depth of approximately 10 ft is reached, it is likely that sediments will be from the Pleistocene (2.54 million to 11,700 years). Fossils contained within these Pleistocene sediments would be scientifically significant and may also represent extinct animal species.

An examination of the Riverside County Paleontological Sensitivity Map indicated the project is located within sediments that have a high potential for containing paleontological resources. However, based on geologic mapping by Dibblee (2008) and Rogers (1965), it is likely that the upper 10 ft of sediments will be within Holocene sediments with little scientific significance, once a depth of 10 ft is reached, Pleistocene sediments will be encountered and sediments from this time do have the potential to contain fossils that are of scientific significance. As such, it is recommended that once excavation within the project reaches a depth of 10 ft that a paleontologist be contacted to conduct paleontological monitoring following a Paleontological Resources Impact Mitigation Program (PRIMP).

Native American Heritage Commission Records Search. On April 5, 2013, a letter was sent to the NAHC in an effort to determine if the Sacred Lands File identifies any traditional cultural places within the project area. The NAHC responded on April 8, 2013, indicating that no Native American traditional cultural places were located in the project area. The NAHC did state that there were Native American cultural resources in close proximity to the project area.

4.5.4 Thresholds of Significance

Pursuant to Section 15064.5 of CEQA, a project may have a significant effect on the environment if the project may cause substantial adverse change to a historic, archaeological, or paleontological resource. An impact may be considered significant if it can be reasonably argued that the project would:

- Cause a substantial adverse change in the significance of a historic resource as defined in Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Disturb any human remains, including those found outside of formal cemeteries.

4.5.5 Impacts and Mitigation Measures

Less than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

Historic Resources. As described above, the project area is a developed, built environment. The proposed project area does not contain any identified historical resource. Based on the record search and Native American responses for this project, it has been determined that no historical resources of importance exist within the project site. As such, impacts to historical resources are not anticipated from the proposed project, and no mitigation is required.

Potentially Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated. Mitigation is provided for the potentially significant impacts.

Archaeological and Prehistoric Resources. No archaeological or prehistoric resources have been recorded within the project site based on the record searches and due to the built-up nature of the project site, a field survey was not conducted, and construction monitoring for cultural resources is not recommended. However, in the unlikely event that prehistoric resources are discovered during construction, all earth-moving activity will be halted within and around the immediate area of the discovery until a qualified professional archaeologist can assess the nature and significance of the find as noted in Mitigation Measure CR-1.

Human Remains. The project area does not contain any recorded formal cemeteries, and archival research does not indicate that human remains are known to occur on or adjacent to the project area. As a result, the proposed project is not anticipated to disturb any human remains, including those outside of formal cemeteries. However, there is always the possibility that ground-disturbing activities during construction may uncover previously undiscovered buried human remains.

If human remains are discovered, State HSC Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to PRC § 5097.98 and California Code of Regulations (CCR) Section 15064.5, if the remains are thought to be Native American, the Coroner will notify the NAHC within 24 hours. The NAHC will then notify the MLD. Further provisions of PRC 5097.98 are to be followed as applicable. Implementation of the proposed project in compliance with these regulations, as specified in Mitigation Measure CR-2, would reduce potential impacts to a less than significant level.

Paleontological Resources. An examination of geologic maps and literature determined that the sediments within surface of the project area are composed of Holocene lake and alluvial sediments. These sediments likely extend to depths of up to 10 ft below the surface, and have a low paleontological sensitivity. Once a depth of 10 ft is reached, the sediments will likely be from the Pleistocene and have a high paleontological sensitivity. Therefore, based on the geologic

composition of the project site, the proposed project is not anticipated to result in impacts related to paleontological resources in the upper 10 ft of any proposed ground-disturbing activities and paleontological mitigation is not required in these areas. Excavation depths for Site B are expected to be less than 10 ft. However, once excavation-related activities reach or exceed a depth of 10 ft and greater, which would occur for Site A, there is a possibility to encounter sediments that are from the Pleistocene that do have the potential to contain paleontological resources. Paleontological mitigation would be required, as specified in Mitigation Measures CR-1 and CR-3, which would include the preparation of a PRIMP and paleontological monitoring during grading and excavation. Monitoring would include collection and identification of any observed resources, curation of collected resources into a museum repository, and preparation of a report of findings at the conclusion of the project.

Mitigation Measures.

- CR-1** **Discovery of Cultural or Paleontological Resources During Construction.** If cultural or paleontological resources are discovered during project construction activities when a monitor is not present on site, construction will be redirected in the immediate vicinity of the discovery until a qualified professional archaeologist or paleontologist can assess the nature and significance of the find. It may be necessary to excavate in order to determine significance. Work can resume in the area after the discovery has been removed or determined to not be a significant resource by the archaeologist or paleontologist.
- CR-2** **Discovery of Human Remains.** If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County of Riverside (County) Coroner shall be contacted. Pursuant to Public Resources Code (PRC) Section 5097.98 and California Code of Regulations Section 15064.5, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant. Further provisions of PRC 5097.98 are to be followed as applicable.
- CR-3** **Paleontological Resources Construction Monitoring.** Monitoring of excavation activities by a qualified paleontological monitor following a Paleontological Resources Impact Monitoring Program (PRIMP) shall begin once a depth of 10 feet below the surface is reached. The monitor should be equipped to salvage fossils and/or matrix samples as they are unearthed in order to avoid construction delays. The monitor must be empowered to temporarily halt or divert equipment in the area of the find in order to allow removal of abundant or large specimens.
- a. Because the underlying sediments may contain abundant fossil remains that can only be recovered by a screening and picking matrix, it is recommended that these sediments occasionally be spot screened through 1/8 to 1/20-inch mesh screens to determine if small vertebrate fossils exist. If small fossils are encountered, additional sediment samples (up to 6,000 pounds) shall be collected and processed through 1/20-inch mesh screens to recover additional fossils.

- b. Recovered specimens shall be prepared to a point of identification and permanent preservation. This includes the washing and picking of mass samples to recover small invertebrate and vertebrate fossils and the removal of surplus sediment from around larger specimens to reduce the volume of storage for the repository and the storage cost for the developer.
- c. Collected and identified specimens shall be curated into a museum repository with permanent retrievable storage.
- d. Preparation of a report of findings with an appended itemized inventory catalog of specimens. When submitted to the Lead Agency, the report and inventory catalog would signify completion of the program to mitigate impacts to paleontological resources.

4.5.6 Level of Significance after Mitigation

Potential impacts to any cultural and paleontological resources found within the project area during construction will be reduced to a less than significant level with implementation of the Mitigation Measures CR-1 through CR-3 listed above.

4.6 GEOLOGY AND SOILS

This section provides a discussion of the existing geologic and soils environment and an analysis of potential impacts from implementation of the proposed project. This section also addresses the potential for damage to occur to the project site due to the local geology underlying the project site, as well as slope stability, ground settlement, soil conditions, and regional seismic conditions. This section summarizes information provided in two reports for Sites A and B, respectively: *Geotechnical Investigation for the Proposed Indio CAC/Law Library Improvements (2008)* and *Geotechnical Investigation for the Proposed Parking Structure Southeast of Oasis Street and Plaza Avenue (2013)*, both prepared by C.H.J., Inc. These reports are included in Appendix E.

4.6.1 Existing Environmental Setting

Project Setting. The site is located east of Oasis Street and south of Plaza Avenue in the City of Indio (City), County of Riverside (County), California, and is developed as existing government civic buildings and a parking lot with associated infrastructure. The site is relatively level and is approximately 11 feet (ft) below mean sea level (bmsl). The site is located in the central Coachella Valley in the Colorado Desert geomorphic province. The Coachella Valley extends southeastward from the San Geronio Pass to the Salton Sea region and is traversed by segments of the San Andreas Fault Zone. The lowland of the Coachella Valley accumulates sediments from surrounding highlands in the form of alluvial and eolian (wind-deposited) materials. The valley in the area of the site is bounded on the southwest by the San Jacinto and Santa Rosa Mountains and on the northeast by the Indio Hills. The channel of the Whitewater River is located about 1.25 miles (mi) northeast of the site. According to published geologic mapping,¹ the site is underlain by alluvial sand and clay.

Structural Geology. As with much of Southern California, the project site is potentially affected by seismically active faults in the region. A fault is described as the area where two tectonic or continental plates meet. An “active” fault is defined by the State of California as having had surface displacement within the Holocene time (i.e., within the last 11,000 years). A “potentially active” fault is defined as showing evidence of surface displacement during the Quaternary time (i.e., during the last 1.6 million years). These terms are, however, used by the State primarily for use in evaluating the potential for surface rupture along faults and are not intended to describe possible seismic activity associated with displacement along a fault. These definitions are not applicable to blind thrust faults that have only limited, if any, surface exposures.

The tectonics of Southern California are dominated by the interaction of the North American plate and the Pacific plate, which are sliding past each other in a translational (no rotation) manner. The San Andreas Fault Zone is thought to represent the major surface expression of the tectonic boundary and to accommodate most of the transitional motion between the Pacific plate and the North American plate. However, some of the plate motion is accommodated by other northwest-trending, strike-slip faults that are thought to be related to the San Andreas system, such as the San Jacinto Fault and the Elsinore Fault. Local compressional or extensional strain resulting from the translational motion along this boundary is accommodated by left-lateral, reverse, and normal faults.

¹ Dibblee, 2008, Enclosure “A-3.”

The project site does not lie within or immediately adjacent to a designated Alquist-Priolo Earthquake Fault Zone or any other active or potentially active fault. There is an Alquist-Priolo Special Studies Zone at the northern boundary of the City on the San Andreas Fault. This area is over 2.5 mi northeast of the site. According to the County of Riverside General Plan (2008) and City of Indio General Plan (2006), no evidence of active faulting is on or adjacent to the site. This was verified by geologists who surveyed the site, as reported in the geotechnical reports prepared for the project sites A and B.

However, several mapped faults are located within the regional vicinity of the project site. The closest mapped fault is located approximately 2.5 mi northeast of the project site and is the San Andreas Fault Zone. The faults within the regional vicinity of the project site are shown on Figure 4.6-1 and are described below.

San Andreas Fault Zone. The San Andreas Fault Zone, a prominent geologic feature of California, forms a “bend” in the region of the site where it changes orientation from a northwest trend through the Coachella Valley to a more westerly trend where it bounds the southern flank of the San Bernardino Mountains and traverses the Cajon Pass region. This bend results in a complex interaction of faults in the region of the site with compressional, translational, and extensional styles of faulting of various ages. The closest mapped trace of the San Andreas Fault is located approximately 2.5 mi northeast of the site. The presently active trace of the San Andreas Fault is characterized by fault scarps, vegetational lineaments (linear vegetation growth associated with trapped water in the fault), springs, and offset drainages.

The Mission Creek, Banning and Garnet Hill segments of the San Andreas Fault Zone branch from the Coachella Valley segment at a point located approximately 4.5 mi north of the site. Multiple fault strands distributed across a zone approximately 1,640.5 ft wide with concentrated faulting in a 656.2 ft wide zone are interpreted for the Mission Creek Fault in the Desert Hot Springs area based on seismic imaging studies. Near-surface strands of the Mission Creek Fault form a groundwater barrier and converge at depth into a vertical to southwest-dipping fault zone. The Banning Fault dips toward the Mission Creek Fault located to the northeast, forming a single fault zone.

San Gorgonio Pass Fault Zone. The active San Gorgonio Pass Fault Zone is an east-west-trending system of thrust and reverse faults that lies south of the Banning Fault. This fault system forms a portion of the southern boundary of the Transverse Ranges and is also associated with the San Andreas Fault Zone. The San Gorgonio Pass Fault Zone is characterized by several discontinuous faults. In the Coachella Valley, the fault extends from the Cabazon outlet center northwesterly toward Verdugo Road. These faults form a zone approximately 1 mi wide in early to mid-Holocene age alluvial fan deposits and are evidence of an active system of strike-slip/thrust faults that roughly parallel Interstate 10 (I-10) and bound the mountain front between Banning and Whitewater River. The San Gorgonio Pass Fault Zone is located approximately 25 mi northwest of the project site.

Eureka Peak and Burnt Mountain Faults. The Eureka Peak and Burnt Mountain Faults were revealed as a result of surface rupture along the southern portion of the Landers earthquake

rupture system. The faults are located approximately 18 mi north-northwest of the project site and are thought to be significant in transferring energy from San Andreas Fault Zone to the Eastern California shear zone (located directly east of San Andreas Fault Zone and the Sierra Nevada Range). Geologic investigations suggest that the last pre-Landers earthquake to occur on the Eureka Peak Fault was more than 11,000 years ago.

Brawley Seismic Zone. The Brawley Seismic Zone is a linear zone of seismicity that includes surface and concealed faults located approximately 66 mi south-southeast of the site. The Brawley Seismic Zone is associated with an offset between the Imperial Fault Zone and the San Andreas Fault Zone, forming an inferred spreading center segment (an area where the two fault zones are moving away from one another) beneath the Imperial Valley. Earthquake swarms (multiple quakes in close succession in the same general locale) associated with the Brawley zone occurred in 1975, 1981, 2005, and most recently in August/September 2012.

San Jacinto Fault. The San Jacinto Fault is characterized by multiple parallel strands in the northern San Bernardino Valley, extending southeastward to the California-Mexico border. The Anza/Clark segment of the San Jacinto Fault Zone is located approximately 22 mi southwest of the site and is associated with the San Jacinto earthquake of 1954. The most recent surface rupture along the San Jacinto Fault Zone occurred in 1968 along the Coyote Creek segment. More large historic earthquakes have occurred on the San Jacinto Fault than any other fault in Southern California.

Pinto Mountain Fault. The Pinto Mountain Fault is a left lateral, strike-slip fault system trending eastward approximately 45 mi from the eastern San Bernardino mountains to the Twentynine Palms area. The closest portion of the fault to the site is located approximately 29 mi northwest of the project site. This fault exhibits Holocene-age activity and experienced triggered slip during the 1992 Landers earthquake (magnitude [M] 7.3) event. Portions of the Pinto Mountain Fault are included within Alquist-Priolo Earthquake Fault Zones designated by the State of California.

Historical Earthquakes within the Project Region. A map of recorded earthquake epicenters is included in the two geotechnical investigations prepared for the proposed project. The San Jacinto Fault is the most seismically active fault in Southern California, although it has no record of producing great events compared to those that occurred on the San Andreas fault, as described below. Between 1899 and 1990, seven earthquakes of M 6.0 or greater have occurred along the San Jacinto fault. Two of these earthquakes, an estimated M 6.7 in 1899 and M 6.8 in 1918, took place in the San Jacinto Valley, southeast of the site. Two others, an estimated M 6.5 in 1899 and M 6.2 in 1923, took place in the San Bernardino Valley, northwest of the project site.

The Coachella Valley segment of the San Andreas Fault was the locus for the 1948 moment magnitude (M_w) 6.5 earthquake in the Desert Hot Springs area and for the 1986 M_w 5.6 earthquake in the North Palm Springs area. Surface rupture occurred on the Mojave segment of the San Andreas Fault in the great 1857 Fort Tejon earthquake. Based on tree-ring evidence, a sizable earthquake on

December 8, 1812, ruptured the northern reaches of the San Bernardino Mountains segment. Recent trenching studies have revealed evidence of rupture on the San Andreas Fault at Wrightwood within this time frame. Based on a variety of other data sources, the December 8, 1812, event is believed to have ruptured the San Bernardino Mountains segment of the San Andreas Fault largely to the southeast of Wrightwood, possibly extending into the San Bernardino Valley.

Surface slip/rupture occurred on the Burnt Mountain and Eureka Peak faults during the Landers earthquake sequence in 1992. These relatively short faults are postulated to produce moderate earthquakes of M 6.4 to 6.7 during independent earthquake events.

Significant historic earthquakes have not specifically been attributed to the Pinto Mountain Fault or San Gorgonio Pass Fault Zone. The M 7.3 Landers earthquake occurred June 28, 1992, approximately 40 mi northwest of the site. The M 7.1 Hector Mine earthquake occurred on October 16, 1999, approximately 60 mi north of the site.

Potential Primary Seismic Effects.

Ground Shaking and Surface Fault Rupture. The primary seismic effects associated with earthquakes are ground shaking and surface fault rupture. Ground or seismic shaking is considered to have the greatest potential for damage associated with earthquakes for the project site. Seismic shaking is characterized by the physical movement of the land surface during and subsequent to an earthquake. Seismic shaking has the potential to cause destruction and damage to buildings and property, including damage resulting from damaged or destroyed gas or electrical utility lines; disruption of surface drainage; blockage of surface seepage and groundwater flow; changes in groundwater flow; dislocation of street alignments; displacement of drainage channels and drains; and possible loss of life. In addition, ground shaking can induce several kinds of secondary seismic effects, including liquefaction, differential settlement, and landslides, as discussed in the next section.

The intensity of seismic shaking during an earthquake depends largely on the geologic foundation conditions of the materials composing the upper several hundred feet of the Earth's surface. The greatest amplitudes and longest durations of ground shaking occur on thick, water-saturated, unconsolidated alluvial sediments, which may lead to liquefaction (further described below). Ground shaking can also cause ground failure or deformation due to lurching and liquefaction.

Surface fault rupture refers to the displacement of the ground surface along a fault, which can occur during strong earthquakes. The potential for seismic hazards at the project site is a consequence of ground shaking caused by events on nearby active faults. The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone; therefore, the possibility for surface fault rupture is low. The primary seismic hazard for the proposed project site is ground shaking due to the proximity of the major active faults described previously.

Potential Secondary Seismic Effects.

Liquefaction and Lateral Spreading. Liquefaction-induced ground failure has historically been a major cause of earthquake damage in Southern California. Soil liquefaction is a phenomenon that occurs during strong ground shaking, most commonly in generally low- to medium-density, saturated, low-cohesion soils, where the soils experience a temporary loss of strength and behave essentially as a fluid. Areas most susceptible to liquefaction-induced damage are underlain by loose, water-saturated, granular sediment within 40 ft of the ground surface. Saturated conditions reduce the effective normal stress, thereby increasing the likelihood of earthquake-induced liquefaction. One of the major types of liquefaction-induced ground failures is lateral spreading of mildly sloping ground. Lateral spreading involves movement of earth materials due to ground shaking and is evidenced by near-vertical cracks with horizontal movement of the soil.

According to the County of Riverside (2012) and the City of Indio (2006), the site is located within an area identified as having a potential for liquefaction based on the potential for shallow groundwater (20 ft below ground surface [bgs]). Liquefaction is generally described as the soil behaving like a liquid during an earthquake. One of the indicating variables for liquefaction is groundwater depths of less than 40 ft. Based on the geotechnical reports prepared for the proposed project, groundwater was found within exploratory borings at a below surface depth of 69 and 70 ft, but, according to the designation of the liquefaction zone, indicating a potential for a shallow groundwater depth of approximately 20 ft.

Seismically Induced Ground Settlement. This type of secondary seismic effect can result in damage to property when an area settles to different degrees over a relatively short distance. Ground settlement is a general measure of soil stability and its potential for structural support during a seismic event. Severe seismic shaking causes dry sands to densify, resulting in settlement at the ground surface. Soils susceptible to seismically induced settlement typically include loose sands and silty sands, with cohesive and fine-grained soils being less prone to significant settlement. For water-saturated soils, substantial settlement is anticipated if the soils are liquefied during seismic shaking.

The geotechnical reports for the proposed project found silty sands and sands within all the exploratory borings at 3 to 7 ft bgs. As detailed in the reports, testing performed on the soil samples determined that soils within the upper 3 to 7 ft bgs are very loose to loose, which would result in seismically induced settlement during a major seismic event.

Landslides. Landslides and other slope failures, such as the downslope movement of loose rock or soil, is a secondary seismic effect that is common during or soon after earthquakes. Areas that are most susceptible to earthquake-induced landslides are steep slopes in poorly cemented or highly fractured rocks; areas underlain by loose, weak soils; and areas on or adjacent to existing landslide deposits. The project site is relatively flat, with a gentle slope to the southwest. The lack of steep terrain results in a low probability for an earthquake-induced landslide. Additionally, the proposed project is not included in or adjacent to the earthquake-induced landslide zone. Therefore, the possibility of a seismically induced landslide is remote.

Subsidence. Subsidence is the lowering of surface elevation due to changes occurring underground, such as overpumping of groundwater or petroleum reserves from underground reservoirs. Also, in the arid southwest, subsidence can be associated with earth fissures (i.e., cracks in the ground surface that form from horizontal movement of sediment and can be more than 100 ft deep). The project site does not contain any petroleum reserves or existing surface cracks. In addition, based on the core samples, the deep groundwater depth (69 ft bgs) shows low potential for subsidence risks.

Expansive Soils. Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out. Repeated cycles of wetting and drying in areas composed of expansive soils can produce incremental lateral and downslope movements known as "slope creep." Potential variability in the soil moisture content typically decreases with increasing depth, and the weight of overlying soil also tends to reduce the amount of volume change that can occur. Therefore, the deeper portion of the foundation soil profile tends to be less problematic with regard to expansive soils. The geotechnical report prepared for the proposed project Sites A and B determined that on-site silt-bearing soil indicated a very low potential for expansion when tested.

Erosion. Erosion typically occurs from concentrated runoff on unprotected slopes or along unlined channels that are underlain by relatively erosion-prone earth materials (e.g., topsoil, soft alluvium, uncemented sandstone). Proposed fills and exposed cut surfaces will typically consist of mixtures of silty sand and will also tend to be easily eroded under conditions of uncontrolled, concentrated surface runoff. The project site is relatively flat except for a gentle slope to the southwest, which limits erosion; however, as described in the geotechnical reports conducted for the proposed project for both sites, the exposed surficial soils on the project site are moderately susceptible to erosion by wind and water due to their non-cohesive composition.

Corrosive Soils. Corrosive soils contain chemical constituents that may cause damage to construction materials such as concrete and ferrous metals. One such constituent is water-soluble sulfate, which, if high enough in concentration, can react with and damage concrete. Values from the soil tested indicate that the soils are "mildly corrosive" and "corrosive" to iron-containing metals. Specific corrosion control measures, such as coating of pipe with non-corrosive material or alternative non-metallic pipe material, would be necessary if there is a potential for damp soil contact. Electrical resistivity, chloride content, and potential of hydrogen (pH) level are indicators of the soil's tendency to corrode ferrous metals. Results of soluble sulfate testing of site soils indicate a "negligible" anticipated exposure to sulfate attack.

4.6.2 Regulatory Setting

County of Riverside General Plan Safety Element Building Policies. The County's General Plan Safety Element states that there are risks associated with certain natural hazards, such as geologic

conditions and seismic activity within the County. The Safety Element includes the following policies related to geologic conditions and seismic activity that are applicable to the proposed project site.

Policy S 2.1. Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following policies:

- a. Require geologic studies or analyses for critical structures, and lifeline, high-occupancy, schools, and high-risk structures, within 0.5 mi of all Quaternary to historic faults shown on the Earthquake Fault Studies Zones map.

Policy S 2.2. Require geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landsliding, or settlement as part of the environmental and development review process, for any structure proposed for human occupancy, and any structure whose damage would cause harm.

Policy S 2.5. Require that engineered slopes be designed to resist seismically-induced failure. For lower-risk projects, slope design could be based on pseudo-static stability analyses using soil engineering parameters that are established on a site-specific basis. For higher-risk projects, the stability analyses should factor in the intensity of expected ground shaking, using a Newmark-type deformation analysis.

Policy S 2.6. Require that cut and fill transition lots be over-excavated to mitigate the potential of seismically-induced differential settlement.

Policy S 2.7. Require a 100 percent maximum variation of fill depths beneath structures to mitigate the potential of seismically-induced differential settlement.

Policy S 3.3. Before issuance of building permits, require certification regarding the stability of the site against adverse effects of rain, earthquakes, and subsidence.

Policy S 3.6. Require grading plans, environmental assessments, engineering and geologic technical reports, irrigation and landscaping plans, including ecological restoration and revegetation plans, as appropriate, in order to assure the adequate demonstration of a project's ability to mitigate the potential impacts of slope and erosion hazards and loss of native vegetation.

4.6.3 Methodology

This section addresses the potential for damage to occur due to the local geology underlying the proposed project site, as well as slope instability, ground settlement, unstable soil conditions, and regional seismic conditions. Geologic/geotechnical conditions affecting the site are summarized from compiled information and analyses from the two geotechnical reports prepared for Sites A and B mentioned previously.



© Harris Corp. Earthstar Geographics LLC © 2013 Microsoft Corporation

LSA

LEGEND

- ◆ Project Location
- ▤ Banning Fault Zone
- ▤ Coyote Creek Fault
- ▤ Pinto Mountain Fault
- ▤ San Andreas Fault Zone
- ▤ San Jacinto Fault Zone
- ▤ Other Faults

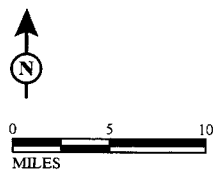


FIGURE 4.6-1

East County Detention Center
Fault Zones in Project Area

This page intentionally left blank

conditions and seismic activity within the County. The Safety Element includes the following policies related to geologic conditions and seismic activity that are applicable to the proposed project site.

Policy S 2.1. Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following policies:

- a. Require geologic studies or analyses for critical structures, and lifeline, high-occupancy, schools, and high-risk structures, within 0.5 mi of all Quaternary to historic faults shown on the Earthquake Fault Studies Zones map.

Policy S 2.2. Require geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landsliding, or settlement as part of the environmental and development review process, for any structure proposed for human occupancy, and any structure whose damage would cause harm.

Policy S 2.5. Require that engineered slopes be designed to resist seismically-induced failure. For lower-risk projects, slope design could be based on pseudo-static stability analyses using soil engineering parameters that are established on a site-specific basis. For higher-risk projects, the stability analyses should factor in the intensity of expected ground shaking, using a Newmark-type deformation analysis.

Policy S 2.6. Require that cut and fill transition lots be over-excavated to mitigate the potential of seismically-induced differential settlement.

Policy S 2.7. Require a 100 percent maximum variation of fill depths beneath structures to mitigate the potential of seismically-induced differential settlement.

Policy S 3.3. Before issuance of building permits, require certification regarding the stability of the site against adverse effects of rain, earthquakes, and subsidence.

Policy S 3.6. Require grading plans, environmental assessments, engineering and geologic technical reports, irrigation and landscaping plans, including ecological restoration and revegetation plans, as appropriate, in order to assure the adequate demonstration of a project's ability to mitigate the potential impacts of slope and erosion hazards and loss of native vegetation.

4.6.3 Methodology

This section addresses the potential for damage to occur due to the local geology underlying the proposed project site, as well as slope instability, ground settlement, unstable soil conditions, and regional seismic conditions. Geologic/geotechnical conditions affecting the site are summarized from compiled information and analyses from the two geotechnical reports prepared for Sites A and B mentioned previously.

4.6.4 Thresholds of Significance

Consistent with Appendix G of the State CEQA Guidelines, project implementation may result in a significant impact related to geologic resources and soils if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault, strong seismic ground shaking, and seismic-related ground failure, including liquefaction or landslides;
- Cause substantial soil erosion or the loss of topsoil;
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (UBC), creating substantial risks to life or property; or
- Be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

4.6.5 Impacts and Mitigation Measures

The following impacts of the proposed project have been identified based on project characteristics and the significance thresholds defined above. Some of the impacts are considered less than significant while others are considered potentially significant. Both types of impacts are identified and discussed below.

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

Wastewater Disposal. The proposed project would tie into existing or upgraded sewer lines in the City and would not be reliant on septic leaching or other percolation methods for wastewater treatment. Therefore, no impacts related to this issue would occur.

General Plan Safety Element Analysis. Geologic and seismic hazards associated with the proposed project have been evaluated in the geotechnical reports prepared for the proposed project. Compliance with California Building Code (CBC) 2007 and County grading and building permit regulations, along with appropriate mitigation, would reduce potential impacts to a level that is less than significant, as previously described. The proposed project design will incorporate applicable seismic design requirements and will be compliant with the adopted safety policies identified above. Therefore, the proposed project would be compliant with adopted Safety Element policies, and impacts related to this issue are less than significant.

Rupture of a Known Earthquake Fault. As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. However, the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone, and there are no known active or potentially active faults or fault traces crossing the site. Therefore, the proposed project would not result in a significant environmental impact related to rupture of a known earthquake fault, including those delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, and no mitigation is required.

Landslides. Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquake-induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits. As described previously, the project site is essentially flat. There are no steep slopes on or near the project site, and the area is not included or adjacent to an earthquake-induced landslide zone. Hence, the project area has a very low probability for an earthquake-induced landslide to occur. Implementation of the proposed project would not result in impacts related to landslides.

Liquefaction and Settling. Liquefaction commonly occurs when three conditions are present simultaneously: (1) groundwater within 40 ft of the ground surface; (2) relatively loose, cohesionless (sandy or granular) soil; and (3) earthquake-generated seismic waves. The presence of these conditions may cause a loss of shear strength, liquefaction, and ground settlement.

The project area is within an area identified by the City as having sediments that are moderately susceptible to earthquake-induced liquefaction and/or settlement. Due to the potential for the presence of shallow groundwater beneath the site (20 ft), the liquefaction potential of the site has been evaluated. As reported in the Geotechnical Investigations, the calculations indicate that liquefaction could occur within thin localized layers. However, overall, liquefaction potential is considered to be insubstantial. The analysis also indicates that seismic settlement (including liquefaction-induced settlement and dry sand settlement) could range from approximately 1.3 to 2.0 inches based on the Idriss and Boulanger (2008) method. It is estimated that a maximum seismic settlement of 2 inches and a maximum seismic differential settlement of 3/8 inch over 40 ft could occur. Seismic settlement will generally occur in soil layers at a depth range of 20-65 ft. Based on the modeled data, the surface manifestation effects of liquefaction on the structures are expected to be negligible. However, seismic settlement and differential settlement are anticipated.

Subsidence. The phenomenon of widespread land sinking, or subsidence, is generally related to substantial overpumping of groundwater or petroleum reserves from deep underground reservoirs. Although groundwater withdrawal has led to lowered groundwater levels in the project area, overpumping and excessive groundwater withdrawal have not occurred. In addition, the project does not have an existing oil or water pump on-site, and the site has not been used for the extraction of either resource. The site is not located within a documented subsidence area.

Subsidence is, therefore, not considered an existing or potential constraint to development of the proposed project.

Potentially Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be potentially significant.

Seismic Ground Shaking. The project site is not located within or immediately adjacent to an Alquist-Priolo Earthquake Fault Zone, or any other active or potentially active fault. However, there are several mapped faults that have the potential to impact the proposed project site with severe ground shaking. The closest mapped fault is located approximately 2.5 mi northeast of the project site and is part of the San Jacinto Fault Zone. Therefore, significant ground shaking impacts could occur at the project site should a major seismic event occur along one of the faults within the region.

Implementation of all applicable guidelines, including compliance with the seismic requirements of the CBC 2007, accepted building industry standards that address seismic hazards, and recommended engineering design measures, would reduce potentially significant seismic-related hazards to less than significant levels. Mitigation Measure GEO-1 requires the County to review final design plans for structural engineering compliance with CBC 2007 requirements and to review the grading and structural plans prior to development. Compliance with standard State and local building requirements and Mitigation Measure GEO-1 would reduce potential seismic ground-shaking impacts to levels considered less than significant.

Seismically Induced Ground Settlement. As described previously, seismic settlement in dry soils generally occurs in loose and silty sands, such as those on the project site. Soils encountered during the Geotechnical Investigation for the proposed project within the upper 8 ft are very loose to loose, and as a result, create a potentially significant impact related to seismically induced ground settlement because the upper native soils in their current condition would not provide uniform or adequate support for the proposed structures. However, the Geotechnical Investigation concludes that the proposed development is feasible from a geotechnical engineering standpoint, provided that recommendations in the Investigation Report are implemented. Of primary importance in the development of the proposed project is the removal/recompaction of potentially compressible soils at the areas of the proposed construction. The near-surface soils consist of silty sands, were found to be very loose to loose, and will not, in their present condition, provide uniform or adequate support for the proposed structures. It is recommended that a minimum of 24 inches of compacted fill support the proposed building slabs. The recommendations of the Geotechnical Investigation are implemented by Mitigation Measure GEO-1 and would reduce impacts related to seismically induced ground failure to a less than significant level.

Slope Stability. The project site is relatively flat. Existing on-site hazards related to slope stability do not exist. Therefore, the potential for future slope instability would be limited to proposed cut-and-fill slopes that would be manufactured as part of the proposed grading. Remedial grading required for removal and recompaction of existing compressible soils would

produce temporary construction slopes in some areas. The cut slopes for the soil types on-site are expected to be stable to a maximum height of 20 ft inclinations and no steeper than 2H:1V (horizontal-to-vertical ratio). The preliminary geotechnical reports include specific construction recommendations to reduce project impacts associated with slope instability to a less than significant level. These recommendations are implemented in Mitigation Measure GEO-1. Therefore, adherence to Mitigation Measure GEO-1 would ensure that project impacts related to slope instability are at a less than significant level.

Erosion Potential. There is the potential for soil erosion to occur at the site during implementation of the project. Large volumes of soils and sediment would be graded, excavated, recompacted, and filled, which will expose areas of soil to wind and water erosion. During a storm event, soil erosion could occur at an accelerated rate.

The project would be subject to Storm Water Pollution Prevention Plan (SWPPP) requirements for erosion control during construction (refer to Section 4.7, Hydrology and Water Quality). Best management practices (BMPs) would be undertaken to control runoff and erosion from earthmoving activities such as excavation, grading, and compaction. All grading and compaction activities would be performed under the observation of a qualified engineer, as required in the Geotechnical Investigation, to ensure project adherence to all applicable construction standards with regard to erosion control. Additionally, mitigation measures are required to reduce the transport of soil during storm events (refer to Section 4.8, Hydrology and Water Quality). With implementation of these standard control measures and recommendations of the Geotechnical Investigation report, implemented through Mitigation Measure GEO-1, soil erosion potential during construction activities would be reduced to less than significant levels.

After completion of construction and establishment of landscaped areas, the erosion potential will be minimal. All soils used in the project would be properly compacted in accordance with recommendations in the Geotechnical Investigation Report and the County of Riverside specifications. In addition, the proposed project includes construction of a new on-site storm drain system. The increase in impervious surface associated with the proposed project would result in peak storm flow increases that would be handled with installation of the on-site storm drain and storm water detention system (see Section 4.7, Hydrology and Water Quality, for a detailed analysis of the proposed drainage and storm water detention system). Therefore, the proposed project would not result in substantial operational on-site or downstream erosion or siltation, and no mitigation related to project operation and erosion is required.

Corrosive Soils. Corrosive soils contain constituents or physical characteristics that attack concrete (water-soluble sulfates) and/or ferrous metals (chlorides, ammonia, nitrates, low pH levels, and low electrical resistivity). Corrosive soils could potentially create a significant hazard to the project by weakening the structural integrity of the concrete and metal used to construct the building and could potentially lead to structural instability. Structural damage and foundation instability caused by corrosive soils is a potentially significant impact. Laboratory testing indicates that the soils on-site are considered potentially "mildly" to "moderately" corrosive to ferrous metals for both as-received and saturated conditions. Specific corrosion control measures, such as coating of pipe with noncorrosive material or use of alternative nonmetallic pipe material,



LSA

LEGEND

- ◆ Project Location
- ▤ Banning Fault Zone
- ▤ Coyote Creek Fault
- ▤ Pinto Mountain Fault
- ▤ San Andreas Fault Zone
- ▤ San Jacinto Fault Zone
- ▤ Other Faults

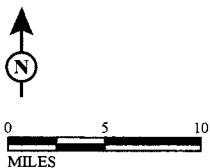


FIGURE 4.6-1

East County Detention Center
Fault Zones in Project Area

This page intentionally left blank

4.7 HAZARDS AND HAZARDOUS MATERIALS

This section addresses potential hazards and hazardous materials impacts that may result from implementation of the proposed project. The information in this section is based on a Soils Confirmation Sampling Report, Phase I, and Phase II Environmental Site Assessment (ESA) prepared in November 2012, January 2013, and April 2013, respectively. All three reports, which pertain to Site A, were prepared by Stantec Consulting Services (Stantec) and are included in Appendix F to this EIR. No report was prepared for Site B because it is a paved surface parking lot with no history of previous uses that involve hazardous materials. However, Site A has a history of uses involving hazardous materials as described in the section below.

4.7.1 Existing Environmental Setting

Regional Physiographic and Geological Conditions. The project site is located in the County of Riverside (County). The area is located within the northeast portion of the Colorado Desert Geomorphic Province of southern California (California Division of Mines and Geology, 1938, revised 2002). The project site is underlain by recent quaternary alluvial deposits derived from the erosion of neighboring mountains (CDMG, 1967).

The project site lies within the Coachella Valley in the City of Indio (City). A review of the United States (U.S.) Geological Survey (USGS) 7.5-minute topographic map for the Indio quadrangle shows the site to be at an elevation of approximately 7 feet (ft) below mean sea level (bmsl), although site surveys indicate 11 ft bmsl. The property is relatively flat, but regional topography slopes gently to the east.

The nearest active fault zones include the San Andreas Fault, which is located approximately 2.5 miles (mi) to the northeast. According to official maps of California, the site is not located within an Alquist-Priolo Earthquake Fault Zone boundary (CGS, 2010b).

The project site is located within the Coachella Valley Groundwater Basin, Indio Subbasin, within the Colorado River Hydrologic Region. The subbasin is located northwest of the Salton Sea and receives low precipitation, averaging 6 inches per year, and a wide range of temperatures. The Banning Fault bounds the subbasin on the north, and the semi-permeable rocks of the Indio Hills mark the northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Gorgonio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the Indio Subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast (Department of Water Resources [DWR], 2004). Groundwater in this area is estimated to be greater than 65 ft below ground surface (bgs) as reported in the geotechnical reports for the site (CHJ, 2012 and 2013). Historical groundwater monitoring data for this facility has reported groundwater flow to follow a general south-southeast direction.

Existing and Past Uses of the Project Area. Site A is occupied with several multi-story buildings known as the County Administrative Center (CAC) Building, the Law Library, and the Indio Jail. The buildings are similar in construction built on concrete slab foundations. The CAC Building includes administrative offices, courtrooms, and an annex to the courts. The building maintenance and

Highway 111 or Oasis Street. Both of these roads would remain open during construction and would provide adequate site access during construction. Construction activities that may temporarily restrict vehicular traffic accessing the project area along Oasis Street and Plaza Drive may be required, in coordination with the City Traffic Engineer, to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around the construction activity.

Likewise, the proposed project would not block emergency vehicle access to the site or adjacent areas. The project is required to design, construct, and maintain structures, internal access, and facilities to comply with applicable local, regional, and/or State requirements related to emergency access and evacuation plans. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to City Fire and Emergency Medical Services standards. The Fire Department is coordinating with the Sheriff's Department regarding the review of the development plans to ensure adequate emergency access to the project site. As such, any project-specific limitations on emergency access will be identified as development plans are finalized.

Specific internal circulation descriptions, project-related traffic increases, and potential effects to emergency response related to traffic conditions are discussed in Section 4.12, Traffic and Circulation, of the EIR. As described in Section 4.12, traffic generated by operation of the ECDC would not result in significant traffic impacts; as such, project-related traffic would not result in delays to emergency vehicles.

As described, the proposed ECDC project would not block emergency vehicle access to the site or to the surrounding areas, and the proposed project would not impair implementation of or physically interfere with any adopted emergency response plans. Therefore, no significant impact related to emergency response would result from implementation of the proposed project.

Location on a Site that is Included on a List of Hazardous Materials Sites. As previously discussed in the Existing Environmental Settings of this section, a review of a regulatory agency database search for the property and surrounding area was performed. The records search identified, and on-site surveillance confirmed, that permitted USTs are and have been present at the project site.

On-Site Underground Storage Tanks. Stantec drilled one soil boring and soil vapor samples adjacent to each of the two USTs used for fuel to the backup generators. None of the soil or soil vapor samples collected reported concentrations of total petroleum hydrocarbons (TPH) or VOCs above laboratory reporting limits with the exception a single sampling site, which reported a TPHo (oil range) concentration of 33 milligrams per kilogram (mg/kg). The reported TPHo detection was located in the UST south of the CAC Building at a depth of 10 ft bgs. This single detection was not reported above the regulatory threshold for TPHo.

Based on this data, there does not appear to be soil or soil vapor impacts associated with the two existing USTs on the property. Therefore, impacts associated with the on-site USTs are

considered less than significant. However, they will need to be removed and disposed of pursuant to the recommended UST disposal standard requirements.

Leaking Elevator Equipment. Up to five elevators and associated equipment rooms and components within the structures were observed in the northern portion of the site. Two elevator equipment rooms were inspected in the basement of the CAC Building. Evidence of leaky motors was noted in both equipment rooms. The remaining elevator rooms, one in the courthouse building and two in the jail building, were located on the roofs of the respective elevator locations and had evidence of leaky motors, but given the separation from underlying soil were not identified as RECs to the site. The two leaky elevator components in the CAC Building basement and the moderate staining near the compressor were identified as RECs.

Collection of two soil samples, one from each elevator room, at 5 ft bgs via a hand auger was recommended. During coring activities in the western elevator room of the CAC Building basement, the soil below the elevator could not be reached by drilling because approximately 4 inches of concrete was encountered, followed by a black, rubber barrier with approximate thickness of less than 1/8 inch and 2 inches of coarse sand before encountering another layer of concrete. Given the thickness of the concrete floor, a suspected barrier, and additional concrete, it is unlikely that any staining or leaking from the elevator equipment will have reached and impacted subsurface soils in amounts to cause concern. Therefore, no significant impacts from leaking elevator equipment are anticipated to occur from the proposed project.

Riverside County Garage. As previously discussed in the Existing Environmental Settings of this section, the adjacent property, the Riverside County Garage, is listed in the record searches as a site where a contaminant release was reported. Upon further investigation, the Phase II ESA that was conducted for this site revealed that high concentrations of VOCs including benzene, toluene, ethylbenzene, and xylenes exist in soil vapor in the previous UST excavation. The soil vapor appears to have spread laterally to soil adjacent to and on a small portion of the project site, as shown on Figure 4.7-1. The detected concentrations of benzene at this location are above the CHHSLs for uses similar to the proposed project. Additionally found at this site were concentrations for PCE that are above the CHHSL for that compound. Although the contaminated soil was identified, as a component of the project implementation, compliance would be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials. Therefore, impacts related to this issue are considered to be less than significant after implementation of standard conditions/regulations related to these hazardous materials.

Potentially Significant Impacts. Because hazardous materials is overseen by federal, State, and local regulatory agencies, no potentially significant impacts to hazards and hazardous materials resulting from the proposed project have been identified, because compliance with applicable laws is mandatory.

Mitigation Measures/Standard Regulations. Although no significant project impacts related to hazardous materials were identified, the following mitigation measures are intended to ensure compliance with applicable regulations:

HM-1 Predemolition Surveys and Air Monitoring for Asbestos Containing Materials and Lead Based Paint. Prior to issuance of any demolition permits, comprehensive predemolition surveys for asbestos-containing materials (ACMs) (Asbestos Hazard Emergency Response Act [AHERA] type level sampling survey) and lead-based paint (LBP) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials [ASTM] E 1527-00, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). All identified ACMs and lead-containing materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763).

Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The County of Riverside (County) shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Riverside County Department of Environmental Health (RCDEH) showing that abatement of any ACMs and lead containing materials identified in the project structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6).

HM-2 Removal of Underground Storage Tanks. The existing USTs shall be removed as a part of the demolition activities and confirmation samples must be collected and removed from the resulting excavation in accordance with the directives from the RCDEH.

HM-3 Remediation and Disposal of Hazardous Materials. Prior to issuance of any demolition permits, compliance will be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials (e.g., Site Assessment and Cleanup Corrective Action Guidelines). The County shall provide documentation to the RCDEH showing that site remediation has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies).

4.7.6 Level of Significance after Mitigation

No potentially significant impacts relating to hazards and hazardous materials would result from the proposed project after compliance with the standard mitigation/regulation enumerated in HM-1 through HM-3.

4.7 HAZARDS AND HAZARDOUS MATERIALS

This section addresses potential hazards and hazardous materials impacts that may result from implementation of the proposed project. The information in this section is based on a Soils Confirmation Sampling Report, Phase I, and Phase II Environmental Site Assessment (ESA) prepared in November 2012, January 2013, and April 2013, respectively. All three reports, which pertain to Site A, were prepared by Stantec Consulting Services (Stantec) and are included in Appendix F to this EIR. No report was prepared for Site B because it is a paved surface parking lot with no history of previous uses that involve hazardous materials. However, Site A has a history of uses involving hazardous materials as described in the section below.

4.7.1 Existing Environmental Setting

Regional Physiographic and Geological Conditions. The project site is located in the County of Riverside (County). The area is located within the northeast portion of the Colorado Desert Geomorphic Province of southern California (California Division of Mines and Geology, 1938, revised 2002). The project site is underlain by recent quaternary alluvial deposits derived from the erosion of neighboring mountains (CDMG, 1967).

The project site lies within the Coachella Valley in the City of Indio (City). A review of the United States (U.S.) Geological Survey (USGS) 7.5-minute topographic map for the Indio quadrangle shows the site to be at an elevation of approximately 7 feet (ft) below mean sea level (bmsl), although site surveys indicate 11 ft bmsl. The property is relatively flat, but regional topography slopes gently to the east.

The nearest active fault zones include the San Andreas Fault, which is located approximately 2.5 miles (mi) to the northeast. According to official maps of California, the site is not located within an Alquist-Priolo Earthquake Fault Zone boundary (CGS, 2010b).

The project site is located within the Coachella Valley Groundwater Basin, Indio Subbasin, within the Colorado River Hydrologic Region. The subbasin is located northwest of the Salton Sea and receives low precipitation, averaging 6 inches per year, and a wide range of temperatures. The Banning Fault bounds the subbasin on the north, and the semi-permeable rocks of the Indio Hills mark the northeast boundary. Impermeable rocks of the San Jacinto and Santa Rosa Mountains bound the subbasin on the south. A bedrock constriction separates the Indio Subbasin from the San Geronio Pass Subbasin on the northwest. The Salton Sea is the eastern boundary and the Indio Subbasin's primary discharge area. A low drainage divide forms a short boundary with the West Salton Sea Groundwater Basin in the southeast (Department of Water Resources [DWR], 2004). Groundwater in this area is estimated to be greater than 65 ft below ground surface (bgs) as reported in the geotechnical reports for the site (CHJ, 2012 and 2013). Historical groundwater monitoring data for this facility has reported groundwater flow to follow a general south-southeast direction.

Existing and Past Uses of the Project Area. Site A is occupied with several multi-story buildings known as the County Administrative Center (CAC) Building, the Law Library, and the Indio Jail. The buildings are similar in construction built on concrete slab foundations. The CAC Building includes administrative offices, courtrooms, and an annex to the courts. The building maintenance and

mechanical rooms are located in the basement of the CAC Building and include elevator access rooms, sewage lift systems, water treatment systems, and computer rooms. Multiple equipment and machine rooms are scattered throughout the buildings and generally consist of water treatment, heating, ventilation, and air-conditioning (HVAC), or elevator equipment. The Sheriff's Department Communication Building and associated radio tower are located on the eastern portion of the site along Oasis Street. The southern half and the northwest corner of the site are asphalt paved parking lots.

As a part of the Phase I (January 2013) investigation, historical aerial photographs and available historical topographic maps were evaluated to determine past uses of the site. The interpretation of the data indicates that the project site was vacant and undeveloped up to 1947 and later developed with several multi-family or barrack-type structures by 1953 with some expansions or destructions by 1959. By 1972, the site appears to be developed with the CAC and Jail buildings in their present configuration with some additional expansions completed in 1996. The compounds associated with the emergency generators and associated underground storage tanks (USTs) are visible by 1996. The surrounding areas show a mix of residential and agricultural properties from 1953 until 1978 and the surrounding area is developed from the 1970s through the 1990s, except for the County Fairgrounds to the south, which has structures that were developed prior to 1956 according to USGS maps. No environmentally related symbols such as agricultural symbols, water wells, or storage tanks, or pipelines are noted on the project site in the historic records reviewed.

Recognized Environmental Conditions. During the course of this investigation, the following recognized environmental conditions (RECs), as defined by American Society for Testing and Materials (ASTM) criteria, are associated with the site:

On-Site Underground Storage Tanks. During the site reconnaissance, two USTs were observed at the project site. Review of a regulatory agency database search for the property and surrounding area performed by Environmental Data Resources (EDR) confirmed that permitted USTs are and have been present at the project site.

UST No. 1 is located south of the Indio Jail building and is used for the emergency generator housed adjacent to the UST in a gated compound. The compound includes a transformer in addition to the diesel-powered generator and a day tank for the generator. No evidence of spills, leaks, or staining was observed near the base or vicinity of these items.

According to records reviewed at the Riverside County Department of Environmental Health (RCDEH), UST No. 1 is a double-walled, bare steel tank with unlined interior and a holding capacity of 5,000 gallons of oil product as diesel. The tank was reportedly installed in October 1991. Handler, Generator, and UST Inspection records on file with the RCDEH reported several administrative violations pertaining to the lack of employee training, emergency plans and procedures, and poorly maintained records. An observation conducted during a routine inspection on June 14, 2006, reported that the "fill and piping sumps had liquid in them." No violations regarding leaks or spills were noted.

UST No. 2 is located south of the CAC Building and is also used for the emergency generator located adjacent to the westernmost boundary line of the site. The gated compound includes a transformer, a diesel-powered generator, and HVAC towers. The generator is elevated off the ground floor and stored in a secondary containment unit. No evidence of spills, leaks, or staining was observed near the base or vicinity of this item.

According to records reviewed at the RCDEH, UST No. 2 is a double-walled, steel clad with fiberglass reinforced plastic tank with an unlined interior and a holding capacity of 10,000 gallons of motor vehicle fuel as diesel. The tank was reportedly installed in March 1998. Handler, Generator, and UST Inspection reports on file with the RCDEH reported several administrative violations pertaining to the lack of updated permits, emergency plans and procedures, and failed leak detection components. During a routine inspection conducted in August 2007, it was noted that "oil was leaking from the emergency generator" and that oil spots on the floor were not properly containerized or discarded. No additional notes regarding leaks or spills were recorded.

Based on additional records on file with the RCDEH and the City of Indio Fire Department, UST No. 2 was installed in the cavity of a previous UST reportedly installed in 1966. The previously installed 21,000 gallon UST was reportedly a single-walled, carbon steel tank containing motor vehicle fuel as diesel. Soil confirmation samples were taken from the cavity of the previous UST in order to evaluate any potential impact to soil due to the operation of the UST. No detection of motor vehicle fuel constituents were reported above the respective laboratory reporting limits. As a result, the previous UST was removed in March 1998, and the present 10,000 gallons UST No. 2 was installed in the same location.

The historical and current presence of USTs containing petroleum product as diesel fuel is considered a REC, as defined by ASTM criteria, to the project site.

Leaking Elevator Equipment. Electrical transformers, hydraulic equipment capacitors, fluorescent light fixtures, and similar equipment may contain polychlorinated biphenyls (PCBs) in the hydraulic fluids or dielectric insulating fluids within the units. The federal Toxic Substances Control Act (TSCA) generally prohibited the domestic manufacture of PCBs after 1979. There is, however, potential that the dielectric fluid in electrical and hydraulic equipment manufactured and constructed prior to that date contains PCBs.

During the Phase I surveys, up to five elevators and associated equipment rooms and components were observed. Two elevator equipment rooms were inspected in the basement of the CAC Building. Evidence of leaky motors was noted in both equipment rooms. The remaining elevator rooms, one in the courthouse building and two in the jail building, were located on the roofs of the respective elevator locations and had evidence of leaky motors. Additionally, an air compressor located in the CAC Building basement was observed with evidence of moderate staining near its base.

Riverside County Fleet Garage. Based on the EDR report, there are two small historic hazardous waste sites listed as Resource Conservation and Recovery Act-Small Quantity Generator (RCRA-SQG) located within a 0.25 mi radius of the proposed project site. The sites

Toxic Substances Control (DTSC) and the RWQCB have the ability to assert jurisdiction over a particular site, or the CUPA can request State oversight if it does not have available resources. In addition, the RWQCB would have permitting jurisdiction over operation of the wastewater treatment facilities on the project site.

Local Policies and Regulations. In this section, both the City and County policies are presented because while the County standards apply to its own projects, the City's standards are important to note with regard to overall compliance and the fact that the City would provide emergency services, police, and fire services to the ECDC.

County of Riverside General Plan, Safety Element. The objectives and associated policies that address hazards and hazardous materials associated with development are listed below.

Disaster Preparedness Policy.

S 7.3. Require commercial businesses, utilities, and industrial facilities that handle hazardous materials to:

- Install automatic fire and hazardous materials detection, reporting, and shut-off devices; and
- Install an alternative communication system in the event power is out or telephone service is saturated following an earthquake.

Fire Emergency Policies.

S 5.1. Develop and enforce construction and design standards that ensure that proposed development incorporates fire prevention features through the following:

- a. All proposed construction shall meet minimum standards for fire safety as defined in the County Building or Fire Codes, or by County zoning, or as dictated by the Building Official or the Transportation Land Management Agency based on building type, design, occupancy, and use.
- b. In addition to the standards and guidelines of the Uniform Building Code and Uniform Fire Code fire safety provisions, continue additional standards for high-risk, high occupancy, dependent, and essential facilities where appropriate under the Riverside County Fire Protection Ordinance. These shall include assurances that structural and nonstructural architectural elements of the building will not:
 - Impede emergency egress for fire safety staffing/personnel, equipment, and apparatus; nor

- Hinder evacuation from fire, including potential blockage of stairways or fire doors.
- c. Proposed development in Hazardous Fire areas shall provide secondary public access, unless determined otherwise by the County Fire Chief.
- d. Proposed development in Hazardous Fire areas shall use single-loaded roads to enhance fuel modification areas, unless otherwise determined by the County Fire Chief.

Indio Local Policies and Regulations. The City's General Plan and zoning do not apply to the project because they are pre-empted by State law on property owned or leased by the County.¹ However, the following analysis was completed to show that the project is generally in compliance with the City General Plan.

City of Indio General Plan – 2020. The City of Indio General Plan policies relevant to the proposed project are set forth below:

- HM-1.1 Educate the public as to the types of household (or classroom) hazardous waste and the proper method of disposal.
- HM-1.2 Ensure that household (or classroom) hazardous waste is disposed of properly.
- HM-1.4 Ensure that new hazardous waste facilities and those commercial and industrial land uses that use or produce hazardous waste are sited in an appropriate manner.
- HM-1.5 Protect soils and surface and groundwater from contamination.
- HM-1.6 Require that haulers of hazardous substances use the City's evacuation routes.

City of Indio Fire and Emergency Medical Services (EMS) Master Plan. The following are the goals and objectives of the City's Fire and EMS Master Plan as they pertain to hazardous materials:

Goals:

1. Identify citywide hazardous materials (storage, manufacture, use, and transport), in cooperation with the RCDEH.

¹ California Government Code Sections 53090 through 53091, *Sunny Slope Water Co. v. City of Pasadena*, Cal 2d 87,98 (1934).

Although construction of the project would not involve acutely hazardous materials, other hazardous materials would be stored in small amounts on-site. However, because the project would comply with federal, State, and local provisions regarding use, storage, and transport of hazardous materials, construction of the proposed ECDC would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous waste. In addition, construction of the proposed project would not create a significant hazard to the public or to the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and no mitigation is required.

Asbestos Containing Materials. As discussed in the Existing Environmental Settings of this section, ACMs are anticipated to be present at all buildings on the project site, regardless of age. Therefore, before performing any future demolition or renovation activities that would disturb suspect asbestos containing building materials, a comprehensive Asbestos Hazard Emergency Response Act (AHERA) type level sampling survey in accordance with OSHA and U.S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAPS) requirements would be required to be performed to evaluate the structures for the presence of ACMs. If suspect materials sampled are confirmed to contain asbestos, they would be remediated and/or disposed of in compliance with all applicable federal, State, and local regulations. With compliance of all applicable regulations regarding the remediation and disposal of hazardous materials, impacts related to the presence and removal of asbestos during the proposed project construction would be less than significant.

Lead Based Paint. As discussed in the Existing Environmental Settings of this section, given the age of the structures at the project site (constructed in its current layout by the 1970s), LBP should be anticipated in all buildings. Therefore, before performing any future demolition, renovation, or activities that would disturb painted surfaces, a comprehensive LBP survey would be required prior to the disturbance of painted surfaces to determine lead content. Any confirmed LBP materials that would be disturbed, causing the paint to flake or peel, must be removed and disposed of in accordance with applicable regulations, including without limitation guidelines of OSHA. With compliance of all applicable regulations regarding the remediation and disposal of hazardous materials, impacts related to the presence and removal of lead during the proposed project construction would be less than significant.

Operation. Operation of the proposed ECDC project would be similar to the current on-going operations and involve the storage and use of potentially hazardous materials, such as medical supplies; industrial cleaning agents; solvents; petroleum-based fuels for machinery; paints; and pesticides that are typically used in detention centers, including in kitchen and laundry facilities. These types of hazardous materials, when used correctly, would not result in a significant hazard to inmates or employees working within the proposed facility.

Emergency generators would be stored on-site for emergency backup power in the event of power failure. Three 1500-kilowatt (kW), 480-volt (V) diesel engine generator sets would be located on-site to provide emergency and standby power for the entire facility in the event of power failure. The generator sets would be located indoors in the Generator Room and connected to a 10,000 gallon horizontal fuel tank with a capacity of 24 hours at 100 percent load plus 15 percent for exercising/testing of units. The aboveground fuel storage tanks would require the preparation of a Spill Prevention, Control, and Countermeasure Plan (SPCC), which would be submitted to and approved by the RCDEH. Further, federal, State, and local regulations control the transport, use, storage, generation, and disposal of these types of hazardous materials to minimize potential health and environmental hazards that could occur through accidental spills or leakage.

In addition, pursuant to HSC Section 25504 and County requirements, a Business Emergency Plan (BEP) would be prepared for submittal to the Hazardous Materials Management Division of the RCDEH. In addition to identifying the hazardous materials and substances used on-site, the BEP would include directions to facilitate coordination and emergency planning with on- and off-site response officials and facilities in the event of an emergency, and would describe the equipment and training provided to ECDC personnel to detect, respond to, mitigate, and abate hazards that could occur during an accidental release.

In compliance with existing federal, State, and local regulations, the amounts of hazardous materials present during operation of the proposed ECDC project site would be limited and would not pose a significant hazard to workers, employees, inmates, or the environment. Since the project would comply with federal, State, and local provisions, there would be no significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or substances as a result of the project. In addition, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and no mitigation is required.

Hazardous Emissions or Handling of Hazardous Substances within 0.25 Mi of an Existing or Proposed School. Site A is not within 0.25 mi of an existing or proposed school. The closest existing school is Thomas Jefferson Middle School, located at 83089 Highway 111 in Indio, approximately 0.3 mi from the project site. Site B is within 0.25 mi (985 ft) of the Thomas Jefferson Middle School, but does not have any hazardous substances on the site.

The proposed project would be the replacement of the existing detention center and is expected to use and dispose of materials similar to those currently handled on the project site. Additionally, compliance of all applicable regulations regarding potential emissions or handling of hazardous substances would be obtained and implemented. Therefore, the risk of impacts from hazardous emissions or required handling of hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school would be less than significant.

Impairment or Physical Interference with an Emergency Response Plan or Emergency Evacuation Plan. Direct access to the project site for emergency vehicles is provided via either

Highway 111 or Oasis Street. Both of these roads would remain open during construction and would provide adequate site access during construction. Construction activities that may temporarily restrict vehicular traffic accessing the project area along Oasis Street and Plaza Drive may be required, in coordination with the City Traffic Engineer, to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around the construction activity.

Likewise, the proposed project would not block emergency vehicle access to the site or adjacent areas. The project is required to design, construct, and maintain structures, internal access, and facilities to comply with applicable local, regional, and/or State requirements related to emergency access and evacuation plans. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to City Fire and Emergency Medical Services standards. The Fire Department is coordinating with the Sheriff's Department regarding the review of the development plans to ensure adequate emergency access to the project site. As such, any project-specific limitations on emergency access will be identified as development plans are finalized.

Specific internal circulation descriptions, project-related traffic increases, and potential effects to emergency response related to traffic conditions are discussed in Section 4.12, Traffic and Circulation, of the EIR. As described in Section 4.12, traffic generated by operation of the ECDC would not result in significant traffic impacts; as such, project-related traffic would not result in delays to emergency vehicles.

As described, the proposed ECDC project would not block emergency vehicle access to the site or to the surrounding areas, and the proposed project would not impair implementation of or physically interfere with any adopted emergency response plans. Therefore, no significant impact related to emergency response would result from implementation of the proposed project.

Location on a Site that is Included on a List of Hazardous Materials Sites. As previously discussed in the Existing Environmental Settings of this section, a review of a regulatory agency database search for the property and surrounding area was performed. The records search identified, and on-site surveillance confirmed, that permitted USTs are and have been present at the project site.

On-Site Underground Storage Tanks. Stantec drilled one soil boring and soil vapor samples adjacent to each of the two USTs used for fuel to the backup generators. None of the soil or soil vapor samples collected reported concentrations of total petroleum hydrocarbons (TPH) or VOCs above laboratory reporting limits with the exception a single sampling site, which reported a TPHo (oil range) concentration of 33 milligrams per kilogram (mg/kg). The reported TPHo detection was located in the UST south of the CAC Building at a depth of 10 ft bgs. This single detection was not reported above the regulatory threshold for TPHo.

Based on this data, there does not appear to be soil or soil vapor impacts associated with the two existing USTs on the property. Therefore, impacts associated with the on-site USTs are

considered less than significant. However, they will need to be removed and disposed of pursuant to the recommended UST disposal standard requirements.

Leaking Elevator Equipment. Up to five elevators and associated equipment rooms and components within the structures were observed in the northern portion of the site. Two elevator equipment rooms were inspected in the basement of the CAC Building. Evidence of leaky motors was noted in both equipment rooms. The remaining elevator rooms, one in the courthouse building and two in the jail building, were located on the roofs of the respective elevator locations and had evidence of leaky motors, but given the separation from underlying soil were not identified as RECs to the site. The two leaky elevator components in the CAC Building basement and the moderate staining near the compressor were identified as RECs.

Collection of two soil samples, one from each elevator room, at 5 ft bgs via a hand auger was recommended. During coring activities in the western elevator room of the CAC Building basement, the soil below the elevator could not be reached by drilling because approximately 4 inches of concrete was encountered, followed by a black, rubber barrier with approximate thickness of less than 1/8 inch and 2 inches of coarse sand before encountering another layer of concrete. Given the thickness of the concrete floor, a suspected barrier, and additional concrete, it is unlikely that any staining or leaking from the elevator equipment will have reached and impacted subsurface soils in amounts to cause concern. Therefore, no significant impacts from leaking elevator equipment are anticipated to occur from the proposed project.

Riverside County Garage. As previously discussed in the Existing Environmental Settings of this section, the adjacent property, the Riverside County Garage, is listed in the record searches as a site where a contaminant release was reported. Upon further investigation, the Phase II ESA that was conducted for this site revealed that high concentrations of VOCs including benzene, toluene, ethylbenzene, and xylenes exist in soil vapor in the previous UST excavation. The soil vapor appears to have spread laterally to soil adjacent to and on a small portion of the project site, as shown on Figure 4.7-1. The detected concentrations of benzene at this location are above the CHHSLs for uses similar to the proposed project. Additionally found at this site were concentrations for PCE that are above the CHHSL for that compound. Although the contaminated soil was identified, as a component of the project implementation, compliance would be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials. Therefore, impacts related to this issue are considered to be less than significant after implementation of standard conditions/regulations related to these hazardous materials.

Potentially Significant Impacts. Because hazardous materials is overseen by federal, State, and local regulatory agencies, no potentially significant impacts to hazards and hazardous materials resulting from the proposed project have been identified, because compliance with applicable laws is mandatory.

Mitigation Measures/Standard Regulations. Although no significant project impacts related to hazardous materials were identified, the following mitigation measures are intended to ensure compliance with applicable regulations:

HM-1 Predemolition Surveys and Air Monitoring for Asbestos Containing Materials and Lead Based Paint. Prior to issuance of any demolition permits, comprehensive predemolition surveys for asbestos-containing materials (ACMs) (Asbestos Hazard Emergency Response Act [AHERA] type level sampling survey) and lead-based paint (LBP) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials [ASTM] E 1527-00, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). All identified ACMs and lead-containing materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763).

Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The County of Riverside (County) shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Riverside County Department of Environmental Health (RCDEH) showing that abatement of any ACMs and lead containing materials identified in the project structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6).

HM-2 Removal of Underground Storage Tanks. The existing USTs shall be removed as a part of the demolition activities and confirmation samples must be collected and removed from the resulting excavation in accordance with the directives from the RCDEH.

HM-3 Remediation and Disposal of Hazardous Materials. Prior to issuance of any demolition permits, compliance will be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials (e.g., Site Assessment and Cleanup Corrective Action Guidelines). The County shall provide documentation to the RCDEH showing that site remediation has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies).

4.7.6 Level of Significance after Mitigation

No potentially significant impacts relating to hazards and hazardous materials would result from the proposed project after compliance with the standard mitigation/regulation enumerated in HM-1 through HM-3.

UST No. 2 is located south of the CAC Building and is also used for the emergency generator located adjacent to the westernmost boundary line of the site. The gated compound includes a transformer, a diesel-powered generator, and HVAC towers. The generator is elevated off the ground floor and stored in a secondary containment unit. No evidence of spills, leaks, or staining was observed near the base or vicinity of this item.

According to records reviewed at the RCDEH, UST No. 2 is a double-walled, steel clad with fiberglass reinforced plastic tank with an unlined interior and a holding capacity of 10,000 gallons of motor vehicle fuel as diesel. The tank was reportedly installed in March 1998. Handler, Generator, and UST Inspection reports on file with the RCDEH reported several administrative violations pertaining to the lack of updated permits, emergency plans and procedures, and failed leak detection components. During a routine inspection conducted in August 2007, it was noted that "oil was leaking from the emergency generator" and that oil spots on the floor were not properly containerized or discarded. No additional notes regarding leaks or spills were recorded.

Based on additional records on file with the RCDEH and the City of Indio Fire Department, UST No. 2 was installed in the cavity of a previous UST reportedly installed in 1966. The previously installed 21,000 gallon UST was reportedly a single-walled, carbon steel tank containing motor vehicle fuel as diesel. Soil confirmation samples were taken from the cavity of the previous UST in order to evaluate any potential impact to soil due to the operation of the UST. No detection of motor vehicle fuel constituents were reported above the respective laboratory reporting limits. As a result, the previous UST was removed in March 1998, and the present 10,000 gallons UST No. 2 was installed in the same location.

The historical and current presence of USTs containing petroleum product as diesel fuel is considered a REC, as defined by ASTM criteria, to the project site.

Leaking Elevator Equipment. Electrical transformers, hydraulic equipment capacitors, fluorescent light fixtures, and similar equipment may contain polychlorinated biphenyls (PCBs) in the hydraulic fluids or dielectric insulating fluids within the units. The federal Toxic Substances Control Act (TSCA) generally prohibited the domestic manufacture of PCBs after 1979. There is, however, potential that the dielectric fluid in electrical and hydraulic equipment manufactured and constructed prior to that date contains PCBs.

During the Phase I surveys, up to five elevators and associated equipment rooms and components were observed. Two elevator equipment rooms were inspected in the basement of the CAC Building. Evidence of leaky motors was noted in both equipment rooms. The remaining elevator rooms, one in the courthouse building and two in the jail building, were located on the roofs of the respective elevator locations and had evidence of leaky motors. Additionally, an air compressor located in the CAC Building basement was observed with evidence of moderate staining near its base.

Riverside County Fleet Garage. Based on the EDR report, there are two small historic hazardous waste sites listed as Resource Conservation and Recovery Act-Small Quantity Generator (RCRA-SQG) located within a 0.25 mi radius of the proposed project site. The sites

are identified as (1) GSA Fleet SVC INDIO and (2) RVSD CO Garage (Indio), located south-southeast of and adjacent to the project site and are cross-listed in other hazardous waste databases.¹ These separate listings have been identified as the same location. Presently, the site is developed as a garage for County vehicles and the facilities maintenance building. The site consists of a single large building made up of garages and offices. The northern portion of the property is paved with asphalt and used for shared parking with the functions on project site (i.e., CAC, Courts, and Law Library).

It was reported that three USTs containing gasoline and diesel fuels were located at the facility. During removal of the USTs, a release was identified in the soil below the former tanks. Additional assessment has determined that very minor groundwater impacts are associated with the known release associated with the garage. In addition, the vertical and lateral limits of soil impacts are defined and appear to exist in close proximity to the former USTs and dispenser. Therefore, a Phase II investigation was conducted to further discover the extent of the release.

On March 29, 2013, ten soil gas sampling points at the project site in the immediate vicinity of the former USTs were implemented. Soils encountered during the investigation consisted of silty sand and sand. Groundwater was not encountered in any of the boreholes.

The data collected indicate that high concentrations of volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes exist in soil vapor at a depth of 15 ft bgs in the location of the previous UST. The soil vapor appears to have spread laterally to soil adjacent to and on a small portion of the project site, as depicted in Figure 4.7-1. The detected concentrations of benzene at this location are above the California Human Health Screening Levels (CHHSLs) for residential uses (the jail). Additionally found at this site were concentrations for tetrachloroethylene (PCE) that are above the CHHSL for that compound. Results reveal that this recorded hazardous site contains soils that are considered a REC for the proposed project.

Outward from the contaminated soil area depicted on Figure 4.7-1, sample locations did not detect soil vapors above the CHHSLs threshold. As a result, currently the data does not indicate that impact has affected areas beyond the identified site at levels that would require further assessment or action. However, as part of the proposed grading, removal of the contaminated soil, as depicted on Figure 4.7-1, has been included in the proposed project for compliance with the Regional Water Quality Control Board (RWQCB) remediation requirements.

Non-American Society for Testing and Materials Criteria American Society for Testing and Materials Environmental Conditions. Although not classified as RECs, the following non-ASTM environmental issues were identified on the subject property that are considered a potential hazard:

¹ The other databases are: Facility Index Systems (FINDS), Hazardous Waste Manifests System (HAZNET), Leaking Underground Storage Tank (LUST), State Water Resources Control Board (SWRCB) Facility Inventory Database – Active and Inactive Underground Storage Tanks (CA FID UST), Historical Underground Storage Tank (HIST UST), Statewide Environmental Evaluation and Planning System – Underground Storage Tank (SWEEPS UST), and Historical California Environmental Protection Agency Hazardous Waste and Substances Sites (HIST CORTESE).

Lead Based Paint. Given the age of the structures at the site (constructed in its current layout by the 1970s), lead-based paint (LBP) should be anticipated in the buildings. The EDR report concludes that as long as any lead-containing paint is not deteriorated, it normally presents minimal hazard to commercial building occupants, but the removal of the paint for purposes of demolition does pose a health hazard.

Asbestos Containing Materials. Given the age of the structures at the site (constructed in its current layout by the 1970s), asbestos containing material (ACM) is likely to be present in the buildings. As a result from the Phase I ESA User Questionnaire, it was suggested by facility staff that asbestos removal and remediation had occurred at the project site, but no further details were provided. Further, during the project site reconnaissance, signage indicating the presence of ACMs was observed. Therefore, regardless of age, ACMs are anticipated in all structures on the project site.

Schools. The proposed project site is located within the boundaries of the Desert Sands Unified School District (DSUSD). Existing DSUSD schools within 0.5 mi of the project Site A are Thomas Jefferson Middle School, a grade 3 through 8 facility (0.3 mi to the east of Site A); and Theodore Roosevelt Elementary, a kindergarten (K) through 5th grade school (0.5 mi to the southeast of Site A). Additionally, the Indio Christian Center Academy, a private school with K-12th grade, is located approximately 0.5 mi to the northeast of Site A. The Thomas Jefferson Middle School play fields are located within approximately 985 ft of the eastern edge of Site B; however, no known hazardous materials occur on this site. Therefore, potential exposure of hazardous materials to a school site within 0.25 mi would not occur. In addition, developed area is present between both Sites A and B and the Middle School.

Aviation. There are two general aviation airports located in the vicinity of the proposed ECDC project site. Jacqueline Cochran Regional Airport is located approximately 4.5 mi southeast of the site, and Bermuda Dunes Airport is located approximately 3 mi northwest of the proposed project site. These two airports provide limited commercial service. Due to the distance between the proposed project site and the two airports, implementation of the proposed project would not result in a safety hazard for the airport, nor result in a safety hazard for people residing or working in the project area. Therefore, potential hazards related to airports will not be discussed further in this EIR.

Emergency Response Plans. The City of Indio has established a Fire and Emergency Medical Services Master Plan, which also addresses hazardous materials incident responses, and provides actions to ensure that such risks are reduced to the greatest extent possible. The HazMat Emergency Response Plan also establishes procedures and assigns responsibility for response and remediation of such spills. This plan includes the involvement of the City's Fire Department. Additionally, the RCDEH has regulatory authority regarding the use and management of hazardous and toxic materials. As a part of the proposed project, all plans would be subject to the review of all applicable City and County departments and agencies related to the established HazMat Emergency Response Plan. Therefore, this topic will not be discussed further in this EIR.

Wildland Fire Hazards. Fire hazards threaten lives, property, and natural resources, and impact vegetation and wildlife habitats. The project area is in a completely developed area where the threats of wildland fires do not exist. Therefore, this topic will not be discussed further in this EIR.

4.7.2 Regulatory Setting

Federal Policies and Regulations. The primary federal laws regulating hazardous wastes/materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as “Superfund,” is to rehabilitate contaminated sites so that public health and welfare are not compromised. RCRA provides for “cradle-to-grave” regulation of hazardous wastes. Other federal laws/regulations relating to hazardous materials and wastes include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Occupational Safety and Health Act (OSHA): Title 29 Code of Federal Regulations (CFR), Regulations for General Industry (Part 1910) and Construction (Part 1926)
- Toxic Substances Control Act (TSCA): Title 40 CFR 700–799
- National Emissions Standard for Hazardous Air Pollutants (NESHAPS): Title 40 CFR, Part 61, Subpart A
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)
- United States Department of Transportation (USDOT) Regulations: Title 49 CFR

State Policies and Regulations. Hazardous waste in California is regulated primarily under the authority of the federal RCRA and the California Health and Safety Code (HSC). Other California laws related to hazardous materials and wastes are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning of those materials.

State and local regulations related to hazardous materials and wastes include:

- Title 8 California Code of Regulations (CCR), California Occupational Safety and Health Administration (Cal-OSHA) Regulations, Chapter 4, Division of Industrial Relations, General Industry Safety Orders and Construction Safety Orders
- Title 22 CCR, Social Security, Division 2, Department of Social Services–Department of Health Services, and Division 4, Environmental Health
- Title 17 CCR, Public Health, Division 1, State Department of Health Services, Chapter 6–Lead Poisoning Prevention Program
- South Coast Air Quality Management District (SCAQMD) Rules and Regulations

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment.

Businesses that utilize hazardous materials are subject to Emergency Planning and Community Right-to-Know Act (Proposition 65) requirements as delineated in the California HSC. These regulations require worker notification of hazardous substances in the workplace. The proposed project is subject to these requirements.

The State Waters Bill (Assembly Bill [AB] 2185, et al.), set forth in California HSC Sections 25500–25545, requires businesses that utilize hazardous materials above certain thresholds to prepare on-site “business plans” for possible emergencies involving those materials and to provide copies of the plans to local emergency response agencies. The business plans must include an inventory list and an emergency action plan. Minimum thresholds are as follows:

- **Liquids:** 55 gallons
- **Solids:** 500 pounds
- **Compressed Gases:** 200 cubic feet (measured at standard temperature and pressure)
- **Radioactive Materials:** Quantities that exceed Nuclear Regulatory Commission thresholds requiring the preparation of emergency plans (10 CFR Parts 30, 40, and 70)

Exemptions from these thresholds include the following:

- Hazardous materials stored as consumer packages for direct distribution to the general public
- Up to 1,000 cubic feet of oxygen, nitrous oxide, and/or nitrogen stored by physicians, dentists, podiatrists, veterinarians, and pharmacists
- Up to 55 gallons of any lubricating oil and up to 275 gallons of all lubricating oil stored by one business

The Waters Bill also requires an administering agency to oversee hazardous materials and waste laws. The local Certified Unified Program Agency (CUPA) implements program elements either directly or in coordination with affiliated Participating Agencies (PAs). Business plans for operations subject to the Waters Bill are reviewed and approved by the CUPA. The CUPA also conducts inspections of these facilities. The RCDEH has the authority to require business plans for facilities that do not meet the minimum requirements if it determines that CUPA oversight is needed due to the type of facility or location.

The Hazardous Materials Management Division is one of the three divisions of the RCDEH. The Hazardous Materials Management Division is the CUPA for the County responsible for regulating hazardous materials business plans and chemical inventory, hazardous waste and tiered permitting, underground storage tanks, and risk management plans. The goal of the Hazardous Materials Management Division is to protect human health and the environment by ensuring that hazardous materials, hazardous waste, and underground storage tanks are properly managed.

Oversight of remediation of soil and groundwater contamination is generally the responsibility of the RCDEH, the Local Enforcement Agency for State regulations. However, the State Department of

Toxic Substances Control (DTSC) and the RWQCB have the ability to assert jurisdiction over a particular site, or the CUPA can request State oversight if it does not have available resources. In addition, the RWQCB would have permitting jurisdiction over operation of the wastewater treatment facilities on the project site.

Local Policies and Regulations. In this section, both the City and County policies are presented because while the County standards apply to its own projects, the City's standards are important to note with regard to overall compliance and the fact that the City would provide emergency services, police, and fire services to the ECDC.

County of Riverside General Plan, Safety Element. The objectives and associated policies that address hazards and hazardous materials associated with development are listed below.

Disaster Preparedness Policy.

S 7.3. Require commercial businesses, utilities, and industrial facilities that handle hazardous materials to:

- Install automatic fire and hazardous materials detection, reporting, and shut-off devices; and
- Install an alternative communication system in the event power is out or telephone service is saturated following an earthquake.

Fire Emergency Policies.

S 5.1. Develop and enforce construction and design standards that ensure that proposed development incorporates fire prevention features through the following:

- a. All proposed construction shall meet minimum standards for fire safety as defined in the County Building or Fire Codes, or by County zoning, or as dictated by the Building Official or the Transportation Land Management Agency based on building type, design, occupancy, and use.
- b. In addition to the standards and guidelines of the Uniform Building Code and Uniform Fire Code fire safety provisions, continue additional standards for high-risk, high occupancy, dependent, and essential facilities where appropriate under the Riverside County Fire Protection Ordinance. These shall include assurances that structural and nonstructural architectural elements of the building will not:
 - Impede emergency egress for fire safety staffing/personnel, equipment, and apparatus; nor

- Hinder evacuation from fire, including potential blockage of stairways or fire doors.
- c. Proposed development in Hazardous Fire areas shall provide secondary public access, unless determined otherwise by the County Fire Chief.
- d. Proposed development in Hazardous Fire areas shall use single-loaded roads to enhance fuel modification areas, unless otherwise determined by the County Fire Chief.

Indio Local Policies and Regulations. The City's General Plan and zoning do not apply to the project because they are pre-empted by State law on property owned or leased by the County.¹ However, the following analysis was completed to show that the project is generally in compliance with the City General Plan.

City of Indio General Plan – 2020. The City of Indio General Plan policies relevant to the proposed project are set forth below:

- HM-1.1 Educate the public as to the types of household (or classroom) hazardous waste and the proper method of disposal.
- HM-1.2 Ensure that household (or classroom) hazardous waste is disposed of properly.
- HM-1.4 Ensure that new hazardous waste facilities and those commercial and industrial land uses that use or produce hazardous waste are sited in an appropriate manner.
- HM-1.5 Protect soils and surface and groundwater from contamination.
- HM-1.6 Require that haulers of hazardous substances use the City's evacuation routes.

City of Indio Fire and Emergency Medical Services (EMS) Master Plan. The following are the goals and objectives of the City's Fire and EMS Master Plan as they pertain to hazardous materials:

Goals:

1. Identify citywide hazardous materials (storage, manufacture, use, and transport), in cooperation with the RCDEH.

¹ California Government Code Sections 53090 through 53091, *Sunny Slope Water Co. v. City of Pasadena*, Cal 2d 87,98 (1934).

2. Strengthen ability and resources necessary for control of hazardous materials incidents.

Objectives:

1. Establish and maintain cooperative working relationships with other responder/resource agencies.
2. Support the establishment of hazardous materials response teams, as necessary within the Riverside County Fire Department.

4.7.3 Methodology

Project impacts related to hazards and hazardous materials were evaluated based on a site survey, a records investigation, and the potential to expose humans and/or the environment to hazards or hazardous materials during construction activities and after development of the properties. Phase I and Phase II investigations were prepared to determine any existing hazardous waste issues related to former or current operations within the project site and in the surrounding vicinity. Based on the findings of the investigations and review of County plans and standards, impacts were evaluated and mitigation measures developed to address hazards, as well as the use and disposal of hazardous materials.

4.7.4 Thresholds of Significance

The California Environmental Quality Act (CEQA) Guidelines define “significant effect on the environment” as a “substantial or potentially substantial adverse change in the environment.” The CEQA Guidelines further indicate that there may be significant impacts from hazards and hazardous materials if the proposed project is determined to:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school;
- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- For a project located within an airport land use plan or within 2 mi of a public or private airport that could result in a safety hazard for people residing or working in the project area if the project is located within the vicinity of a private airstrip;
- For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area;

- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residents are intermixed with wildlands.

4.7.5 Impacts and Mitigation Measures

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

Riverside County General Plan Safety Element Analysis. The County's General Plan includes policies related to hazards and hazardous materials in its Safety Element that are related to the proposed project. The proposed project is compliant with all of the applicable General Plan policies because the project is required to meet all applicable safety requirements, the majority which are already codified in standard building and fire safety requirements and Titles 15 and 24 of the CCR. Therefore, the project would not result in conflicts with the policies in the General Plan Safety Element, and significant impacts related to this issue would not occur.

Indio General Plan Policy Analysis. The City's General Plan policies related to health and hazards are broad and encompassing. Policies HM-1.5 and HM-1.6 would directly apply to the project with regard to the known contaminated soil and disposal of both the soil and other hazardous materials in the buildings scheduled to be demolished. As identified in the analysis below, one area of soil contamination has been identified on Site A. However compliance with all applicable regulations regarding the remediation and disposal of hazardous materials would ensure the project's consistency with this General Plan policy. In addition, the County and Sheriff's Department have coordinated with the City with regard to fire and emergency planning for the project, which meets compliance with the EMS Master Plan. Therefore, impacts related to this General Plan compliance and consistency are considered to be less than significant.

Routine Transport, Use, and Disposal of Hazardous Materials and Reasonable Foreseeable Upset and Accident Conditions.

Construction. Construction of the proposed project would involve the routine use, handling, storage, transport, and disposal of hazardous materials such as fuels, oils, grease, caulking, paints, and solvents consistent with applicable federal, State, and local regulations. These are typical substances used for construction projects. In general, small amounts of these materials would be on-site at any given time. No acutely hazardous materials would be used on-site during construction of the project. The materials handled would not pose a significant risk to off-site residents or workers. The construction contractor would be required to implement standard Best Management Practices (BMPs) regarding hazardous materials storage, handling, and disposal during construction in compliance with the State General Construction Permit to protect water quality (refer to Section 4.8, Hydrology and Water Quality).

Although construction of the project would not involve acutely hazardous materials, other hazardous materials would be stored in small amounts on-site. However, because the project would comply with federal, State, and local provisions regarding use, storage, and transport of hazardous materials, construction of the proposed ECDC would not result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous waste. In addition, construction of the proposed project would not create a significant hazard to the public or to the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and no mitigation is required.

Asbestos Containing Materials. As discussed in the Existing Environmental Settings of this section, ACMs are anticipated to be present at all buildings on the project site, regardless of age. Therefore, before performing any future demolition or renovation activities that would disturb suspect asbestos containing building materials, a comprehensive Asbestos Hazard Emergency Response Act (AHERA) type level sampling survey in accordance with OSHA and U.S. Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAPS) requirements would be required to be performed to evaluate the structures for the presence of ACMs. If suspect materials sampled are confirmed to contain asbestos, they would be remediated and/or disposed of in compliance with all applicable federal, State, and local regulations. With compliance of all applicable regulations regarding the remediation and disposal of hazardous materials, impacts related to the presence and removal of asbestos during the proposed project construction would be less than significant.

Lead Based Paint. As discussed in the Existing Environmental Settings of this section, given the age of the structures at the project site (constructed in its current layout by the 1970s), LBP should be anticipated in all buildings. Therefore, before performing any future demolition, renovation, or activities that would disturb painted surfaces, a comprehensive LBP survey would be required prior to the disturbance of painted surfaces to determine lead content. Any confirmed LBP materials that would be disturbed, causing the paint to flake or peel, must be removed and disposed of in accordance with applicable regulations, including without limitation guidelines of OSHA. With compliance of all applicable regulations regarding the remediation and disposal of hazardous materials, impacts related to the presence and removal of lead during the proposed project construction would be less than significant.

Operation. Operation of the proposed ECDC project would be similar to the current on-going operations and involve the storage and use of potentially hazardous materials, such as medical supplies; industrial cleaning agents; solvents; petroleum-based fuels for machinery; paints; and pesticides that are typically used in detention centers, including in kitchen and laundry facilities. These types of hazardous materials, when used correctly, would not result in a significant hazard to inmates or employees working within the proposed facility.

Emergency generators would be stored on-site for emergency backup power in the event of power failure. Three 1500-kilowatt (kW), 480-volt (V) diesel engine generator sets would be located on-site to provide emergency and standby power for the entire facility in the event of power failure. The generator sets would be located indoors in the Generator Room and connected to a 10,000 gallon horizontal fuel tank with a capacity of 24 hours at 100 percent load plus 15 percent for exercising/testing of units. The aboveground fuel storage tanks would require the preparation of a Spill Prevention, Control, and Countermeasure Plan (SPCC), which would be submitted to and approved by the RCDEH. Further, federal, State, and local regulations control the transport, use, storage, generation, and disposal of these types of hazardous materials to minimize potential health and environmental hazards that could occur through accidental spills or leakage.

In addition, pursuant to HSC Section 25504 and County requirements, a Business Emergency Plan (BEP) would be prepared for submittal to the Hazardous Materials Management Division of the RCDEH. In addition to identifying the hazardous materials and substances used on-site, the BEP would include directions to facilitate coordination and emergency planning with on- and off-site response officials and facilities in the event of an emergency, and would describe the equipment and training provided to ECDC personnel to detect, respond to, mitigate, and abate hazards that could occur during an accidental release.

In compliance with existing federal, State, and local regulations, the amounts of hazardous materials present during operation of the proposed ECDC project site would be limited and would not pose a significant hazard to workers, employees, inmates, or the environment. Since the project would comply with federal, State, and local provisions, there would be no significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or substances as a result of the project. In addition, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and no mitigation is required.

Hazardous Emissions or Handling of Hazardous Substances within 0.25 Mi of an Existing or Proposed School. Site A is not within 0.25 mi of an existing or proposed school. The closest existing school is Thomas Jefferson Middle School, located at 83089 Highway 111 in Indio, approximately 0.3 mi from the project site. Site B is within 0.25 mi (985 ft) of the Thomas Jefferson Middle School, but does not have any hazardous substances on the site.

The proposed project would be the replacement of the existing detention center and is expected to use and dispose of materials similar to those currently handled on the project site. Additionally, compliance of all applicable regulations regarding potential emissions or handling of hazardous substances would be obtained and implemented. Therefore, the risk of impacts from hazardous emissions or required handling of hazardous materials, substances, or waste within 0.25 mi of an existing or proposed school would be less than significant.

Impairment or Physical Interference with an Emergency Response Plan or Emergency Evacuation Plan. Direct access to the project site for emergency vehicles is provided via either

Highway 111 or Oasis Street. Both of these roads would remain open during construction and would provide adequate site access during construction. Construction activities that may temporarily restrict vehicular traffic accessing the project area along Oasis Street and Plaza Drive may be required, in coordination with the City Traffic Engineer, to implement adequate and appropriate measures to facilitate the passage of persons and vehicles through/around the construction activity.

Likewise, the proposed project would not block emergency vehicle access to the site or adjacent areas. The project is required to design, construct, and maintain structures, internal access, and facilities to comply with applicable local, regional, and/or State requirements related to emergency access and evacuation plans. The size and location of fire suppression facilities (e.g., hydrants) and fire access routes would be required to conform to City Fire and Emergency Medical Services standards. The Fire Department is coordinating with the Sheriff's Department regarding the review of the development plans to ensure adequate emergency access to the project site. As such, any project-specific limitations on emergency access will be identified as development plans are finalized.

Specific internal circulation descriptions, project-related traffic increases, and potential effects to emergency response related to traffic conditions are discussed in Section 4.12, Traffic and Circulation, of the EIR. As described in Section 4.12, traffic generated by operation of the ECDC would not result in significant traffic impacts; as such, project-related traffic would not result in delays to emergency vehicles.

As described, the proposed ECDC project would not block emergency vehicle access to the site or to the surrounding areas, and the proposed project would not impair implementation of or physically interfere with any adopted emergency response plans. Therefore, no significant impact related to emergency response would result from implementation of the proposed project.

Location on a Site that is Included on a List of Hazardous Materials Sites. As previously discussed in the Existing Environmental Settings of this section, a review of a regulatory agency database search for the property and surrounding area was performed. The records search identified, and on-site surveillance confirmed, that permitted USTs are and have been present at the project site.

On-Site Underground Storage Tanks. Stantec drilled one soil boring and soil vapor samples adjacent to each of the two USTs used for fuel to the backup generators. None of the soil or soil vapor samples collected reported concentrations of total petroleum hydrocarbons (TPH) or VOCs above laboratory reporting limits with the exception a single sampling site, which reported a TPHo (oil range) concentration of 33 milligrams per kilogram (mg/kg). The reported TPHo detection was located in the UST south of the CAC Building at a depth of 10 ft bgs. This single detection was not reported above the regulatory threshold for TPHo.

Based on this data, there does not appear to be soil or soil vapor impacts associated with the two existing USTs on the property. Therefore, impacts associated with the on-site USTs are

considered less than significant. However, they will need to be removed and disposed of pursuant to the recommended UST disposal standard requirements.

Leaking Elevator Equipment. Up to five elevators and associated equipment rooms and components within the structures were observed in the northern portion of the site. Two elevator equipment rooms were inspected in the basement of the CAC Building. Evidence of leaky motors was noted in both equipment rooms. The remaining elevator rooms, one in the courthouse building and two in the jail building, were located on the roofs of the respective elevator locations and had evidence of leaky motors, but given the separation from underlying soil were not identified as RECs to the site. The two leaky elevator components in the CAC Building basement and the moderate staining near the compressor were identified as RECs.

Collection of two soil samples, one from each elevator room, at 5 ft bgs via a hand auger was recommended. During coring activities in the western elevator room of the CAC Building basement, the soil below the elevator could not be reached by drilling because approximately 4 inches of concrete was encountered, followed by a black, rubber barrier with approximate thickness of less than 1/8 inch and 2 inches of coarse sand before encountering another layer of concrete. Given the thickness of the concrete floor, a suspected barrier, and additional concrete, it is unlikely that any staining or leaking from the elevator equipment will have reached and impacted subsurface soils in amounts to cause concern. Therefore, no significant impacts from leaking elevator equipment are anticipated to occur from the proposed project.

Riverside County Garage. As previously discussed in the Existing Environmental Settings of this section, the adjacent property, the Riverside County Garage, is listed in the record searches as a site where a contaminant release was reported. Upon further investigation, the Phase II ESA that was conducted for this site revealed that high concentrations of VOCs including benzene, toluene, ethylbenzene, and xylenes exist in soil vapor in the previous UST excavation. The soil vapor appears to have spread laterally to soil adjacent to and on a small portion of the project site, as shown on Figure 4.7-1. The detected concentrations of benzene at this location are above the CHHSLs for uses similar to the proposed project. Additionally found at this site were concentrations for PCE that are above the CHHSL for that compound. Although the contaminated soil was identified, as a component of the project implementation, compliance would be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials. Therefore, impacts related to this issue are considered to be less than significant after implementation of standard conditions/regulations related to these hazardous materials.

Potentially Significant Impacts. Because hazardous materials is overseen by federal, State, and local regulatory agencies, no potentially significant impacts to hazards and hazardous materials resulting from the proposed project have been identified, because compliance with applicable laws is mandatory.

Mitigation Measures/Standard Regulations. Although no significant project impacts related to hazardous materials were identified, the following mitigation measures are intended to ensure compliance with applicable regulations:

HM-1 Predemolition Surveys and Air Monitoring for Asbestos Containing Materials and Lead Based Paint. Prior to issuance of any demolition permits, comprehensive predemolition surveys for asbestos-containing materials (ACMs) (Asbestos Hazard Emergency Response Act [AHERA] type level sampling survey) and lead-based paint (LBP) shall be performed. All inspections, surveys, and analyses shall be performed by appropriately licensed and qualified individuals in accordance with applicable regulations (i.e., American Society for Testing and Materials [ASTM] E 1527-00, and 40 Code of Federal Regulations [CFR], Subchapter R, Toxic Substances Control Act [TSCA], Part 716). All identified ACMs and lead-containing materials shall be removed, handled, and properly disposed of by appropriately licensed contractors according to applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763).

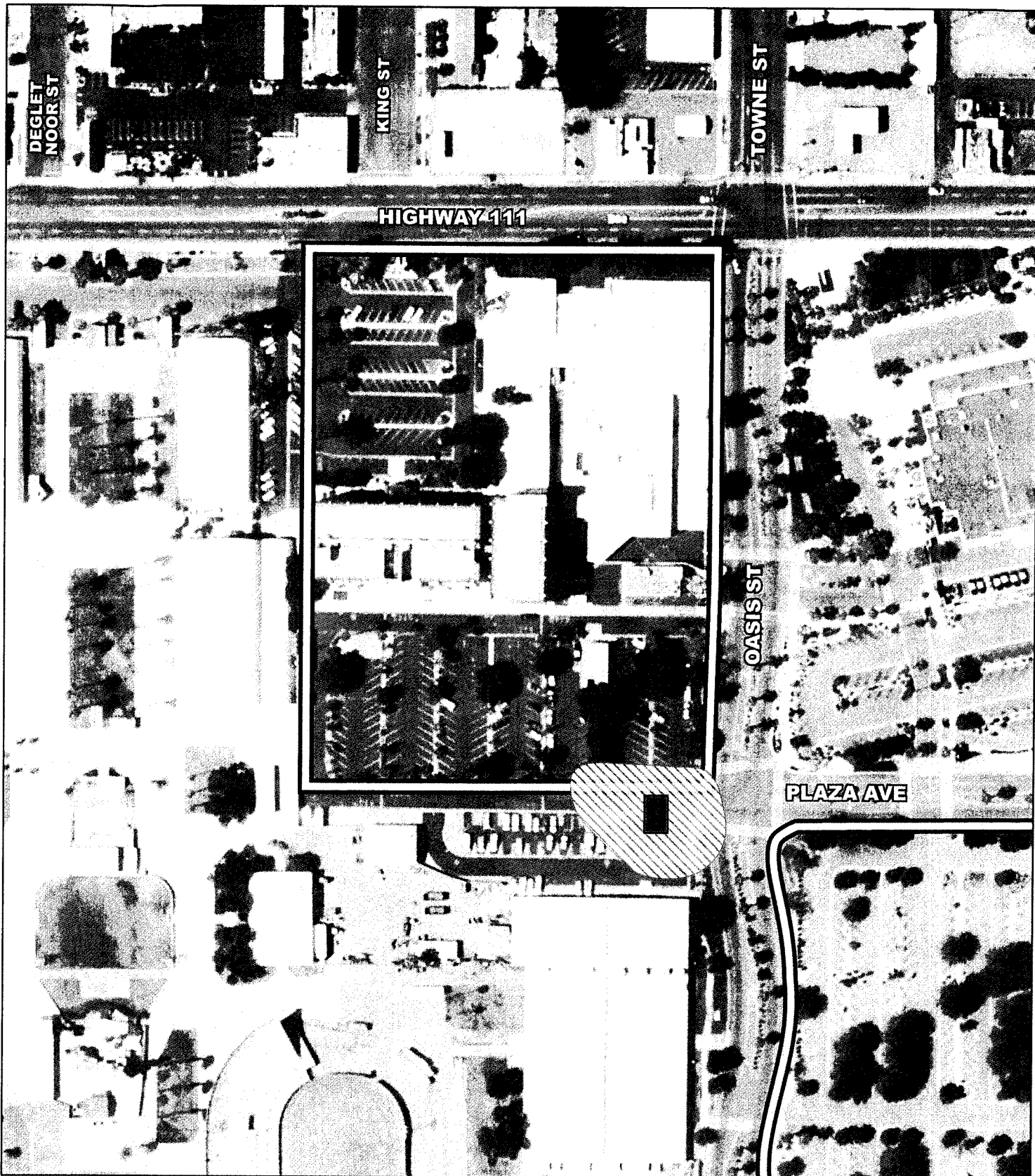
Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., South Coast Air Quality Management District [SCAQMD]) and to provide safety to workers and the adjacent community. The County of Riverside (County) shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Riverside County Department of Environmental Health (RCDEH) showing that abatement of any ACMs and lead containing materials identified in the project structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6).

HM-2 Removal of Underground Storage Tanks. The existing USTs shall be removed as a part of the demolition activities and confirmation samples must be collected and removed from the resulting excavation in accordance with the directives from the RCDEH.

HM-3 Remediation and Disposal of Hazardous Materials. Prior to issuance of any demolition permits, compliance will be obtained with all applicable regulations regarding the remediation and disposal of hazardous materials (e.g., Site Assessment and Cleanup Corrective Action Guidelines). The County shall provide documentation to the RCDEH showing that site remediation has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies).




4.7.6 Level of Significance after Mitigation

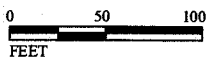
No potentially significant impacts relating to hazards and hazardous materials would result from the proposed project after compliance with the standard mitigation/regulation enumerated in HM-1 through HM-3.



LSA

LEGEND

-  - Project Area
-  - Location of former Underground Storage Tanks (USTS)
-  - Approximate Soil Vapor Impact Limit



SOURCE: Bing (c. 2010)

I:\HOK1201\G\Hazardous Soils.cdr (4/19/13)

FIGURE 4.7-1

East County Detention Center
Hazardous Soils Location Map

This page intentionally left blank

4.8 HYDROLOGY AND WATER QUALITY

This section addresses the environmental and regulatory setting of the project site and vicinity with respect to floodplains, groundwater, surface water hydrology, and water quality and analyzes potential impacts to the setting resulting from implementation of the proposed project. This section is based on the *Preliminary Water Quality Management Plan (WQMP) East County Detention Center (March 2013)*, *Water Supply Assessment (WSA) for the Riverside County East County Detention Center Expansion (Indio Jail) (April 2013)*, and technical information provided by the project engineer. Refer to Appendix G for these technical documents related to water quality.

4.8.1 Existing Environmental Setting

Regional Setting. The site is located in the central Coachella Valley in the Colorado Desert Geomorphic Province. The Coachella Valley extends southeastward from the San Geronio Pass to the Salton Sea region and is traversed by segments of the San Andreas Fault Zone. The valley in the area of the site is bounded on the southwest by the San Jacinto and Santa Rosa Mountains and on the northeast by the Indio Hills.

The area is drained primarily by the Whitewater River channel, located approximately 1.25 miles (mi) northeast of the site, which flows southeastward from the eastern flank of the San Bernardino and San Jacinto Mountains to its terminus at the Salton Sea.

The watershed is located in a desert environment characterized by high summer daytime temperatures and low precipitation. The lower Coachella Valley, which includes Indio, receives an average of 3.1 inches of rainfall per year, with most precipitation occurring during winter months and during occasional summer thunderstorms.

Topography. The property is relatively flat, but regional topography slopes gently to the east. A review of the United States Geological Survey (USGS) 7.5-minute topographic map for the Indio quadrangle shows the project site to be at an elevation of approximately 7 feet (ft) below mean sea level (bmsl). The project site is developed with several buildings, surface parking, hardscapes, and landscaping.

Groundwater. The Coachella Valley, although located in one of the driest regions of the country, has a substantial subsurface groundwater basin. The aquifer has accumulated over millions of years due to water runoff from surrounding mountains and the geology of the valley. The Coachella Valley Groundwater Basin, as estimated by the Department of Water Resources (DWR), has a storage capacity of approximately 39 million acre-feet of water.¹

Groundwater inflows within the Coachella Valley Groundwater Basin include natural recharge from local mountain runoff, artificial recharge with Colorado River water, inflows from surrounding groundwater basins, and non-consumptive return flows from urban and agricultural drainage.

¹ Coachella Valley Integrated Regional Water Management Plan”, prepared by Coachella Valley Regional Water Management Group, December 2010.

Outflows include groundwater pumping, evapotranspiration, flows to the Salton Sea, and subsurface outflows to adjacent groundwater basins.

The Indio Water Authority (IWA) is a public agency, specifically a Joint Powers Authority, wholly owned by the City of Indio (City) and the Indio Housing Authority (formerly the Indio Redevelopment Agency), and is responsible for delivering water to residents of the City of Indio for all municipal water programs and services. IWA's service area comprises the City of Indio, which encompasses approximately 38 square miles (sq mi) with a sphere of influence that extends approximately 22 sq mi north of Interstate 10 (I-10).¹

The sole source of water supply for IWA is groundwater from the Whitewater River Subbasin² of the Coachella Valley Groundwater Basin³. The proposed project lies entirely within the surface boundaries of the Whitewater River Subbasin, and would be supplied by groundwater therefrom.

Coachella Valley Groundwater Basin. The Coachella Valley Groundwater Basin extends from the west end of the San Gorgonio Pass at the Santa Ana River System/Whitewater River System Watershed divide to the Salton Sea on the southeast. It includes 690 sq mi bounded by the aforementioned watershed divide on the west, the San Bernardino Mountains on the north, the Santa Rosa Mountains on the south, and the San Jacinto Mountains on the southwest.⁴

According to the United States Geological Survey (USGS),⁵ the Indio Subbasin is actually two separate Subbasins: Garnet Hill and Whitewater River. The Garnet Hill Subbasin is confined to the upper portion of the Coachella Valley Groundwater Basin, whereas the Whitewater River Subbasin extends into the lower portion of the Coachella Valley Groundwater Basin. These subbasins are bounded by faults and other geologic features, and the individual storage units within the subbasin are also bounded by various geologic features.

The San Andreas Fault drives a complex pattern of branching faults that define the boundaries of the groundwater basins and subbasins in the region. The San Gorgonio Pass and Whitewater River Subbasins are separated by a buried bedrock ridge projecting northward from the flank of Mount San Jacinto at Fingal Point. The Garnet Hill and Whitewater River Subbasins are divided by the Garnet Hill Fault, a branch of the Banning Fault.

Generally, groundwater flows easterly through the San Gorgonio Pass Subbasin to the Whitewater River Subbasin. Also, groundwater flows from the Desert Hot Springs Subbasin to and through the Mission Creek Subbasin, to and through the Garnet Hill Subbasin, and then to the

¹ Indio Water Authority (IWA), *2010 Urban Water Management Plan*, prepared by Black & Veatch, September 2011.

² United States Department of the Interior, USGS, Water Resources Division, *Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared in cooperation with the Desert Water Agency and the Coachella Valley Water District, prepared by Tyley, Stephen J., 1971.

³ California Department of Water Resources (DWR), *Coachella Valley Investigation, Bulletin 108*, 1964.

⁴ Ibid.

⁵ United States Department of the Interior, USGS, *Water Supply Paper 2027, Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared by Tyley, Stephen J., 1974.

Whitewater River Subbasin.^{1,2,3,4} The San Gorgonio, Mission Creek, and Whitewater River Subbasins have been significantly developed for water supply purposes.

Whitewater River Subbasin. The Whitewater River Subbasin is bounded on the north by the San Bernardino Mountains and Little San Bernardino Mountains, on the south by the San Jacinto Mountains and Santa Rosa Mountains, on the west by the Whitewater River Watershed divide, and on the east by the Salton Sea^{5,6}. The Whitewater River Subbasin encompasses the majority of the Coachella Valley Groundwater Basin (approximately 400 sq mi).

The groundwater supply comes from natural and imported water sources. The natural water sources include underflow from the San Gorgonio River at the northwest end of the subbasin, the Whitewater River, Snow Creek, Falls Creek, Chino Creek, Tahquitz Creek, Andreas Creek, Palm Canyon, and Deep Creek, as well as underflow from the Garnet Hill Subbasin.

The imported water source consists of Colorado River water provided jointly by Coachella Valley Water District (CVWD) and DWA, which is exchanged for State Water Project (SWP) water and recharged to the Whitewater Spreading Basin near Windy Point and Highway 111. Since there are no SWP facilities available to deliver SWP water to the Coachella Valley, CVWD and DWA have been exchanging their SWP allocations (formerly entitlements) for Colorado River water from the Colorado River Aqueduct to replenish groundwater in the Whitewater River Subbasin pursuant to an exchange agreement with The Metropolitan Water District of Southern California (MWD).

IWA, which relies exclusively on groundwater to meet water demands, currently operates 20 wells in the Whitewater River Subbasin. The total pumping capacity of all 20 wells is approximately 69 million gallons per day. IWA has seven storage reservoirs with a total capacity of 19 million gallons for water storage. In addition, the IWA distribution system includes four pressure zones, six pumping plants and 350 mi of water supply and distribution pipelines ranging in diameter from 2 to 24 inches.⁷ IWA tests the quality of water from each of its wells and has consistently met all drinking water standards.

IWA's historic groundwater extractions from the Whitewater River Subbasin for the past 8 years (2005–2012) are shown in Table 4.8.A below.

¹ California DWR, *Coachella Valley Investigation, Bulletin 108*, 1964.

² United States Department of the Interior, USGS, *Water Supply Paper 2027, Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared by Tyley, Stephen J., 1974.

³ United States Department of the Interior, USGS, *Water Resources Investigation 77-29, Predicted Water-Level and Water-Quality Effects of Artificial Recharge in the Upper Coachella Valley, California, Using a Finite-Element Digital Model*, prepared in cooperation with the Desert Water Agency and the Coachella Valley Water District, prepared by Swain, Lindsay A., 1978.

⁴ United States Department of the Interior, USGS, *Water Resources Investigation 91-4142: Evaluation of a Ground-Water Flow and Transport Model of the Upper Coachella Valley, California*, 1992.

⁵ California DWR, *Coachella Valley Investigation, Bulletin 108*, 1964.

⁶ California DWR, *California's Groundwater, Bulletin 118, Update 2003*, October 2003.

⁷ Coachella Valley Integrated Regional Water Management Plan," prepared by Coachella Valley Regional Water Management Group, December 2010.

**Table 4.8.A: IWA Whitewater River Subbasin
Historic Groundwater Extractions (af/yr)**

Year	af/yr
2005	20,827
2006	24,446
2007	23,233
2008	23,647
2009	22,363
2010	21,492
2011	22,167
2012	22,170

Source: Krieger & Stewart, Inc., *Water Supply Assessment for Riverside County East County Detention Center Expansion (Indio Jail)*, April 2013.

af/yr = acre-feet per year

IWA = Indio Water Authority

IWA serves the existing jail facilities and other uses on the project site through its local public (municipal) water system in accordance with its applicable rules and regulations, including applicable IWA, City of Indio, and State landscaping guidelines. The water supply for IWA is from groundwater extracted from the local aquifer using off-site water production wells for delivery through its public (municipal) water system.

Existing Drainage and Surface Water Quality. The existing flow of storm water runoff at Site A flows from the northwest to the southeast. All of the storm water is discharged either through surface flow across the property line or curb drains on the south side of the jail facility on Oasis Street. The existing flow of storm water runoff at Site B flows from north to southwest. All of the storm water runoff is discharged either through surface flow across the property or to catch basins on the south side of the existing parking lot. It then flows to the retention basin across Oasis Street.

Local drainage facilities throughout Indio are maintained by the City of Indio Public Service Department, while regional facilities are maintained by the CVWD. The City of Indio's Public Services department is responsible for the management of drainage in the vicinity of the ECDC project site. The City's local drainage system includes various storm drain facilities, including 20 inch to 100-inch pipes, which convey drainage into larger regional facilities, such as the Coachella Valley Stormwater Channel.¹

Flooding. According to the Flood Insurance Rate Map (FIRM) from the Federal Emergency Management Agency (FEMA), the project site is located in Zone X, "Areas Determined to Be Outside the 0.2 percent Annual Chance Floodplain."² The 0.2 percent annual chance floodplain is the 500-year floodplain. The site is located outside the 100-year flood zone.

¹ Flood Control/Drainage," Indio General Plan 2020, Volume II, prepared by Chambers Group, Inc., October 1993.

² FEMA Flood Insurance Rate Map No. 06065C2253G, August 28, 2008.

4.8.2 Regulatory Setting

National Flood Insurance Act. The National Flood Insurance Act established the National Flood Insurance Program, which is based on the minimum requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas.

Water Quality.

Clean Water Act. In 1972, the Federal Water Pollution Control Act (later referred to as the CWA) was amended to require that the discharge of pollutants into waters of the United States (U.S.) from any point source be effectively prohibited unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, the CWA was again amended to require that the Environmental Protection Agency (EPA) establish regulations for the permitting of storm water discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that a Municipal Separate Storm Sewer System (MS4) that discharges to surface waters be regulated by an NPDES permit.

The CWA requires states to adopt water quality standards for water bodies and have those standards approved by the EPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, fishing), along with the water quality criteria necessary to support those uses. Water quality criteria are set concentrations or levels of constituents (such as lead, suspended sediment, and fecal coliform bacteria), or narrative statements that represent the quality of water that supports a particular use. Because California had not established a complete list of acceptable water quality criteria for toxic pollutants, EPA Region IX established numeric water quality criteria for toxic constituents in the form of the California Toxics Rule (CTR).

When the designated beneficial uses of a particular water body are being compromised by poor water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a "factor of safety" included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the requirements of TMDL implementation are allocated among current and future dischargers into the water body.

Clean Water Act, Section 303, List of Water Quality Limited Segments. On November 12, 2010, the EPA approved California's 2008-2010 Section 303(d) List of Impaired Waters and disapproved the omission of several water bodies and associated pollutants that meet federal listing requirements. On October 11, 2011, USEPA issued its final decision regarding the waters USEPA added to the State's 303(d) list. The final list of water bodies that USEPA is adding to California's list of water quality limited segments still requiring a TMDL

includes all the water bodies and associated pollutants identified in USEPA's November 12, 2010, letter. Whitewater River was not on the list of waters added to the 2008-10 303(d) list.

Clean Water Act, Section 402, National Pollutant Discharge Elimination System. Direct discharges of pollutants into waters of the United States are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA.

General Construction Permit. On September 2, 2009, the State Water Resources Control Board (SWRCB) adopted the NPDES General Permit for Storm Water Discharges Associated Construction and Land Disturbance Activities (General Construction Permit); Order 2009-0009-DWQ; NPDES No. CAS000002 (effective July 1, 2010, and expires September 2014). In accordance with NPDES regulations, the State of California requires that any construction activity disturbing 1 ac or more of soil comply with the General Construction Permit. To obtain authorization for proposed storm water discharges pursuant to this permit, the County of Riverside (County) (discharger) is required to submit a Notice of Intent (NOI) to the Colorado River Basin Regional Water Quality Control Board (RWQCB), prepare a Storm Water Pollution Prevention Plan (SWPPP), and implement Best Management Practices (BMPs) detailed in the SWPPP during construction activities. Dischargers are required to implement BMPs meeting the technological standards of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate storm water pollution. BMPs include programs, technologies, processes, practices, and devices that control, prevent, or remove or reduce pollution. Permittees must also maintain BMPs and conduct inspection and sampling programs as required by the permit. Dischargers are also required to comply with applicable monitoring and reporting requirements to ensure that discharges comply with the numeric action levels and numeric effluent limitations specified in the permit.

Municipal Separate Storm Sewer System Permit. The County is a co-permittee under the Riverside County Municipal NPDES Permit for the Whitewater River Watershed Storm Water Discharges, Order No. R7-2008-0001 (NPDES No. CAS617002). To implement the requirements of the MS4 Permit, the co-permittees developed a Storm Water Management Plan (SWMP) that includes a Model New Development and Redevelopment Program (Model Program). This Model Program provides a framework and a process for following the MS4 Permit requirements to incorporate watershed protection/storm water quality management principles into the co-permittees' General Plan process, environmental review process, and development permit approval process.

Per the requirements of the SWMP and the MS4 Permit, a Preliminary WQMP was prepared for the proposed project and is included as Appendix G. WQMPs for new development and significant redevelopment projects that fall under specific priority project categories must include Site Design and Source Control BMPs. Site-specific Treatment Control BMPs must be included for priority projects unless the project is specifically exempted or the project is participating in an acceptable regional or watershed Treatment Control Program. The priority

project categories are those determined by the RWQCB to have the greatest potential to impact receiving waters with polluted runoff.

One of the requirements for WQMPs is that all priority new development and significant redevelopment projects must develop and implement a WQMP that includes the following:

- Consideration of Source Control BMPs (as appropriate)
- Structural and nonstructural Site Design BMPs (as appropriate)
- Treatment Control BMPs (site-specific or regional, if applicable)

Collectively, the proposed project's Site Design, Source Control, and Treatment Control BMPs are required to address the pollutants of concern and hydrologic conditions of concern identified for the proposed project.

California Porter-Cologne Act. The federal CWA places the primary responsibility for the control of water pollution and for planning the development and use of water resources within the states, although it does establish certain guidelines for the states to follow in developing their programs.

California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants SWRCB and the RWQCBs broad powers to protect water quality and is the primary vehicle for implementation of California's responsibility under the federal CWA. The Porter-Cologne Act grants SWRCB and the RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product.

Each RWQCB must formulate and adopt a water quality plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Water Quality Control Plan, Colorado River Basin. The Colorado River RWQCB has adopted a Basin Plan for its region of responsibility, which includes the County of Riverside. The Colorado River RWQCB has delineated water resource area boundaries based on hydrological features. For the purposes of achieving and maintaining water quality protection, specific beneficial uses have been identified for each of the hydrologic areas described in the Basin Plan. The Basin Plan also establishes implementation programs to achieve water quality objectives to protect beneficial uses and requires monitoring to evaluate the effectiveness of the programs. These objectives must comply with the State antidegradation

policy (State Board Resolution No. 68-16), which is designed to maintain high-quality waters while allowing some flexibility if beneficial uses are not unreasonably affected.

City of Indio General Plan Policies. The City's General Plan and zoning do not apply to the project because they are pre-empted by State law on property owned or leased by the County.¹ However, the following analysis was completed to show that the project is generally in compliance with the City's General Plan Goals and Policies Report, Environmental Resources Chapter. The following policies, which address hydrology and water quality, are found in the Infrastructure/Public Services Sub-Element of the Land Use Element and the Water Resources Sub-Element of the Environmental Resources Element of the 2020 Indio General Plan.² They are intended to ensure protection of surface water resources as well as protecting the public and property from storm water damage. The following are the most significant of these policies that address hydrology, water supply, and water quality:

- SD-1.1 The City shall provide storm drain facilities with sufficient capacity to protect the public and property from storm water damage.
- SD-1.2 The City shall assure that adequate funding is available to improve existing and construct new storm drain facilities.
- SD-1.3 The City shall manage flood control facilities in accordance with local, State, and federal guidelines.
- DW-1.1 The City shall provide an adequate supply of domestic water needed to meet current City demand and future developments.
- DW-1.3 The City shall require that water conservation measures be implemented into all construction projects.
- DW-1.4 The City shall encourage the use of reclaimed water.
- WR-1.1 The City shall ensure that development projects do not degrade surface waters and ground water basins.
- WR-2.1 The City shall ensure that water conservation measures are implemented in all development projects.
- WR-2.2 The City will work with all providing agencies and developers to ensure that reclaimed water is made available and is used in the Planning Area.

¹ California Government Code Sections 53090 through 53091, *Sunny Slope Water Co. v. City of Pasadena*, Cal 2d 87,98 (1934).

² City of Indio General Plan-2020", prepared by Chambers Group, Inc., October 1993.

4.8.3 Methodology

Project impacts to hydrology and water quality were evaluated based on the proposed project's adherence to local, State, and federal standards; proposed land use; design; and proposed BMPs for control of surface runoff and reduction of pollutants in runoff.

4.8.4 Thresholds of Significance

The California Environmental Quality Act (CEQA) Guidelines define "significant effect on the environment" as a "substantial or potentially substantial adverse change in the environment." The CEQA Guidelines further indicate that there may be significant impacts to hydrology and water quality if the proposed project is determined to:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a new deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or volume of surface runoff in a manner that would result in flooding on- or off-site;
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place structures that would impede or redirect flood flows within a 100-year flood hazard area; or
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.

Project Features. The proposed project plans include a comprehensive surface drainage/storm drain system to collect and convey runoff to appropriate areas of the project site. Runoff conveyance is defined as a method of safely storing storm water to a BMP and promoting infiltration or filtering of the runoff. Discharging describes the different types of ways the storm water runoff is being released from the project site. The grading for the new detention facility is designed to slope toward these BMPs. The existing on-site drainage system that conveys and discharges runoff from Sites A and B would include surface drainage and bioswales that infiltrate to the subgrade where underground pipes ultimately discharge the runoff into a subsurface retention basin with an overflow to the existing storm drain system. However, site-specific BMPs for the proposed project have not yet been defined, since building, landscaping, and hardscaping features have not yet been finalized. Additionally, other

site-specific constraints could influence the exact type and location of storm water management features that are incorporated into the project design. However, a site-specific SWPPP would be prepared and implemented prior to the commencement of the project construction phase. BMPs could include, but not be limited to, erosion control, sediment control, and the management of trash, debris, and other non-storm water discharges.

Treatment control BMPs would also be implemented during the operational life of the project, in compliance with County SWMP requirements. Drainage and conveyance plans for Sites A and B are shown in Figures 4.8-1 and 4.8-2, respectively.

4.8.5 Impacts and Mitigation Measures

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and are considered less than significant.

General Plan Policy Consistency Analysis. As provided in Section 4.8.4 above, the City's General Plan includes policies related to hydrology and water quality in the area found in the Infrastructure/Public Services Sub-Element of the Land Use Element and the Water Resources Sub-Element of the Environmental Resources Element of the 2020 Indio General Plan. The proposed project is generally being designed to be in conformance with drainage, water supply, water quality, and all other design guidelines even though the County property is not required to comply with these policies. Therefore, the project would not result in conflicts or inconsistencies with the policies of the City of Indio General Plan, and impacts related to this issue are considered to be less than significant.

Groundwater Supply/Recharge. Water supply for the project would be derived entirely from groundwater provided by IWA. The groundwater wells are located throughout IWA's service area and connected to a single distribution system. IWA would serve the proposed project with groundwater extracted from the Whitewater River Subbasin of the Coachella Valley Groundwater Basin.

The detention center would accommodate up to 1,626 inmates with corresponding increases in services and facilities. Water demand for the proposed project is estimated to increase from 81 af/yr to 258 af/yr, a 310 percent increase in annual demand. The increase in demand resulting from project implementation would be approximately 0.4 percent of IWA's total water demand through 2030, which is less than 0.1 percent of the total estimated gross groundwater production in the Whitewater River Subbasin through 2030. This is considerably less than that of a typical 500-unit housing development. The water supply would not take directly from groundwater, but would be provided through IWA.

Based on current regional water supply information, groundwater would be available from storage, as needed, augmented by natural and artificial replenishment, to supply the project as well as others within its service area for at least the next 20 to 30 years. Groundwater levels are likely to continue to gradually decline in portions of the Whitewater River Subbasin, with or without the proposed project, until the Coachella Valley area experiences a period of weather

cycles that provide an increase in rainfall and winter snowpack runoff from the local mountain ranges. Due to the collective efforts of all the major water purveyors in the Coachella Valley for groundwater management planning through the 2010 Urban Water Management Plan (UWMPs), the Coachella Valley Integrated Regional Water Management Plan, and the implemented groundwater replenishment programs, there is currently a sufficient supply of groundwater in storage so that extractors, including IWA, which would provide water for the Project, can depend solely on groundwater in storage for their water supplies for the next 20 to 30 years (the time horizon for the WSA).

Drainage. The existing flow of storm water runoff at the jail facility flows from the northwest to the southeast. All of the storm water is discharged either through surface flow across the property line or curb drains on the south side of the jail facility on Oasis Street. The changes in pervious and impervious surface on the project site are shown in Tables 4.8.B and 4.8.C below.

Table 4.8.B: East County Detention Center Pervious/Impervious Areas (Site A)

Site Condition	Pervious Area (acres)	Impervious Area (acres)	% Pervious	% Impervious
Existing	0.83	5.82	12.5	87.5
Proposed	1.03	5.62	15.4	84.6
Change	0.2	-0.2	2.9	-2.9

Source: Preliminary Water Quality Management Plan (WQMP), VCA Engineers, March 2013.

Table 4.8.C: Parking Structure Pervious/Impervious Areas (Site B)

Site Condition	Pervious Area (acres)	Impervious Area (acres)	% Pervious	% Impervious
Existing	1.08	3.42	24	76
Proposed	0.38	4.12	8.44	91.56
Change	-0.7	0.7	-15.56	15.56

Source: Preliminary Water Quality Management Plan (WQMP), VCA Engineers, March 2013.

As shown in the tables above, Site A would have a decrease in impervious surfaces, while Site B would have a 15.56 percent increase in impervious surfaces from the development of the proposed parking structure.

According to the WQMP, the design flow rates for the existing Sites A and B are 1.2 cubic feet per second (cfs) and 0.7 cfs, respectively. The proposed project would result in 1.2 cfs for Site A, a 0.5 cfs increase, and would not represent a substantial change. When constructed, Site B would have a flow rate of 0.8 cfs and would result in an increase in 0.1 cfs. Despite the increase in pervious surfaces, the increase in flow rate would be nominal and, therefore, would result in drainage impacts that would be considered less than significant.

Water Quality During Construction. The potential impacts of construction activities on water quality focus primarily on sediments, turbidity, and pollutants that might be associated with sediments (e.g., phosphorus and legacy pesticides). Construction-related activities that are primarily responsible for sediment releases are related to exposing soils to potential mobilization by rainfall/runoff and wind. Such activities include removal of vegetation, site grading, and construction of the proposed structures. Environmental factors that affect erosion include topographic, soil, and rainfall characteristics. Nonsediment-related pollutants that are also of concern during construction include waste construction materials; chemicals, liquid products, and petroleum products used in construction or the maintenance of heavy equipment; and concrete-related waste streams.

During construction activities, excavated soil would be exposed, and there would be an increased potential for soil erosion compared to existing conditions. Additionally, during a storm event, soil erosion could occur at an accelerated rate. These impacts would be potentially significant and adverse. However, as required by the General Construction Permit, a SWPPP would be required to be prepared and implemented to reduce these impacts to less than significant levels.

The General Construction Permit requires that the SWPPP identify, construct, implement in accordance with a time schedule, and maintain BMPs to reduce or eliminate pollutants in storm water discharges and authorized nonstorm water discharges from the construction site during construction. The SWPPP will be developed as required by, and in compliance with, the General Construction Permit. Erosion Control BMPs are designed to prevent erosion, whereas Sediment Control BMPs are designed to trap sediment once it has been mobilized. The General Construction Permit requires the SWPPP to include a menu of BMPs to be selected and implemented to address erosion and sediment control. The BMPs are based on the phase of construction and the weather conditions. BMPs on this menu are expected to address mostly erosion control of exposed soils, including the following, but not limited to:

- Revegetation of landscaped areas (as required, and as compatible with Leadership in Energy and Environmental Design [LEED] specifications);
- Hydroseeding, mulching, or other erosion controls, or soil adhesive or covering for inactive exposed areas (as compatible with LEED specifications regarding water conservation);
- Sediment controls such as check dams, desilting basins, fiber rolls, and silt fencing;
- Catch basin inlet protection;
- Construction materials management; and
- Cover and containment of construction materials and wastes.

The SWPPP will address site-specific conditions related to project construction. This includes the identification of the sources of sediment and other pollutants that may affect the quality of storm water discharges, and the implementation and maintenance of BMPs to reduce or eliminate sediment, pollutants adhering to sediment, and other nonsediment pollutants in storm water as well as nonstorm water discharges.

Therefore, with compliance with the requirements of the General Construction Permit through the preparation of a SWPPP, potential construction impacts related to drainage patterns and erosion will be reduced to below a level of significance.

Water Quality During Operation. Several pollutants are commonly associated with storm water runoff, including sediment, nutrients, bacteria, oxygen-demanding substances, petroleum products, heavy metals, toxic chemicals, and floatables. However, the proposed project would be replacing and expanding the existing jail that would also implement similar operations. Additionally, the proposed project includes a comprehensive surface drainage/storm drain system to collect and convey runoff through vegetated swales and into on-site retention basins. Vegetated swales are proposed to be placed in strategic locations on the site, and will serve as collection areas for much of the runoff from the internal roads, building rooftops, and parking lot. The retention basins will retain and slowly release the design volume of storm water runoff, allowing particles and associated pollutants to settle out prior to off-site discharge.

The project would incorporate Source Control, Site Design, and Treatment Control BMPs to reduce the discharge of pollutants of concern to the maximum extent practicable. Site Design BMPs are BMPs that reduce runoff or pollutants at the source through intentional use of landforms and materials. Source Control BMPs are measures that focus on reducing or eliminating runoff and controlling sources of pollutants during operation of the project. Treatment BMPs utilize treatment mechanisms to remove pollutants that have entered storm water runoff. In addition, project features have been included in the site design to reduce runoff and provide treatment of storm water runoff from the project site. The goal is to mimic the site's existing hydrology by using design measures that capture, filter, store, evaporate, detain, and infiltrate runoff, rather than allow runoff to flow directly to piped or impervious systems. The overall BMP strategy is to: (1) reduce post project runoff; (2) control sources of pollutants; (3) retain storm water runoff on-site through infiltration, evapotranspiration, or reuse; and (4) treat storm water runoff before discharging it to the storm drain system or to receiving waters.

The final design of the BMPs may change slightly from the concepts described above; however, the overall function and results would remain fundamentally the same. Any alterations, should they be made, would improve upon the water treatment strategy. With implementation of the WQMP and any associated Treatment BMPs, impacts from the proposed development site to surface water quality, runoff, storm water drainage systems, and beneficial uses will be reduced to a less than significant level.

Flood Hazards. As stated above, the project site is located outside the 100-year floodplain; therefore, no impacts related to a 100-year flood hazard area will occur at this location. Minor drainage systems will be sized to accommodate a 10-year storm event while major drainage systems will be designed to accommodate a 100-year storm event. The on-site drainage system that conveys and discharges runoff from the site includes surface drainage and bioswales that infiltrate to the subgrade where underground pipes ultimately discharge the runoff into a subsurface retention basin with an overflow to the existing storm drain system. The project site and off-site infrastructure developments are not located in the vicinity of any large bodies of water, in the vicinity of the Pacific Ocean, or in a hillside or landslide area and the project site is

not in an inundation zone. Therefore, no habitable structure will be constructed in the 100-year floodplain, no structures will impede or redirect 100-year flows, and there will not be a significant risk of loss, injury, or death involving flooding. In summary, there are no potential impacts related to a 100-year flood hazard area.

Potentially Significant Impacts. No potentially significant impacts to hydrology and water quality resulting from the proposed project have been identified.

Mitigation Measures/Standard Regulations. Although no significant project impacts related to hydrology and water quality were identified, the following mitigation measures would be implemented to ensure compliance with applicable regulations:

WQ-1 Construction Phase Storm Water Pollution Prevention Plan. Prior to construction, the County of Riverside (County) shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that complies with the General Construction Permit and 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 nonstorm water at levels that 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, nonsediment pollutants, and potential pollutants in nonstorm water discharges.
- d. Describe postconstruction BMPs for the project.
- e. Explain the maintenance program for the project BMPs.
- f. During construction, require reporting of violations to the Regional Water Quality Control Board (RWQCB).
- 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 General Construction Permit.

WQ-2 Water Quality Management Plan. Prior to final design, the County shall prepare a WQMP. The WQMP shall identify the BMPs that will be used on-site to control predictable pollutant runoff.

More specifically, the WQMP shall, in accordance with the SWMP, do the following:

- a. Describe the Site Design, Source Control, and Treatment BMPs to be used at the proposed development site (including both structural and nonstructural measures);

- b. Describe responsibility for the initial implementation and long-term maintenance of the BMPs; and
- c. Provide narrative with the graphic materials as necessary to specify the locations of the structural BMPs.

4.8.6 Level of Significance after Mitigation

As discussed above, hydrology and water quality impacts would be less than significant with compliance with existing plans, programs, and policies; implementation of project design features; and implementation of Mitigation Measures WQ-1 and WQ-2.

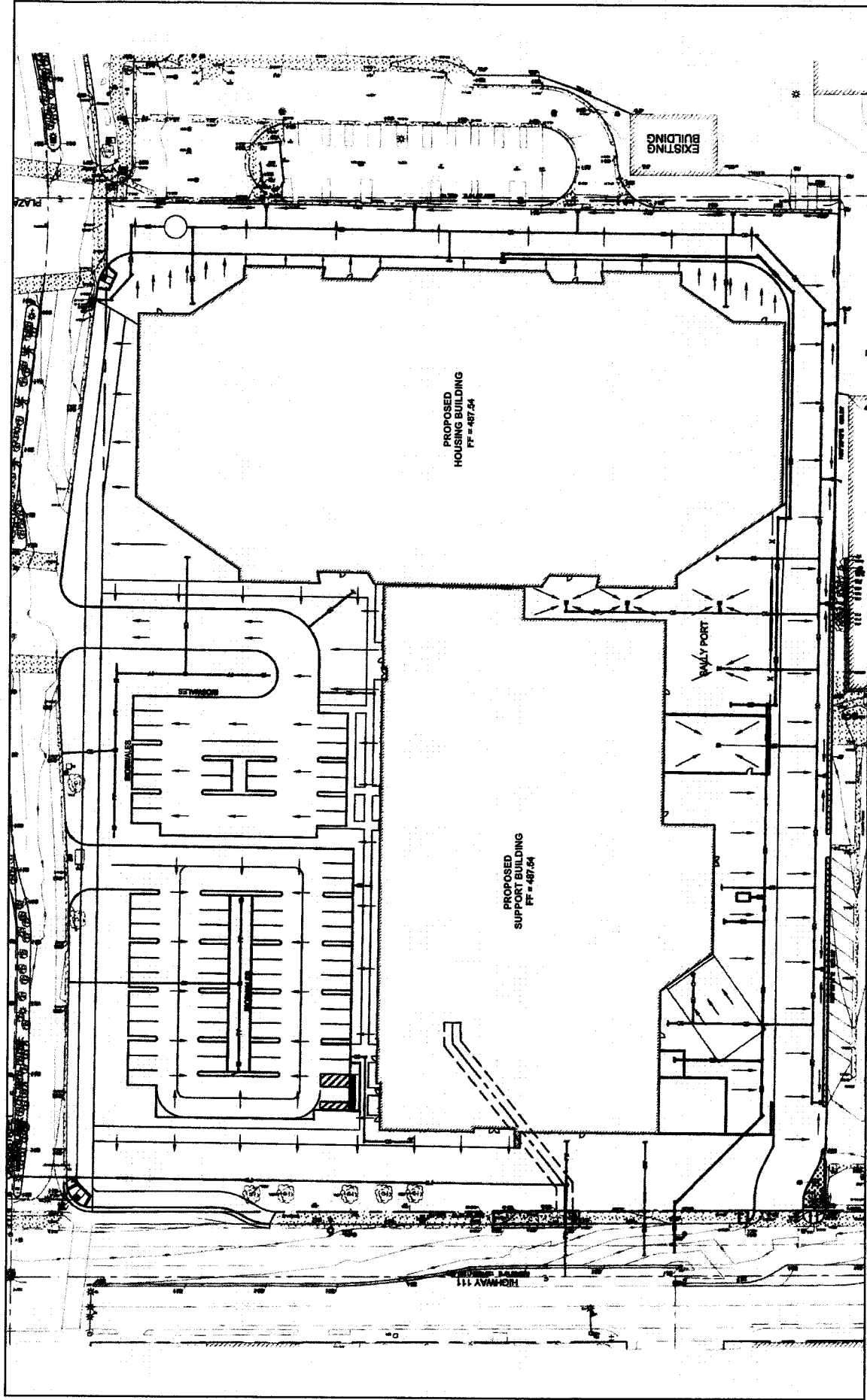


FIGURE 4.8-1

LEGEND

- STORM DRAIN LINE (SD)
- SANITARY SEWER LINE (SS)
- DOMESTIC WATER LINE (DW)
- FIRE WATER LINE (FW)
- PERFORATED PIPE (PP)
- FLOW PATTERN



East County Detention Center
 Site A - Drainage and Storm Drain System

SOURCE: HOK, Feb 2013

I:\HOK\1201\G\Site A Drainage.cdr (4/15/13)

This page intentionally left blank

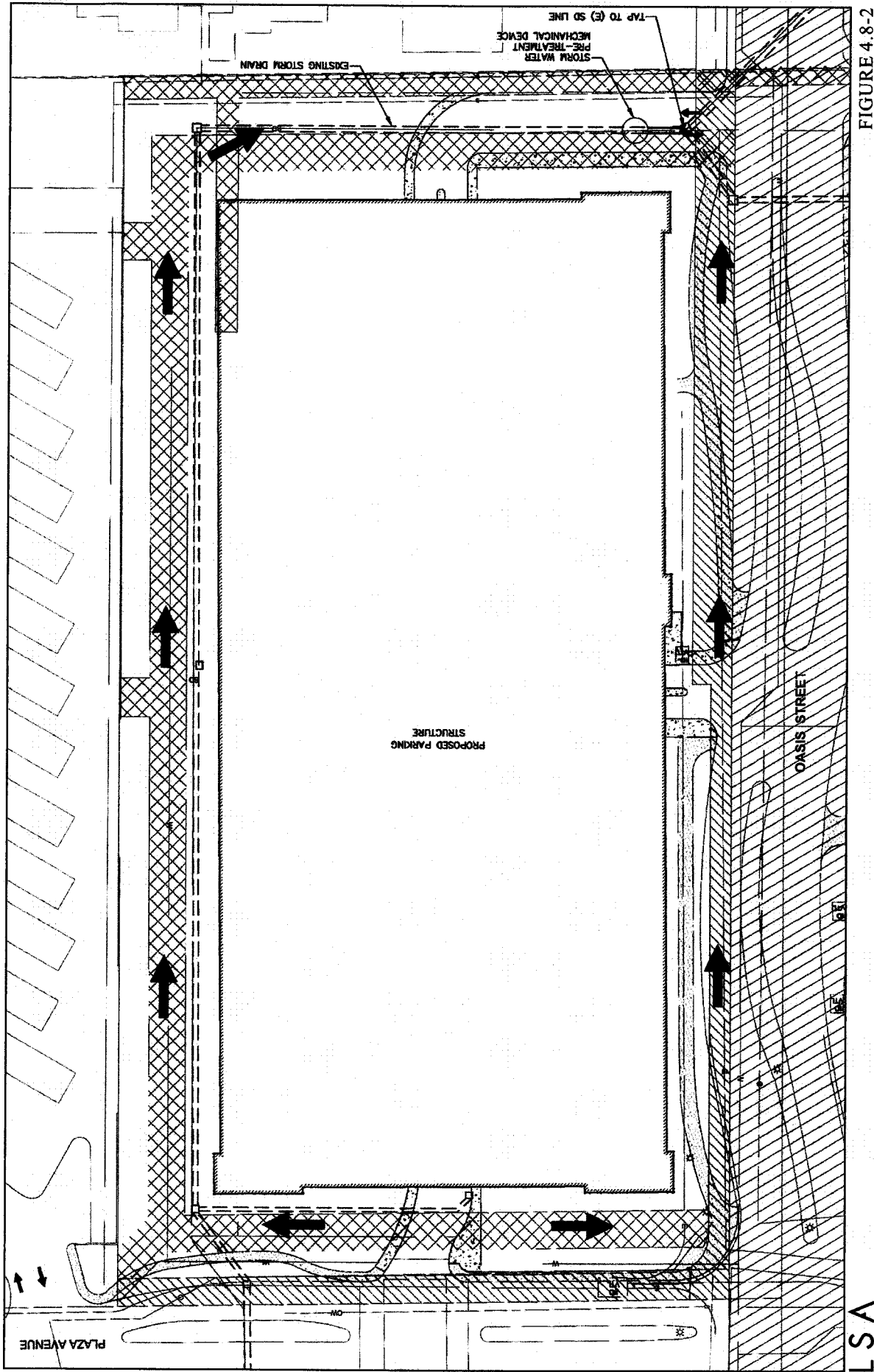


FIGURE 4.8-2

This page intentionally left blank

4.9 LAND USE AND PLANNING

This section describes the existing land uses on the project site and in the vicinity and evaluates the compatibility of the proposed project with surrounding land uses and relevant policies and regulations.

4.9.1 Existing Environmental Setting

Project Location. The project site is located at 46057 Oasis Street in the City of Indio (City), at the intersection of Highway 111 and Oasis Street. The project site is accessed from Highway 111, and regional access is provided via Interstate 10 (I-10) and is central in the City, just immediately south of the Old Town Indio Specific Plan Area. Refer to Figure 3-1 for the project vicinity and location map.

Site Description. The proposed ECDC project includes two sites, Site A, the existing 7.5-acre (ac) civic building site housing the jail, the County Administrative Center (CAC) Building, the Law Library building, the courts, and accompanying surface parking lots; and Site B, the 5.5 ac surface parking lot located across from the jail site diagonally southeast across Oasis Street and immediately south of the Larson Justice Center courthouse. There are 10 existing structures/uses on the two sites, which are described in Table 3.A of the Project Description (Section 3) and shown in Figures 3-3 through 3-8. The project site has a City of Indio General Plan land use designation of Public (P) and a zoning designation of Public (P), as shown on Figures 4.9-1 and 4.9-2.

Adjacent Land Uses. The project site is near the downtown area of Indio on the south side of Highway 111 in an area that comprises various government buildings, residential neighborhoods, a mobile home park, commercial buildings, and a regional fairgrounds/event space.

To the north of Site A are Highway 111 (a major thoroughfare), a vacant lot, and one-story aging commercial structures. To the east is the Larson Justice Center courthouse and to the south and west of the project site is the County of Riverside (County) Fairgrounds. To the east and south of Site B are a mobile home community and single-family residential area, respectively. With the courthouse to the east and the fairgrounds to west and south, the existing jail and other government buildings are adjacent to two similar types of uses (Public/Civic), thereby creating what can be considered a small public use/civic district.

Refer to Figure 3-2 in the Project Description for the aerial photograph of the existing site and identification of the two sites of the proposed ECDC project. Additionally, Section 4.1, Aesthetics, provides photographs and views of some of the existing land uses surrounding the project site.

4.9.2 Regulatory Setting

City of Indio General Plan 2020. The City's General Plan and zoning do not apply to the project because they are pre-empted by State law on property owned or leased by the County.¹ However, the

¹ California Government Code Sections 53090 through 53091, *Sunny Slope Water Co. v. City of Pasadena*, Cal 2d 87,98 (1934).

following analysis was completed to show that the project is generally in compliance with the City's General Plan Goals. As with most public/civic buildings, only general parameters are stated within any given general plan or zoning to allow the maximum flexibility for the wide variety of uses that public/civic buildings typically house.

Land Use Designation. The ECDC project site has been designated as a Public (P) land use. Under this designation, a variety of public and quasi-public facilities which support the community and are operated by government agencies, utility providers, or non-profit organizations. Intensity of the uses is determined on a case-by-case basis.

- **Goal LU-8:** To plan land areas for the provision of public and quasi-public services, such as schools, libraries, police and fire facilities, utilities, government centers, and other related facilities that are of a size and location to efficiently serve the current and future population of Indio.
- **CD-1:** Provide a general set of design guidelines that provide a consistent level of design in all land use designations.

Zoning Designation. The zoning regulations of the City are adopted to protect, promote, and enhance the public health, safety, and general welfare, ensuring that development within the City is related to the City's ability to provide essential urban services and is consistent with the City's General Plan. The following zoning designation applies to the project site:

- **Public (P):** The P designation provides for a variety of public or quasi-public facilities which support the community and are operated by governmental agencies or non-profit organizations. Maximum development intensities and general development standards are determined on a case-by-case basis based on the compatibility of the proposed use with existing or proposed uses surrounding the site.

4.9.3 Methodology

Land use impacts are assessed based on the physical effects related to land use compatibility and consistency with adopted plans and regulations. Specifically, this section of the EIR addresses the potential environmental impacts related to the following:

- On-site land use impacts or inconsistencies brought about by conflicts or incompatibilities
- Adjacent land use impacts or inconsistencies brought about by conflicts or incompatibilities

4.9.4 Thresholds of Significance

Thresholds for land use impacts are based on Appendix G of the State California Environmental Quality Act (CEQA) Guidelines, as adapted to the circumstances of this project. For the purpose of this analysis, the proposed project may have a significant impact if it would:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project area (including, but not limited to, the General Plan, Specific Plan, Local Coastal Program, or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or
- Conflict with any applicable Habitat Conservation Plan or Natural Communities Conservation Plan.

4.9.5 Impacts and Mitigation Measures

The following impacts of the proposed project have been identified based on project characteristics and the significance thresholds defined above.

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

Impacts That Would Physically Divide an Established Community. The project site is currently developed with a civic building site housing the jail, the CAC Building, the Law Library building, the courts, and accompanying surface parking lots. The existing site was developed in the 1950s, and the proposed project would replace the existing uses with similar uses that enable a higher capacity and more efficient operations. Therefore, the project would not conflict or be incompatible with the existing land use or divide the established community.

Additionally, the adjacent properties (courthouse and fairgrounds) are land uses that also provide public services. With these similar land use types grouped together, the area creates what can be considered a small public/civic use district. Therefore, the proposed project would not conflict with adjacent land uses or divide or isolate an existing neighborhood or community, and there would be no impact related to land use conflict or the physical division of an established community.

Conflict with Applicable Land Use Plans, Policies, or Regulations.

County of Riverside General Plan and Zoning Ordinance. Although the Indio General Plan and Zoning Ordinance do not apply to the County-owned project site, the proposed ECDC project is consistent with the existing use and surrounding land uses. As a public use providing similar services that the existing facility has provided since the 1950s, the proposed project would be in general compliance with the goals and policies established for public uses. Additionally, the proposed project is being designed to be in conformance with setbacks, lighting, screening, and all other design guidelines related to the Public land use designation even though the County property is not required to comply with these policies. Therefore, the project would not result in conflicts with the policies of the City General Plan, and impacts related to this issue are considered to be less than significant.

Impacts That Would Conflict with Habitat or Natural Communities Conservation Plans.

The surrounding downtown area is built out with urbanized land uses, and is not located near any designated Conservation Area as designated by the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP). The ECDC would replace the existing detention center development with a similar use and be constructed on previously disturbed and developed lands. The project would, therefore, be considered as having no impact in regard to conflicting with any applicable habitat conservation plan or natural community conservation plan.

Potentially Significant Impacts. No potentially significant impacts to land use and planning resulting from the proposed project have been identified.

4.9.6 Level of Significance after Mitigation

Because no potentially significant impacts to land use and planning would result from the proposed project, no mitigation measures are proposed.

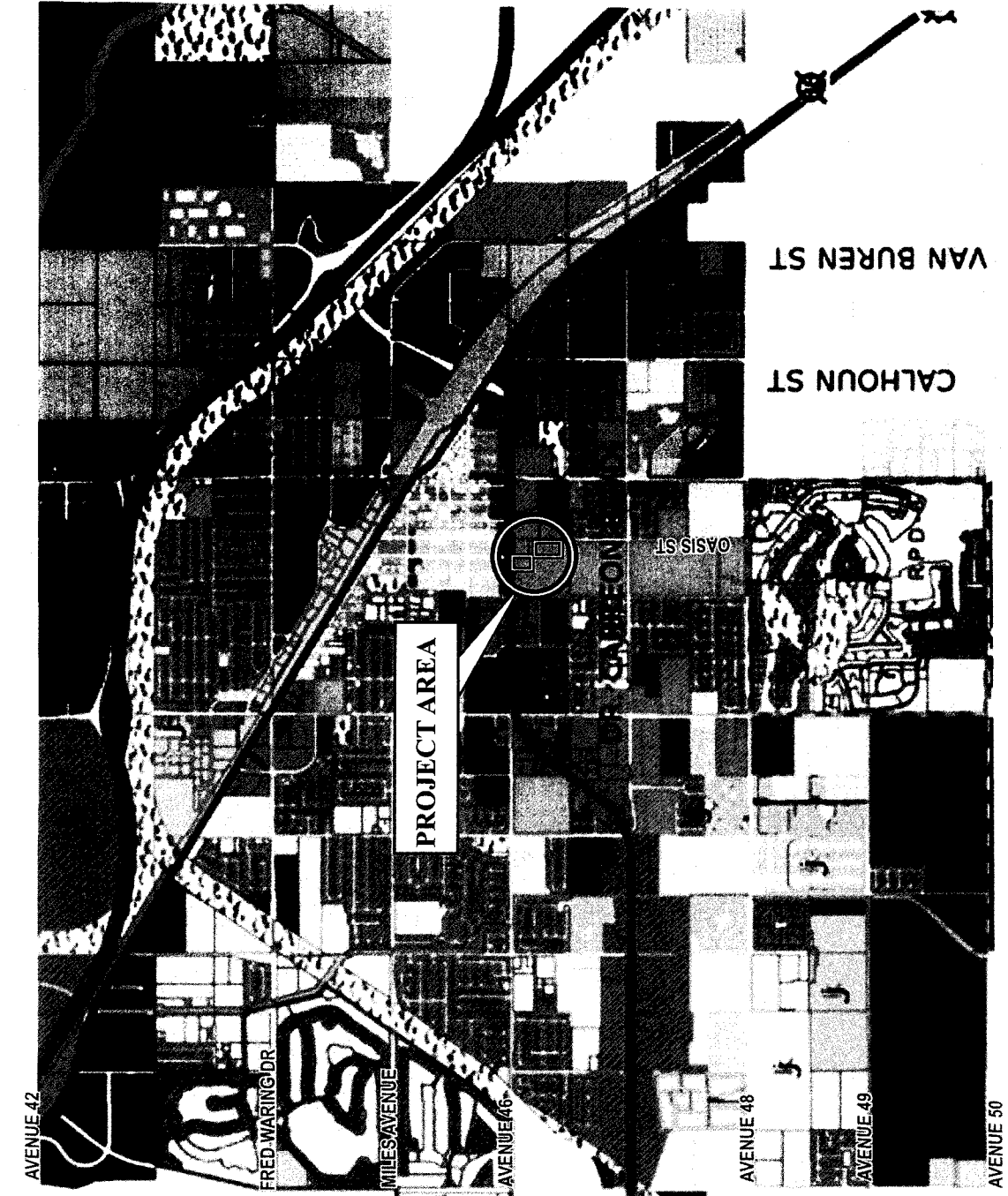


FIGURE 4.9-1

Land Use

- Business Park
 - Commercial Office
 - Community Commercial
 - Country Estates
 - Country Estates Transition
 - Downtown Commerce
 - Equestrian Estates
 - Industrial Park
 - Manufacturing
 - Mixed Use (DA)
 - Mixed Use (SP)
 - Neighborhood Commercial
 - Open Space
 - Public
 - Regional Commercial
 - Residential - High
 - Residential - Low
 - Residential - Medium
 - Resource Recovery
 - Roadway
 - Specific Plan
 - Village Core
- Major Roads**
- HWY 111
 - HWY 86
 - I-10
 - INDIO BLVD.

LSA

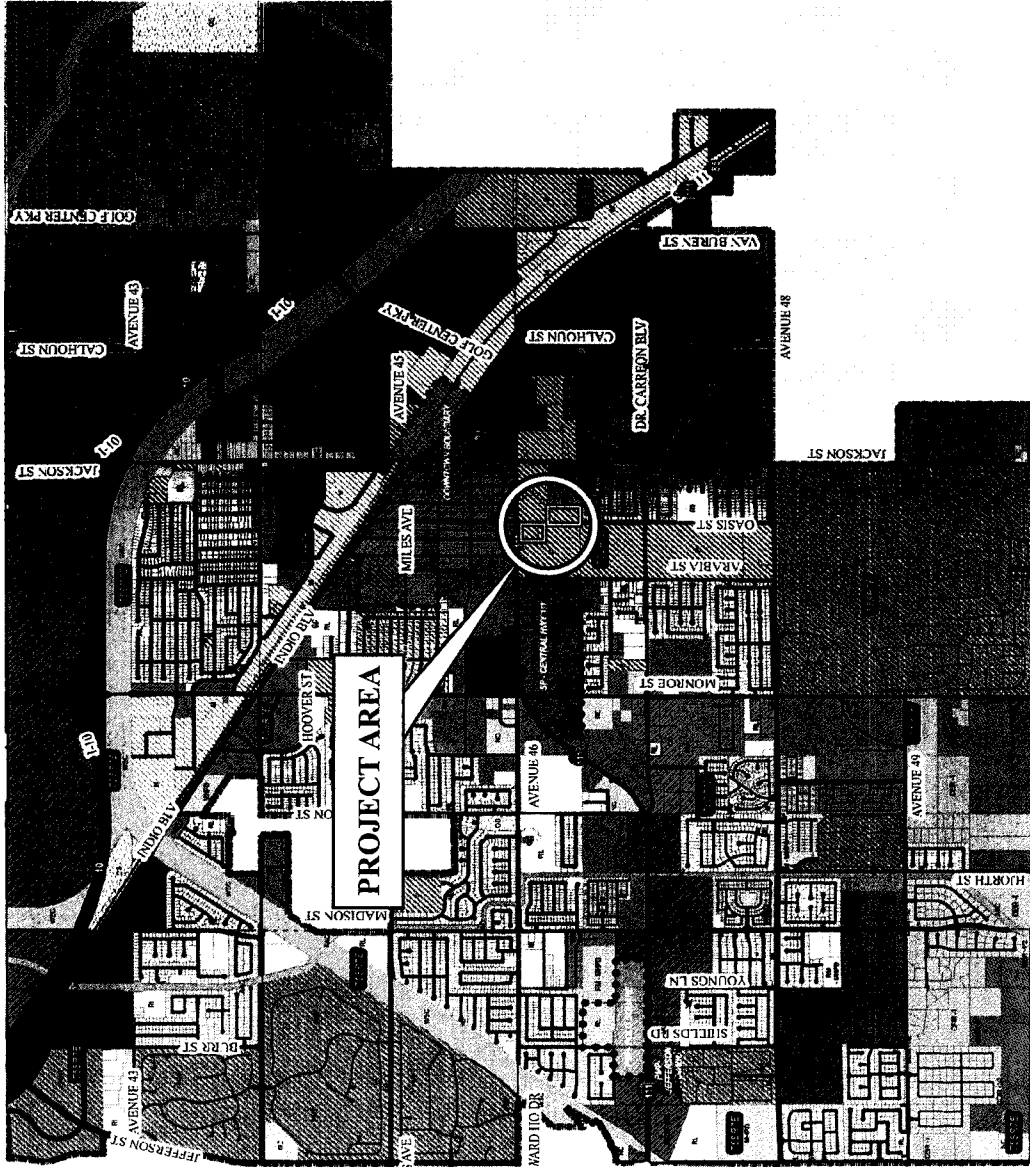


SOURCE: Indio General Plan 2020, Volume I, prepared by Chambers Group, adopted October 1993.
 I:\HOK1201\GV\LandUse.cdr (4/26/13)

This page intentionally left blank

Legend

- BP - Business Park District
- CC - Community Commercial District
- CE-1 - Country Estates-1
- CE-2 - Country Estates-2
- CE-PD - Country Estates Planned Development
- CEIR-1 - Country Estates Indio Ranchos-1
- CEIR-1/2 - Country Estates Indio Ranchos-1/2
- CEIR-2 - Country Estates Indio Ranchos-2
- CET - Country Estates Transition
- CO - Commercial Office
- CO - PMP - Commercial Office Project Master Plan
- EE - Equestrian Estates District
- IP - Industrial Park
- M - Manufacturing
- MU(DA) - Mixed Use Development Agreement
- MU (SP) - Mixed Use Specific Plan
- MUSP 300 - Mixed Use Specific Plan Amendment 05-12-19
- NC - Neighborhood Commercial
- OS - Open Space
- P - Public
- PMP - Project Master Plan
- RC - Regional Commercial
- RH - Residential High District
- RL - Residential Low District
- RLCI - Residential Low Central Indio District
- RM - Residential Medium District
- RM - MHPD - Residential Medium Mobile Home Park Developed District
- RM-SP - Residential Medium Specific Plan
- RR - Resource Recovery
- SP - Specific Plan
- VILLAGE CORE
- RLCI - Residential Low Central Indio
- Downtown Boundary
- PMP - Jefferson Tower
- PMP - Polo Square
- SP - Central Hwy 111



- All American Canal
- Whitewater Storm Channel
- Roads/ROW
- T5SR8E
- T5SR7E
- T4SR7E
- T6SR7E
- Indio City Limit
- Railroad

LSA

FIGURE 4.9-2

SOURCE: Indio General Plan 2020, Volume I, prepared by Chambers Group, adopted October 1993.
E:\HOK\201\GVZoning.cdr (4/30/13)

This page intentionally left blank

4.10 NOISE

This section of the EIR evaluates the potential noise impacts associated with construction and operation of the proposed project. This analysis is intended to satisfy the requirement for a project-specific noise impact analysis by examining the potential short-term and long-term impacts of the proposed project. The analysis in this section is based on the results of noise modeling and the noise modeling output provided in the Noise Impact Assessment for the project (LSA Associates Inc. [LSA], April 2013). The Noise Impact Assessment is included as Appendix H of this EIR.

4.10.1 Existing Environmental Setting

Characteristics of Sound. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound that describes a noisy or quiet environment and is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound wave, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

Measurement of Sound. Sound intensity is measured through the A-weighted scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes very low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels (dB) are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 dB is 10 times more intense than 1 dB, 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Thirty decibels represents 1,000 times as much acoustic energy as 1 dB. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 dB. The decibel system of measuring sound provides a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10 dB increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 A-weighted decibels (dBA) (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately 6 dB for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases 3 dB

for each doubling of distance in a hard site environment. Line-source noise in a relatively flat environment with absorptive vegetation decreases 4.5 dB for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are L_{eq} and the Community Noise Equivalent Level (CNEL), or the day-night average level (L_{dn}) based on A-weighted decibels. CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the hourly L_{eq} for noise occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally interchangeable. The County of Riverside (County) uses the CNEL noise scale for long-term noise impact assessments.

Other noise-rating scales of importance when assessing the annoyance factor include maximum instantaneous noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis for short-term noise impacts are specified in terms of maximum levels denoted by L_{max} . L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise. It is often used together with another noise scale, or noise standards in terms of percentile noise levels, in noise ordinances for enforcement purposes. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts, which refers to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible impacts, refers to a change in the noise level between 1 and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise levels of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

Psychological and Physiological Effects of Noise. Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dB, a tickling sensation occurs in the human ear even with short-term exposure.

This level of noise is called the threshold of feeling. As the sound reaches 130 dB, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160–165 dB will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas. Table 4.10.A lists definitions of acoustical terms, and Table 4.10.B shows common sound levels and their noise sources.

Table 4.10.A: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit or level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. ¹
L_{02} , L_{08} , L_{50} , L_{90}	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
Equivalent Continuous Noise Level, L_{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 dB to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L_{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 dB to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L_{max} , L_{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast-time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, time of occurrence, and tonal or informational content as well as the prevailing ambient noise level.

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

¹ All sound levels in this report are A-weighted unless reported otherwise.

Table 4.10.B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near jet engine	140	Deafening	128 times as loud
Civil defense siren	130	Threshold of pain	64 times as loud
Hard rock band	120	Threshold of feeling	32 times as loud
Accelerating motorcycle a few feet away	110	Very loud	16 times as loud
Pile driver; noisy urban street/heavy city traffic	100	Very loud	8 times as loud
Ambulance siren; food blender	95	Very loud	
Garbage disposal	90	Very loud	4 times as loud
Freight cars; living room music	85	Loud	
Pneumatic drill; vacuum cleaner	80	Loud	2 times as loud
Busy restaurant	75	Moderately loud	
Near freeway auto traffic	70	Moderately loud	Reference level
Average office	60	Quiet	½ as loud
Suburban street	55	Quiet	
Light traffic; soft radio music in apartment	50	Quiet	¼ as loud
Large transformer	45	Quiet	
Average residence without stereo playing	40	Faint	⅓ as loud
Soft whisper	30	Faint	
Rustling leaves	20	Very faint	
Human breathing	10	Very faint	Threshold of hearing
	0	Very faint	

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

Vibration. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hangings on walls, or a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Groundborne vibration is usually measured in terms of vibration velocity, either the root-mean-square (rms) velocity or peak particle velocity (PPV). The rms is best for characterizing human response to building vibration, and PPV is used to characterize the potential for damage. Ground vibrations from construction activities do not often reach the levels that can damage structures, but they can achieve the audible and experiential ranges in buildings very close to the site. Problems with groundborne vibration from construction sources are usually localized to areas within approximately 100 ft of the vibration source.

Sensitive Land Uses in the Project Vicinity. Certain land uses are considered more sensitive to noise than others. Sensitive receptors include residences, schools, hospitals, and similar uses that are

sensitive to noise. There are existing residences to the north of Highway 111 approximately 150 feet (ft) from the northern boundary of Site A. There are mobile home park residences and single family residences located directly adjacent to the east and south sides of Site B. There is also a Middle School located approximately 985 ft east of Site B. These sensitive uses could potentially be affected by the short-term construction noise impacts and the increase in ambient noise associated with the long-term operations of the project.

Existing Traffic Noise. Existing traffic noise levels in the study area are listed in Table 4.10.C. The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate highway-traffic-related noise conditions along the local roadways in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The existing average daily traffic (ADT) volumes in the area were taken from the Traffic Impact Analysis prepared for the project (Appendix I). The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. As shown in Table 4.10.C, traffic noise along the local roadway segments is generally low.

4.10.2 Regulatory Setting

County of Riverside General Plan Noise Element. The County's Noise Element includes the following policies related to noise that are applicable to the proposed project.

- N 1.2. Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.
- N 1.8. Limit the maximum permitted noise levels that cross property lines and impact adjacent land uses, except when dealing with noise emissions from wind turbines. Please see the Wind Energy Conversion Systems section for more information.
- N 3.5. Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.
- N 12.1. Minimize the impacts of construction noise on adjacent uses within acceptable practices.
- N 12.2. Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.
- N 12.4. Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

Table 4.10.C: Existing Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	17,000	69	131	274	68.1
Highway 111 between Monroe St. and Arabia St.	17,800	70	135	282	68.3
Highway 111 between Arabia St. and Oasis St.	16,800	< 50	108	227	67.6
Highway 111 between Oasis St. and Jackson St.	15,400	< 50	102	214	67.3
Highway 111 east of Jackson St.	9,500	< 50	76	156	65.2
Oasis St. north of Indio Blvd.	60	< 50	< 50	< 50	40.4
Oasis St. between Indio Blvd. and Miles Ave.	3,500	< 50	< 50	83	60.8
Oasis St. between Miles Ave and Requa Blvd.	4,500	< 50	< 50	97	61.9
Oasis St. between Requa Blvd. and Highway 111	4,600	< 50	< 50	98	62.0
Oasis St. between Highway 111 and Court House-Driveway	4,500	< 50	< 50	97	61.9
Oasis St. between Court House-Driveway and Plaza Ave.	4,200	< 50	< 50	61	59.8
Oasis St. between Plaza Ave. and PS Driveway	3,600	< 50	< 50	55	59.2
Oasis St. between PS Driveway and Carreon Blvd.	3,600	< 50	< 50	69	60.1
Oasis St. south of Carreon Blvd.	3,500	< 50	< 50	68	60.0
Monroe St. north of Miles Ave.	19,600	59	119	251	68.3
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	19,400	59	118	250	68.3
Monroe St. between Requa-Shadow Palm Ave and Highway 111	16,300	< 50	106	223	67.5
Monroe St. south of Highway 111	13,200	< 50	92	194	66.6
Arabia St. north of Highway 111	2,200	< 50	< 50	< 50	56.0
Arabia St. south of Highway 111	4,400	< 50	< 50	< 50	59.0
King St. north of Highway 111	250	< 50	< 50	< 50	46.6
Court House east of Oasis St.	620	< 50	< 50	< 50	50.5
Plaza Ave. west of Oasis St.	1,200	< 50	< 50	< 50	53.4
Plaza Ave. east of Oasis St.	1,700	< 50	< 50	< 50	54.9
Carreon Blvd. west of Oasis St.	9,900	< 50	63	132	64.5
Carreon Blvd. east of Oasis St.	9,500	< 50	62	128	64.3
Jackson St. north of Highway 111	11,500	< 50	85	177	66.0
Jackson St. between Highway 111 and Plaza Ave.	13,400	< 50	93	196	66.7
Jackson St. between Plaza Ave and Avenue 48	11,900	< 50	87	181	66.1
Jackson St. south of Avenue 48	12,100	< 50	88	183	66.2

Source: LSA Associates, Inc., April 2013.

Note: Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

ADT = Average Daily Traffic

dBA = A-weighted decibels

CNDL = Community Noise Equivalent Level

PS = parking structure

- N 13.1.** Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.

The County has noise standards based on land use category in its Noise Element, including the following:

1. The following uses shall be considered noise-sensitive and shall be discouraged in areas in excess of 65 dBA CNEL: single and multiple family residential, group homes, hospitals, schools and other learning institutions, and parks and open space lands where quiet is a basis for use.
2. Business and professional offices where effective communication is essential shall have interior noise mitigated to 45 dBA.
3. Proposed noise-sensitive projects within noise-impacted areas shall be required to have acoustical studies prepared by a qualified acoustical engineer and may be required to provide mitigation from existing noise.
4. Proposed projects that are noise producers shall be required to have an acoustical engineer prepare a noise analysis, including recommendations for design mitigation if the project is to be located within close proximity to a noise-sensitive land use or land zoned for noise-sensitive land uses.
5. In areas within close proximity to highway and roads, the road's design standard (average daily trips) shall be used to estimate maximum future noise hazard.

The County also has a land use compatibility chart for community noise. Among the various land uses, schools and single-family/multifamily residential uses are generally unacceptable in areas between 65 and 75 dBA CNEL and are conditionally acceptable in areas between 65 and 70 dBA CNEL. Sports arenas and outdoor spectator sports are conditionally acceptable in areas up to 70 dBA CNEL. Recreational land uses, such as open space areas with horseback riding trails, are generally acceptable in areas up to 65 dBA CNEL and generally unacceptable in areas between 65 and 70 dBA CNEL. The County has stricter standards than those of the State of California.

Codified County of Riverside Ordinances. The following summarizes the thresholds of significance based on the County's Noise Element and Noise Control Ordinance:

1. The following uses that are parts of a proposed project shall be considered noise-sensitive and shall be discouraged in areas in excess of 65 dBA CNEL: single- and multiple-family residential uses, schools, and parks and open space lands where quiet is a basis for use. Among these land uses, schools; single- and multiple-family residential uses; and recreational land uses, such as open space areas with horseback riding trails, are generally unacceptable in areas between 65 and 75 dBA CNEL.
2. Private construction projects located within 0.25 mile (mi) from an inhabited dwelling are exempt from the County's noise standards, provided that:

- a. Construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September; and
- b. Construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

The County has adopted maximum noise levels for various land uses during daytime (6:00 a.m.–6:00 p.m. in June through September and 7:00 a.m.–6:00 p.m. in October through May) and nighttime (6:00 p.m.–6:00 a.m. in June through September and 6:00 p.m.–7:00 a.m. in October through May) hours in its Noise Ordinance (Ordinance No. 847, An Ordinance of the County of Riverside Regulating Noise) and in the County Code, Chapter 9.52, Noise Regulation. In both documents, the maximum decibel level for commercial uses, it is 65 dBA during daytime hours and 55 dBA during nighttime hours. However, both documents also state that the noise regulation is not intended to establish thresholds of significance for the purpose of any analysis required by CEQA, and no such thresholds are established. Therefore, for the purposes of determining the CEQA significance, the following threshold was used to determine the significance of noise impacts from stationary sources:

- Exposure of sensitive land uses on and adjacent to the project site to on- and off-site stationary noise sources that would exceed the maximum daytime noise level of 75 dBA L_{max} and the nighttime noise level of 70 dBA L_{max} identified in the State of California's Model Community Noise Control Ordinance.

However, Section 2 of the County's Noise Ordinance (Ordinance No. 847) states that the following are exempt from the provisions of the Noise Ordinance; (1) facilities owned or operated by a government agency; (2) capital improvement projects of a government agency; (3) noise generated by emergency personnel and equipment (i.e., fire and police vehicles); and (4) safety, warning, and alarm systems.

City of Indio. The City of Indio (City) in its General Plan 2020 (October 1993), Public Health & Safety Element, Chapter 5.1 Noise, Policy NOI-1.3, Protect Residential Areas, states that it will "Ensure that exterior noise levels for dwellings in residential areas do not exceed exterior noise levels of 65 dBA CNEL and interior noise levels of 45 dBA CNEL.

The City of Indio in its Municipal Code Chapter 95C: Noise Control, established "Controlled hours of Operation" to prohibit any person to operate, permit, use of cause to operate, any of the following:

- Powered model vehicles/planes;
- Loading and unloading of vehicles, operating of fork lifts or cranes within 1,000 feet of a residence [exempted if distance from residential area exceeds 1,000 feet or as it may be reduced by the Planning Commission subject to design review or conditional use permit]; and
- Construction tools and machinery.

Other than between the hours of:

1. Pacific Standard Time

- a. Monday through Friday, 7:00 a.m. through 6:00 p.m.

- b. Saturday, 8:00 a.m. through 6:00 p.m.
- c. Sunday, 9:00 a.m. through 5:00 p.m.
- d. Government Holidays, 9:00 a.m. through 5:00 p.m.

2. Pacific Daylight Time

- a. Monday through Friday, 6:00 a.m. through 6:00 p.m.
- b. Saturday, 7:00 a.m. through 6:00 p.m.
- c. Sunday, 9:00 a.m. through 5:00 p.m.
- d. Government Holidays, 9:00 a.m. through 5:00 p.m.

No specific upper noise level limits were identified for these activities, as long as said activity occurs within the permitted hours described above.

4.10.3 Methodology

Evaluation of noise impacts associated with the proposed project includes the following steps:

- Determine the short-term construction noise impacts on both on- and off-site noise-sensitive uses.
- Identify mitigation measures to reduce short-term on- and off-site construction noise impacts.
- Determine the long-term mobile-source noise impacts, including vehicular traffic, on on- and off-site sensitive uses.
- Determine the long-term stationary-source noise impacts on off-site noise sensitive uses from on-site operations.
- Identify mitigation measures to reduce long-term, on- and off-site noise impacts.

The FHWA Highway Traffic noise prediction model (FHWA RD-77-108) was used to evaluate highway-traffic-related noise conditions along roadway segments in the project vicinity.

4.10.4 Thresholds of Significance

The CEQA Guidelines define “significant effect on the environment” as a “substantial or potentially substantial adverse change in the environment.” The CEQA Guidelines further indicate that there may be significant impacts to noise if the proposed project is determined to:

- Expose persons to or generate noise levels in excess of the standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies;
- Expose persons to or generate excessive groundborne vibration or groundborne noise levels;
- Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;

- Create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels; or
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

4.10.5 Impacts and Mitigation Measures

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

General Plan Noise Element Analysis. The County's General Plan includes policies related to reduction or limitation of noise in the General Plan Noise Element that are related to the proposed project. The proposed project is compliant with all of the applicable General Plan policies, as shown below in Table 4.10.D. Therefore, the project would not result in conflicts with the policies in the General Plan Noise Element, and significant impacts related to this issue would not occur.

Long-Term Traffic Noise Impacts. For traffic noise impacts, the County's vehicle mix was used, together with the traffic volumes projected in the project's traffic study. The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values. CNEL contours are derived through a series of computerized iterations to isolate the 60, 65, and 70 dBA CNEL contour for traffic noise levels in the project area.

Off-Site Traffic Noise Impacts. Tables 4.10.E through 4.10.I list the traffic noise levels for the Existing, Cumulative (2014), and 2035 without and with project scenarios. Based on data in Tables 4.10.E, 4.10.G, and 4.10.I, project-related traffic noise level increases would be up to 1.3 dBA under Existing, 1.1 dBA under Cumulative (2014), and 0.8 dBA under year 2035 scenarios, respectively. This range of traffic noise level increases in an outdoor environment over a period of time is not perceptible by the human ear, and would not result in any significant noise impacts. Therefore, no significant long-term traffic noise impacts on off-site land uses would occur and no mitigation measures would be required.

On-Site Traffic Noise Impacts. For the proposed on-site uses, Table 4.10.H provides the traffic noise levels adjacent to the project site with the highest projected traffic volumes. Highway 111 between Arabia Street and Oasis Street would have the 70, 65, and 60 dBA CNEL contour extending to 65, 133, and 282 ft, respectively, from the roadway centerline. Oasis Street between Highway 111 and Court House Driveway would have its 65 and 60 dBA CNEL contour

Table 4.10.D: Applicable County of Riverside Noise Element Policies

Noise Element Policies	Analysis
<p>N 1.2. Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.</p>	<p>The proposed project is noise tolerant because the facility would be constructed of reinforced concrete and small, nonopening windows that would increase the noise attenuation. Additionally, the facility would have no exterior uses. The activity areas for the inmates will be located within the structures. Further, the project will be located adjacent to Highway 111, which is a transportation corridor. Therefore, the project is compliant with Policy N 1.2.</p>
<p>N 3.5. Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.</p>	<p>A Noise Impact Assessment has been prepared by an acoustical specialist for the proposed project. As described below, the proposed project would not result in significant impacts related to noise generation. However, mitigation measures related to the reduction of construction noise have been prescribed to reduce the short-term construction-related noise generated by the project. Therefore, the project is compliant with Policy N 3.5.</p>
<p>N 12.1. Minimize the impacts of construction noise on adjacent uses within acceptable practices.</p>	<p>Mitigation measures related to the reduction of construction noise have been prescribed to reduce the short-term construction-related noise generated by the project. Therefore, the project is compliant with Policy N 12.1.</p>
<p>N 12.2. Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.</p>	<p>Mitigation Measure NO-4 limits the project's construction hours to be consistent with the County's Noise Ordinance, which will mitigate the impact of excessive construction noise on surrounding uses. Therefore, the project is compliant with Policy N 12.2.</p>
<p>N 12.4. Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.</p>	<p>Mitigation Measure NO-1 requires the project contractor to equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. Therefore, the project is compliant with Policy N 12.4.</p>
<p>N 13.1. Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.</p>	<p>The ECDC facility would be constructed of reinforced concrete and small, nonopening windows that would increase the noise attenuation beyond California Building Standards. Therefore, the project is compliant with Policy N 13.1.</p>

Source: County of Riverside Noise Element, 2008.
CNEL = Community Noise Equivalent Level
ECDC = East County Detention Center

Table 4.10.I: 2035 With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	22,600	79	156	330	69.4	0.0
Highway 111 between Monroe St. and Arabia St.	24,700	83	166	350	69.7	0.1
Highway 111 between Arabia St. and Oasis St.	23,300	65	133	282	69.1	0.1
Highway 111 between Oasis St. and Jackson St.	21,300	62	125	266	68.7	0.2
Highway 111 east of Jackson St.	12,600	< 50	90	188	66.4	0.1
Oasis St. north of Indio Blvd.	70	< 50	< 50	< 50	41.0	0.0
Oasis St. between Indio Blvd. and Miles Ave.	5,300	< 50	< 50	107	62.6	0.1
Oasis St. between Miles Ave. and Requa Blvd.	6,700	< 50	62	125	63.6	0.2
Oasis St. between Requa Blvd. and Highway 111	6,900	< 50	63	127	63.8	0.2
Oasis St. between Highway 111 and Court House-Driveway	8,000	< 50	68	140	64.4	0.7
Oasis St. between Court House-Driveway and Plaza Ave.	7,800	< 50	< 50	91	62.5	0.8
Oasis St. between Plaza Ave. and PS Driveway	6,500	< 50	< 50	80	61.7	0.8
Oasis St. between PS Driveway and Carreon Blvd.	5,500	< 50	< 50	90	61.9	0.3
Oasis St. south of Carreon Blvd.	5,200	< 50	< 50	87	61.7	0.3
Monroe St. north of Miles Ave.	26,500	70	144	307	69.6	0.1
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	26,400	70	144	306	69.6	0.1
Monroe St. between Requa-Shadow Palm Ave. and Highway 111	22,300	63	129	274	68.9	0.1
Monroe St. south of Highway 111	17,400	< 50	110	232	67.8	0.0
Arabia St. north of Highway 111	2,800	< 50	< 50	< 50	57.1	0.0
Arabia St. south of Highway 111	5,900	< 50	< 50	59	60.3	0.0
King St. north of Highway 111	330	< 50	< 50	< 50	47.8	0.0
Court House east of Oasis St.	820	< 50	< 50	< 50	51.7	0.0
Plaza Ave west of Oasis St.	1,600	< 50	< 50	< 50	54.6	0.3
Plaza Ave east of Oasis St.	3,800	< 50	< 50	< 50	58.4	0.6
Carreon Blvd. west of Oasis St.	13,100	< 50	75	159	65.7	0.0
Carreon Blvd. east of Oasis St.	12,600	< 50	73	155	65.5	0.0
Jackson St. north of Highway 111	16,000	< 50	104	220	67.4	0.1
Jackson St. between Highway 111 and Plaza Ave.	18,000	56	112	238	67.9	0.0
Jackson St. between Plaza Ave. and Avenue 48	15,900	< 50	104	219	67.4	0.1
Jackson St. south of Avenue 48	16,400	< 50	106	224	67.5	0.0

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

dBA = A-weighted decibels

CNEL = Community Noise Equivalent Level

PS = parking structure

extending to 68 and 140 ft, respectively, from the roadway centerline. These noise levels represent the worst-case scenario, which assumes that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and model printouts are provided in Appendix H as part of the Noise Impact Assessment.

Since the proposed Housing structure would be outside of the 65 dBA CNEL impact zone from both Highway 111 and Oasis Street, no significant traffic noise impacts would occur for the proposed on-site noise-sensitive land uses. In addition, the proposed Support building would be outside of the 70 dBA CNEL impact zone, no significant traffic noise impacts would occur for this facility as well. The proposed parking structure is not a noise-sensitive land use and would not result in any significant traffic noise impacts. No mitigation measures would be required.

The proposed ECDC does not include any sensitive exterior land uses. The proposed activity areas for the inmates would be located in enclosed courtyards within the ECDC structures. Therefore, no exterior mitigation measures would be required.

On-Site Stationary-Source Noise Impacts. There would be loading/unloading activities at the proposed Support and Housing Buildings. In addition, there would be testing and maintenance of emergency generator at these buildings. These potential on-site noise-generating sources would be maintained so that noise associated with activities in the outdoor areas would comply with the applicable noise regulation requirements.

Loading/Unloading Activities. The project site is adjacent to residences on the north side of Highway 111. Recorded noise readings from loading and unloading activities for similar projects, a noise level of up to 75 dBA L_{max} at 50 ft, were used in this analysis. The noise attenuation of loading/unloading activities, provided by distance divergence at 150 ft, is approximately 10 dBA compared to the level at 50 ft. The proposed loading/unloading area would be located on the west side of the Support building and the building itself would provide at least a 10 dBA noise reduction. Therefore, the existing residences on the north side of Highway 111 would be exposed to loading/unloading noise levels of up to 55 dBA L_{max} . This projected noise level would not exceed the County's maximum daytime noise levels identified in its Ordinance No. 847 (An Ordinance of the County of Riverside Regulating Noise) and in the County Code, Chapter 9.52, Noise Regulation. (In both documents, the maximum dB level for residential uses [except in rural areas] is 55 dBA during daytime hours and 45 dBA during nighttime hours. For commercial uses, it is 65 dBA during daytime hours and 55 dBA during nighttime hours.) In addition, both documents also state that these noise regulations are not intended to establish thresholds of significance for the purpose of any analysis required by CEQA, and no such thresholds are established. Therefore, for purposes of determining the CEQA significance, a maximum daytime noise level of 75 dBA L_{max} and a nighttime noise level of 70 dBA L_{max} identified in the State of California's model community noise control ordinance were used. The projected maximum noise level from the adjacent off-site commercial use is lower than the nighttime L_{max} of 70 dBA (10:00 p.m.–7:00 a.m.) recommended in the State guidelines. The City does not restrict noise level limits as long as

said activity occurs within the permitted hours. Therefore, no mitigation is required for on-site loading/unloading activities.

Parking Lot Activities. Parking for Site A would generally be located at the same location in the northern portion of the project site. Residential uses adjacent to the proposed parking structure would be exposed to parking lot activity noise similar to those that occur on the surface parking lot today. Noise associated with activities in the parking lot, such as door slamming, slow-moving vehicles, and human conversation, would generate intermittent maximum noise levels of approximately 65 dBA L_{max} at 50 ft. On-site parking would be intermittent and sporadic, and would not result in any significant noise impacts to the existing off-site residences.

The proposed parking structure on Site B would provide a safety barrier along the boundary of the parking structure. This safety barrier would provide approximately at least 4 dBA in noise reduction for parking on second and upper levels. Therefore, noise associated with on-site parking lot activities would be reduced to 61 dBA L_{max} at the nearest off-site residences. These noise levels would not exceed the existing parking lot activity noise or the County's maximum noise levels from stationary sources. Therefore, it is not anticipated that noise associated with the parking lot activities would have any significant impact on off-site residences to the east and south of the project site.

Emergency Generator Testing and Maintenance. The proposed project would potentially expose noise-sensitive land uses in the project vicinity to noise associated with generator testing at the project site.

LSA conducted a noise survey on November 2, 2004, to document noise levels associated with the generator testing at a data center. The emergency generator at this data center is regularly tested on a monthly and quarterly basis during daytime hours between 7:00 a.m. and 6:00 p.m., Monday through Friday. No nighttime testing is conducted. Nighttime generator use is limited to emergencies or during power outages only. Typically, the generator is tested for approximately 30 minutes, including 5 minutes of warm-up time and 10 minutes of cool-down time; total testing time for the generator is approximately 45 minutes.

Although sound or noise from generators during a power outage is considered an emergency use and is exempt from the City's noise control ordinance requirements, noise from the testing of the generators should comply with the City's noise control criteria for residential uses.

Under normal generator testing conditions, where one generator at a time is tested during daytime hours, the average noise level measured at 50 ft was 86.9 dBA L_{eq} , with the maximum noise reaching 89.9 dBA L_{max} .

The nearest proposed location would be approximately 250 feet from the residence to the north of Highway 111. This distance would provide 14 dBA in noise attenuation compared to the noise level measured at 50 ft. This distance would reduce the generator-testing noise to 73

Table 4.10.D: Applicable County of Riverside Noise Element Policies

Noise Element Policies	Analysis
<p>N 1.2. Guide noise-tolerant land uses into areas irrevocably committed to land uses that are noise-producing, such as transportation corridors or within the projected noise contours of any adjacent airports.</p>	<p>The proposed project is noise tolerant because the facility would be constructed of reinforced concrete and small, nonopening windows that would increase the noise attenuation. Additionally, the facility would have no exterior uses. The activity areas for the inmates will be located within the structures. Further, the project will be located adjacent to Highway 111, which is a transportation corridor. Therefore, the project is compliant with Policy N 1.2.</p>
<p>N 3.5. Require that a noise analysis be conducted by an acoustical specialist for all proposed projects that are noise producers. Include recommendations for design mitigation if the project is to be located either within proximity of a noise-sensitive land use, or land designated for noise-sensitive land uses.</p>	<p>A Noise Impact Assessment has been prepared by an acoustical specialist for the proposed project. As described below, the proposed project would not result in significant impacts related to noise generation. However, mitigation measures related to the reduction of construction noise have been prescribed to reduce the short-term construction-related noise generated by the project. Therefore, the project is compliant with Policy N 3.5.</p>
<p>N 12.1. Minimize the impacts of construction noise on adjacent uses within acceptable practices.</p>	<p>Mitigation measures related to the reduction of construction noise have been prescribed to reduce the short-term construction-related noise generated by the project. Therefore, the project is compliant with Policy N 12.1.</p>
<p>N 12.2. Ensure that construction activities are regulated to establish hours of operation in order to prevent and/or mitigate the generation of excessive or adverse noise impacts on surrounding areas.</p>	<p>Mitigation Measure NO-4 limits the project's construction hours to be consistent with the County's Noise Ordinance, which will mitigate the impact of excessive construction noise on surrounding uses. Therefore, the project is compliant with Policy N 12.2.</p>
<p>N 12.4. Require that all construction equipment utilizes noise reduction features (e.g. mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.</p>	<p>Mitigation Measure NO-1 requires the project contractor to equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. Therefore, the project is compliant with Policy N 12.4.</p>
<p>N 13.1. Enforce the California Building Standards that sets standards for building construction to mitigate interior noise levels to the tolerable 45 CNEL limit. These standards are utilized in conjunction with the Uniform Building Code by the County's Building Department to ensure that noise protection is provided to the public. Some design features may include extra-dense insulation, double-paned windows, and dense construction materials.</p>	<p>The ECDC facility would be constructed of reinforced concrete and small, nonopening windows that would increase the noise attenuation beyond California Building Standards. Therefore, the project is compliant with Policy N 13.1.</p>

Source: County of Riverside Noise Element, 2008.
CNEL = Community Noise Equivalent Level
ECDC = East County Detention Center

Table 4.10.E: Existing plus Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	17,000	69	131	274	68.1	0.0
Highway 111 between Monroe St. and Arabia St.	18,300	71	137	287	68.4	0.1
Highway 111 between Arabia St. and Oasis St.	17,000	< 50	108	229	67.7	0.1
Highway 111 between Oasis St. and Jackson St.	16,000	< 50	104	220	67.4	0.1
Highway 111 east of Jackson St.	9,600	< 50	76	157	65.2	0.0
Oasis St. north of Indio Blvd.	60	< 50	< 50	< 50	40.4	0.0
Oasis St. between Indio Blvd. and Miles Ave	3,700	< 50	< 50	86	61.1	0.3
Oasis St. between Miles Ave and Requa Blvd.	4,700	< 50	< 50	100	62.1	0.2
Oasis St. between Requa Blvd. and Highway 111	4,900	< 50	< 50	102	62.3	0.3
Oasis St. between Highway 111 and Court House-Driveway	5,800	< 50	57	114	63.0	1.1
Oasis St. between Court House-Driveway and Plaza Ave	5,600	< 50	< 50	73	61.1	1.3
Oasis St. between Plaza Ave. and PS Driveway	4,800	< 50	< 50	66	60.4	1.2
Oasis St. between PS Driveway and Carreon Blvd.	3,900	< 50	< 50	73	60.4	0.3
Oasis St. south of Carreon Blvd.	3,800	< 50	< 50	71	60.3	0.3
Monroe St. north of Miles Ave.	20,000	60	120	255	68.4	0.1
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	19,900	60	120	254	68.4	0.1
Monroe St. between Requa-Shadow Palm Ave. and Highway 111	16,700	< 50	107	226	67.6	0.1
Monroe St. south of Highway 111	13,300	< 50	93	195	66.6	0.0
Arabia St. north of Highway 111	2,200	< 50	< 50	< 50	56.0	0.0
Arabia St. south of Highway 111	4,400	< 50	< 50	< 50	59.0	0.0
King St. north of Highway 111	250	< 50	< 50	< 50	46.6	0.0
Court House east of Oasis St.	620	< 50	< 50	< 50	50.5	0.0
Plaza Ave west of Oasis St.	1,200	< 50	< 50	< 50	53.4	0.0
Plaza Ave east of Oasis St.	2,200	< 50	< 50	< 50	56.0	1.1
Carreon Blvd. west of Oasis St.	9,900	< 50	63	132	64.5	0.0
Carreon Blvd. east of Oasis St.	9,600	< 50	62	129	64.4	0.1
Jackson St. north of Highway 111	11,800	< 50	86	180	66.1	0.1
Jackson St. between Highway 111 and Plaza Ave.	13,400	< 50	93	196	66.7	0.0
Jackson St. between Plaza Ave. and Avenue 48	12,000	< 50	87	182	66.2	0.1
Jackson St. south of Avenue 48	12,400	< 50	89	186	66.3	0.1

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

dBA = A-weighted decibels

CNEL = Community Noise Equivalent Level

PS = parking structure

Table 4.10.F: 2020 without Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	17,400	69	133	278	68.2
Highway 111 between Monroe St. and Arabia St.	18,700	72	139	291	68.5
Highway 111 between Arabia St. and Oasis St.	17,600	56	111	234	67.8
Highway 111 between Oasis St. and Jackson St.	15,700	< 50	103	217	67.3
Highway 111 east of Jackson St.	9,700	< 50	77	158	65.2
Oasis St. north of Indio Blvd.	60	< 50	< 50	< 50	40.4
Oasis St. between Indio Blvd. and Miles Ave.	4,100	< 50	< 50	91	61.5
Oasis St. between Miles Ave. and Requa Blvd.	5,100	< 50	< 50	105	62.5
Oasis St. between Requa Blvd. and Highway 111	5,300	< 50	< 50	107	62.6
Oasis St. between Highway 111 and Court House-Driveway	5,500	< 50	< 50	110	62.8
Oasis St. between Court House-Driveway and Plaza Ave.	5,200	< 50	< 50	70	60.8
Oasis St. between Plaza Ave. and PS Driveway	4,200	< 50	< 50	61	59.8
Oasis St. between PS Driveway and Carreon Blvd.	4,100	< 50	< 50	75	60.7
Oasis St. south of Carreon Blvd.	3,900	< 50	< 50	73	60.4
Monroe St. north of Miles Ave.	20,200	60	121	256	68.4
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	20,100	60	121	256	68.4
Monroe St. between Requa-Shadow Palm Ave and Highway 111	16,900	< 50	108	228	67.7
Monroe St. south of Highway 111	13,500	< 50	94	197	66.7
Arabia St. north of Highway 111	2,200	< 50	< 50	< 50	56.0
Arabia St. south of Highway 111	4,400	< 50	< 50	< 50	59.0
King St. north of Highway 111	250	< 50	< 50	< 50	46.6
Court House east of Oasis St.	620	< 50	< 50	< 50	50.5
Plaza Ave west of Oasis St.	1,200	< 50	< 50	< 50	53.4
Plaza Ave east of Oasis St.	2,800	< 50	< 50	< 50	57.1
Carreon Blvd. west of Oasis St.	10,100	< 50	64	134	64.6
Carreon Blvd. east of Oasis St.	9,700	< 50	62	130	64.4
Jackson St. north of Highway 111	11,900	< 50	87	181	66.1
Jackson St. between Highway 111 and Plaza Ave	13,900	< 50	95	200	66.8
Jackson St. between Plaza Ave. and Avenue 48	12,200	< 50	88	184	66.2
Jackson St. south of Avenue 48	12,500	< 50	89	187	66.3

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

dBA = A-weighted decibels

CNEL = Community Noise Equivalent Level

PS = parking structure

Table 4.10.G: Cumulative Year (2014) With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	17,400	69	133	278	68.2	0.0
Highway 111 between Monroe St. and Arabia St.	19,200	73	141	296	68.6	0.1
Highway 111 between Arabia St. and Oasis St.	17,900	56	112	237	67.9	0.1
Highway 111 between Oasis St. and Jackson St.	16,300	< 50	106	223	67.5	0.2
Highway 111 east of Jackson St.	9,800	< 50	77	159	65.3	0.1
Oasis St. north of Indio Blvd.	60	< 50	< 50	< 50	40.4	0.0
Oasis St. between Indio Blvd. and Miles Ave.	4,300	< 50	< 50	94	61.7	0.2
Oasis St. between Miles Ave. and Requa Blvd.	5,300	< 50	< 50	107	62.6	0.1
Oasis St. between Requa Blvd. and Highway 111	5,500	< 50	< 50	110	62.8	0.2
Oasis St. between Highway 111 and Court House-Driveway	6,700	< 50	62	125	63.6	0.8
Oasis St. between Court House-Driveway and Plaza Ave.	6,500	< 50	< 50	80	61.7	0.9
Oasis St. between Plaza Ave. and PS Driveway	5,400	< 50	< 50	71	60.9	1.1
Oasis St. between PS Driveway and Carreon Blvd.	4,500	< 50	< 50	79	61.1	0.4
Oasis St. south of Carreon Blvd.	4,200	< 50	< 50	76	60.8	0.4
Monroe St. north of Miles Ave.	20,600	61	122	260	68.5	0.1
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	20,600	61	122	260	68.5	0.1
Monroe St. between Requa-Shadow Palm Ave. and Highway 111	17,400	< 50	110	232	67.8	0.1
Monroe St. south of Highway 111	13,500	< 50	94	197	66.7	0.0
Arabia St. north of Highway 111	2,200	< 50	< 50	< 50	56.0	0.0
Arabia St. south of Highway 111	4,400	< 50	< 50	< 50	59.0	0.0
King St. north of Highway 111	250	< 50	< 50	< 50	46.6	0.0
Court House east of Oasis St.	620	< 50	< 50	< 50	50.5	0.0
Plaza Ave west of Oasis St.	1,200	< 50	< 50	< 50	53.4	0.0
Plaza Ave east of Oasis St.	3,300	< 50	< 50	< 50	57.8	0.7
Carreon Blvd. west of Oasis St.	10,100	< 50	64	134	64.6	0.0
Carreon Blvd. east of Oasis St.	9,800	< 50	63	131	64.5	0.1
Jackson St. north of Highway 111	12,300	< 50	88	185	66.3	0.2
Jackson St. between Highway 111 and Plaza Ave.	14,000	< 50	96	201	66.8	0.0
Jackson St. between Plaza Ave. and Avenue 48	12,400	< 50	89	186	66.3	0.1
Jackson St. south of Avenue 48	12,800	< 50	91	190	66.5	0.2

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

PS = parking structure

Table 4.10.H: 2035 Without Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	22,600	79	156	330	69.4
Highway 111 between Monroe St. and Arabia St.	24,200	82	163	345	69.6
Highway 111 between Arabia St. and Oasis St.	23,000	65	131	279	69.0
Highway 111 between Oasis St. and Jackson St.	20,700	61	123	261	68.5
Highway 111 east of Jackson St.	12,500	< 50	89	187	66.3
Oasis St. north of Indio Blvd.	70	< 50	< 50	< 50	41.0
Oasis St. between Indio Blvd. and Miles Ave.	5,100	< 50	< 50	105	62.5
Oasis St. between Miles Ave. and Requa Blvd.	6,400	< 50	60	121	63.4
Oasis St. between Requa Blvd. and Highway 111	6,600	< 50	61	123	63.6
Oasis St. between Highway 111 and Court House-Driveway	6,800	< 50	62	126	63.7
Oasis St. between Court House-Driveway and Plaza Ave.	6,400	< 50	< 50	80	61.7
Oasis St. between Plaza Ave. and PS Driveway	5,300	< 50	< 50	70	60.9
Oasis St. between PS Driveway and Carreon Blvd.	5,100	< 50	< 50	86	61.6
Oasis St. south of Carreon Blvd.	4,900	< 50	< 50	84	61.4
Monroe St. north of Miles Ave.	26,100	70	143	304	69.5
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	26,000	69	142	303	69.5
Monroe St. between Requa-Shadow Palm Ave. and Highway 111	21,800	63	127	270	68.8
Monroe St. south of Highway 111	17,400	< 50	110	232	67.8
Arabia St. north of Highway 111	2,800	< 50	< 50	< 50	57.1
Arabia St. south of Highway 111	5,900	< 50	< 50	59	60.3
King St. north of Highway 111	330	< 50	< 50	< 50	47.8
Court House east of Oasis St.	820	< 50	< 50	< 50	51.7
Plaza Ave west of Oasis St.	1,500	< 50	< 50	< 50	54.3
Plaza Ave east of Oasis St.	3,300	< 50	< 50	< 50	57.8
Carreon Blvd. west of Oasis St.	13,000	< 50	75	158	65.7
Carreon Blvd. east of Oasis St.	12,500	< 50	73	154	65.5
Jackson St. north of Highway 111	15,700	< 50	103	217	67.3
Jackson St. between Highway 111 and Plaza Ave.	17,900	56	112	237	67.9
Jackson St. between Plaza Ave. and Avenue 48	15,700	< 50	103	217	67.3
Jackson St. south of Avenue 48	16,200	< 50	105	222	67.5

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

PS = parking structure

Table 4.10.I: 2035 With Project Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (Feet)	Centerline to 65 CNEL (Feet)	Centerline to 60 CNEL (Feet)	CNEL (dBA) 50 Feet from Centerline of Outermost Lane	Increase CNEL (dBA) 50 Feet from Centerline of Outermost Lane
Highway 111 west of Monroe St.	22,600	79	156	330	69.4	0.0
Highway 111 between Monroe St. and Arabia St.	24,700	83	166	350	69.7	0.1
Highway 111 between Arabia St. and Oasis St.	23,300	65	133	282	69.1	0.1
Highway 111 between Oasis St. and Jackson St.	21,300	62	125	266	68.7	0.2
Highway 111 east of Jackson St.	12,600	< 50	90	188	66.4	0.1
Oasis St. north of Indio Blvd.	70	< 50	< 50	< 50	41.0	0.0
Oasis St. between Indio Blvd. and Miles Ave.	5,300	< 50	< 50	107	62.6	0.1
Oasis St. between Miles Ave. and Requa Blvd.	6,700	< 50	62	125	63.6	0.2
Oasis St. between Requa Blvd. and Highway 111	6,900	< 50	63	127	63.8	0.2
Oasis St. between Highway 111 and Court House-Driveway	8,000	< 50	68	140	64.4	0.7
Oasis St. between Court House-Driveway and Plaza Ave.	7,800	< 50	< 50	91	62.5	0.8
Oasis St. between Plaza Ave. and PS Driveway	6,500	< 50	< 50	80	61.7	0.8
Oasis St. between PS Driveway and Carreon Blvd.	5,500	< 50	< 50	90	61.9	0.3
Oasis St. south of Carreon Blvd.	5,200	< 50	< 50	87	61.7	0.3
Monroe St. north of Miles Ave.	26,500	70	144	307	69.6	0.1
Monroe St. between Miles Ave. and Requa-Shadow Palm Ave.	26,400	70	144	306	69.6	0.1
Monroe St. between Requa-Shadow Palm Ave. and Highway 111	22,300	63	129	274	68.9	0.1
Monroe St. south of Highway 111	17,400	< 50	110	232	67.8	0.0
Arabia St. north of Highway 111	2,800	< 50	< 50	< 50	57.1	0.0
Arabia St. south of Highway 111	5,900	< 50	< 50	59	60.3	0.0
King St. north of Highway 111	330	< 50	< 50	< 50	47.8	0.0
Court House east of Oasis St.	820	< 50	< 50	< 50	51.7	0.0
Plaza Ave west of Oasis St.	1,600	< 50	< 50	< 50	54.6	0.3
Plaza Ave east of Oasis St.	3,800	< 50	< 50	< 50	58.4	0.6
Carreon Blvd. west of Oasis St.	13,100	< 50	75	159	65.7	0.0
Carreon Blvd. east of Oasis St.	12,600	< 50	73	155	65.5	0.0
Jackson St. north of Highway 111	16,000	< 50	104	220	67.4	0.1
Jackson St. between Highway 111 and Plaza Ave.	18,000	56	112	238	67.9	0.0
Jackson St. between Plaza Ave. and Avenue 48	15,900	< 50	104	219	67.4	0.1
Jackson St. south of Avenue 48	16,400	< 50	106	224	67.5	0.0

Source: *Noise Impact Assessment*, LSA Associates, Inc., April 2013.

ADT = average daily traffic

CNEL= Community Noise Equivalent Level

dBA = A-weighted decibels

PS = parking structure

dBa L₅₀. Depending on the location where the emergency generator is located, the proposed on-site buildings would provide shielding to the residence to the north, as well as residences to the east and south of the project site. If the emergency generator is located on the west side of the Support building or between the Support and Housing Buildings, noise associated with the testing would be blocked by the buildings, with at least 10 dBA in noise reduction. This would further reduce the testing noise to 63 dBA L₅₀.

As stated earlier, with a combination of exterior walls, doors, and windows, standard construction for Southern California (warm climate) residential buildings would provide more than 24 dBA in exterior-to-interior noise reduction with windows closed and 12 dBA or more with windows open. Therefore, the generator-testing noise would be reduced to 56 dBA with windows open and 44 dBA with windows closed. Therefore, with windows closed, the residence to the north would be able to meet the City's daytime interior noise standard of 55 dBA L₅₀. Residences to the east and south of the project site are located farther from the potential emergency generator location and would also be blocked by the buildings if it is located on the west side of the proposed buildings. These residences would meet the City's daytime interior noise standard with windows closed without any additional mitigation.

Exposure of Persons to or Generation of Excessive Groundborne Vibration or Groundborne Noise Levels. The primary source of vibration during construction would be the use of scrapers, bulldozers, a motor grader, and water and pickup trucks. The closest construction activity to a sensitive receptor is estimated to be approximately 50 ft from the closest existing residences east of Site B. Generally, problems with groundborne vibration from construction sources are localized to areas within approximately 100 ft of the vibration source. Using data provided in the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment* (FTA, May 2006) and *Caltrans Transportation and Construction-Induced Vibration Guidance Manual* (Jones & Stokes, June 2004), it was estimated that the vibration level at these nearest residences to the east would be less than the 0.1 inch per second (in/sec) and would not exceed the 0.2 in/sec threshold for residential structures, and below the level of potential risk for architectural damage to normal buildings. Therefore, the proposed project would not result in significant vibration impacts.

Location within an Airport Land Use Plan or within 2 Mi of a Public Airport or Public Use Airport. The project site is not within 2 mi of a public airport or private airstrip. There are two general aviation airports located in the vicinity of the proposed project site. Jacqueline Cochran Regional Airport is located 4.5 mi southeast of the site, and Bermuda Dunes Airport is located 3 mi northwest of the proposed site. These two airports provide limited commercial service. Additionally, the project site is not located within an airport land use plan or within the vicinity of a private airstrip. Thus, the proposed project would not be impacted by noise from existing airports. As such, implementation of the proposed project would not involve noise impacts related to airport uses, and no mitigation is required.

Potentially Significant Impacts. The following impacts that could result during construction of the proposed project were evaluated and determined to be potentially significant.

noise sources and noise-sensitive receptors to the east of the site during all project construction.

NO-4

Construction Hours. All construction, maintenance, or demolition activities within the City of Indio's (City) boundary shall be limited to the following hours:

1. Pacific Standard Time

- a. Monday through Friday, 7:00 a.m. through 6:00 p.m.
- b. Saturday, 8:00 a.m. through 6:00 p.m.
- c. Sunday, 9:00 a.m. through 5:00 p.m.
- d. Government Holidays, 9:00 a.m. through 5:00 p.m.

2. Pacific Daylight Time

- a. Monday through Friday, 6:00 a.m. through 6:00 p.m.
- b. Saturday, 7:00 a.m. through 6:00 p.m.
- c. Sunday, 9:00 a.m. through 5:00 p.m.
- d. Government Holidays, 9:00 a.m. through 5:00 p.m.

4.10.6 Level of Significance after Mitigation

With implementation of the identified mitigation measures, potential short-term construction noise impacts would be reduced to below a level of significance.

4.11 PUBLIC SERVICES AND UTILITIES

The following section provides an analysis of public services, utilities, and public facilities for the proposed East County Detention Center (ECDC) project, which is located in a developed urban area in the City of Indio (City), California. Utilities include the provision or disposition of water, wastewater, electricity, gas, and solid waste disposal services. Public services include law enforcement and fire protection services. This section is based on the *Water Supply Assessment (WSA) for the Riverside County East County Detention Center Expansion (Indio Jail) (April 2013)* (refer to Appendix G), and technical support information prepared for the ECDC project (HOK Engineers, Holt Architects, and VCA Engineering, 2013), historic usage information from County of Riverside (County) facilities, and other technical research used for the design of the proposed ECDC.

As previously discussed in Section 4.0, the proposed project would not have any impacts on Public Facilities, such as schools and libraries, because the project would not result in any new residential development that would require access or expansion of these facilities. Therefore, these topics are not discussed in this section.

4.11.1 Existing Environmental Setting

Fire Protection. Fire protection for the site is provided by the City of Indio. The City currently contracts with the Riverside County Fire Department for fire protection services within the City. The Riverside County Fire Department is administered under contract by the California Department of Forestry and Fire Protection (Cal Fire), and participates in a Regional Integrated and Cooperative Fire Protection System. This system provides the City and surrounding areas with additional regional resources to respond to fire service calls when required.

The City currently provides fire and emergency medical services from four fire stations:

- **46-990 Jackson Street:** This is the headquarters station where Fire Administration and Prevention offices are located. Minimum daily staffing levels at this station include nine personnel: one Paramedic Fire Engine with three personnel; one 100-foot Ladder Truck with four personnel; one Paramedic Ambulance with two personnel; and one reserve ambulance.
- **46-621 Madison Street:** This station has a minimum daily staffing level of five personnel; and staffs one Paramedic Fire Engine with three personnel, one Paramedic Ambulance with two personnel, and one reserve ambulance.
- **81-025 Avenue 40:** This station has a minimum daily staffing level of five personnel and staffs one Paramedic Fire Engine with three personnel, one Paramedic Ambulance with two personnel, and one reserve ambulance.
- **42-900 Golf Center Parkway:** This station has a minimum daily staffing level of three personnel and staffs one Paramedic Fire Engine with three personnel, as well as one reserve Fire Engine and one Water Tender.

A minimum of one Division Chief and one Battalion Chief are on duty daily in the City. The City also staffs a Fire Prevention Bureau located at the headquarters station that consists of a Fire Marshal, Assistant Fire Marshal, Fire Safety Specialist, and a Fire Systems Inspector. The primary function of the Fire Prevention Bureau is to provide services aimed at reducing the risk of fire and injuries to the

public. This is accomplished through the adoption and enforcement of codes and ordinances relative to fire and life safety issues. Additionally, the City has a staff member assigned as the Emergency Services Coordinator. The Emergency Services Coordinator's main function is to plan, develop, and coordinate multi-hazard emergency response and recovery activities.

The average Fire Department response time throughout the City is 5 minutes or less, 90 percent of the time. Table 4.11.A, Types of Calls Reported in 2011, identifies the percentage and number of calls made to the Fire Department during 2011. As shown in this table, approximately 75 percent of the calls for service were emergency medical service calls, and 15 percent of the calls were fire incidents. The Fire Department response standard for fire incidents is 7 minutes for industrial uses and within 8 minutes for residential uses.

Table 4.11.A: Types of Calls Reported in 2011

Incident Type	Percent of Calls	Number of Calls
Vegetation Fires	1.0	80
Structure Fires	2.0	160
Other Fires	13.0	1,037
Medical	76.6	6,110
HazMat	1.6	127
Law Enforcement	0.1	1
Public Assists/Other	5.8	463
TOTAL	100.0	7,978

Source: Music Festival Plan Draft EIR, December 2012.

Note: The percentage of total calls has been rounded to the nearest whole number. Therefore, the total has been rounded down to total 100 percent. Law enforcement was rounded up to 0.1 percent; however, the total number of calls for this service was less than the percentage.

Currently, the existing Indio Jail averages about four service calls per month to the City of Indio Fire Department.

The California Master Mutual Aid Agreement provides for the rapid, organized deployment of fire service resources to other jurisdictions. All fire service jurisdictions in and around the project area are signatory to this agreement and would provide available resources to an incident occurring in the project vicinity.

Emergency Medical. Ambulance service is provided on a fee for service basis in the City by three full-time paramedic ambulances. The ambulance service is staffed with personnel trained as certified firefighters and advanced life support paramedics. Ambulance personnel respond as part of a two-piece company with a fire engine from three of the City's four fire stations. The Fire Department's service standard is to initiate basic or advanced emergency medical care as needed within 5 minutes of receipt of a call for service.

Police Services. The project site is in the jurisdiction of the Indio Police Department (IPD). However, any service calls for the current jail are routed to the Thermal Sheriff's Station and are not handled by

IPD. The Indio Jail currently has procedures in place for which if the need arises, calls for service will be handled within the Sheriff's Department.

Water Supply. According to the Water Supply Assessment (WSA), water supply for the Coachella Valley comes from local aquifers, and for the City of Indio, is overseen by the Indio Water Authority (IWA). Groundwater inflows within the Coachella Valley Groundwater Basin include natural recharge from local mountain runoff, artificial recharge with Colorado River water, inflows from surrounding groundwater basins, and non-consumptive return flows from urban and agricultural drainage. Outflows include groundwater pumping, evapotranspiration, flows to the Salton Sea, and subsurface outflows to adjacent groundwater basins.

The sole source of water supply for IWA is groundwater from the Whitewater River Subbasin¹ of the Coachella Valley Groundwater Basin.² The project site lies entirely within the surface boundaries of the Whitewater River Subbasin, and is supplied by groundwater therefrom.

Coachella Valley Groundwater Basin. The Coachella Valley Groundwater Basin extends from the west end of the San Gorgonio Pass at the Santa Ana River System/Whitewater River System Watershed divide to the Salton Sea on the southeast. It includes 690 square miles (sq mi) bounded by the aforementioned watershed divide on the west, the San Bernardino Mountains on the north, the Santa Rosa Mountains on the south, and the San Jacinto Mountains on the southwest³.

According to the United States Geological Survey (USGS),⁴ the Indio Subbasin is actually two separate Subbasins, Garnet Hill and Whitewater River. The Garnet Hill Subbasin is confined to the upper portion of the Coachella Valley Groundwater Basin, whereas the Whitewater River Subbasin extends into the lower portion of the Coachella Valley Groundwater Basin. These Subbasins are bounded by faults and other geologic features and the individual storage units within the Subbasin are also bounded by various geologic features.

The San Andreas Fault drives a complex pattern of branching faults that define the boundaries of the groundwater basins and Subbasin in the region. The San Gorgonio Pass and Whitewater River Subbasins are separated by a buried bedrock ridge projecting northward from the flank of Mount San Jacinto at Fingal Point. The Garnet Hill and Whitewater River Subbasins are divided by the Garnet Hill Fault, a branch of the Banning Fault.

Generally, groundwater flows easterly through the San Gorgonio Pass Subbasin to the Whitewater River Subbasin. Also, groundwater flows from the Desert Hot Springs Subbasin to

¹ United States Department of the Interior, United States Geological Survey, Water Resources Division, *Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared in cooperation with the Desert Water Agency and the Coachella Valley Water District, prepared by Tyley, Stephen J., 1971.

² California Department of Water Resources, *Coachella Valley Investigation, Bulletin 108*, 1964.

³ Ibid.

⁴ United States Department of the Interior, United States Geological Survey, *Water Supply Paper 2027, Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared by Tyley, Stephen J., 1974.

and through the Mission Creek Subbasin, to and through the Garnet Hill Subbasin, and then to the Whitewater River Subbasin.^{1 2 3 4} The San Gorgonio, Mission Creek, and Whitewater River Subbasins have been significantly developed for water supply purposes.

Whitewater River Subbasin. The Whitewater River Subbasin is bounded on the north by the San Bernardino Mountains and Little San Bernardino Mountains, on the south by the San Jacinto Mountains and Santa Rosa Mountains, on the west by the Whitewater River Watershed divide, and on the east by the Salton Sea.^{5, 6} The Whitewater River Subbasin encompasses the majority of the Coachella Valley Groundwater Basin (approximately 400 sq mi).

The groundwater supply comes from natural and imported water sources. The natural water sources include underflow from the San Gorgonio River at the northwest end of the Subbasin, the Whitewater River, Snow Creek, Falls Creek, Chino Creek, Tahquitz Creek, Andreas Creek, Palm Canyon, and Deep Creek, as well as underflow from the Garnet Hill Subbasin.

The imported water source consists of Colorado River water provided jointly by the Coachella Valley Water District (CVWD) and the Desert Water Agency (DWA), which is exchanged for State Water Project (SWP) water and recharged to the Whitewater Spreading Basin near Windy Point and Highway 111. Since there are no SWP facilities available to deliver SWP water to the Coachella Valley, CVWD and DWA have been exchanging their SWP allocations (formerly entitlements) for Colorado River water from the Colorado River Aqueduct to replenish groundwater in the Whitewater River Subbasin pursuant to an exchange agreement with The Metropolitan Water District of Southern California (MWD).

IWA, which relies exclusively on groundwater to meet water demands, currently operates 20 wells in the Whitewater River Subbasin. The total pumping capacity of all 20 wells is approximately 69 million gallons per day (mgd). IWA has seven storage reservoirs with a total capacity of 19 million gallons for water storage. In addition, the IWA distribution system includes four pressure zones, six pumping plants and 350 miles (mi) of water supply and distribution pipelines ranging in diameter from 2 to 24 inches.⁷ IWA tests the quality of water from each of its wells and has consistently met all drinking water standards.

¹ California Department of Water Resources, *Coachella Valley Investigation, Bulletin 108*, 1964.

² United States Department of the Interior, United States Geological Survey, *Water Supply Paper 2027, Analog Model Study of the Ground-Water Basin of the Upper Coachella Valley, California*, prepared by Tyley, Stephen J., 1974.

³ United States Department of the Interior, United States Geological Survey, *Water Resources Investigation 77-29, Predicted Water-Level and Water-Quality Effects of Artificial Recharge in the Upper Coachella Valley, California, Using a Finite-Element Digital Model*, prepared in cooperation with the Desert Water Agency and the Coachella Valley Water District, prepared by Swain, Lindsay A., 1978.

⁴ United States Department of the Interior, United States Geological Survey, *Water Resources Investigation 91-4142: Evaluation of a Ground-Water Flow and Transport Model of the Upper Coachella Valley, California*, 1992.

⁵ California Department of Water Resources, *Coachella Valley Investigation, Bulletin 108*, 1964.

⁶ California Department of Water Resources, *California's Groundwater, Bulletin 118, Update 2003*, October 2003.

⁷ *Coachella Valley Integrated Regional Water Management Plan*, prepared by Coachella Valley Regional Water Management Group, December 2010.

IWA's historic groundwater extractions from the Whitewater River Subbasin for the past 8 years (2005–2012) are shown in Table 4.11.B below.

**Table 4.11.B: IWA Whitewater River Subbasin
Historic Groundwater Extractions (acre-feet/year)**

Year	AF/YR
2005	20,827
2006	24,446
2007	23,233
2008	23,647
2009	22,363
2010	21,492
2011	22,167
2012	22,170

Source: *Water Supply Assessment for Riverside County East County Detention Center Expansion (Indio Jail)*, Krieger & Stewart, Inc., April 2013.
af/yr = acre-feet per year

IWA serves the existing jail facilities and other uses on the project site through its local public (municipal) water system in accordance with its applicable rules and regulations, including applicable IWA, City of Indio, and State landscaping guidelines. The water supply for IWA is from groundwater extracted from the local aquifer using off-site water production wells for delivery through its public (municipal) water system.

Wastewater. The Valley Sanitary District (VSD) provides wastewater/sewer services to the project site and the greater area of Indio. VSD conveys, treats, and recycles wastewater for discharge to the Coachella Valley Storm Water Channel or treats the wastewater to secondary standards for irrigation use on local tribal lands. Current wastewater production on the project site is approximately 73 acre-feet per year (af/yr). The current capacity of the VSD Wastewater Reclamation Facility (VSD WWRF) located on Van Buren Street is approximately 11 mgd.¹ The facility will ultimately expand to accommodate 17 mgd by 2020. Average wastewater flow at the VSD WWRF is approximately 9 mgd. VSD provides waste water services to the project site via a 12-inch main sewer line on Highway 111.

Storm Water Drainage. Refer to Section 4.8, Hydrology and Water Quality, for the discussion on drainage.

Solid Waste. Burrtec Waste Industries, Inc. (Burrtec) currently provides automated trash and recycling services to the City. Trash is taken to a solid waste transfer station where it is loaded into

¹ VSD existing and ultimate treatment capacities and current wastewater flows were obtained from IWA's 2010 Urban Wastewater Management Plan.

tractor-trailers for hauling to the landfill. Burrtec's contract calls for solid waste collected to be transported to the Edom Hill Transfer station off Edom Hill Road, north of Cathedral City. At the transfer station, waste enters the Riverside County Waste Management waste stream, is sorted, and sent to either the Lamb Canyon landfill in Beaumont, the Badlands landfill in Moreno Valley, or the El Sobrante landfill in Corona.

According to County billing records for the solid waste services at the existing project site, 632 tons of waste, and 56 tons of recyclable material totaling 688 tons, are hauled off the site per year for the jail, the County Administrative Center (CAC) Building and the Law Library.

Electricity Service. Electricity service within the project region including the project site is provided by the Imperial Irrigation District (IID). IID Electricity provides electric power to more than 145,000 customers in the Imperial Valley and parts of Riverside and San Diego counties. According to the project engineers, current peak electric usage on the project site is estimated to be 900 kilovolt-amps (KVA).

Gas Service. The Southern California Gas Company (SoCal Gas) provides natural gas service throughout the project region. SoCal Gas provides natural gas service to more than 20 million consumers in more than 500 communities throughout a 20,000 sq mi service area in Central and Southern California, from Visalia in the north to the Mexican border in the south. The company's natural gas service facilities include approximately 49,000 mi of transmission and distribution pipelines, and 46,000 mi of service pipelines. In total, SoCal Gas delivers nearly 1 trillion cubic feet of gas annually, or approximately 5 percent of all the natural gas delivered in the United States. According to County billing records for the existing jail, 44,046 therms (therm = 100 cubic yards [cy]) of natural gas were used in 2011, and 38,841 therms were used in 2012.

4.11.2 Regulatory Setting

Assembly Bill 939: Solid Waste Reduction. Assembly Bill (AB) 939 requires that every city and county in California implement programs to recycle, reduce refuse at the source, and compost solid waste in order to achieve a 50 percent reduction in solid waste disposed of at landfills. AB 939 also requires counties to prepare an Integrated Waste Management Plan (IWMP). For Riverside County, the IWMP includes the following: the Riverside Countywide Summary Plan and the Riverside Countywide Siting Element, a Source Reduction and Recycling Element (SRRE), a Nondisposal Facility Element (NDFE), and a Household Hazardous Waste Element (HHWE) for the County and each of its cities. In accordance with AB 939, local agencies must submit an annual report to IWMP summarizing their progress in diverting solid waste disposal.

Assembly Bill 341: Mandatory Recycling. AB 341 mandates businesses and public entities generating 4 cy or more of waste per week and multifamily residential dwellings with five units or more to recycle. This regulation went into effect on July 1, 2012.

Senate Bill 1374: Construction and Demolition Waste Reduction. Senate Bill (SB) 1374 requires that the annual report submitted to CalRecycle (formerly the California Integrated Waste Management Board, which oversees waste stream issues in the State) include a summary of the progress made in the diversion of construction and demolition waste materials. In addition, SB 1374 requires CalRecycle to adopt a model ordinance suitable for adoption by any local agency that required 50–75 percent diversion of construction and demolition waste materials from landfills by March 1, 2004. Local jurisdictions are not required to adopt their own construction and demolition ordinances, nor are they required to adopt CalRecycle’s model by default. However, adoption of such an ordinance may be considered by CalRecycle when determining whether to impose a fine on a jurisdiction that has failed to implement its SRRE.

Senate Bill No. 610. SB 610 stipulates that water supply assessments must be furnished to local governments for inclusion in any environmental documentation for certain specified projects subject to the California Environmental Quality Act (CEQA). The County of Riverside has elected to prepare an EIR in accordance with CEQA and, because of the projected water demand for the proposed ECDC, a WSA was prepared for inclusion in the EIR to satisfy the requirements of SB 610. The WSA is included in Appendix G.

Under SB 610, a WSA is required for a project with a water demand equivalent to or greater than that of a 500-unit housing development. Typically, the water demand for a 500-unit housing development in the Coachella Valley would range from approximately 500 to 850 af/yr. Although the project’s estimated increase in demand (over existing) of approximately 179 af/yr falls substantially short of the AB 610 threshold, the County elected to prepare a WSA to ensure a thorough evaluation of the project’s environmental effects.

Title 24 of the California Administrative Code: California Building Energy Efficiency Standards. Title 24 of the California Administrative Code, known as the California Building Energy Efficiency Standards, regulates energy consumption in new construction. These standards are typically updated every 3 years by the California Energy Commission (CEC). Title 24 regulates building energy consumption for heating, cooling, ventilation, water heating, and lighting with regard to both electricity and natural gas. It may be met in one of the following two ways: by meeting performance criteria (measured in British Thermal Units [BTU] per square foot per year) or by installing a prescriptive list of energy conservation measures.

Climate Change Policies. Numerous State laws addressing greenhouse gas/climate change have been adopted to abate greenhouse gas production and reduce consumption and waste production. These laws are discussed in detail, along with the project’s potential impacts related to greenhouse gas emissions, in Section 4.4, Climate Change.

County of Riverside General Plan Land Use Element Policies. The County’s General Plan Land Use Element includes the following policies related to public services and utilities that are applicable to the proposed project site:

- **LU 5.1.** Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities, transportation systems, and fire/police/medical services.
- **LU 5.2.** Monitor the capacities of infrastructure and services in coordination with service providers, utilities, and outside agencies and jurisdictions to ensure that growth does not exceed acceptable levels of service.

County of Riverside General Plan Multipurpose Open Space Element Policies. The County's General Plan Multipurpose Open Space Element includes the following policies related to public services and utilities that are applicable to the proposed project site:

- **OS 16.1.** Continue to implement Title 24 of the State Building Code. Establish mechanisms and incentives to encourage architects and builders to exceed the energy efficiency standards of Title 24.
- **OS 16.2.** Specify energy efficient materials and systems, including shade design technologies, for County buildings.
- **OS 16.9.** Encourage increased use of passive, solar design, and day-lighting in existing and new structures.

City of Indio General Plan Policies. The Public Health and Safety Element of the City's 2020 General Plan, which addresses public services in the City, includes the following goals and policies related to fire protection and emergency medical services:

- **Fire Services**
 - **Policy PF-2.1.** Minimize fire losses and damage within the City.
 - **Policy PF-2.2.** Provide a level of service that is adequate to provide all members of the community with fire protection.
 - **Policy PF-2.5.** Continue to participate in mutual aid agreements with surrounding jurisdictions in order to increase service capabilities for major fires.
- **Emergency Preparedness**
 - **Policy EP-1.2.** Ensure that the City's basic emergency plan meets current federal, state, and local emergency requirements.
 - **Policy EP-1.3.** Ensure that the City's emergency response teams are prepared to respond to the public's needs in any emergency situation.

Section 3.3 Infrastructure/Public Services Element of the City's 2020 General Plan includes the following relevant policies with regard to infrastructure:

- **Domestic Water**
 - **Policy DW-1.1.** The City shall provide an adequate supply of domestic water needed to meet current demand.

4.11.3 Methodology

This EIR section includes information concerning current levels of service to the project site and information on possible constraints or impacts to services at project build out. The impact analyses are based on the project description, information available on agency websites, and engineering studies.

4.11.4 Thresholds of Significance

The effects of a project on public services and utilities may be considered significant if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for public services, including fire protection, police protection, schools, libraries, or other public facilities;
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new expanded entitlements needed;
- Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; or
- Comply with federal, State, and local statutes and regulations related to solid waste.

4.11.5 Impacts and Mitigation Measures

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and are considered less than significant.

General Plan Analysis. The County's General Plan includes policies related to public services and utilities in the Land Use Element and Multipurpose Open Space Element that are related to the proposed project. The proposed project is compliant with all of the applicable General Plan policies. Therefore, the project would not result in conflicts with the policies within either the

General Plan Land Use or Multipurpose Open Space Elements, and significant impacts related to this issue would not occur.

The proposed project, while it is not subject to the policies of the City's General Plan, is in compliance with the applicable policy regarding provision of domestic water supply. The County prepared a WSA for review by the IWA. Therefore, no conflicts with the City's General Plan policies are noted. This impact would be considered less than significant.

Police Protection.

Impacts to Existing Police Services. As described previously, the Riverside County Sheriff's Station that currently serves the jail is the Thermal Station, which is located approximately 5 mi from the project site on Airport Boulevard in Thermal. The proposed project would continue to use Sheriff's staff to provide police services at the proposed ECDC. Therefore, the project would not impact police services in the City of Indio.

In addition, the number of service calls for the proposed ECDC is not expected to increase substantially because of the level of supervision and oversight that would be present at the proposed ECDC. However, if needed (i.e., in the case of a major emergency), it is anticipated that local law enforcement officers from the Thermal Sheriff's Station would be available to assist ECDC staff in responding to that event. Also, the Palm Desert Sheriff's Station is located near the project site and service calls could also be routed to this station in the event of an emergency. It is anticipated that the need for mutual assistance between IPD and the proposed ECDC facility would be an uncommon event.

Secure Design and Operation of the Detention Center. As discussed previously in Section 3.7, the ECDC facility would use a combination of physical barriers and procedures to maintain security, including: reinforced concrete and steel barriers, detention-grade locks, and security cameras and control systems. These security procedures are based on best practices established from experiences at existing Riverside County jails and other detention facilities throughout the country. With implementation of these security measures, the proposed project is not anticipated to result in an increase in crime in the vicinity of the proposed project site.

Water Supply. As noted in the WSA, water demand for the project is estimated to increase from 81 af/yr to 258 af/yr. The incremental increase in demand resulting from project implementation will be approximately 0.4 percent of IWA's total water demand through 2030, less than 0.1 percent of the total estimated gross groundwater production in the Whitewater River Subbasin through 2030, and considerably less than that of a typical 500-unit housing development, which is the benchmark comparison for WSAs.

Water supply for the project will be derived entirely from groundwater provided by the IWA. The groundwater wells are located throughout IWA's service area and connected to a single distribution system. IWA will serve the project with groundwater extracted from the Whitewater River Subbasin of the Coachella Valley Groundwater Basin. Groundwater currently in storage,

supplemented with imported Colorado River Water, and IWA's existing well pumping capacity are available and sufficient to meet full project demands for at least the next 20 to 30 years (the analysis horizon for the WSA), or longer. Groundwater levels in the Whitewater River Subbasin have historically been in decline due to drought conditions, increased groundwater production, and surface water diversions. However, groundwater levels have stabilized or increased in portions of the subbasin due to the influence of replenishment activities conducted by CVWD and DWA within the Whitewater River Subbasin.

All groundwater extracted by IWA from the Whitewater River Subbasin is subject to an assessment that contributes to the replenishment of the Whitewater River Subbasin by CVWD, which contributes to retardation of the decline of groundwater levels within the Whitewater River Subbasin by retarding of cumulative overdraft. Therefore, impacts to water supply are considered less than significant.

Gas Service. Implementation of the proposed project would cause an increase in demand for natural gas. The project's natural gas demand is estimated to be 124,205 therms per year¹ for operations. The projected gas demands would be generated by the kitchen, water heaters, and boilers for ECDC. Although the project would cause an increase in the demand for natural gas supplies, the increase would be minimal in relation to the total SoCal Gas demands within the service area, and SoCal Gas would be able to serve the proposed project. Therefore, because the proposed project would not affect SoCal Gas's ability to provide natural gas to its service area, the project would have a less than significant impact on natural gas services.

Potentially Significant Impacts.

Fire Protection/Emergency Services. As discussed above, fire protection for the site is provided by the City of Indio. Based on comparisons with other County detention centers with similar populations and services that are projected for the ECDC, it is anticipated that service calls would increase to 15 to 20 per month² from the current average of 4 calls per month. That translates to an additional 240 service calls annually. While this increase would not necessitate additional facilities such as a new station, additional staffing and equipment may be needed to accommodate the increase while maintaining service ratios and response times.

Wastewater. Implementation of the proposed project would increase the quantity of wastewater from 73 af/yr (existing) to 232 af/yr (proposed). As stated earlier, the wastewater would be conveyed to the existing sewer main in Highway 111. According to VSD, the existing 12-inch mainline pipe would not be able to accommodate the additional wastewater flows and it would need to be upgraded to a larger capacity pipe. Based on ongoing discussions between the County

¹ HOK Engineers, April 2013.

² Service calls at other Riverside County detention centers for 2012 were: Robert Presley Detention Center with a capacity of 807 beds (55 medical beds) averages 14 service calls per month; Larry D. Smith Correctional Facility with a capacity of 1,520 beds (0 medical beds) averages 14 service calls per month; Southwest Detention Center with a capacity of 1,111 beds (15 medical beds) averages 10 service calls per month.

and VSD, VSD is currently studying capacity issues on the existing sewer main. However, the results of the study will not be available until late May. At the time of preparation of this EIR, this information remains unknown. Therefore, to ensure that no impacts occur to the VSD wastewater system, a significant impact is assumed and mitigation is provided in WW-1. It is noted that the County cannot act on its own regarding provision of wastewater systems and that it is entirely in the purview of VSD. Implementation of Mitigation Measure WW-1 would ensure that the County contributes its fair-share of the improvements to the VSD wastewater system.

Solid Waste. Implementation of the proposed project would result in additional solid waste generated at the project site. The volume of solid waste that is estimated to be generated from the operation of the proposed project is based on the current volume of solid waste generated by the existing detention center facility. As previously stated in the existing setting, the 353-bed jail generates approximately 632 tons of refuse and 56 tons of recyclable material, totaling 688 tons of waste per year. When averaged on a ton per bed basis, it is projected that 1.8 tons of refuse and 0.16 ton of recyclables are currently being produced per bed annually. The 1,273 proposed additional beds would produce an additional 2,291 tons of refuse and 204 tons of recyclable material for a total of 2,495 tons of additional solid waste. Therefore, the total projected solid waste generated at the site would be 3,183 tons per year.

As described above, AB 939 requires that the County implement programs to recycle, reduce refuse at the source, and compost waste to achieve a 50 percent reduction in the solid waste taken to landfills. SB 1374 further supports diverting construction waste from landfills. In order to ensure compliance and consistency with County solid waste reduction policies and solid waste diversion requirements, the proposed project will incorporate a Solid Waste Management Plan (SWMP) as part of Mitigation Measure SW-1 to direct source reduction efforts into the project design and operation of the ECDC. This includes the collection of recyclable materials, use of recyclable containers for kitchen supplies, composting food waste from the kitchen, and includes provisions for the collection of recyclables in refuse collection contracts. Implementation of the SWMP would largely reduce the amount of waste being disposed of at landfills. Mitigation Measure SW-2 includes requirements for construction waste recycling.

Electricity Service. Implementation of the proposed project would result in an increase in electrical demands. The anticipated peak electrical load is estimated to be approximately 5000 KVA for the proposed ECDC facility. Based on coordination with the IID, the proposed ECDC Project will necessitate line extensions to the site which will be made by IID pursuant to Regulation 15 and Regulation 2. In order to accommodate the additional power demand on the electrical infrastructure, IID has identified one improvement that must be made to the system. The improvement consists of a new primary distribution feeder in the area (conduit installation and cable for an underground route or overhead line extension, whichever is applicable) from the existing IID Jackson substation. This improvement would upgrade an existing facility and existing infrastructure. The County would not do the improvement, but would provide IID with fees as part of its connection agreement with IID to have IID implement the improvement as described in Mitigation Measure ES-1. It is noted that the County cannot act on its own regarding power supply and that it is entirely in the purview of IID as regulated by the CEC and the California Public Utilities Commission. Implementation of Mitigation Measure ES-1 would

ensure that the County provides necessary improvements to the IID power supply system to accommodate the project.

Mitigation Measures.

- FS-1 Fire Services Review.** In order to ensure acceptable service ratios and response times are maintained at the City of Indio's (City) Fire Department, the County of Riverside (County) shall coordinate annually with the City and the California Department of Forestry and Fire Protection (CalFire) as part of fire services agreements, to ensure adequate staffing and equipment are provided. The County shall fund its share of any additional staffing and equipment required to adequately serve the East County Detention Center (ECDC) development, as mutually agreed upon by the City, County, and CalFire.
- WW-1 Wastewater System Upgrade Agreement.** Prior to issuance of grading permits, the County as part of its connection agreement with the Valley Sanitary District (VSD) for wastewater service will contribute fees (on a pro-rata basis) negotiated with VSD to upgrade the sewer main in Highway 111. Any upgrades shall be supported by a needs analysis and study performed by VSD and reviewed by the County. In the event, the County disagrees with the findings of VSD's study, the County can elect to provide its own study as part of the determination for the pro-rata fees.
- SW-1 Solid Waste Management Plan.** Prior to final design of the East County Detention Center (ECDC), the Solid Waste Management Plan for the proposed project shall be developed by the Sheriff's Department in consultation with the Riverside County Waste Management Department and the Economic Development Agency, Facilities Management. The plan shall incorporate source reduction, recycling, and composting into the project design. The plan shall also identify methods to reuse materials and containers or utilize recyclable materials in compliance with State and local requirements.
- SW-2 Construction Waste Recycling.** Prior to the issuance of demolition, grading or building permits, all construction documents at all phases shall be required by notation on the construction plans that the following contractor requirement is included:
- All construction phases are required to employ a construction waste recycling plan consistent with Form B of the County Construction and Demolition Waste Diversion Program. Regular monitoring and reporting consistent with Form C of the County Construction and Demolition Waste Diversion Program is required on a bi-weekly basis.
- ES-1 Electric Service and Upgrade Agreement.** Prior to issuance of grading permits, the County as part of its connection agreement with the Imperial Irrigation District (IID) for electric service will contribute fees for a new primary distribution feeder in the

area (conduit installation and cable for an underground route or overhead line extension, whichever is applicable, from the existing IID Jackson substation.

4.11.6 Level of Significance after Mitigation

Potential impacts related to public services and utilities have been determined to be less than significant with the implementation of Mitigation Measures FS-1, WW-1, SW-1, SW-2, and ES-1.

4.12 TRAFFIC AND CIRCULATION

This section analyzes the potential traffic and circulation impacts of the proposed ECDC based on the *Traffic Study* (LSA Associates, Inc. [LSA], April 2013), which is included as Appendix I to this Environmental Impact Report (EIR). The analysis contained in the *Traffic Study* has been prepared to meet the California Environmental Quality Act (CEQA) requirements for the County of Riverside (County). However, because of the location of the project, the City of Indio (City) standards were applied. The *Traffic Study*, including trip generation, trip distribution, study area, and analysis methodologies, has been reviewed and approved by City of Indio staff and has been prepared in accordance with the *Traffic Impact Analysis Preparation Guidelines*, Riverside County Transportation Department, April 2008 (County guidelines).

The *Traffic Study* examines traffic operations at 28 intersections and driveways within the project vicinity under (1) Existing (2013) Baseline without and with project build out conditions, (2) Project Completion (2014) without and with project (Phase I) conditions, (3) Cumulative (2014) without and with project (Phase II) conditions, and (4) Year 2035 without and with project (build out) conditions. For the purposes of this EIR, impacts have been assessed based on the project's effect on Existing (2013) Baseline, Opening Year (2014) Cumulative, and Future (2035) Cumulative conditions. These three scenarios are defined as follows:

- Existing (2013) Baseline = Existing (2013) Baseline scenario from the *Traffic Study*;
- Opening Year (2014) Cumulative = Cumulative (2014) without project scenario from the *Traffic Study*; and
- Future (2035) Cumulative = Year 2035 without project scenario from the *Traffic Study*.

4.12.1 Existing Environmental Setting

Existing Roadway Network. The project site is located in the center of the City and is characterized by a network of roadways providing local access and access to Interstate 10 (I-10). I-10 provides regional access to the project site. Freeway access to the project site is provided via the Monroe Street/I-10 and Jackson Street/I-10 westbound and eastbound ramps.

The principal local network of roadways serving the project site includes Monroe Street, Arabia Street, Oasis Street, Jackson Street, Avenue 44, Fred Waring Drive, Miles Avenue, Requa-Shadow Palm Avenue, Highway 111, Dr. Carreon Boulevard, and Avenue 48. All of the roadways are maintained by and under the jurisdiction of the City, with the exception of Highway 111, which is maintained by and under the jurisdiction of the California Department of Transportation (Caltrans). The following discussion provides a brief synopsis of these key area roadways. Further description of these roadways and the study area intersections is provided later in this section under "Existing Traffic Volumes." The descriptions below are based on an inventory of existing roadway conditions and the roadway classifications contained in the City of Indio General Plan Circulation Element.¹ The descriptions generally focus on the roadway conditions and classifications for the roadways discussed in the *Traffic Study*. Figure 4.12-1 (all figures located at the end of section) shows the location of the

¹ City of Indio General Plan Circulation Element, Roadway Classifications. Adopted by City Council September 17, 2008.

proposed project in relation and the study area intersections analyzed in this EIR. Figure 4.12-2 shows the existing approach lane geometrics and intersection control for the study area intersections.

- **Monroe Street:** A four-lane north-south arterial roadway south of the I-10 interchange and to the southern City limits and beyond, and a two-lane arterial in the vicinity of the I-10 interchange. The roadway is classified in the City's General Plan Circulation Element as a widened (six-lane) arterial in the vicinity of the I-10 interchange and secondary arterial elsewhere.
- **Arabia Street:** A two-lane north-south collector street extending between Requa Avenue and south to Avenue 48.
- **Oasis Street:** A four-lane north-south secondary arterial roadway extending from Indio Boulevard to Dr. Carreon Boulevard and a two-lane secondary arterial roadway extending from Dr. Carreon Boulevard to Avenue 48.
- **Jackson Street:** A north-south secondary arterial roadway extending from Avenue 41 south to the City limits at Avenue 52 and beyond. Jackson Street contains two southbound lanes throughout its alignment, two northbound lanes from Avenue 41 south to Odlum Drive, and one northbound lane from Odlum Drive to Avenue 52.
- **Avenue 44:** An east-west secondary arterial roadway extending from Monroe Street east to the eastern City limits at Dillon Road. Avenue 44 contains four lanes from Monroe Street to just west of the I-10 undercrossing and two lanes from the undercrossing to its terminus at Dillon Road.
- **Fred Waring Drive:** A six-lane arterial east-west arterial west of Monroe Street and a two-lane east-west arterial between Monroe Street east to its terminus at Indio Boulevard.
- **Miles Avenue:** A four-lane east-west secondary arterial west of Monroe Street and a two-lane secondary arterial east of Monroe Street.
- **Requa-Shadow Palm Avenue:** A two-lane east-west collector street extending from west of Monroe Street to Indio Boulevard.
- **Highway 111:** A four-lane east-west arterial roadway west of Monroe Street, a six-lane east-west arterial roadway east of Monroe Street to Rubidoux Street, and a four-lane secondary arterial from Rubidoux Street east to Indio Boulevard.
- **Indio Boulevard:** A four-lane east-west arterial roadway on the east and west sides of Oasis Street.
- **Dr. Carreon Boulevard:** A four-lane east-west secondary arterial roadway on the east and west sides of Oasis Street.
- **Avenue 48:** A four-lane east-west secondary arterial west of Oasis Street and a four-lane east-west arterial east of Oasis Street.

Existing Public Transit, Golf Cart, and Bicycle Routes. The Sunline Transit Agency provides bus transit service to the City of Indio and throughout the Coachella Valley. Currently, the City is served by fixed Routes 80, 81, 90, 91, and 111. Route 80 is a southbound loop route that provides transit near the project location, with the closest crossings at the Jackson Street/Highway 111 and Oasis Street/Requa Avenue intersections. Route 81 is a northbound loop route that provides transit near the project location, with the closest crossing at the Jackson Street/Highway 111 intersection. Route 90 is

an eastbound and westbound loop route that provides transit near the project location, with the closest crossings at the Jackson Street/Highway 111 intersection. Highway 111 is a regional route providing bus service from Indio to Palm Springs on Highway 111. The nearest transit stop is on Highway 111 at the Larson Justice Center.

SunDial is a paratransit service provided by Sunline Transit Agency that provides next-day public transportation service for persons who are unable to use regular bus service. The service is designed to meet the requirements of the Americans with Disabilities Act (ADA).

In 2011, the City of Indio adopted a Golf Cart Transportation Program. The program allows drivers in golf carts to travel along designated pathways, sidewalks, and bicycle lanes in the City. The program requires the golf cart and the driver to meet certain minimum standards, and the golf cart must have a current permit. In the vicinity of the proposed project, golf cart drivers are permitted to drive on the sidewalk on the east side of Arabia Street from Dr. Carreon Boulevard to Highway 111.

Bicycle travel is currently accommodated in the City by on-street bike lanes. These lanes are marked (i.e., contain striping, signing, and pavement marking) or unmarked. Both marked and unmarked bicycle lanes are legally used by bicyclists for transit purposes.

Existing (2013) Traffic Conditions. This section includes evaluation of operating conditions at 28 key intersections. The location of each study area intersection and the existing intersection geometrics and intersection control are shown in previously referenced Figures 4.12-1 and 4.12-2, respectively. These key intersections were selected for evaluation based on discussions with the City staff and in consideration of the criteria in the *Traffic Impact Analysis Preparation Guidelines*, Riverside County Transportation Department, April 2008 (County guidelines), which generally require the analysis of any intersection of "Collector" or higher classification streets at which the proposed project would add 50 or more peak-hour trips. The study area used in this EIR was based upon discussion with City staff and includes intersections with fewer than 50 project-added peak hour trips. The following study area intersections were approved for analysis by City staff:

- Monroe Street/I-10 Westbound Ramps;
- Monroe Street/I-10 Eastbound Ramps;
- Monroe Street/Oleander Avenue;
- Monroe Street/Avenue 44;
- Monroe Street/Fred Waring Drive;
- Monroe Street/Miles Avenue;
- Monroe Street/Requa-Shadow Palm Avenue;
- Monroe Street/Highway 111;
- Arabia Street/Highway 111;
- Driveway 1-King Street/Highway 111;
- Driveway 2/Highway 111;

- Oasis Street/Indio Boulevard;
- Oasis Street/Miles Boulevard;
- Oasis Street/Bliss Avenue;
- Oasis Street/Requa Avenue;
- Oasis Street/Highway 111;
- Oasis Street/Driveway 3;
- Oasis Street/Court House Driveway-Driveway 4;
- Oasis Street/Plaza Avenue;
- Oasis Street/Parking Structure (PS) Driveway;
- Oasis Street/Dr. Carreon Boulevard;
- Oasis Street/Avenue 48;
- Courthouse Driveway/Plaza Avenue;
- Jackson Street/I-10 Westbound Ramps;
- Jackson Street/I-10 Eastbound Ramps;
- Jackson Street/Highway 111;
- Jackson Street/Plaza Avenue; and
- Jackson Street/Avenue 48.

Existing traffic conditions are based on a.m. and p.m. peak-hour intersection turning movement counts conducted by National Data Services (NDS) in January and February 2013. Figure 4.12-3 shows the existing peak hour traffic volumes. Count data sheets are contained in the *Traffic Study* prepared for the proposed project, which is included as Appendix I. Because large trucks comparatively affect traffic flow more so than passenger cars, their effect is accounted for by converting them into passenger car equivalents (PCEs). The PCE value represents the number of passenger vehicles that could travel through an intersection in the same time that a particular type of truck could. In this EIR, trucks with four or more axles have been assigned a PCE of 3.0; three-axle trucks, 2.0; and two-axle trucks, 1.5.

An intersection Level of Service (LOS) analysis was conducted for existing conditions to determine current circulation system performance. As identified in Table 4.12.A, all study area intersections are currently operating at a satisfactory LOS.

4.12.2 Regulatory Setting

City of Indio General Plan Circulation Element. The City's General Plan Circulation Element includes the following policies related to transportation that are applicable to the proposed project.

Table 4.12.A: Existing (2013) Baseline Intersection Levels of Service without Project

Intersection	Control	Existing without Project					
		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1 Monroe Street/I-10 Westbound Ramps	Signal	0.65	22.1	C	0.62	20.4	C
2 Monroe Street/I-10 Eastbound Ramps	Signal	0.78	24.4	C	0.76	23.5	C
3 Monroe Street/Oleander Avenue	Signal	0.36	17.8	B	0.42	16.0	B
4 Monroe Street/Avenue 44	Signal	0.50	24.3	C	0.55	20.3	C
5 Monroe Street/Fred Waring Drive	Signal	0.55	25.3	C	0.54	29.6	C
6 Monroe Street/Miles Avenue	Signal	0.59	28.3	C	0.60	28.5	C
7 Monroe Street/Requa-Shadow Palm Avenue	Signal	0.39	16.4	B	0.45	20.6	C
8 Monroe Street/Highway 111	Signal	0.45	31.2	C	0.59	33.0	C
9 Arabia Street/Highway 111	Signal	0.26	16.4	B	0.36	18.1	B
10 Driveway 1-King Street/Highway 111	TWSC	—	10.5	B	—	11.6	B
11 Driveway 2/Highway 111	TWSC	—	10.5	B	—	11.3	B
12 Oasis Street/Indio Boulevard	Signal	0.32	10.7	B	0.40	18.7	B
13 Oasis Street/Miles Boulevard	Signal	0.12	15.1	B	0.13	15.1	B
14 Oasis Street/Bliss Avenue	AWSC	0.19	8.7	A	0.22	8.9	A
15 Oasis Street/Requa Avenue	Signal	0.34	27.5	C	0.41	28.3	C
16 Oasis Street/Highway 111	Signal	0.36	23.2	C	0.33	18.2	B
17 Oasis Street/Driveway 3	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
18 Oasis Street/Court House Driveway-Driveway 4	AWSC	0.58	11.5	B	0.37	9.1	A
19 Oasis Street/Plaza Avenue	AWSC	0.24	9.3	A	0.29	9.8	A
20 Oasis Street/PS Driveway	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
21 Oasis Street/Dr. Carreon Boulevard	Signal	0.19	11.4	B	0.21	12.9	B
22 Oasis Street/Avenue 48	TWSC	—	15.4	C	—	15.2	C
23 Courthouse Driveway/Plaza Avenue	TWSC	—	12.0	B	—	9.3	A
24 Jackson Street/I-10 Westbound Ramps	Signal	0.52	15.8	B	0.55	17.5	B
25 Jackson Street/I-10 Eastbound Ramps	Signal	0.42	21.6	C	0.55	19.2	B
26 Jackson Street/Highway 111	Signal	0.42	32.5	C	0.50	33.3	C
27 Jackson Street/Plaza Avenue	TWSC	—	12.8	B	—	13.4	B
28 Jackson Street/Avenue 48	Signal	0.33	32.1	C	0.52	33.2	C

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

I-10 = Interstate 10

TWSC = Two-Way Stop Control

LOS = level of service

V/C = Volume/capacity ratio

PS = parking structure

- **CIR 1.1:** Maintain a minimum Level of Service “C” at all intersections during nonpeak hours and Level of Service “D” at all intersections during peak hours to ensure that traffic delays are kept to a minimum.
- **CIR 2.1:** Require dedication and/or construction of appropriate facilities in support of a public transportation system.
- **CIR 2.2:** Provide a circulation network that accommodates the safe and efficient movement of cyclists on bike lanes and bike trails.
- **CIR 2.3:** Provide a system of sidewalks or pathways in residential and commercial areas that provides a safe environment for pedestrians.
- **CIR 3.1:** Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities, which address area-wide and regional travel needs.

- **CIR 4.2:** Provide joint-use and public parking facilities where needed by special assessment districts or other mechanisms.

4.12.3 Methodology

Traffic Level of Service Definitions. Roadway operations and the relationship between capacity and traffic volumes are generally expressed in LOS, which are defined using the letter grades A through F (Table 4.12.B) and reflect the reality that conditions rapidly deteriorate as traffic approaches a thoroughfare’s absolute capacity.

Table 4.12.B: Level of Service Definitions

LOS	Description
A	No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally, drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: *Transportation Research Board Special Report 209, Highway Capacity Manual, 2000 Update.*

LOS was used in the *Traffic Study* to determine adequate operation of each of the study area intersections. These intersections were selected based on City staff recommendations and in consideration of the criteria contained in the County traffic study guidelines. The distribution of project trips was developed in consultation with City staff by examining the locations of the proposed project trips in relation to the regional roadway network, which follows the current practice. The ramp terminus intersections on I-10 and intersection on Highway 111 are under the jurisdiction of Caltrans; all other study area intersections are under the jurisdiction of the City.

The LOS criteria for unsignalized and signalized intersections are based on the 2000 *Highway Capacity Manual* (HCM 2000) methodology. A summary of the criteria are shown in Table 4.12.C.

Table 4.12.C: Level of Service Criteria for Unsignalized and Signalized Intersections

Level of Service	Unsignalized Intersection Average Delay per Vehicle (seconds)	Signalized Intersection Average Delay per Vehicle (seconds)
A	< 10	< 10
B	> 10 and < 15	> 10 and < 20
C	> 15 and < 25	> 20 and < 35
D	> 25 and < 35	> 35 and < 55
E	> 35 and < 50	> 55 and < 80
F	> 50	> 80

Source: Chapters 16 and 17 of *Highway Capacity Manual 2000* Update.

Consistent with the County traffic study guidelines, HCM 2000 analysis methodologies were used to determine intersection LOS. All LOS were calculated using the Traffix 7.9 software, which uses the HCM 2000 methodologies.

According to the City General Plan, the City of Indio level of service standard is LOS D during peak hours at intersections, where reasonable and feasible. Where a peak hour intersection LOS D is not reasonable or feasible, then LOS E is considered to be the standard. The following factors are considered when determining whether LOS D is reasonable and feasible:

- Excessive right-of-way acquisition to attain LOS D;
- Unreasonable costs to attain LOS D;
- Impacts to other environmental resources to achieve LOS D, such as biological resources or cultural resources such as historic properties; and
- Conflicts with other general plan policies, such as:
 - Provisions for alternative transportation such as public transit, pedestrian facilities, and/or bicycle routes; and
 - Provisions for neighborhood preservation.

Caltrans also endeavors to maintain LOS D at intersections under its jurisdiction. Therefore, any intersection forecast to operate at LOS E or F is considered impacted and in need of mitigation, with the exception of intersections under the jurisdiction of the City where a LOS D standard has been determined to be not reasonable or feasible.

4.12.4 Thresholds of Significance

Criteria for determining the significance of impacts to transportation and circulation are based on the CEQA Guidelines for the implementation of CEQA. Project-related traffic impacts may be considered potentially significant if the project would:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation

system, including but not limited to intersections, streets, highways, freeways, pedestrian and bicycle paths, and mass transit;

- Conflict with an applicable congestion management program, including but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- Result in inadequate emergency access; and/or
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

Consistent with the level of service standards defined above, a significant project direct traffic impact would occur if project traffic, when added to existing traffic, causes the level of service to deteriorate to below the LOS standard at a study area intersection. The project would contribute to a significant cumulative traffic impact if project traffic plus opening year (2014) cumulative or future (2035) cumulative traffic causes a study area intersection to operate at less than the LOS standard.

4.12.5 Impacts and Mitigation Measures

Less Than Significant Impacts. The following impacts that could result from implementation of the proposed project were evaluated and determined to be less than significant.

General Plan Circulation Element Analysis. The City's General Plan includes policies related to traffic standards. These standards are located in the General Plan Circulation Element. The proposed project is compliant with all of the applicable General Plan policies, as shown in Table 4.12.D. Therefore, the project would not result in conflicts with the policies in the General Plan Circulation Element, and no significant physical changes would result from the proposed project's consistency with applicable traffic and circulation policies.

Traffic Generation/Level of Service. Existing peak-hour traffic operations have been evaluated for both the a.m. and p.m. peak hours of traffic at the study area intersections. An LOS analysis was conducted to evaluate existing a.m. and p.m. peak-hour traffic operations at the study area intersections. LOS is discussed in the following paragraphs for three scenarios:

- Existing (2013) Baseline without project conditions;
- Opening Year (2014) Cumulative without project conditions; and
- Future (2035) Cumulative without project conditions.

Table 4.12.D: Applicable County of Riverside Circulation Element Policies

Circulation Element Policies	Analysis
<p>CIR 1.1: Maintain a minimum Level of Service “C” at all intersections during nonpeak hours and Level of Service “D” at all intersections during peak hours to ensure that traffic delays are kept to a minimum.</p>	<p>The <i>Traffic Study</i> for the proposed project (included as Appendix I to this EIR) has been prepared to meet the requirements of the City, and consistent with the Riverside County traffic study guidelines. The scope of work for the <i>Traffic Study</i>, including trip generation, trip distribution, study area, and analysis methodologies, has been reviewed and approved by City staff. The City’s LOS standards for local street intersections and Caltrans LOS standards for freeway ramp terminus intersections with local streets and intersections on state highways have been applied to the <i>Traffic Study</i> to assess the impacts created by projected traffic from the project. Mitigation measures to offset traffic impacts created by the proposed project are not required because the proposed project would not result in significant traffic impacts. Therefore, the project is compliant with Policy CIR 1.1.</p>
<p>CIR 2.1: Require dedication and/or construction of appropriate facilities in support of a public transportation system.</p>	<p>The project site is located within walking distance of four bus routes that would serve the transit needs of the proposed project. No additional transit improvements are required. Therefore, the project is compliant with Policy CIR 2.1.</p>
<p>CIR 2.2: Provide a circulation network that accommodates the safe and efficient movement of cyclists on bike lanes and bike trails.</p>	<p>The project site is located near the designated bicycle route on Arabia Street. The project would not otherwise affect bicycle transportation. No additional bicycle improvements are required. Therefore, the project is compliant with Policy CIR 2.2.</p>
<p>CIR 2.3: Provide a system of sidewalks or pathways in residential and commercial areas that provides a safe environment for pedestrians.</p>	<p>The project site is located adjacent to the Old Town Specific Plan. The project vicinity includes numerous commercial, office, and retail uses with adequate pedestrian accommodations via sidewalks. The project would result in the construction of new street-adjacent sidewalks and would not otherwise affect pedestrian movements. No additional pedestrian/bicycle improvements are required. Therefore, the project is compliant with Policy CIR 2.3.</p>
<p>CIR 3.1: Interface with appropriate jurisdictions and agencies to encourage the timely improvement of roadway and transit facilities, which address area-wide and regional travel needs.</p>	<p>As indicated in the <i>Traffic Study</i> for the proposed project and discussed subsequently in this section of the EIR, the project would result in a less than significant impact to the local and regional roadway system, and no mitigation is required. Therefore, the project is compliant with Policy CIR 3.1.</p>
<p>CIR 4.2: Provide joint-use and public parking facilities where needed by special assessment districts or other mechanisms.</p>	<p>The proposed project includes construction of an on-site PS and surface parking spaces to accommodate the parking demand from employees and visitors. No additional parking improvements are required. Therefore, the project is compliant with Policy CIR 4.2.</p>

Source: County of Riverside Circulation Element, 2008.

CEQA = California Environmental Quality Act

LOS = level of service

EIR = Environmental Impact Report

PS = parking structure

Existing (2013) Baseline without Project Conditions. Existing traffic volumes at study area intersections for 2013 without project conditions represent the existing baseline conditions. Existing peak-hour traffic volumes for the study area intersections are presented in previously referenced Figure 4.12-3. As identified in previously referenced Table 4.12.A, all study area intersections would operate at a satisfactory LOS in the 2013 baseline condition without the proposed project.

Opening Year (2014) Cumulative without Project Conditions. Background traffic volumes at study area intersections at project opening in Year 2014 without project conditions represent the Opening Year without project conditions. Figure 4.12-4 shows Opening Year (2014) Cumulative peak-hour traffic volumes for the study area intersections. These traffic volumes were developed by increasing existing volumes by a 1.43 percent annual growth rate (calculated based on the growth from the base year General Plan traffic model to the year 2035 General Plan traffic model) and added traffic from two cumulative projects (County Law Building and College of the Desert). As identified in Table 4.12.E, all study area intersections would operate at a satisfactory LOS in the Opening Year (2014) Cumulative scenario without the project.

Future (2035) Cumulative without Project Conditions. Background traffic volumes at study area intersections for Future (2035) without project conditions were developed by applying the annual growth rate of 1.43 for 22 years (2013 to 2035) and adding trips from the two cumulative projects identified above. In addition, trips from the La Entrada Specific Plan in the City of Coachella were also added to this scenario. Figure 4.12-5 shows Future (2035) Cumulative peak-hour traffic volumes for the study area intersections. La Entrada Specific Plan traffic volumes were not included in the Opening Year (2014) Cumulative analysis because it will not be open in 2014. As identified in Table 4.12.F, all study area intersections would operate at a satisfactory LOS in the Future (2035) Cumulative scenario without the project.

Project Trip Generation. Trip generation estimates for the proposed project were developed using operational data obtained from the Riverside County Sheriff's Department based on traffic data collected at the Smith Correctional Facility (SCF) in Banning for 1 week in July 2012. Employee, public visitor, and attorney visits were calculated at SCF. The actual number of bookings at the existing ECDC facility was also calculated for the identified July 2012 survey period. Table 4.12.G summarizes the trip generation for the project. The proposed project is expected to generate 1,117 daily PCE trips with 143 PCE trips in the a.m. peak hour and 188 trips in the p.m. peak hour.

Trip Distribution and Assignment. Generalized trip distribution patterns are based on the location of the project in relation to the regional roadway network. Figure 4.12-6 illustrates the distribution of project trips at the study intersections.

Trip assignment for the project trips is the product of the project trip generation and the trip distribution percentages. Figure 4.12-7 illustrates the project trip assignment for the project.

The assigned trips were added to the Existing (2013) Baseline, Opening Year (2014) Cumulative, and Future (2035) Cumulative background volumes to obtain the plus project traffic volumes for the three scenarios.

Table 4.12.E: Opening Year (2014) Intersection Levels of Service without Project

Intersection	Control	Opening Year Cumulative without Project					
		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1 Monroe Street/I-10 Westbound Ramps	Signal	0.67	22.8	C	0.62	20.8	C
2 Monroe Street/I-10 Eastbound Ramps	Signal	0.81	25.9	C	0.79	24.3	C
3 Monroe Street/Oleander Avenue	Signal	0.37	17.6	B	0.43	15.8	B
4 Monroe Street/Avenue 44	Signal	0.50	24.3	C	0.57	20.4	C
5 Monroe Street/Fred Waring Drive	Signal	0.55	25.2	C	0.56	29.6	C
6 Monroe Street/Miles Avenue	Signal	0.62	28.6	C	0.62	28.6	C
7 Monroe Street/Requa-Shadow Palm Avenue	Signal	0.42	16.2	B	0.47	20.4	C
8 Monroe Street/Highway 111	Signal	0.46	31.4	C	0.60	33.1	C
9 Arabia Street/Highway 111	Signal	0.29	15.8	B	0.38	17.8	B
10 Driveway 1-King Street/Highway 111	TWSC	—	11.0	B	—	11.9	B
11 Driveway 2/Highway 111	TWSC	—	11.0	B	—	11.5	B
12 Oasis Street/Indio Boulevard	Signal	0.35	11.0	B	0.42	19.2	B
13 Oasis Street/Miles Boulevard	Signal	0.17	14.8	B	0.13	14.8	B
14 Oasis Street/Bliss Avenue	AWSC	0.29	9.6	A	0.25	9.3	A
15 Oasis Street/Requa Avenue	Signal	0.37	28.0	C	0.43	28.7	C
16 Oasis Street/Highway 111	Signal	0.40	23.5	C	0.36	19.4	B
17 Oasis Street/Driveway 3	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
18 Oasis Street/Court House Driveway-Driveway 4	AWSC	0.70	14.2	B	0.46	9.9	A
19 Oasis Street/Plaza Avenue	AWSC	0.27	9.6	A	0.34	10.5	B
20 Oasis Street/PS Driveway	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
21 Oasis Street/Dr. Carreon Boulevard	Signal	0.22	12.3	B	0.22	13.5	B
22 Oasis Street/Avenue 48	TWSC	—	17.9	C	—	16.0	C
23 Courthouse Driveway/Plaza Avenue	TWSC	—	12.9	B	—	9.9	A
24 Jackson Street/I-10 Westbound Ramps	Signal	0.54	16.0	B	0.56	17.8	B
25 Jackson Street/I-10 Eastbound Ramps	Signal	0.45	22.1	C	0.56	19.4	B
26 Jackson Street/Highway 111	Signal	0.45	32.8	C	0.52	33.3	C
27 Jackson Street/Plaza Avenue	TWSC	—	15.6	C	—	14.8	B
28 Jackson Street/Avenue 48	Signal	0.37	32.6	C	0.53	33.3	C

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

AWSC = All-Way Stop Control

I-10 = Interstate 10

LOS = level of service

PS = parking structure

TWSC = Two-Way Stop Control

V/C = Volume/capacity ratio

Table 4.12.F: Future (2035) Intersection Levels of Service without Project

Intersection	Control	Year 2035 without Project					
		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1 Monroe Street/I-10 Westbound Ramps	Signal	0.87	34.8	C	0.80	27.3	C
2 Monroe Street/I-10 Eastbound Ramps	Signal	0.97	39.3	D	0.94	31.9	C
3 Monroe Street/Oleander Avenue	Signal	0.50	17.5	B	0.57	15.7	B
4 Monroe Street/Avenue 44	Signal	0.64	26.2	C	0.74	23.1	C
5 Monroe Street/Fred Waring Drive	Signal	0.78	28.6	C	0.73	33.9	C
6 Monroe Street/Miles Avenue	Signal	0.73	31.1	C	0.75	31.4	C
7 Monroe Street/Requa-Shadow Palm Avenue	Signal	0.49	17.0	B	0.57	21.3	C
8 Monroe Street/Highway 111	Signal	0.56	32.2	C	0.74	35.5	D
9 Arabia Street/Highway 111	Signal	0.35	15.9	B	0.47	18.4	B
10 Driveway 1-King Street/Highway 111	TWSC	—	11.5	B	—	13.3	B
11 Driveway 2/Highway 111	TWSC	—	11.5	B	—	12.7	B
12 Oasis Street/Indio Boulevard	Signal	0.41	10.9	B	0.52	19.8	B
13 Oasis Street/Miles Boulevard	Signal	0.17	14.9	B	0.17	15.1	B
14 Oasis Street/Bliss Avenue	AWSC	0.29	9.6	A	0.31	9.9	A
15 Oasis Street/Requa Avenue	Signal	0.38	28.0	C	0.48	29.0	C
16 Oasis Street/Highway 111	Signal	0.49	23.8	C	0.45	19.2	B
17 Oasis Street/Driveway 3	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
18 Oasis Street/Court House Driveway-Driveway 4	AWSC	0.75	15.8	C	0.50	10.5	B
19 Oasis Street/Plaza Avenue	AWSC	0.31	10.2	B	0.37	10.8	B
20 Oasis Street/PS Driveway	TWSC	<i>Future Intersection</i>			<i>Future Intersection</i>		
21 Oasis Street/Dr. Carreon Boulevard	Signal	0.24	12.2	B	0.25	13.6	B
22 Oasis Street/Avenue 48	TWSC	—	20.8	C	—	22.4	C
23 Courthouse Driveway/Plaza Avenue	TWSC	—	14.3	B	—	9.9	A
24 Jackson Street/I-10 Westbound Ramps	Signal	0.61	16.9	B	0.65	19.8	B
25 Jackson Street/I-10 Eastbound Ramps	Signal	0.50	22.6	C	0.66	20.9	C
26 Jackson Street/Highway 111	Signal	0.57	33.5	C	0.68	36.0	D
27 Jackson Street/Plaza Avenue	TWSC	—	15.9	C	—	20.9	C
28 Jackson Street/Avenue 48	Signal	0.48	32.8	C	0.69	35.6	D

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

AWSC = All-Way Stop Control

I-10 = Interstate 10

LOS = level of service

PS = parking structure

TWSC = Two-Way Stop Control

V/C = Volume/capacity ratio

Table 4.12.G: Trip Generation

Land Use	A.M. Peak Hour			P.M. Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Passenger Car							
Administration	19	0	19	0	19	19	38
Business Office	1	0	1	8	1	9	44
Security – Floor Operations	1	0	1	55	1	56	222
Kitchen	2	0	2	0	2	2	72
Warehouse/Support Services	7	0	7	0	7	7	20
Medical & Mental Health	28	8	36	0	9	9	74
Maintenance	6	0	6	0	6	6	12
Transportation	6	0	6	0	11	11	100
Classification	18	0	18	6	11	17	78
Inmate Program	11	0	11	0	11	11	22
Visitor	13	13	26	15	16	31	182
Attorney	1	1	2	1	3	4	21
Total Passenger Cars	113	22	135	85	97	182	885
Truck/Bus							
Vans	1	1	2	1	1	2	6
Bus	1	1	2	0	1	1	8
Delivery Truck							64
Kitchen							4
Truck/Bus PCE							
Van ¹	2	2	4	2	2	4	12
Bus ¹	2	2	4	0	2	2	16
Delivery Truck ²	0	0	0	0	0	0	193
Kitchen Truck ³	0	0	0	0	0	0	11
Total Truck/Bus PCE	4	4	8	2	4	6	232
Total PCE Trips	117	26	143	87	101	188	1,117

Source: *Traffic Study*, LSA Associates, Inc., 2013.

¹ Bus/Van Passenger Car Equivalent (PCE) Trips computed using PCE Factor of 2.

² Delivery Truck Passenger Car Equivalent (PCE) Trips computed using PCE Factor of 3.

³ Kitchen Truck Passenger Car Equivalent (PCE) Trips computed using PCE Factor of 3.

Existing (2013) Baseline with Project Levels of Service. Existing with project build out traffic volumes were developed by adding project build out traffic to the existing (2013) traffic volumes. Figure 4.12-8 shows Existing (2013) with project peak-hour traffic volumes for the study area intersections. An intersection LOS analysis was conducted to determine Existing with project build out intersection performance. Table 4.12.H summarizes the LOS for the study area intersections and shows that the addition of project traffic to the Existing with project scenario would not result in conditions exceeding the established LOS standard at any of the study area intersections. Since none of the study area intersections would exceed the established LOS standard under the Existing with project conditions, no significant impact would occur, and no mitigation is required.

Opening Year (2014) Cumulative with Project Levels of Service. The Opening Year (2014) Cumulative with project conditions consider the addition of traffic generated by the proposed project to Opening Year (2014) Cumulative without project conditions. Figure 4.12-9 shows Opening Year (2014) with project peak-hour traffic volumes for the study area

Table 4.12.H: Existing (2013) Baseline with Project Levels of Service

Intersection	Control	Existing with Project					
		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1 Monroe Street/I-10 Westbound Ramps	Signal	0.66	22.4	C	0.62	20.6	C
2 Monroe Street/I-10 Eastbound Ramps	Signal	0.79	25.2	C	0.78	24.2	C
3 Monroe Street/Oleander Avenue	Signal	0.36	17.6	B	0.43	15.8	B
4 Monroe Street/Avenue 44	Signal	0.50	24.3	C	0.56	20.3	C
5 Monroe Street/Fred Waring Drive	Signal	0.54	25.2	C	0.55	29.5	C
6 Monroe Street/Miles Avenue	Signal	0.61	28.5	C	0.61	28.5	C
7 Monroe Street/Requa-Shadow Palm Avenue	Signal	0.41	16.3	B	0.46	20.4	C
8 Monroe Street/Highway 111	Signal	0.45	31.4	C	0.60	33.2	C
9 Arabia Street/Highway 111	Signal	0.27	15.9	B	0.37	17.9	B
10 Driveway 1-King Street/Highway 111	TWSC	—	10.7	B	—	11.8	B
11 Driveway 2/Highway 111	TWSC	Does Not Exist			Does Not Exist		
12 Oasis Street/Indio Boulevard	Signal	0.34	10.8	B	0.41	18.9	B
13 Oasis Street/Miles Boulevard	Signal	0.15	15.1	B	0.13	15.0	B
14 Oasis Street/Bliss Avenue	AWSC	0.25	9.2	A	0.23	9.0	A
15 Oasis Street/Requa Avenue	Signal	0.36	27.5	C	0.41	28.4	C
16 Oasis Street/Highway 111	Signal	0.41	24.2	C	0.34	19.2	B
17 Oasis Street/Driveway 3	TWSC	—	9.8	A	—	8.9	A
18 Oasis Street/Court House Driveway-Driveway 4	AWSC	0.69	14.0	B	0.46	10.1	B
19 Oasis Street/Plaza Avenue	AWSC	0.27	9.6	A	0.47	11.5	B
20 Oasis Street/PS Driveway	TWSC	—	9.7	A	—	10.2	B
21 Oasis Street/Dr. Carreon Boulevard	Signal	0.21	12.0	B	0.21	13.4	B
22 Oasis Street/Avenue 48	TWSC	—	17.4	C	—	15.7	C
23 Courthouse Driveway/Plaza Avenue	TWSC	—	12.3	B	—	9.1	A
24 Jackson Street/I-10 Westbound Ramps	Signal	0.53	16.1	B	0.56	18.0	B
25 Jackson Street/I-10 Eastbound Ramps	Signal	0.45	22.3	C	0.56	19.7	B
26 Jackson Street/Highway 111	Signal	0.42	32.6	C	0.52	33.4	C
27 Jackson Street/Plaza Avenue	TWSC	—	14.6	B	—	13.5	B
28 Jackson Street/Avenue 48	Signal	0.34	32.2	C	0.53	33.3	C

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

AWSC = All-Way Stop Control

PS = parking structure

I-10 = Interstate 10

TWSC = Two-Way Stop Control

LOS = level of service

V/C = volume/capacity ratio

intersections. An intersection LOS analysis was conducted to determine intersection performance in the Opening Year (2014) Cumulative with project scenario. Table 4.12.I summarizes the LOS for the study area intersections and shows that the addition of project traffic to Opening Year (2014) Cumulative traffic would not result in conditions exceeding the established LOS standard at any of the study area intersections. Since none of the study area intersections would exceed the established LOS standard under the Opening Year (2014) Cumulative with project scenario, no significant impact would occur, and no mitigation is required.

Future (2035) Cumulative with Project Levels of Service. The Future (2035) Cumulative with project conditions consider the addition of traffic generated by the proposed project to Future (2035) Cumulative without project conditions. Figure 4.12-10 shows Future (2035)

Table 4.12.I: Opening Year (2014) Cumulative with Project Levels of Service

Intersection	Control	Opening Year Cumulative with Project					
		A.M. Peak Hour			P.M. Peak Hour		
		V/C	Delay	LOS	V/C	Delay	LOS
1 Monroe Street/I-10 Westbound Ramps	Signal	0.67	22.9	C	0.62	21.1	C
2 Monroe Street/I-10 Eastbound Ramps	Signal	0.83	27.0	C	0.81	25.2	C
3 Monroe Street/Oleander Avenue	Signal	0.38	17.4	B	0.44	15.6	B
4 Monroe Street/Avenue 44	Signal	0.51	24.3	C	0.57	20.4	C
5 Monroe Street/Fred Waring Drive	Signal	0.55	25.2	C	0.56	29.4	C
6 Monroe Street/Miles Avenue	Signal	0.63	28.6	C	0.62	28.6	C
7 Monroe Street/Requa-Shadow Palm Avenue	Signal	0.43	16.1	B	0.47	20.2	C
8 Monroe Street/Highway 111	Signal	0.46	31.5	C	0.61	33.3	C
9 Arabia Street/Highway 111	Signal	0.30	15.4	B	0.39	17.6	B
10 Driveway 1-King Street/Highway 111	TWSC	—	10.8	B	—	12.1	B
11 Driveway 2/Highway 111	TWSC	Does Not Exist			Does Not Exist		
12 Oasis Street/Indio Boulevard	Signal	0.35	11.1	B	0.43	19.4	B
13 Oasis Street/Miles Boulevard	Signal	0.17	14.6	B	0.14	14.6	B
14 Oasis Street/Bliss Avenue	AWSC	0.30	9.7	A	0.26	9.4	A
15 Oasis Street/Requa Avenue	Signal	0.37	27.9	C	0.43	28.8	C
16 Oasis Street/Highway 111	Signal	0.44	24.4	C	0.37	20.0	B
17 Oasis Street/Driveway 3	TWSC	—	10.1	B	—	9.0	A
18 Oasis Street/Court House Driveway-Driveway 4	AWSC	0.79	17.7	C	0.56	11.3	B
19 Oasis Street/Plaza Avenue	AWSC	0.37	10.4	B	0.53	12.5	B
20 Oasis Street/PS Driveway	TWSC	—	10.0	A	—	10.4	B
21 Oasis Street/Dr. Carreon Boulevard	Signal	0.23	12.8	B	0.23	14.0	B
22 Oasis Street/Avenue 48	TWSC	—	18.4	C	—	16.7	C
23 Courthouse Driveway/Plaza Avenue	TWSC	—	13.9	B	—	9.6	A
24 Jackson Street/I-10 Westbound Ramps	Signal	0.54	16.1	B	0.57	18.3	B
25 Jackson Street/I-10 Eastbound Ramps	Signal	0.46	22.5	C	0.57	19.8	B
26 Jackson Street/Highway 111	Signal	0.45	32.8	C	0.53	33.5	C
27 Jackson Street/Plaza Avenue	TWSC	—	16.2	C	—	15.0	B
28 Jackson Street/Avenue 48	Signal	0.38	32.6	C	0.54	33.4	C

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

AWSC = All-Way Stop Control

PS = parking structure

I-10 = Interstate 10

TWSC = Two-Way Stop Control

LOS = level of service

V/C = volume/capacity ratio

with project peak-hour traffic volumes for the study area intersections. An intersection LOS analysis was conducted to determine Future (2035) Cumulative with project intersection performance. Table 4.12.J summarizes the LOS for the study area intersections and shows that the addition of project traffic to the Future (2035) Cumulative without project scenario would not result in conditions exceeding the established LOS standard at any of the study area intersections. Since none of the study area intersections would exceed the established LOS standard under the Future (2035) Cumulative without project scenario, no significant impact would occur, and no mitigation is required.

Air Traffic. There are two general aviation airports located in the vicinity of the proposed project site. Jacqueline Cochran Regional Airport is located 4.5 miles southeast of the site and Bermuda Dunes Airport is located 3 miles northwest of the proposed site. These two

Table 4.12.J: Future (2035) Cumulative with Project Levels of Service

	Intersection	Control	Year 2035 with Project					
			A.M. Peak Hour			P.M. Peak Hour		
			V/C	Delay	LOS	V/C	Delay	LOS
1	Monroe Street/I-10 Westbound Ramps	Signal	0.88	35.1	D	0.80	27.5	C
2	Monroe Street/I-10 Eastbound Ramps	Signal	0.98	42.2	D	0.96	34.4	C
3	Monroe Street/Oleander Avenue	Signal	0.51	17.4	B	0.58	15.6	B
4	Monroe Street/Avenue 44	Signal	0.64	26.2	C	0.74	23.2	C
5	Monroe Street/Fred Waring Drive	Signal	0.78	28.6	C	0.73	33.9	C
6	Monroe Street/Miles Avenue	Signal	0.74	31.2	C	0.75	31.4	C
7	Monroe Street/Requa-Shadow Palm Avenue	Signal	0.50	16.9	B	0.58	21.2	C
8	Monroe Street/Highway 111	Signal	0.56	32.4	C	0.75	35.7	D
9	Arabia Street/Highway 111	Signal	0.36	15.7	B	0.48	18.3	B
10	Driveway 1-King Street/Highway 111	TWSC	—	11.3	B	—	13.5	B
11	Driveway 2/Highway 111	TWSC	<i>Does Not Exist</i>			<i>Does Not Exist</i>		
12	Oasis Street/Indio Boulevard	Signal	0.41	11.0	B	0.53	20.0	B
13	Oasis Street/Miles Boulevard	Signal	0.17	14.8	B	0.17	15.0	B
14	Oasis Street/Bliss Avenue	AWSC	0.30	9.7	A	0.32	10.1	B
15	Oasis Street/Requa Avenue	Signal	0.39	27.9	C	0.49	29.1	C
16	Oasis Street/Highway 111	Signal	0.53	24.7	C	0.45	19.7	B
17	Oasis Street/Driveway 3	TWSC	—	10.6	B	—	9.2	A
18	Oasis Street/Court House Driveway-Driveway 4	AWSC	0.82	19.1	C	0.59	11.8	B
19	Oasis Street/Plaza Avenue	AWSC	0.40	11.1	B	0.54	12.7	B
20	Oasis Street/PS Driveway	TWSC	—	10.5	B	—	11.0	B
21	Oasis Street/Dr. Carreon Boulevard	Signal	0.24	12.6	B	0.26	13.9	B
22	Oasis Street/Avenue 48	TWSC	—	21.3	C	—	23.9	C
23	Courthouse Driveway/Plaza Avenue	TWSC	—	15.5	C	—	9.6	A
24	Jackson Street/I-10 Westbound Ramps	Signal	0.61	17.0	B	0.66	20.4	C
25	Jackson Street/I-10 Eastbound Ramps	Signal	0.51	22.9	C	0.66	21.3	C
26	Jackson Street/Highway 111	Signal	0.58	33.6	C	0.69	36.3	D
27	Jackson Street/Plaza Avenue	TWSC	—	16.3	C	—	21.4	C
28	Jackson Street/Avenue 48	Signal	0.49	32.8	C	0.70	35.8	D

Source: *Traffic Study*, LSA Associates, Inc., 2013.

Note: Delay = Average control delay in seconds. At TWSC intersections, worst-case approach is reported.

AWSC = All-Way Stop Control

PS = parking structure

I-10 = Interstate 10

TWSC = Two-Way Stop Control

LOS = level of service

V/C = volume/capacity ratio

airports provide limited commercial service. Additionally, the project site is not located within an airport land use plan or within the vicinity of a private airstrip. The proposed project would not result in a change in air traffic patterns. Likewise, the proposed project would not be affected by existing airports. Therefore, the proposed project would not result in a significant adverse impact related to air traffic.

Traffic Hazards Due to Design Features and Emergency Access. Parking for the proposed project would be provided in the existing parking lot on the southeast corner of Oasis Street and Plaza Drive (project Site B). Access to the main building would be provided via one driveway on Highway 111, Plaza Drive, and two driveways on Oasis Street. Access to the PS would be provided via one in-only driveway on Plaza Drive and one driveway on Oasis Street. These driveways are forecast to operate at a satisfactory LOS under project conditions.

The design and construction of emergency access routes to and within the project site would be in compliance with applicable City/County emergency access standards to facilitate safe emergency vehicle access. As the access roadways and the proposed secondary access road are virtually flat and unimpeded by any natural or man-made obstacles, there is no physical restriction to planning and constructing these connecting roadways. Because they would be constructed to typical City standards, there would be no design hazard constructed with the proposed project.

The proposed project would not inhibit or reduce emergency access to the project site. The project would also not obstruct or affect any off-site major transportation routes that could be used for emergency evacuations out of the area. Additionally, the project would not include design features, such as sharp curves or incompatible uses that would substantially increase hazards. Therefore, the project would not result in a significant impact related to design hazards or inadequate emergency access, and no mitigation is required.

Alternative Transportation. As discussed in the Existing Environmental Setting section, there are four existing fixed bus routes near the proposed project, and limited bicycle routes are currently located in the vicinity on Arabia Street. Pedestrian movements are accommodated by existing sidewalks. Implementation of the project would not affect any alternative transportation facilities and would not increase demand for such facilities. The project also would not result in conflicts with adopted policies, plans, or programs supporting alternative transportation. Therefore, the proposed project would not result a significant impact and no mitigation measures are required.

Potentially Significant Impacts. No potentially significant impacts related to traffic and circulation as a result of the proposed project have been identified.

4.12.6 Level of Significance after Mitigation

No potentially significant impacts related to transportation and circulation would result from the proposed project; therefore, no mitigation measures are required.

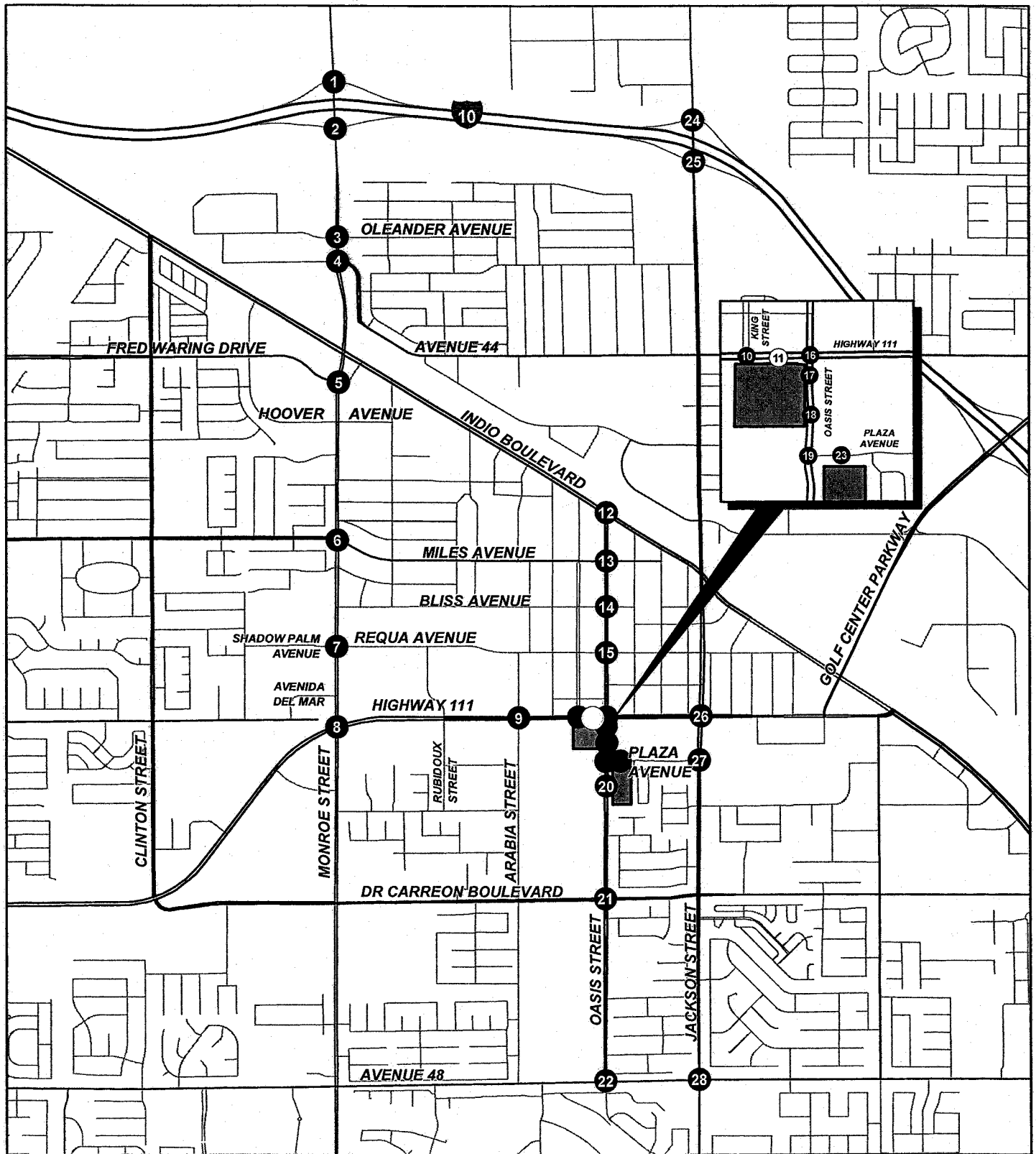
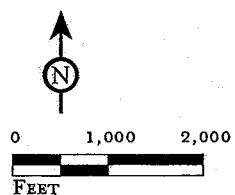





FIGURE 4.12-1

LSA



- Study Area Intersections**
-  Existing
 -  Removed in Future
-  Project Location

SOURCE: County of Riverside, 2011.

I:\RED1201\Reports\Traffic\fig3_Intersections.mxd (4/16/2013)

East County Detention Center
Study Area Intersections